

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2022

THURSDAY, JUNE 24, 2021

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Jon Tester (chairman) presiding.

Present: Senators Tester, Murray, Schatz, Baldwin, Shelby, Collins, Blunt, and Moran.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE NAVY

OFFICE OF THE SECRETARY

STATEMENT OF HON. THOMAS W. HARKER, ACTING SECRETARY

OPENING STATEMENT OF SENATOR JON TESTER

Senator TESTER. I want to call this subcommittee meeting to order.

Let me begin by welcoming our witnesses. Acting Secretary Harker, this is your first appearance before the Senate Appropriations Committee and I welcome you.

Admiral Gilday and General Berger, you were both here last year for the last live hearing before the pandemic, so welcome back. It is good to host you in person.

I think we can all agree that China is a current-pacing threat and that the pace is a run, if not a full-out sprint.

So, how are we keeping up? The Navy and Marine Corps are facing the current challenges with different approaches. On one hand, the Marine Corps has taken major steps to reshape its force for the future based on General Berger's strategy to self-fund the reforms.

On the other hand, the Navy is faced with the balancing act between the substantial cost of maintaining a fleet of nearly 300 ships and the additional cost of modernizing to meet the threats of the future.

The Navy's 2022 budget protects readiness in order to deliver a combat-credible force. As for the future, the path is less clear. Secretary Harker has reportedly found that plans to design new destroyer submarines and jets all at the same time are unaffordable.

So, how do we increase our pace to keep up with the threat? For the Navy, I understand there are ongoing reviews on what the fleet of tomorrow should look like. I would add that, no matter what you

find in those studies, holding people accountable, whether it is government or civilian, for delays in ship deliveries or increase in weapons costs has to be part of that solution.

The committee is eager to work with you to find the right balance between modernization, or between modernizing and maintaining the force and fleet that we have.

Once again, I want to thank the witnesses for their testimony that they are about to give today and look forward to hearing from each one of them.

With that, I will turn it over to you, Senator Shelby.

STATEMENT OF SENATOR RICHARD C. SHELBY

Senator SHELBY. Thank you, Mr. Chairman. I will try to be brief.

Welcome. I welcome you, too, Mr. Secretary, Admiral, and General Berger. Thank you for being here.

We all look forward to hearing about the Navy and the Marine Corps' budget proposal for 2022. This discussion is particularly important, I believe, because the Navy's budget proposal reflects a meager 1.8 percent increase from fiscal year 2021 while reducing the end strength in procurement investments. The reductions are proposed despite the need to maintain readiness and make progress on key modernization priorities, like the Navy's leg of the nuclear triad and the introduction of a new weapons system.

In addition to other deficiencies in the Navy's budget proposal, I believe this budget fails to include funding to support the multi-year procurement contract for the DDG-51, which reflects poorly, I believe, on the Department's view of its commitments to Congress and its long-term ship-building plans.

It also calls into question the seriousness with which this Administration approaches defense-related funding decisions given that the DDG-51 appears as the Navy's top priority on its unfunded requirements list.

You are all very well aware that our adversaries, including China and Russia, pose new and increasing threats, and they will grow. They are making unprecedented investments in their capability and capacity, investments that this budget does not even come close to matching.

I believe that this budget, which fails to even keep pace with inflation, sends the wrong message to our allies and our adversaries. I am interested in hearing how the 2022 budget request fully meets, if it does, the needs of the Navy and Marine Corps while maintaining our advantage over our adversaries. It will be an interesting discussion.

Thank you, Mr. Chairman.

Senator TESTER. Thank you, Senator Shelby.

We will start out with you, Secretary Harker.

SUMMARY STATEMENT OF HON. THOMAS W. HARKER

Secretary HARKER. Chairman Tester, Vice Chairman Shelby, distinguished members of the committee, thank you for your bipartisan support on behalf of our sailors, marines, and civilians. I am honored to be here with General Berger and Admiral Gilday. I support their efforts to build a more integrated, all-domain naval force through the NAVPLAN and the Force Design 2030.

In order to move these plans forward within existing resources, we have had to make some very hard choices in this budget, but that is exactly what the American people expect us to do. Every dollar is a strategic asset that must be maximized to stay ahead of the pacing threat of China and the many other challenges facing our fleet and our Nation.

Every investment must be done in a balanced and sustainable manner to ensure we maintain the readiness of our current fleet, while building the capacity and the capability we will need in the future. The cost of readiness is increasing. Personnel and maintenance costs have grown at a rate that is well above inflation. This growth squeezes the rest of our budget.

In order to maintain our readiness, we have had to delay some of our planned ship purchases to future years. In order to invest in a superior future force, we have had to divest of less-capable assets. These were not easy choices, but we cannot create a hollow force that does not train our sailors or Marines, or which leaves holes in units, or does not provide for sufficient crew rest. We have learned those lessons through the tragic mishaps that have occurred over the last 5 years.

In order to ensure future availability and readiness of our fleet, we are prioritizing investments in our physical infrastructure, including full commitment to the Shipyard Infrastructure Optimization Program.

I have visited all four of our public Navy shipyards, as well as most of the private shipyards, and other commercial facilities. It has been an inspiration to shake the hands of the men and women who are building and maintaining our fleet.

I have had the opportunity to speak with every level of labor and management about the issues they face, and the need for consistency in funding and demand. That is why we are increasing the capability and resiliency of these century-old installations, increasing the size and capability of our dry docks, and equipping our 40,000-person workforce with the tools they need to maintain our new, more lethal assets.

To ensure our resources reach the warfighters who need them, we are demanding rigorous self-assessment and responsive accountability in every part of our enterprise through the Performance to Plan initiative. This effort has improved our readiness of our strike fighters and is being rolled out successfully across the fleet in other areas.

As good stewards, we are on the right path towards obtaining an audit opinion for the Navy and Marine Corps General Funds and the Department's Working Capital Fund. We are the only military department that has eliminated audit material weaknesses—three in the Navy, one in the Marine Corps—and are leading the way on this critical effort.

This has enabled us to improve cybersecurity in our business systems. Since 2017, the Marine Corps has closed 41 out of 110 IT findings, 17 of which were cybersecurity related.

We are also increasing investment in the Department's oversight functions, while maximizing the return on our investment in the performance audit process.

Effective use and management of data is key to our digital transformation and will change how we will fight and win at every level. This requires the modernization of our information technology infrastructure, which is a critical war-fighting priority for our department.

We are also prioritizing the mental health of our force, speaking out at the senior level about the benefits of counseling and ensuring the availability of counselors, chaplains, and other professionals. We appreciate the committee's attention to this vital issue and your support in providing additional mental health support to our sailors and Marines and our forward operational units.

We are fighting the scourge of sexual harassment and sexual assault through efforts like the Watch List, a tool that uses Navy and Marine Corps data to alert commanders to conditions in their units that may lead to these toxic behaviors. We are increasing investment in this area, focusing on the prevention of and response to sexual harassment and assault.

In this fiscal year 2022 budget, we have added over 200 personnel across the Navy and Marine Corps focused on prevention. The majority of these personnel will be placed at Navy and Marine Corps installations, working with sailors and Marines.

We are also adding an additional 80 sexual assault response coordinators for the Marine Corps, as well as 18 Navy criminal investigative service personnel dedicated to a sexual assault prevention and response.

Secretary Austin's 90-Day Independent Review Commission has completed its work, and we look forward to implementing the Secretary's forthcoming recommendations to make meaningful and lasting progress in this area.

Around the world and around the clock, the sailors, Marines, and civilians of our integrated naval force stand the watch and execute the mission. On behalf of each of them and their families, I thank you for your time, oversight, and appropriations. I look forward to your questions.

[The statement follows:]

PREPARED STATEMENT OF HON. THOMAS HARKER

Chairman Tester, Vice Chairman Shelby, distinguished Members of the Committee, thank you for the opportunity to discuss the posture of the Department of the Navy (DON). I appreciate the hard work of the Members and Staff of this Committee to ensure funding stability and principled oversight for every Sailor and Marine now standing watch around the world.

The reemergence of long-term strategic competition from China and Russia is spurring a period of rapid transformation in the global security environment. The disruptions related to the COVID-19 pandemic underscore the need for agility and distributed readiness. Climate change is accelerating, and its impact on both our planet and force will continue to grow as significant weather events threaten our infrastructure, and the arctic opens to unprecedented activity.

In a world more interconnected and interdependent than ever before, a fully integrated and forward maneuverable Navy-Marine Corps Team has never been more important to the security of our Nation and the preservation of the rules-based international order. We must protect our nation, our allies and partners, and our global interests, while also leading on the urgent issues facing our personnel and planet, from the mental and physical health care needs of our people, to the scourge of sexual assault and harassment, to the need for diversity and inclusion at every echelon, to the ongoing threat of climate change.

General Berger, Admiral Gilday, and I stand united in our resolve to ensure your DON will be ready for the global challenges before us with the personnel, platforms,

and technology to secure vital sea lanes, stand together with our allies, and protect the United States of America.

DEFEND THE NATION

The President's Budget submission for FY 2022 (PB22) reflects hard choices to divest of less capable platforms and systems to invest in a powerful and superior future force. Throughout the budget process and in all aspects of capability acquisition, design, construction, and deployment, we must balance the urgent readiness needs of our force today with investments in the future force and effective business process reforms in order to ensure our Sailors and Marines are always ready to fight and win in any clime or place.

Force Posture

The presence and availability of naval forces must always reflect the strategic needs of the Nation, providing effective options for the President and Secretary of Defense to counter every challenge. To ensure preparedness, the DON provides maximum operational flexibility through warfighting concepts including Distributed Maritime Operations, Littoral Operations in a Contested Environment, and Expeditionary Advanced Base Operations, ensuring continual overmatch and flexibility in the battle space.

Secretary Austin has identified China as the pacing threat for our military forces, and we will continue to position our integrated global maritime force to lead in the Indo-Pacific. But ours is a global force with global responsibilities, including increased Russian presence in the Atlantic, terrorism and instability in the Arabian Gulf, an increasingly blue arctic, a global need for agile and ready Marine forces to respond to the unexpected in every domain, and the constant threat of cyberattacks to our force, support infrastructure, industrial base, and supply chain.

The DON FY22 budget request delivers ready maritime forces through sustained investment and performance improvement, developing more lethal, networked capabilities and concepts, closely integrated between the services and with our joint force and government partners. Within limited resources, we will field the right platforms and capability to maintain freedom of the seas, support international law, and stand by our allies as we continue to fly, sail and operate wherever international law allows.

That spirit is reflected in the guidance put forth by our services. I support Admiral Gilday's Navigation Plan, which refocuses our integrated all-domain naval power on the core functions of sea control and power projection we need to compete and win. It places a high priority on a more lethal and better connected fleet to project power from blue water, to the littorals, to the shoreline and beyond.

The guidance centers on four lines of effort:

- Deliver a More Ready Fleet. Deliver a Navy that is organized, trained, and equipped to deploy forward and win in day-to-day competition, in crisis, and in conflict.
- Deliver a More Lethal, Better-Connected Fleet. Deliver a Navy capable of projecting synchronized lethal and non-lethal effects across all domains.
- Deliver a Larger, Hybrid Fleet. Grow a larger, hybrid fleet of manned and unmanned platforms—under, on, and above the sea—that meets the strategic and operational demands of our force.
- Develop a Seasoned Team of Naval Warriors. Develop a dominant naval force that can outthink and outfight any adversary.

To meet the forward maneuverable force requirements of the Joint Force long into the future, the Marine Corps has put into motion an aggressive modernization of the Service. I support General Berger's Force Design 2030, which is not simply an improvement on its existing form and function. It is a transformational effort rooted in the anticipated challenges of the future operating environment. Building on the cooperative efforts of all of our sea services, the Marine Corps is reinvigorating the Fleet Marine Forces within existing resource constraints as an indispensable element to global maritime operations.

The goal of Force Design 2030 is to provide a Marine expeditionary assets that will:

- Successfully compete with peer adversaries in the maritime gray zone
- Deter, and if required, fight and win in support of naval campaigns
- Facilitate sea denial and sea control
- Win the reconnaissance and counter-reconnaissance competition
- Persist inside actively contested spaces
- Be capable of “rapidly sensing, making sense of, and acting upon information” inside an adversary's weapon engagement zone.

Across both services and throughout the DON, we are executing force designs centered on Naval Expeditionary force deployment, giving us a sustainable edge and a resilient capability to deliver the integrated all-domain naval power required by the Joint Force. We are investing in the readiness of the integration-ready platforms to ensure continued freedom of action throughout the maritime domain, from amphibious and ground element equipment, to agile warships and submarines, to dominant aircraft carriers and air wings. Successful implementation of the concepts within the Navigation Plan and Force Design 2030 will be pursued through a unified, integrated effort at every echelon.

Maintain the Edge

We greatly appreciate the Committee's efforts to ensure funding stability and predictability over the past several years. This has given our force the agility and flexibility needed to address emerging threats, to invest in critical future capabilities for our integrated naval force, while shifting away from less beneficial spending.

The DON is building on this foundation by aggressively pursuing better readiness, lethality, and capabilities in those areas of warfighting technology showing the greatest promise of delivering non-linear warfighting advantages. From artificial intelligence and cyber weapons to unmanned platforms and directed energy, we are on the cusp of technological breakthroughs that will define future conflict. Our future force will be defined by our decisions today.

We will continue to invest in key naval capabilities to control the seas and project power in every domain. We will field a resilient, networked, and dispersed fleet, connected through the Naval Operational Architecture to provide decision advantage in contested environments. We will continue to invest in advanced technologies such as long range hypersonic and directed energy capabilities to ensure maximum reach, survivability and decision space for our forces.

Our number one shipbuilding priority remains resourcing *COLUMBIA SSBN* for on-track delivery in order to ensure the future strength of the most survivable leg of our Nation's nuclear triad. We are also advancing our asymmetric undersea attack advantage through the Tactical Submarine Evolution Plan, including follow-on Blocks VI and VII of the *VIRGINIA* Class, and the SSN(X) program. We are advancing battle force shipbuilding programs such as the *CONSTELLATION* class frigate and the *GERALD R. FORD* class carriers, as well as enhancing our fleet capabilities through additional battle force ships.

We are also extending the reach of our warriors from the sea with the addition of sea-based platforms such as *USS MIGUEL KEITH*, our third Expeditionary Sea Base, which was commissioned on May 8th. To ensure our Marines maintain their edge, we will continue to invest in key Marine Corps development programs that support the Marine Corps Force Design concept, such as the Ground Based Anti-Ship Missile, Ground Based Air Defense, Medium Altitude-Long Endurance Unmanned Aerial System, Long Range Unmanned Surface Vessel, and the Light Amphibious Warship. These enhance the ability of Marines to maneuver and deter competitors within range of enemy weapon systems.

Targeted investments in key emerging technologies and capabilities will enhance and sustain amphibious battlefield maneuverability ashore and superiority at sea, with the support of properly resourced facilities, infrastructure, and systems to sustain our frontline forces.

Continual Readiness

Hard experience has shown long term readiness cannot be sustainably achieved through "can do" and "make do" improvisation. Our front line personnel may be determined, adaptive, and skillful enough to get the job done in the face of equipment shortfalls and intense battle rhythms, but relying on their adaptability is no substitute for genuine fleet readiness. We owe it to the Sailors and Marines out in the fleet to make sure they always have the tools they need to do the dangerous jobs we ask of them.

The changes generated from the Readiness Reform and Oversight Council (RROC) and other introspective efforts have enabled us to improve readiness, training, and maintenance processes at every level. For example, we've implemented a uniform readiness assessment and certification process that must be followed before a ship can be certified to return to the fleet. We have also increased opportunities for shipboard certification and skills enhancement, while adjusting manning schedules to maximize safety and improve quality of life and professional effectiveness for our personnel while underway. These and many other changes will result in a better prepared and equipped force.

We continue to build on our efforts to increase availability, improve maintenance, and maximize throughput, by making targeted shore investments designed to in-

crease fleet readiness. The Navy's four public shipyards—Norfolk Naval Shipyard, Portsmouth Naval Shipyard, Puget Sound Naval Shipyard and Intermediate Maintenance Facility, and Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility—are critical infrastructure elements of America's national defense. In order to improve naval maintenance production capacity at these facilities, the DON is fully committed to the Shipyard Infrastructure Optimization Program (SIOP), comprising three primary focus areas: dry dock recapitalization, facility layout and optimization, and capital equipment and modernization. The DON is dedicating the resources and oversight necessary to ensure the required maintenance is completed across all shipyards as quickly as possible, and has established a Program Office (PMS-555) to ensure integration of all elements of the plan.

Building on the successful Naval Aviation Enterprise efforts to meet Strike Fighter aircraft availability goals for both the Navy and Marine Corps, we are targeting greater aviation readiness across the force, incorporating commercial best practices to improve performance. Through the Performance to Plan initiative we're using data driven decision making to enable to remove the root causes of maintenance delays as well as operational mishaps. This data-driven approach is based on a "Get Real, Get Better" approach, demanding rigorous self-assessment, strong characterization of current performance, and detailed analysis backed by accountability and the opportunity to implement needed improvements.

We appreciate the Committee's interest in ensuring our Naval forces have the right facilities to train, fight, and win, even as various demands on the land, sea, and air reduce the available area for military training. Specifically, we are grateful for the Committee's continued attention to the urgent need to expand the Fallon Training Range Complex, which is necessary to the readiness of every Naval Aviator and Navy SEAL. We are listening to the interests of Tribal governments, environmental organizations, and the local community, as well as our counterparts across the Federal Government, and are committed to finding a favorable solution for everyone involved.

Combat Climate Change

The United States Navy and Marine Corps recognize the reality of global climate change, our responsibility to mitigate our contribution to it, and our need to prepare for its short and long term effects. As we grapple with the effects of climate change on maritime operations around the globe, the DON must continue to lead and find ways to go farther, both in substantially reducing our impact on climate change and building a force that is resilient to its potential effects.

We must adapt our infrastructure for the coming changes with initiative and problem solving throughout the DON. In the past few months I have visited and recognized several Marine Corps and Navy installations that have demonstrated leadership in climate resiliency, environmental stewardship, and sustainable development. These facilities include Parris Island, Naval Base San Diego, Marine Corps Air Base Camp Pendleton, and Naval Base Point Loma. We will continue to invest in vehicles, infrastructure, and technology that increase our resiliency and efficiency, as we pursue the use and availability of alternative fuels. The DON is determined to lead from the front against the threat of climate change.

TAKE CARE OF OUR PEOPLE

The greatest source of readiness and strength for our force will always be the people who wear the uniform and comprise our civilian workforce, as well as the families that serve alongside them. We are committed to ensuring our Sailors, Marines, and Civilians are trained and equipped to execute the mission and return home safely, and that their families are provided with the housing, medical attention, and education they deserve.

Building the Future Force

To maintain a Fleet prepared to fight and win in long term strategic competition, we continue to evaluate and improve our capability to attract, retain, and develop a talented and diverse workforce. In the context of an intense competition for talent in our country, and in light of the rapidly evolving tactical and technical landscape, we are modernizing and enhancing our entire talent management approach to succeed.

We are continuously identifying opportunities for personnel to develop their leadership skills throughout the ranks, promoting equal opportunity in every aspect of our force. The DON is investing in the training, education, and professional development of our officers, enlisted personnel, and civilian teammates with special emphasis on partnerships with civilian institutions to enhance educational opportunities for our junior Sailors and Marines.

Eliminate Toxic Behaviors

It is a personal priority for all three of us to build a climate of trust, respect and inclusion throughout our force. A major focus of that effort must be on recognizing and stopping destructive behaviors early and consistently, so leaders at every level can take appropriate and effective actions.

We remain determined to eliminate sexual assault, sexual harassment, and gender discrimination from every part of our force. These behaviors are a betrayal of those who have stepped forward to serve in uniform. We will continue to work with this Committee to share best practices and ideas, relentlessly pursuing a future where no Sailor, Marine, or civilian teammate ever has to fear for their own safety while protecting us all.

To assist leaders in this effort, we have developed The Watch List: Top Five Signals of Risk for Sexual Assault, a research-driven tool that used Navy and Marine Corps data to identify five of the key destructive behaviors that increase risk for sexual assault. These include sexual harassment, gender discrimination, lack of responsibility and intervention, lack of respect and cohesion, and workplace hostility behaviors. We have promulgated The Watch List throughout the Navy and Marine Corps and are actively working to develop tools that will provide operational commanders data on their units so they can take action to prevent incidents.

We are actively engaged in rooting out extremism throughout our force. In coordination with efforts across the joint force, the DON has conducted “Extremism Stand Downs” at every echelon. This process sparked important conversations and made the position of our leadership and force clear to every Sailor, Marine, and Civilian in the DON, and we will continue to build on these efforts.

Trust is at the heart of all our warriors do. Extremist ideologies are a strategic threat to that trust and have no place within the Navy and Marine Corps. We will persistently focus on this problem, and appreciate this Committee’s partnership and involvement in this critical effort.

As leaders we must do all in our power to ensure that our people feel respected and valued. We cannot and will not tolerate discrimination or racism of any kind. Our core values and oath demand that we critically examine all of our policies and practices to remove inequity and unconscious bias.

Promote Mental Health

Mental health is a critical aspect of our readiness as a force—and our responsibility to our warriors and their families. We have made it a priority to ensure the ready availability of mental health professionals, chaplains, family counselors and other support professionals when our people are in need—or when they see the need in others.

I know from personal experience how helpful counseling can be during both personal and professional struggles. That’s why as part of our recognition of May as Mental Health Awareness Month, I launched a series of videos encouraging leaders throughout the DON to share their personal stories of seeking and receiving counseling and help. I also emphasized this point to our newest officers at the US Naval Academy Commissioning Ceremony, and will continue promoting mental health care throughout the force. We have to remove the stigma and start the conversation, particularly as our warriors and their families contend with the added stressors related to COVID-19.

The DON is committed to ensuring the health, safety, and well-being for all members within our military community. The loss of any Sailor, Marine or civilian to suicide is one too many. The DON offers a variety of suicide prevention efforts, encouraging positive help-seeking behaviors, eliminating stigma, and increasing visibility and access to critical resources. We are constantly revisiting and revising the portfolio to meet the needs of our people, and have increased our investment in this area.

Take Care of Our People

We are reforming operating procedures and promotion practices to reward initiative, applied problem solving, and innovative thinking at every level. A top priority as we evaluate personnel practices are the needs and challenges of military families, particularly dual service families. Senior leaders are also taking a personal and hands-on approach to ensure enduring excellence in housing, dependent education, and other quality of life concerns for our military families.

Through a combination of non-monetary, quality of life, and customer service programs, we are increasing our responsiveness to the needs of the individual warfighters and their families, making continued service a viable and attractive option. We are expanding opportunities for civilians with prior service through the Targeted Reentry Program. We are also expanding avenues for personnel to learn,

operate, and innovate with partners from the private sector, across the joint force, and alongside our allies.

Defeat COVID-19

With consistent personal and fleet discipline and continued refinement of best practices, we have ensured a robust, proactive, and coordinated COVID-19 response across the DON. We are preventing and containing outbreaks with minimal impact on fleet readiness, and are doing everything in our power to get the vaccine out to our Sailors, Marines and Civilians as quickly and effectively as possible.

The DON is also working with the Federal Emergency Management Agency to assist local, state, and tribal governments in the overall vaccination effort of the Nation, building on the proactive contributions to the urgent medical and security needs of the American civilian population, including the deployment of COMFORT and MERCY to our Nation's two most populous cities, and the deployment of medical personnel to facilities in communities across the country.

Like all Americans, the Navy and Marine Corps have adjusted to this global pandemic, from addressing outbreaks aboard ships, to changes in recruitment and training, to supporting our military families through extended deployments and virtual leaning. We have invested significant resources to upgrade the Navy and Marine Corps intranet to improve functionality and to enable telework for our military and civilian workforce.

The Navy and Marine Corps continue to operate under Force Health Protection measures to protect Marines, Sailors, civilians, contractors, and our military families. Across the DON, we've implemented flexibilities to help minimize risk to military personnel and their families, respond to evolving situations, and ensure the readiness of our force. We continue to use active testing protocols to detect asymptomatic COVID-19 positive personnel, contain outbreaks aboard vessels, and conduct surveillance to detect and treat the disease as early as possible.

We will not relent in these critical measures. We are well positioned to emerge stronger than ever, as the pandemic has forced us to rethink and refine our recruitment, training, and personnel movements across the DON, as well as our shipyard operations, deployments, and maintenance schedules, with efficiencies and applications of technology that can continue to benefit our operations and throughput long after COVID-19 is in our wake.

SUCCEED THROUGH TEAMWORK

A dominant naval force is central to the effective execution of our strategic goals. We must be ready at all times to execute as one integrated naval force—Navy and Marine Corps seamlessly linked at every level—with common logistics, infrastructure, practices and support networks—executing a fleet-wide emphasis on resilient and combat ready forces. These integrated connections must extend beyond the DON as well, encompassing our vital partners across the joint force and the whole of government, as well as our industry partners, shipyards, and allies and partners around the world.

Trust and Collaboration

Leaders throughout the DON are actively engaged with the joint force and the whole of government to meet the maritime challenges that face our nation. One key initiative of this collaboration is the Tri-Service Maritime Strategy, Advantage at Sea. This is a truly collaborative maritime strategic planning effort led jointly by all three of our Nation's sea services—Navy, Marine Corps, and Coast Guard. In order to execute these goals, Admiral Gilday, General Berger, Admiral Schultz and I are working together in order to promote integration, communication, and collaboration as a warfighting priority. There can be no daylight between us as we strengthen the integrated all-domain Naval power of the United States.

Operationalizing the Audit

In my previous roles as Assistant Secretary of the Navy for Financial Management and Comptroller, and while Performing the Duties of Comptroller for the Department of Defense, I saw first-hand the importance of effective, transparent examination and oversight, and I witnessed the direct relationship of accountable financial controls to our frontline strength. In my current role as Acting Secretary of the Navy, I am determined to strengthen this process in order to provide our Congressional oversight partners with complete visibility and accountability for every dime.

Central to this effort is building on the findings of our financial statement audit process, and improving that process moving forward. As I've emphasized to senior leaders across the Navy and Marine Corps, the audit is Commander's business. Ac-

curate inventory, proper resource allocation, redundancy elimination are all directly connected to our end strength.

We are on the right path towards obtaining an audit opinion for the Navy and Marine Corps general funds, and the DON working capital fund. We have a detailed roadmap that will guide our effort, placing a strong emphasis on budgetary reform, including receipt, distribution, execution, and monitoring.

PB22 increases investment in DON oversight functions. In addition to our work on the financial statement audit, we are looking at ways to increase effective oversight going forward, removing redundancy and duplication of effort in every part of our enterprise through the performance audit process. I have met with leaders across the government and the DOD to discuss audit planning and understand areas of high risk, and am incorporating that feedback into the FY22 audit priorities direction provided to the Naval Audit Service and our internal control program under the Federal Managers Financial Integrity Act and OMB Circular A-123. Our top priority is to ensure that our oversight capabilities and capacity is as efficient and effective as possible in order to keep our promise to the American taxpayer and the warriors on the frontline.

Sustaining Maritime Information Superiority

Leaders in every functional unit and discipline have been directed to set business systems modernization on an integrated path that is sufficiently resourced and supported across the DON. We are using data driven decision-making to achieve tangible savings while consistently working to become more effective and more efficient.

Modernization of our information technology infrastructure is a critical warfighting priority for the DON. Effective use and management of data is key to our digital transformation, and will change how we will fight and win at every level. We are consolidating legacy systems and will have moved from ten financial systems to three by the end of this fiscal year. I have established top-down performance management efforts, driven by data, to ensure the cyber resilience and strength of our defense business and warfighting networks.

As an information age naval force, every DON warfighting function and mission area is dependent on data and information to rapidly inform decision-making throughout the entire competition to conflict continuum. The dependency on secure and reliable IT has grown exponentially over the last decade and is critical to maintaining a competitive warfighting advantage. Simply put, information is combat power.

In order to generate and sustain that power, the DON is building on the findings of our Cybersecurity Readiness Review with an Information Superiority Vision, detailing how the Navy and Marine Corps will:

- Modernize our infrastructure to bring the DON to parity with industry, move data and information from anywhere to anywhere securely.
- Innovate and leverage emerging technology including 5G and Artificial Intelligence to drive capability outcomes for competitive advantage at speed.
- Defend forward with robust information protection regardless of where data resides.

Through Operation FLANK SPEED, the DON is shifting enterprise collaboration and productivity services to an enduring cloud-based Microsoft Office 365 solution which will provide world-class security and collaboration tools to improve productivity across our distributed workforce.

This initiative will modernize our infrastructure to a more cloud-enabled, performant, and defensible network allowing data and information to move from anywhere to anywhere securely. It will also improve our overall cyber readiness posture by implementing key Zero-Trust-Architecture principles; securing devices and endpoints, establishing identity and user privileges, and introducing content and data rights management.

The Marine Corps has now completed the transition of all users to Microsoft Office 365, and I have directed the transition of over 470,000 users in the Navy no later than December 31, 2021. Flank Speed will create the capabilities needed to increase Naval lethality and our ability to fight and win.

Failure to invest now will result in this effort now would further delay much needed improvements to our core technology infrastructure and leave the workforce without a sustained follow-on capability once the DOD-provided Commercial Virtual Remote capability is sunset in June 2021, extending our reliance on outdated, duplicative and less secure legacy IT systems that cost more and deliver less, further eroding DON's competitive warfighting advantage.

Strengthen Relationships with Stakeholders

Working alongside our vital industry partners, we are aligning our efforts to produce the right platforms and capabilities for the warfighter, and ensure maximum availability and throughput from design to production to maintenance.

We're working closely with our partners and suppliers in the defense industrial base to ensure the continued viability of the crucial businesses and infrastructure needed to ensure our ships, aircraft, and ground equipment are available when needed for the defense of our nation, both during the current COVID-19 challenge and long into the future. A robust, resilient, and nimble industrial base and supply chain is critical to the long term strength of our Navy and Marine Corps. Funding predictability and long term planning are key elements in ensuring the efficiency of our acquisitions and maintenance processes in partnership with a supply chain calibrated to deliver maximum value to the taxpayer and warfighter.

At our public shipyards, the DON took aggressive steps at the start of the COVID-19 pandemic to implement and require safety measures to protect the personnel, civilians, contractors, and families. These steps have included maximum telework opportunities for shipyard employees, administrative leave for high-risk individuals unable to telework, altered shifts to maximize social distancing, sanitization and hand-washing stations throughout the shipyard, cloth face coverings and face shields for the workforce, and screening checks at all workplace entry points.

Global Engagement

We cannot meet the global challenges our Nation faces alone. Readiness requires presence and rapid capabilities in every part of the world, as well as specialized and localized knowledge to handle evolving and challenging situations. The strategic maritime defense partnerships we maintain today with our partners and allies extend the reach and power of our force. They underscore the importance of cooperation and coordination in maintaining the rules-based international order that enables so much of our global prosperity and security.

Our personnel regularly train and operate alongside their foreign counterparts, test the interoperability of our systems, and build our collective readiness on the front lines of great power competition. Operational exercises, international port calls, joint Marine force training, and other interactions generate the personal contact that builds understanding, respect, and trust across national and functional lines. Our Sailors, Marines and civilian personnel know that through their service they are front-line diplomats for our nation. Their professionalism and dedication promotes the connections that strengthen our collective security and cultivate shared ideals that send the message that the United States is a friend worth having.

CONCLUSION

Our Sailors, Marines, and civilian teammates will always be our greatest source of strength in a challenging and changing world. On behalf of each of these brave patriots and the families that serve at their side, I once again thank the leadership and membership of this Committee for your attention, interest, and ongoing commitment to the defense of the United States of America. It is an honor to work with each of you, and I look forward to your questions.

Senator TESTER. Secretary Harker, thank you for your statement. Now we will go to Admiral Gilday.

STATEMENT OF ADMIRAL MICHAEL GILDAY, CHIEF OF NAVAL OPERATIONS, UNITED STATES NAVY

Admiral GILDAY. Chairman Tester, Vice Chairman Shelby, distinguished members of the committee, thank you for the opportunity to testify today along with Secretary Harker and General Berger. I am thankful for the enduring support that this subcommittee provides the United States Navy.

I believe that this hearing comes at a critical time in our Country. The competition at sea is intensifying. China and Russia are rapidly mobilizing their militaries. They are attempting to undermine our alliances and degrade the free and open order.

The Chinese battle force is the largest in the world, and it is growing. Backed by a robust industrial base and the biggest ship-

building infrastructure in the world, they command a modern fleet of surface combatants, submarines, aircraft carriers, amphibious assault ships, and next-generation fighters.

Furthermore, they are strengthening their space capabilities and stockpiling an arsenal of long-range missiles to hold us and our allies and partners at risk.

China is deliberately modernizing for the twenty-first century, building all domain capabilities that rival our own. Make no mistake. Our fleet, your fleet, can control the seas in conflict and project power is sure today, but we will be increasingly challenged to do so in the future, unless difficult choices continue to be made.

The results of analysis over the past 5 years inside and outside the Pentagon have been consistent, and they have been clear. America needs a larger, more capable fleet. Importantly, our latest study gave us the headlights not only for the size, but also for the composition of that force.

We need to transition away from older, less capable platforms and deliver the platforms, weapons, and systems that provide overmatch. At the same time, I think that we need to grow. However, the Navy currently faces a task of recapitalizing our strategic nuclear deterrent, something we have not done in four decades, making a once-in-a-century investment in our public shipyards and preserving the current readiness so that our fleet can confidently operate forward and be relevant.

Nearly 70 percent of the ships that we have today we will have a decade from now. We have to take care of the ships that we own, but the price tag on that readiness is rising. Over the last 20 years, manpower operations and maintenance costs, which make up over 60 percent of our budget, have grown at a rate 2.4 percent above inflation.

Meanwhile, our buying power is less than it was in 2010. Back then, we had 288 ships. Today, we have 296. Given these factors, if the Navy's topline remains flat or goes down, the size of our fleet will shrink.

Nevertheless, we are determined to deliver the most ready, the most capable, and the most lethal Navy we can with the budget that we are given. To do this, we are improving maintenance in our shipyards and aviation depots.

We are ensuring our ships are properly manned, our magazines are filled with ammunition, spare parts are in our storerooms, and our sailors are getting their steaming days and the flying hours they need to hone their skills.

We are working hard on a more robust, resilient network infrastructure as part of JADC2 (Joint All Domain Command and Control).

We are investing in long-range precision firers, like hypersonics and tactical Tomahawk, and we are developing directed energy systems, lasers, to improve fleet survivability.

Our eye is on the larger, hybrid fleet. We are determined to build affordable capacity, including a deliberate approach to uncrude vessels.

And, we are making sure every sailor can outthink and outfight any adversary by scaling our twenty-first century training frame-

work, Ready Relevant Learning, as well as our investment in live, virtual constructive training.

Senators, the average age of the Chinese fleet is 11 years. Ours is 21. It is time to move decisively and build a future Navy. We must modernize now, in this decade, or risk falling behind while we maintain a forward posture that keeps America safe and prosperous.

I am extremely proud of our sailors, our Navy civilians, and our families, who have endured sustained, historic high optempo in the midst of this pandemic. They are the source of our strength, as are the patriots in our shipyards and our aircraft depots, and our partners in industry, companies large and small, who keep the production lines moving.

Again, I am grateful for this subcommittee's support to our Navy and Marine Corps team, and I look forward to answering your questions. Thank you.

[The statement follows:]

PREPARED STATEMENT OF ADMIRAL MICHAEL M. GILDAY

Chairman Tester, Vice Chairman Shelby, distinguished members of the Committee, thank you for the opportunity to testify today on the posture of the United States Navy. Moreover, on behalf of all our Sailors, Navy civilians, and their families, thank you for your continued leadership and support. With the funding provided by Congress these last several years, we are building back our readiness, strengthening our advantages at sea, and keeping our fleet deployed forward where it matters.

This hearing comes at a critical time for our country. Multiple nations are working to undermine the free and open rules-based international system that has benefited so many for so long. Our rivals are rapidly modernizing their militaries to erode our advantages. The COVID-19 pandemic threatens the health and livelihood of our people. Climate change puts our coast lines at risk with rising seas levels and more severe weather. And the maritime environment—a vital source of our nation's prosperity and protection—has become increasingly contested. America's Navy is ready to meet these challenges. As we have done since our founding, we will set sail to defend our Nation, take care of our people, and succeed through teamwork.

The President has made it clear—America stands at an inflection point. The choices we make today will have a dramatic impact on the future of our nation. The very nature of the free and open international system is threatened. To defend our nation, safeguard economic opportunity, and secure the blessings of liberty for years to come, we must renew our enduring advantages and work in concert with our allies and partners to secure the rules-based order at sea.

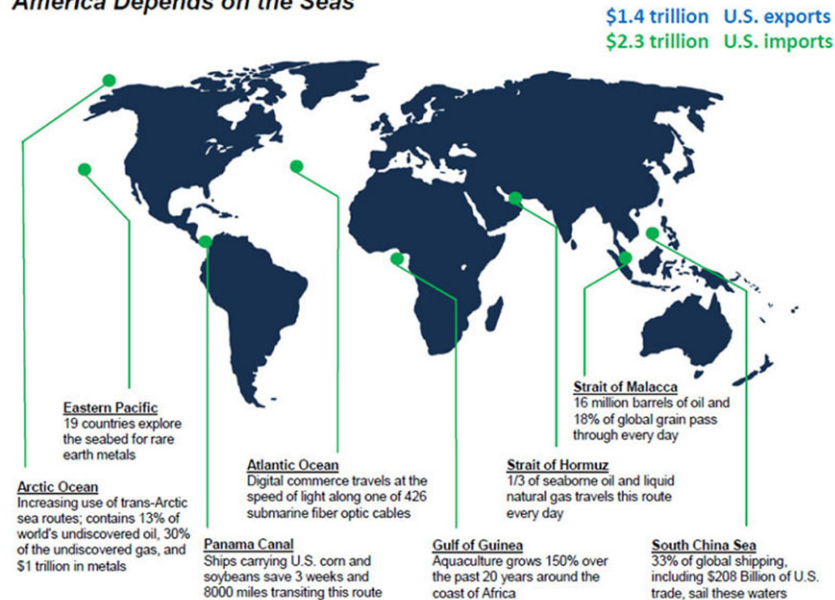
AMERICA IS A MARITIME NATION—OUR PEOPLE DEPEND ON THE FREEDOM OF THE SEAS

The United States Navy—alongside the Marine Corps and Coast Guard—provides a unique, enduring advantage to the American people. Since our nation was founded, Americans have relied on the seas for prosperity and protection. For 245 years, our Navy has deployed forward to ensure safe passage for our commerce and to keep fights far from our shores. Since the end of World War II, we have sailed with like-minded navies to build and sustain the open, rules-based international system at sea. Together, we have provided stability, deterred great power war, and ushered in prosperity for billions across the world.

Over time, our reliance on the seas has only grown. Today, 90 percent of global trade by volume travels by sea, facilitating \$3.7 trillion in U.S. commerce annually and supporting 31 million American jobs. 95 percent of global internet traffic travels along undersea cables, fueling our digital economy and accounting for \$10 trillion of financial transactions every day. The free flow of commerce—both physical and digital—cannot be taken for granted. It relies on the rules-based international system at sea and unimpeded access to markets through open waterways. Even minor disruptions can have extraordinary impacts. The recent grounding of the container ship *Ever Given* in the Suez Canal, which delayed hundreds of ships and cost the global economy an estimated \$9.6 billion per day, highlights the importance of predictable passage through the world's strategic waterways. If a rival nation attempted to control passage through the South China Sea—a strategic location where

\$208 billion of U.S. commerce flows annually—the impact to the global economy would be extremely costly.

America Depends on the Seas



Meanwhile, the competition for offshore resources such as aquaculture, energy, and rare-earth minerals is increasing across the globe. Currently, 93 percent of the world's fishing stocks are overexploited, threatening a major protein source for 3.3 billion people. Several nations have deployed distant water fishing fleets and expanded the use of maritime militias in their quest to maintain their lucrative fishing industries. Additionally, many nations are increasingly looking to maritime sources of energy and mineral wealth. The global oil and gas industry, which generates an estimated \$3.3 trillion in annual revenue, is turning toward energy exploration along the seafloor to extract untapped reserves. With trillions of dollars in raw resources awaiting discovery on the unmapped ocean floor, states and multinational companies are racing to develop capabilities for deep-sea mining.

The world's oceans have always been a wellspring of wealth and prosperity. Today, and in the years ahead, they pose an increased risk of competition turning into conflict.

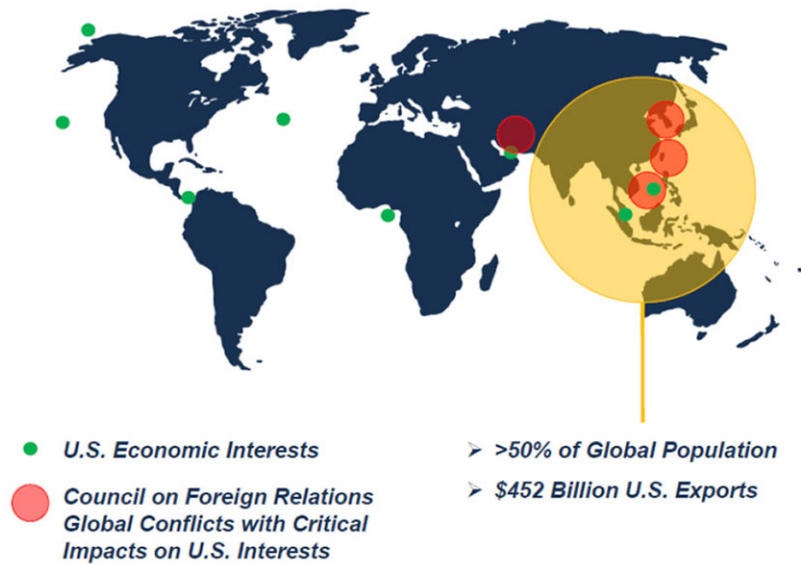
THE GROWING CHALLENGE TO THE UNITED STATES AND THE OPEN INTERNATIONAL SYSTEM

Despite benefiting from free and open seas for decades, the People's Republic of China (PRC) and Russia are currently working to undermine the rules-based international system at sea. Both are attempting to control access to key waters and the resources that lie within these waters, inhibiting freedom of the seas and overflight. Both are intimidating their neighbors and attempting to enforce unlawful claims with the threat of force. Both are expanding sophisticated networks of sensors and long-range weapons to hold important waterways at risk. Both are leveraging offensive cyber tactics to advance their competitive advantage, illegitimately obtaining U.S. intellectual property to close research and development gaps and disrupt our industrial base. And both are attempting to replace the free and open international system with a more unilateral and self-serving one by turning incremental gains from their malign actions into long-term advantages—such as militarizing contested features in the South China Sea or illegally annexing the Crimean peninsula.

The PRC's and Russia's revisionist approaches at sea threaten U.S. interests, undermine alliances and partnerships, and degrade the free and open international order. Moreover, the PRC's and Russia's aggressive naval growth and modernization are eroding U.S. military advantages. Unchecked, these trends will leave the Navy

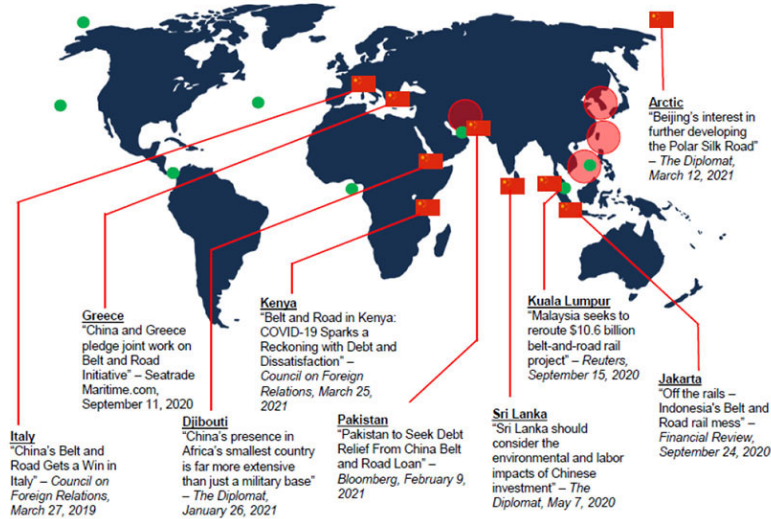
unprepared to ensure our advantage at sea and protect national interests within the next decade.

Hotspots That Threaten Critical U.S. Interests



The PRC—our pacing challenge—is carrying out a strategy aimed at the heart of America’s maritime power. They are deliberately working to erode maritime governance, inhibit freedom of the seas and overflight, deter our engagement in regional disputes, and displace the United States as the partner of choice across the world. To achieve its strategic goals, the PRC has rapidly grown its Navy from 262 to 350 ships. Today, their fleet includes modern surface combatants, submarines, aircraft carriers, amphibious assault ships, and polar icebreakers. Expanding their robust naval force with a hundreds of Coast Guard and maritime militia vessels, they routinely harass neighbors to exert pressure at a level below traditional armed conflict. They have built the world’s largest missile force to target regional waters in an attempt to intimidate others. They have strengthened all dimensions of military power to contest the United States from the seafloor to space and in the information domain. Under the One Belt, One Road Initiative, they are extending their maritime infrastructure across the globe through aggressive investments, particularly in ports, to control access to critical waterways.

China's One Belt, One Road: Maritime Expansion

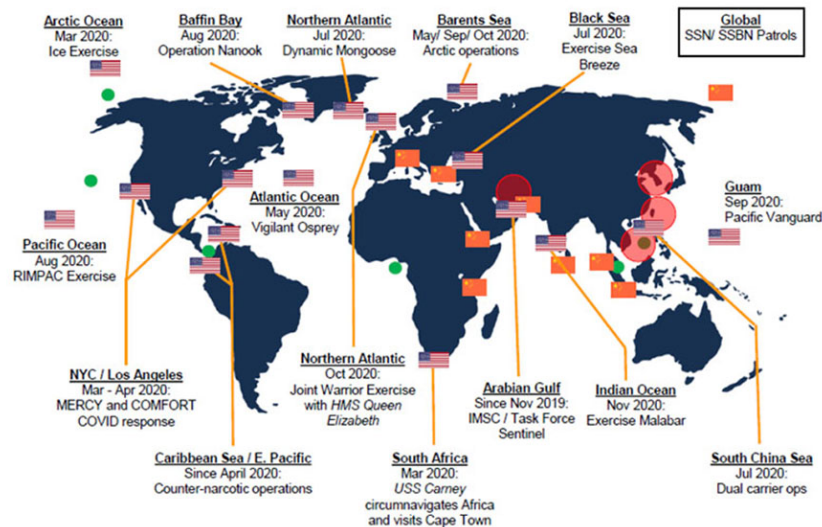


As our U.S. Indo-Pacific Commander recently stated, the greatest danger for America and our allies is the erosion of our conventional deterrence with respect to the PRC. Absent a convincing conventional deterrent, the PRC will continue to take action to undermine the free and open conditions at sea upon which our citizens rely. While the PRC is expanding its influence across the globe, this challenge is most acutely present in the Indo-Pacific, including the East and South China Seas and increasingly in the Indian Ocean. History shows that a strong U.S. Navy provides a stabilizing influence across the world, assists in peaceful maritime dispute resolution, and expands economic opportunities for the American people. The future will prove no different.

U.S. NAVY—DEPLOYED FORWARD TO DEFEND AMERICA AND OUR ALLIES AND PROTECT THE FREEDOM OF THE SEAS

The U.S. Navy is responding to the challenges to our free and open international system by demonstrating our global reach, enforcing common principles, sustaining the conditions that enable shared prosperity, strengthening our alliances and partnerships, and modernizing our fleet to control the seas in conflict and project power in contested environments. Today, over 42,000 Sailors are deployed on 111 ships and submarines to preserve freedom of the seas, deter conflict, and keep America and our allies safe. Together with the Marine Corps and Coast Guard, our Navy is delivering integrated all-domain naval power across the globe. And we are doing this in the midst of a global pandemic.

The U.S. Navy Deployed Around the World



Even with many parts of the world shut down in response to COVID-19, the worldwide demand for naval forces required us to maintain a high operational tempo, which included eight major Carrier Strike Group and Expeditionary Strike Group deployments in FY-20. Since I appeared before you last year, the Navy has continued to steam and fly from the Arctic Circle to the Cape of Good Hope and from the Caribbean to the South China Sea. Our hospital ships provided relief to American communities; we executed underway training events for deployment certification; and we conducted exercises as part of the Joint Force and alongside our allies and partners. Our ability to sustain a forward posture rests on the individual commitments of over 600,000 Sailors and Navy civilians and their families. Their adaptive spirit and commitment to COVID-19 protocols kept the force healthy and our ships at sea.

The pandemic taught us a great deal about operating in a challenging environment. Our entire force learned how to adapt as we iterated and honed our COVID-19 Standardized Operational Guidance. Our logistics teams learned what it means to sustain our fleet with limited means. Our information technology workforce quickly scaled virtual private network licenses and supported the roll-out of virtual and remote environments to keep us connected. Our dedicated, patriotic shipyard and aviation depot workforce adapted to our COVID-19 protocols, came to work, and got our ships and aircraft back to sea. And we learned how brittle portions of our defense industrial base could be if not postured appropriately. We took every opportunity to learn throughout this dynamic year—and shared those lessons with our allies and partners—to improve the resiliency of our Navy in the years ahead.

We certainly did not address the challenges of continued maritime operations during this pandemic alone. Our broader Navy team—which includes Congress, industry, research institutions and laboratories, and our international allies and partners—overcame so much to design, build, and sustain our fleet through this pandemic. We cannot thank all of you enough. As our nation—and the world—emerges from this pandemic, we will continue to face the daunting challenge posed by long-term competition with the PRC and Russia. And we will need your support, now more than ever, as we modernize and recapitalize the Navy to sustain our enduring advantage at sea.

TIMELESS ROLES OF SEA CONTROL AND POWER PROJECTION

American security and prosperity is underpinned by the U.S. Navy's ability to control the seas and project power ashore in conflict. The world would be a less prosperous, more dangerous place if the seas were not open and free for the benefit of all. Every day, combat-credible naval forces operate forward to reassure our allies and partners, confront malign behavior, and deter potential adversaries from esca-

lating into conflict. We preserve a stable and secure global maritime environment and advance prosperity through transit, trade, and the lawful pursuit of natural resources. Our ability to carry out these essential functions comes from our ability to credibly control the seas and project power ashore in conflict. These missions are timeless.

Controlling the seas protects friendly shipping, provides the Joint Force and our allies freedom to maneuver, and denies the use of the seas to our adversaries. In the past, sea control required us to fight our adversaries on, under, and above the sea. Now, in our digital age, it requires us to also fight in space, cyberspace, and across the electromagnetic spectrum. In short, modern sea control demands the all-domain power of our Navy and Joint Force.

America also needs a Navy that can influence events ashore. This starts with deterring nuclear attack against our nation with our ballistic missile submarines—the most survivable leg of the nuclear triad. Projecting power and influence from the seas is vital to deterring aggression and resolving crises on acceptable terms to the United States. Our Navy must field capabilities in all domains—employing information warfare, cyber capabilities, special operations, and a host of conventional weapons launched from on, under, and above the sea—to convince our rivals they have no viable means of achieving their objectives through force. Our sea control and power projection capabilities, alongside our strategic deterrent, provide America and our allies their surest guarantee of peace. If the Navy fails to deliver a fleet that can control the seas and project power, our nation will lack the conventional deterrent needed to protect America and our allies and expand economic opportunities for the American people.

While America's need for sea control and power projection capabilities has not changed over time, how we operate and what we operate with is changing. Emerging technologies have expanded modern fights at sea into all domains. Ubiquitous and persistent sensors, advanced battle networks, and long range weapons have made contested spaces more lethal. Advances in artificial intelligence have increased the importance of achieving decision superiority in combat. Additionally, autonomous systems have shown promise for an effective and affordable way for us to fight and win in contested spaces. These technologies offer clear advantages to the militaries that integrate them first. America cannot afford to fall behind.

Meanwhile, our fleet is adapting to operate in new ways. To preserve and promote the rules-based order, we are taking a more assertive posture in daily operations. We are challenging excessive maritime claims by sailing and flying wherever international law allows and expanding our decision advantage by persistently monitoring activities at sea to expose malign behavior that undermines the rules-based order. Our cyber teams are actively defending our networks and projecting power in the cyber domain to maintain a tactical advantage against our rivals. Furthermore, we are dynamically deploying our forces forward to deter our rivals from making incremental gains and to work alongside our allies and partners to keep the seas free and open.

Should deterrence fail, our Navy stands ready to confront aggression and decisively win a fight. Using concepts such as the Joint Warfighting Concept and Distributed Maritime Operations (DMO), we will mass sea- and shore-based fires from distributed forces. By maneuvering distributed forces across all domains, we will complicate adversary targeting, exploit uncertainty, and achieve surprise. Controlling the seas by constraining or destroying adversary fleets will enable freedom of movement at sea and power projection ashore. Working with the Joint Force and our allies and partners, Navy submarines, aircraft, and surface ships will launch massed volleys of networked weapons to overwhelm adversary defenses and compel a termination of conflict on favorable terms. Delivering an all-domain fleet that is capable of effectively executing these concepts is vital to maintaining a credible conventional deterrent with respect to the PRC and Russia.

DELIVERING ALL-DOMAIN NAVAL POWER

To deliver the all-domain naval power America needs, our Navy must evolve our capabilities and grow our capacity. The Navy—working in close collaboration with the Joint Force—has studied, identified, and prioritized the future capabilities we need to execute our evolving warfighting concepts and maintain a credible deterrent with respect to the PRC. The PRC has invested heavily in anti-access capabilities. In conflict, they will seek to contest all domains and hold our forces at risk with sophisticated networks of sensors and a large number of long-range, precision weapons. To effectively deter the PRC as part of the Joint Force, our fleet must be imbued with distributed weapons of increasing range and speed, more magazine depth,

more mobility, more stealth and deception, and more sustainability. This requires a deliberate adjustment to our naval force structure.

Based upon multiple rigorous, threat informed assessments conducted over the past five years—both inside and outside the Navy—it is my best military advice that America needs a larger Navy to counter the People’s Liberation Army Navy (PLAN) that is growing in both capability and capacity. To fill critical Joint Force demands, the Navy requires greater numbers of submarines, smaller and more numerous surface combatants, more lethal offensive capabilities, a host of integrated unmanned platforms—under, on, and above the seas—and a modern strategic deterrent. We also need a robust network infrastructure to link our distributed forces together and resilient logistics to sustain them. In short, a balanced, hybrid fleet of manned and unmanned platforms is the most effective and affordable way to meet the security demands of our nation.

Analysis has also confirmed that numbers are not the only factor—the composition and combat effectiveness of our fleet matters more. Naval power is not a function of ship numbers alone, nor is it simply a result of the lethal systems employed from those ships. It comes from the concepts that shape how we fight and the means to maintain, train, and equip our forces to win in combat. And it fundamentally comes from developing Sailors—the true source of our naval power—who can outthink and outfight and adversary.

Within the scope of the President’s FY-22 Budget request (PB-22), we are maximizing our Navy’s contribution to the Joint Force. We are prioritizing a fleet that is ready for combat over a larger fleet that is not ready to fight. We are divesting of legacy assets that do not bring sufficient lethality to the fight and investing in next-generation platforms and systems that close critical Joint capability gaps. Meanwhile, we are prioritizing the training and education needed to prepare our Sailors to outthink and outfight any adversary. And we are using every dollar we can to sustainably grow the fleet. As we prepare our fleet for long-term competition with the PRC, we are focused on key objectives in the following areas—readiness, capabilities, capacity, and our Sailors.

Readiness

To sustain America’s advantage at sea, we must deliver combat-ready forces to deter aggression and keep the seas free and open. Deploying battle-ready ships, submarines, and squadrons around the world—from the South China Sea to the Arctic—deters aggression, reaffirms our commitment to allies and partners, and keeps the seas open and free. Readiness underpins our forward-engaged posture and touches all elements of the Navy, from our shipyards and aviation depots to the steaming and flying hours our Sailors use to hone their skills. With nearly 70 percent of the fleet we will have in 2030 already in service today, affordably sustaining our ships and aircraft is vital to meeting future demands. This is why PB-22 places such an emphasis on critical components of our Navy’s readiness.

Our force is in a higher state of readiness today than prior to 2017 with a healthier surge force, improved shipboard manning, better training for our crews, and improved parts availability. Increased funding, combined with cultural reforms throughout the fleet, have arrested the decline in our readiness and put us on a path to recovery. Still, we have much work to do.

Deploying combat-ready forces starts with taking expert care of our platforms. To this end, we are using data-driven reforms to improve maintenance processes, increase operational availability, and save taxpayer dollars. We have seen tremendous success with these methods in our aviation community. For years our F/A-18 aircraft were stuck at a 55 percent mission capable rate. At the time, we assumed only an increase in inputs—aircraft, manpower, or parts—could raise the number of ready jets available to our pilots. However, in FY-19 we shifted our focus to cultural reform and used the power of data-analytics to raise our F/A-18E/F mission capable rate to 80 percent—a rate we have continued to maintain throughout all of FY-20 and into FY-21. With higher numbers of aircraft available, our aircrew are more ready to fly and fight than at any point over the last decade.

We are now applying a similar approach to improving ship maintenance. On-time private shipyard surface ship availability completion rates rose from 37 percent in FY-19 to 67 percent in FY-20. Meanwhile, public shipyards reduced maintenance delay days by over 75 percent from FY-19 to FY-20. To generate these gains, we modified contracting strategies, increased dry dock capacity, and optimized facility and pier layouts. We improved planning and adjusted maintenance durations to better align workload with shipyard capacity. We also leveraged authorities provided by Congress, such as the three year “Other Procurement, Navy” pilot program, to increase flexibility and stabilize demand for our shipyard workforces.

Unfortunately, COVID-19 impacted our recent ship depot maintenance gains—as the need to protect our people caused delays in on-time completion of ship maintenance. Half of our maintenance availabilities in both public and private shipyards are trending late due to workforce capacity reductions. To mitigate further impacts in our private shipyards, we accelerated awards of contract options and improved the cash positions of the industrial base. For our public shipyards, we mobilized over 1,300 skilled Navy Reserve Sailors, increased overtime usage, and rebalanced future workloads to address these delays. These efforts have stemmed the disruption COVID-19 caused to our shipyard maintenance and will mitigate work spilling over into FY-22. We are methodically and safely returning to normal operating conditions. Though some delays will continue to persist until the shipyards return to full strength, the production workforce in both public and private shipyards is returning to pre-pandemic levels.

Sustaining our advantage at sea requires us to make targeted investments in critical infrastructure. This includes ensuring our worldwide constellation of bases are postured to sustain and support our fleet at sea. Of particular importance are critical elements of our national defense industrial base such as our public shipyards and aviation depots. Our Shipyard Infrastructure and Optimization Program (SIOP) provides a strategic roadmap for necessary investments in dry-docks, capital equipment, and optimizing the layout of these vital national assets. We have already broken ground on a perimeter floodwall at Norfolk Naval Shipyard, and are building a new lock system at Portsmouth Naval Shipyard with many more projects on the horizon. We are also recapitalizing our aviation depot infrastructure. Through our Naval Aviation Fleet Infrastructure Optimization Plan (FIOP), we are developing a 10-year Master Plan that provides our aviation depots the capacity to sustain and modernize our aircraft, engines, components, and support equipment. Meanwhile, we are also transforming our Navy enterprise shore network infrastructure into a secure, resilient digital platform.

Sustaining our advantage also requires us to master all-domain fleet operations. To credibly deter aggression, we must integrate the all-domain power of the Navy with the Joint Force and our allies and partners. This starts with providing our Sailors adequate ranges to train for the high-end fight. The speed and scale of a potential fight for control of the seas has changed. The size of our premier Carrier Air Wing and SEAL training center—the Fallon Range Training Complex (FRTC)—is no longer sufficient. Within existing capacity, our Sailors cannot sufficiently train with longer-range weapons or practice the tactics and techniques they will need to employ against a near-peer threat. We will continue to work with Congress, tribal leadership, local communities, and key stakeholders in the year ahead to modernize the FRTC and ensure our Sailors have the infrastructure they need to train to win in combat.

Mastering all-domain fleet operations also requires a rigorous learning campaign. We are conducting a series of fleet battle problems, wargames, and exercises to refine our concepts and capabilities. For example, we recently conducted our most complex exercise to date involving unmanned systems, which brought unmanned surface vessels and aircraft under the control of a *Zumwalt*-class destroyer—the *USS Michael Monsoor* (DDG-1001). This summer we will conduct Large Scale Exercise 2021—bringing together our fleets from across the globe to test out key components of our DMO concept. Overall, our campaign of experimentation and learning prepares our Sailors for high-end warfighting and drives updated joint concepts, fleet requirements, and future naval capabilities.

Sustaining our advantage at sea depends on developing, training, and fielding battle ready surface force crews. As of the end of 2020, we have fully implemented all 111 Comprehensive Review/Strategic Readiness Review recommendations. Over 1,700 junior officers have now graduated from our new Junior Officer of the Deck course with training aligned to International Maritime Organization's standards. We are broadening the use of instructor-led virtual reality training through the construction of two Mariner Skills Training Centers and the modernization of our Integrated Navigation Seamanship and Ship handling Trainers. With the support of Congress, we are investing in and employing meaningful reforms in how we man our surface fleet, train our crews, schedule and execute workups and deployments, and how we equip and maintain the surface force.

We will continue to invest in these key priorities and drive maximum efficiency from every dollar to deliver the naval power America needs. We are currently meeting operational demands while adapting to protect our Sailors and their families. But readiness recovery remains a long game and will require sustained funding over time to fully recover.

Capabilities

To sustain America's advantage at sea, we must deliver a more lethal and better connected fleet. The fight at sea is evolving rapidly. Emerging technologies have expanded into all domains and made contested spaces more lethal. Artificial intelligence and machine learning, autonomy, quantum computing, additive manufacturing, and new communications technologies are transforming the maritime environment. These changes emphasize the need for the Navy to develop sea control and power projection capabilities at speed and scale. That means more lethality, more survivability, better combat logistics, and a resilient network that connects command and control nodes, platforms, weapons, and sensors all together.

PB-22 prioritizes capabilities that amplify the fleet's ability to disperse and project synchronized lethal and non-lethal effects from multiple axes and in all domains. To achieve this vision, we are developing a Naval Operational Architecture (NOA) that integrates with Joint All-Domain Command and Control. The NOA is a collection of networks, infrastructure, data, and analytic tools that connects our distributed forces and provides decision advantage. Beyond recapitalization of our undersea nuclear deterrent, there is no higher development priority. We launched Task Force Overmatch this past October to align resources and expertise from across our force to field the NOA by the middle of this decade.

Developing longer-range, higher-speed weapons—such as hypersonic missiles—will give our warfighters the competitive advantage they need. Hypersonic missiles change the risk calculus for our rivals by providing a non-nuclear sea-based prompt, global strike capability. We are working in close partnership with the Army to deliver a truly-joint, conventional hypersonic weapon across land and sea-based platforms. We conducted a successful test of our common hypersonic glide body in March 2020, which keeps our Conventional Prompt Strike program on-track to field this game changing capability by the mid-to-late 2020s. PB-22 signals our strong support for developing this vital joint capability.

Our adversaries are attempting to deter us with massive numbers of sea- and shore-based missiles. To complicate their ability to understand the potential battlespace, we are investing in Counter-Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance, Reconnaissance, and Targeting systems. Our response also includes fielding an inexhaustible directed-energy system that accurately and reliably defeats anti-ship cruise missiles (ASCM). The High Energy Laser Counter ASCM Project is expediting the development of critical technologies to protect our ships from the cruise missile threat. At the same time, we are pursuing other directed energy initiatives in parallel—such as the 150 kilowatt class laser weapon system—to accelerate learning and fielding of this critical capability. The recent demonstration onboard *USS Portland* showed how we can disable an unmanned aerial vehicle using directed energy. We will continue to invest in laser technology and non-kinetic defensive systems to increase fleet survivability while maintaining free magazine space for our offensive weapons.

Our logistics enterprise and strategic sealift capacity are also vital to sustaining our advantage at sea and keeping the Joint Force operating forward. Accordingly, we are modernizing networks and communication and navigation systems of our Combat Logistics Force to best posture this aging fleet to operate in a contested environment. We are also investing in increased fuel distribution capacity as well as improvements in our expeditionary rearm capabilities and resuscitative care surgery systems. Specific to the Sealift Fleet, which provides inter-theater lift capability to the Joint Force, we have accelerated recapitalization, leveraging a “buy used” strategy to replace our least ready vessels, and invested in service life extension for the net effect of increased readiness. We are grateful for Congress's authorization to affordably revitalize our Sealift Fleet with used vessels. We are moving ahead with purchasing two used ships in 2021 and five used vessels in PB-22, signaling our continued support for this approach. We will continue to work with Congress to efficiently recapitalize this critical capability in the years ahead and request that Congress remove remaining obstacles to used ship procurement. Our longer-term plan is to construct new vessels to replace prepositioned vessels in the Maritime Prepositioning Force as those ships begin to reach expected service life at the end of this decade.

Pivoting toward the future and resourcing needed capabilities—especially in the Indo-Pacific region—requires tough choices. To invest in the next-generation capabilities we need to meet the challenge of near-peer competitors, we need to divest of our legacy capabilities that no longer bring sufficient lethality to the fight. We will work transparently with Congress to make these critical divestment decisions and free up resources to modernize the fleet.

Capacity

To sustain America's advantage at sea, we must field a larger, hybrid fleet that is designed for sea control and power projection. To provide a credible conventional deterrent in peace and win in war, we need to sustainably generate cost-effective platforms and mature unmanned systems. This transition will increase the capacity of the fleet, expand our ability to distribute our forces, and rebalance the fleet away from exquisite, manpower-intensive platforms and toward smaller, less-expensive ones. By growing a hybrid fleet—on, above, and below the seas—we will ensure our success across the continuum of day-to-day competition, crisis, and conflict.

As we design and build a larger, hybrid-fleet, our number one acquisition priority remains delivering the *Columbia*-class ballistic missile submarine on time. No mission is more important to our nation than providing a secure and reliable strategic nuclear deterrent. Our ballistic missile submarines are the most survivable portion of our nuclear triad and provide an assured response to any strategic nuclear attack on the United States. With our *Ohio*-class submarines nearing the end of their service life, we cannot afford to get behind in delivering on the *Columbia* program. The first submarine is starting construction this year with the second boat on-track for procurement in FY-24. We will continue to drive affordability, technology development, and integration efforts to ensure the program remains on schedule and our ballistic missile submarines remain on patrol in the decades ahead.

Meanwhile, our future fleet places a premium on expanding our undersea advantage. During conflict, sea control and sea denial from beneath the waves are among our Navy's core advantages—we cannot afford to yield any ground to our competitors. We are now planning to construct the tenth Block V *Virginia*-class submarine with a Virginia Payload Module (VPM). PB-22 underscores our sustained support for procuring two *Virginia*-class submarines per year. Sustainable production of the *Virginia*-class submarine, in addition to the development of a follow-on attack submarine program, is key to sustaining our undersea advantage in the years ahead.

As we shift our focus toward smaller platforms that can operate in a more dispersed manner, there is a clear need to rapidly incorporate unmanned systems into our fleet architecture. They expand our intelligence, surveillance, and reconnaissance advantage, add depth to our missile magazines, enhance fleet survivability, and provide more risk-worthy vessels to operate inside the weapons engagement zone of any adversary. In other words, they give our operational commanders flexible and effective options to maneuver within a contested environment. The Navy is taking a deliberate approach to developing unmanned systems through our Unmanned Campaign Framework. Our framework lays out an overarching vision on how we intend to produce tested and proven systems at scale, as well as develop the core technologies required to successfully integrate unmanned systems on, below, and above the sea. By the end of this decade, our Sailors must have a high degree of confidence and skill operating alongside proven unmanned platforms. The combined capability of manned and unmanned systems will provide our operational forces the advantage we need in a future fight.

Nuclear powered aircraft carriers are the most survivable and versatile airfields in the world. For decades to come, they will remain a cornerstone of the Navy's forward presence, sea control, and power projection capabilities. *USS Gerald R. Ford* (CVN 78) represents a generational leap in the aircraft carrier's capacity to project power. Over the past year, *Ford* has been underway, executing over 7,100 total launches and recoveries with the Electromagnetic Aircraft Launch System and Advanced Arresting Gear. Additionally, over 30,000 pounds of ordnance has been moved, loaded and expended by embarked F/A-18 aircraft using Advanced Weapons Elevators (AWEs). Seven of *Ford's* AWEs have completed certification and the remaining four are on track to certify by this summer. We expect *Ford* to be cleared for blue water operations later this year and ready for employment in 2022.

The striking power of our Carrier Air Wing is vital to controlling the seas and projecting power in a high-end fight, and the adaptability of the air wing keeps our carriers relevant for 50-plus years of life. The air wing of today is currently transforming with the addition of the F-35C, the E-2D Advanced Hawkeye, and the CMV-22B Osprey. PB-22 increases our F-35 inventory to get the fleet closer to a fourth generation and fifth generation fighter mix. Carrier Air Wing TWO—which includes the first operational F-35C squadron—is currently undergoing pre-deployment training and will deploy later this year. Meanwhile, we are rapidly developing the MQ-25 Stingray—the Air Wing's first unmanned platform—to extend the striking range of our fleet. And we are laying the groundwork for the highly networked air wing of the future—a 6th generation family of systems that leverages manned-unmanned teaming—which will deliver overwhelming firepower in contested spaces in the years ahead. Delivering a 6th generation family of systems is vital to keeping

pace with PRC fighter development and sustaining our advantage over the seas. America cannot afford to fall behind.

We are also going through a surface combatant reset on ship design and construction to provide the next enduring hull forms for small and large surface combatants. Our surface combatant inventory is aging with limited options for future upgrades. At the same time, our future fleet design places an emphasis on greater numbers of small surface combatants. The *Constellation*-class frigate is a versatile, multi-mission platform capable of supporting day-to-day operations and the high-end fight. We began cutting steel on *Constellation* this year, and we are excited to incorporate this ship into the fleet in 2026. Meanwhile, the future large surface combatant (DDG(X)) will bring the space, weight, and power needed to incorporate future capabilities for the high-end fight such as high power lasers, long-range strike, and sensor growth. Together, both ship classes will bring more lethality, more survivability, more endurance, and more self-sufficiency to the fleet.

We are not just building better ships—we are building ships better. The Navy is mindful of past shipbuilding efforts that did not perform to plan, which is why we are moving ahead in ways that deliberately reduce risk. Early and sustained industry involvement, robust land based testing, and focused design maturity are foundational to our shipbuilding approach. We appreciate the strong support from Congress in FY–21. Delivering ships on time, on budget, and within performance targets is our priority.

Sailors

To sustain America’s advantage at sea, we must recruit, develop, and retain a seasoned team of naval warriors. The strength of our naval power depends on the strength of our Sailors—active and reserve, uniformed and civilian. In the long-term strategic competition we face today, every Sailor must be able to outthink and outfight any adversary. Our Navy must remain the best trained, finest educated, and most ready maritime force in the world. We recognize the strength we gain from a diverse force and our actively pursuing combat-minded Sailors with varied backgrounds, experiences, and thought to build up our readiness and resilience. As we take care of our Sailors, we will accelerate their development and harness their talents to keep America safe and prosperous.

As we modernize our fleet, we are modernizing our talent management systems to better recruit, train, retain, and support our Sailors. We achieved our accession goal of 39,600 new active duty Sailors in FY–20 to further improve afloat manning and filled operational billets to their highest point in six years. PB–22 makes a slight reduction in our end-strength with the divestment of legacy ships. However, the demand for a highly trained, diverse force has not abated. We are grateful to Congress for the generous pay raises and personnel reforms. The Navy is leveraging both—alongside our talent management initiatives—to better recruit and retain our incredibly talented force. Meanwhile, we continue to transform our MyNavyHR infrastructure to rapidly deliver services to our Sailors and families at a reduced cost. This includes the DOD-leading mobile applications that help with the challenge of military moves and finding childcare or housing and the MyNavy Career Centers which proved vital during the COVID–19 pandemic.

We are continuing to cultivate a culture of excellence across the fleet, which builds resilience and strengthens our Navy’s enduring standards of professional competence and personal character. Over the past year, our culture of excellence campaign has strengthened the signature behaviors that define our service to prevent the occurrence of destructive behaviors—such as sexual harassment or discrimination. At the same time, we have maintained a resolute focus on preventing the scourge of sexual assault within our ranks. PB–22 increases our civilian Sexual Assault Prevention and Response workforce to provide greater support for our Sailors and drive down investigation timelines. Overall, we are providing more training, more tools, and more resources so every Sailor receives the support they need.

We are also actively building a workforce that represents the full diversity of America and the strength it brings. Task Force One Navy (TF1N) was launched last year to analyze and evaluate issues in our military that detract from Navy cohesiveness and readiness. The task force released their report in January 2021 and highlighted 56 recommendations that will elevate a culture of diversity, equity, and inclusion throughout the fleet. Respect and the promise of opportunity are core to our Navy, and we are committed to implementing TF1N reforms and ridding discrimination, sexism, and other forms of structural biases from our ranks.

Without a doubt, the vast majority of Sailors in the U.S. Navy serve every day with honor, character, and integrity. However, we cannot be under any illusions that extremist behaviors do not exist in our Navy. As directed by the Secretary of Defense, each command across the fleet conducted a stand down to address extre-

mism within our ranks. Racism, injustice, indignity, and disrespect keeps us from reaching our potential—an inclusive, respectful, professional fighting force that answers the Nation's call with unparalleled readiness and lethality. The stand down was only a starting point; this will be an ongoing fight. We are committed to eliminating extremist behavior and all of its corrosive effects on our fighting force.

The intellectual investments we make in each Sailor provide a key advantage over our rivals. To strengthen our advantage in this area, we are aligning the curriculum and research of the Navy's education enterprise to deliver warfighting advantage in our operations at sea and in how we design, deliver, and generate our forces. Additionally, the Naval Community College is on track to provide our Sailors opportunities for education in fields that strengthen the service. Maintaining educational relationships with our international partners through exchanges and scholarships remains a priority for us to deepen enduring relationships and broaden understanding between likeminded navies.

To ensure our Sailors are ready for any challenge on the horizon, we are scaling Ready Relevant Learning (RRL) and Live, Virtual, Constructive (LVC) training. RRL provides the right training, at the right time, in the right way for our Sailors. It replaces "one-and-done" classroom training events with career-long learning continuums through a mix of in-classroom instruction and modern training methods. LVC technology blends the intensity of underway operation with high-fidelity synthetic training, allowing our Sailors to master high-end tactics in secure and controllable conditions. Our force will always fall back to their baseline under the stress of combat—RRL and LVC will raise their baseline.

CONCLUSION

Let there be no doubt—America is a maritime nation. Our security and prosperity are inextricably linked to the seas. For 245 years—in both calm and rough waters—your Navy has stood the watch to protect our homeland, preserve the freedom of the seas, and defend our way of life. For generations, we have provided a bulwark against aggression and have underwritten the international order that led to an unprecedented era of peace and prosperity. Now that order is under threat.

As the President stated, we are at an inflection point. The PRC's rapid military growth and aggressive behavior at sea has put it on a trajectory that will challenge our maritime advantage in the years ahead. Our naval forces—and the American people—must maintain a clear-eyed resolve to compete, deter, and—if necessary—defeat our rivals, while accelerating the development of a larger and more lethal future fleet. We must do so while integrating more closely with the Marine Corps and Coast Guard to generate integrated all-domain naval Power. Only by working as a team and taking care of our people will we be able to defend the nation in the years ahead. We must move deliberately, but also with speed. Our actions this decade will shape the maritime balance of power for the rest of this century.

On behalf of more than 600,000 active and reserve Sailors and Navy Civilians, thank you for giving me the opportunity to testify today. I am grateful to this committee, and to all of your colleagues in Congress, for your steadfast commitment to the Navy. We look forward to sailing alongside you to sustain our advantage at sea.

Senator TESTER. Thank you, Admiral Gilday.

Next up, it is you, General Berger.

STATEMENT OF GENERAL DAVID H. BERGER, COMMANDANT, UNITED STATES MARINE CORPS

General BERGER. Chairman Tester, Ranking Member Shelby, and distinguished members of this committee, thank you for the opportunity to testify on the posture of your Marine Corps this morning, our priorities, and the resources required to fund it all.

Over the past 2 years, since becoming Commandant, I have come to better understand and appreciate the bipartisan support of this committee, which I think is critical to creating and sustaining the force we have today, but also the force we are going to need for the future. I realize there are competing national priorities you must wrestle with, and that is going to put pressure on Defense budgets. But, I am also confident that you appreciate the severity of the security environment today.

The global competition, which the Chairman and Ranking both mentioned, with China and Russia is accelerating. Your military is going to need more advanced capabilities to effectively compete, to reassure our allies and partners, and to deter war.

Force Design 2030 is the Marine Corps' answer to creating the cutting-edge capabilities that will better enable the fleet and the joint force to deter, to compete, and to respond with ready forces to any crisis anywhere on the globe.

We are roughly 2 years into our Force Design effort. And while I am encouraged by our progress, I am not satisfied by the pace of change. We must move faster. To accelerate our modernization, we, as a service, need to do a better job of explaining the details of Force Design 2030 to yourselves and to your staff, and that is my responsibility as your Commandant.

It is important that this committee understands that the capabilities we seek are not the stuff of science fiction. They are already programs of record based on proven technology. And, while we do not have sufficient time this morning to address the full scope of our Force Design effort, I do want to highlight three key capabilities.

First is long-range precision fires for sea denial and sea control. Over the past several years, we have proven that our existing HIMARS (High Mobility Artillery Rocket System) vehicles can hold naval vessels at risk with ground-based, anti-ship missiles. Through aggressive experimentation, we can—we have further enhanced that capability.

This year, we successfully launched a naval strike missile from a modified, unmanned, joint light tactical vehicle, hitting a target at sea underway. This system, which we call the Navy Marine Expeditionary Ship Interdiction System, or NMESIS, is exactly the type of capability that Combatant Commanders are calling for to enhance their deterrent posture.

Second is unmanned ISR (Intelligence, Surveillance, Reconnaissance). In 2020, we began a transition to a mixed capability of long-range ship and ground-based, unmanned aerial systems, to include the MQ-9 Reaper. The Reaper has a proven capability that will significantly expand our organic ISR and enable us to better support fleet and joint operations, including anti-submarine operations.

We have also initiated a partnership with industry to develop a future autonomous, long-range, unmanned surface vessel. That is going to significantly improve the reconnaissance capability of our Marine Expeditionary Units, or MEUs.

Third, we are investing in loitering munitions. These swarming aerial munitions, which employ automatic target recognition, have proven exceptionally lethal in recent global conflicts, most recently in Europe. Our own tests have also demonstrated this technology to be effective with five of five successful shots during testing.

We plan to equip our infantry and reconnaissance Marines with this loitering capability. Mounting those munitions on both ground vehicles and long-range unmanned surface vessels—the one I mentioned earlier—and we will make a final decision on vendors this year.

With that brief update in mind, a fair question I think might be to ask, How do you plan to pay for all these new capabilities and other force design investments? Recognizing today's budget environment, the Marine Corps has, for the past 2 years, and we will continue, pursuing a cost-neutral approach to force design. We will self-fund our modernization. To ensure the success of this approach, I will ask for your support in reducing the total procurement of some platforms, commensurate with the recent reductions in our end strength.

The fact is, today's Marine Corps is significantly smaller than it was a decade ago—about 24,000 Marines smaller. That means we will not need as many ground vehicles. We will not need as many aircraft as we thought we did when initial procurement decisions were made decades ago. It is just simple math.

With the reductions outlined in our force design report, I believe we will have sufficient resources to create the modern capabilities required for competition, deterrence, and crisis response without a further reduction in our end strength.

That approach, however, relies 100 percent on this committee's confidence in allowing the Marine Corps to retain and reallocate the internal resources we generate through end strength reductions, cutting legacy platforms, and right-sizing previously set programs of record for new capabilities, like the F-35, CH-53K, and the Joint Light Tactical Vehicle.

My promise to you as Commandant is to remain the very best steward of taxpayer dollars, and I ask for your continued support to ensure your Marines, which are the Nation's force in readiness, remain ready to respond to any crisis, anywhere in the world, today, and into the future.

Like the Acting Secretary mentioned, I welcome the opportunity to work with this committee, and I look forward to your questions, both in this hearing and in the weeks to come.

[The statement follows:]

PREPARED STATEMENT OF GENERAL DAVID H. BERGER

Chairman Tester, Vice Chairman Shelby, and distinguished members of this committee, thank you for this opportunity to present the annual report on the Marine Corps. More importantly, thank you for your continued support and leadership over this challenging year. I believe strongly that major change in existing force structure and ways of doing business are needed in this era of renewed great power competition. The strategic environment the Marine Corps and joint force operate in has changed, as has the domestic context as a result of the ongoing COVID-19 and related relief measures. We must therefore make appropriate adjustments to our investment plans to ensure a proper return on the taxpayers' investment. The promotion and sustainment of the Marine Corps that our nation and fleets will need in 2030 and beyond requires your continued active support.

Since testifying last year, our nation has engaged in a long overdue conversation on race and social justice sparked by several visible incidents of institutional racism, and perhaps more importantly—how to remedy the inequities of the present. As with all other Americans, I—and every other Marine—have acknowledged these challenges, and will continue to do our part to overcome them once and for all. While confronting issues of inequality, we have simultaneously endured the adverse consequences of the COVID-19 pandemic. Like millions of others, Marines and their families across the country and globe suffered the consequences of isolation, closure of our public schools, and increased childcare demands; and like those millions of other Americans, Marines made the necessary sacrifices to stop the spread. I am proud of every one of those Marines with their collective leadership and of their ability to rapidly adapt and lead by example.

Our nation witnessed a small but violent minority attempt to subvert the rule of law through an overt act of violent coercion on January 6, 2021. Like most every other American, I was shocked by this attack on our democracy. I was even more dismayed to learn that some of those engaged in that attack had previously served in the military—to include the United States Marine Corps. Thankfully, we as a nation and military have done as we always do—learned, endured, and grown stronger. We have and will continue to actively work to identify recruits and Marines who hold extremist views and we look forward to participating in the Secretary of Defense's new Countering Extremism Working Group to develop additional methods of keeping extremists from within our ranks.

Over the past year, I have continued to communicate my understanding of the future demands of naval expeditionary warfare and maritime gray zone competition. Related to the future of naval campaigns, I have articulated a case for change to reinforce and expand existing naval warfighting advantages and create future strategic advantages. It is abundantly clear that a future operating environment characterized by a maturing and proliferating precision strike regime will place heavy demands on our Nation's Naval Services. We are not yet organized, trained, equipped, or postured to meet those demands and support fleet operations. This is no longer a controversial assertion as it was when my predecessor first uttered it. The vast majority of defense professionals—including the Members of the bipartisan Future of Defense Task Force—perceive the same challenges I do in the emerging operating environment, as well as the urgent need for real innovation and rapid change in response. Although there is an ongoing, healthy debate about how and what we should change across the Armed Services, there are very few lining up to defend the status quo. We must continue to discuss these changes, but defense professionals have almost unanimously acknowledged that real change is required—and soon.

Though some things require substantial change, we should be clear to acknowledge those foundational tenets which remain as relevant and operationally suitable today as they have been over the previous 70 years. In 1952, Members of Congress noted the Marine Corps “can prevent the growth of potentially large conflagrations by prompt and vigorous action during their incipient stages. The nation's shock troops must be the most ready when the nation is least ready...to provide a balanced force-in-readiness for a naval campaign and, at the same time, a ground and air striking force ready to suppress or contain international disturbances short of large-scale war...” This role as the nation's force-in-readiness, prepared to create strategic advantage via its ability to be quickest to respond to either crisis or conflict, and prepared to both prevent and contain conflict below the threshold of traditional armed conflict remains as valid today as it was when first articulated.

PERSONNEL AND TALENT MANAGEMENT

None of our Force Design 2030 aspirations are possible without addressing the people within our ranks. As Secretary Austin highlighted, “our most critical asset...is our people.” I believe this is even more relevant within the Marine Corps. Marines are the heart and soul of the Corps. Almost all of your 225,000 Marines serve honorably every day, representing the very best of our country and your constituencies. No institution, however, is without flaws. As I noted last year, malignant individuals and small malignant subcultures continue to exist within your Marine Corps. In this era of profound ideological division within our nation, some individual Marines regrettably bring with them, or fall victim to while in service, misogynistic, racist, and homophobic/transphobic ideologies driven by hate, fear, and ignorance. While I have instituted even more rigorous policies than previously existed to ensure we identify such individuals during enlistment and accession screening, I remain committed to identifying and holding accountable any Marine unable to uphold our core values and to adhere to our unapologetically high standards. This is what you should expect from me, and you will get it.

Within the context of the larger national conversation on race, social justice, and equality, it became clear to me early in my Commandancy that there were symbols and behaviors within our Corps that challenged the cohesion and unity essential to military effectiveness. The Confederate Battle flag stood out as one such symbol. I am not a historian and do not take a position as to the true meaning of this ancient banner, but some in today's world have rallied around the colors of that defeated rebellion to foster division and hate. As a result, I prohibited its display aboard all Marine Corps installations beginning last spring. My primary responsibility is to prepare Marines to fight and win in combat, and we cannot tolerate artificial division driving wedges among your Marines—especially ones so easy to identify and remove. I will do everything within my authority to remove any obstacle preventing

equality and cohesion. Signs or symbols that support or endorse hatred, ignorance, or injustice have no place in our Corps.

While these acknowledgements of past prejudice are good first steps, we must do more than simply look over our shoulders at the past. We must acknowledge the real bias and obstacles in the system today. We must promote and retain the very best Marines; however, it is clear to me that a degree of structural racism and sexism exists within our current system. We must create a system of structural equality that ensures all Marines—of all backgrounds—are able to use their best talents to solve the problems we soon will face. The diversity of thought and actions each Marine brings will help us find more creative and innovative solutions to these future challenges. We must actively work to retain and grow this diversity of thought through a more diverse group of talented individuals, while at the same time protecting against extremism.

Over the past decade and in close coordination with Congress, we've prioritized the prevention of sexual harassment and sexual assault as well as dedicated tremendous effort into providing the appropriate response to these criminal acts. I am convinced of the linkage between sexual harassment and sexual assault, thus we will continue to make every effort to eliminate both from our ranks with your continued assistance. We have increased the number of Victim Legal Counselors dedicated to supporting sexual assault victims over the past 12 months. However, all of these efforts are dedicated to the response after a tragic event has occurred. We must do better at the prevention in order to stop sexual assault and sexual harassment before they occur. Although we conduct regular training aimed at preventing this from happening, we are still working to overcome unhealthy attitudes and behaviors recruits arrive with to Recruit Training. We must develop practices that identify those negative behaviors before they turn into heinous acts and prevent such behaviors from occurring in the first place.

Improving the capabilities and proficiencies of the individual Marine necessitates we must also have the very best senior leaders for those Marines. I am humbled to serve alongside the General Officers and Flag Officers within the Department of the Navy. But even one instance of misconduct or misbehavior within our General Officer ranks is too many. Over the past decade, the Marine Corps has selected several officers for promotion to brigadier general who subsequently failed to be confirmed by the Senate. This is unacceptable. Over the coming months, I will announce several major policy changes related to talent management to include how we screen and select our commanders and most senior leaders. We are currently reviewing the efficacy of implementing a 360-degree review for all lieutenant colonels and colonels eligible for command selection and all colonels eligible for selection to brigadier general, to help ensure we identify the absolute best who have earned the trust and respect of juniors, peers, and seniors alike. In addition to these issues related to screening, I remain concerned at the absence of Black officers within the senior ranks of our aviation enterprise and specifically within the ranks of our fixed-wing pilots, as well as the paucity of female general officers. We are currently studying both issues, and will share the results of those studies once completed.

As you are aware, we cannot create new senior leaders in a day. If we are to correct our gap in diversity at the senior ranks, we must also address diversity at accessions. The largest single source of commissioning within the Marine Corps is the U. S. Naval Academy, accounting for nearly 20% of officer commissions each year. A recently released study identified that almost 75% of the nominations to our service academies were given to white students. The diversity of this population has a direct impact on what leaders are available for selection to our senior ranks.

It is not enough that we recruit and train the very best. Once Marines have joined our ranks, we must nurture and incentivize them along their individual journeys through a modern talent management system flexible enough to account for changing career interests and common life choices over time. Without such a system, we will increasingly struggle to retain the very best people in an ever more competitive marketplace. Our one-size-fits-all, industrial-era approach that treats individuals as interchangeable cogs within a larger machine does not appropriately incentivize the most talented individuals to remain in service. We are currently reviewing policy options that will offer Marines greater flexibility when it comes to tour lengths based on an individual's circumstances—most notably when a Marine has a child entering or completing high school. Our Marines must not be forced to choose between being good parents or being good Marines. Those sterling goals must be compatible. I remain committed to improving the lives of our Marines as they become parents and we are looking into ways that would prevent them from having to choose between the newborn and continued service as a Marine. I truly desire a Marine Corps known for being the best within the joint force for our treatment of new parents and families—and not just our warfighting prowess.

It is a well-known issue that the Marine Corps is struggling to recruit and retain Americans possessing the crucial science, technology, engineering, and mathematical skills and competencies required for the future. Technology companies present exciting and challenging opportunities for software developers, cyber professionals, and engineers. We must offer opportunities that allow someone to choose both service and professional reward. In addition, we must do a better job targeting the application of our NROTC scholarships to these individuals, as well as explore new possibilities with Historically Black Colleges and Universities to satisfy these shortfalls.

The military services—including your Marine Corps—continue to lose the competition with the civilian airline industry for pilots and maintainers, even with the adverse impacts of COVID-19 on the airline industry. We are not maintaining sufficient numbers of naval aviators and F-35 maintainers to sustain either our existing inventory of aircraft or aircraft programmed for the years to come. Within our F-35 community, we have a shortfall of both pilots and maintainers. I am concerned that if we do not remedy these shortfalls in the very near future, we may be in a situation in which we are directed by Congress to procure aircraft for which we have insufficient pilots and maintainers.

TRAINING AND EDUCATION

A key element of our larger force design transformation is our need to adopt an information age approach to training and education that produces better leaders and warfighters more effectively and efficiently. The essence of this approach is to focus on identifying, developing, and sustaining the unique talents of individual Marines, not turning out MOS-shaped cogs to fit MOS-shaped slots in a machine. Better warfighters in an era of exponential change means adaptive, critical thinkers who are also tactical and operational masters of their profession.

Among many implications of this shift will be higher expectations and intellectual standards for Marines, especially commissioned officers, at every stage of their selection for and attendance at formal schools. We still need standardized training and education to set a baseline and inculcate our core Service values and ethos, but there are significant aspects of entry-level training that must be adapted. Much of our current understanding of future warfighting requirements, associated concepts, and force design point to a more highly trained force from the entry-level onward. We need to change how we train and educate as well. We have known for a long time that rote repetition and even “perfect practice” against static, unresisting targets is only the barest beginning of mastery. Consistent opportunities to make tactical and operational decisions against a thinking enemy must be a critical part of our curricula at all levels. This kind of force-on-force wargaming and training must stand on a solid foundation of military history and theory-games, simulations, and exercises are necessary, but not sufficient. We will develop that foundation in school, but sustain it by rigorous, accountable, self-directed effort. We must address the question of “standards” transparently and head-on to create the force we desire, and to create the force we advertise. In an initial step to creating a philosophy and culture of a learning organization, last year I signed the first all-new service doctrine since 1998; MCDP 7 Learning was released in February and MCDP 1-4 Competing in December. In addition to releasing new doctrine, we have elevated command of our Training and Education Command to a three-star general, equal to all other Deputy Commandants, and are in the process of re-establishing a robust Futures Directorate.

Achieving diversity of thought requires fixing our entry-level instruction to allow every new recruit and officer candidate the same opportunity to master these skills without it impeding their future career opportunities. Not every young man or woman who joins our ranks grew up participating in activities relevant to individual battlefield skills such as marksmanship, orienteering, water survival, or technical skills. As a matter of longstanding practice, however, we continue to assess potential at the very earliest stages of our recruit and officer training programs based on performance in precisely those skills. There is no doubt of the continuing importance of these military basics, but we cannot expect every new Marine to master those individual skills with the same amount of in-service instruction, regardless of previous experience. A new recruit who has never touched a rifle cannot be expected to master marksmanship in the same amount of time as a recruit who grew up handling rifles regularly, and a Marine who never learned to swim should not compete unaided for job placement with a Marine who grew up as a competitive swimmer. In effect, we penalize Marines who fail to master these basic skills because they did not start with the same knowledge or skill base. While holding the line on the standard of basic competencies that define a Marine, our entry-level training must

provide the instruction necessary for every recruit and officer candidate to achieve mastery in basic skills, regardless of how much time it takes.

The COVID-19 pandemic brought new challenges and opportunities to your Marine Corps. During the entire time, your force-in-readiness continued recruiting, training, operating, and deploying around the globe. Although we did not stop any of our activities, we did learn many lessons from the pandemic that we can continue to use going forward to make a more resilient and capable force. We devised new methods of virtually connecting with potential recruits and with our force, internally. For entry-level training, we spread out recruits while they slept and installed more handwashing stations, which has virtually eliminated the inevitable illness that the new recruits will pass around as they come in from all over the country. A key factor in this success has been the level of discipline instilled by small unit leaders which prevented any significant outbreaks and kept Marines healthy. Your Marines continue to serve their communities by establishing federal COVID-19 vaccine sites in local communities in support of the Federal Emergency Management Agency. As President Biden highlighted, we don't have enough people to provide vaccination shots—put the shots in people's arms—so Marines are filling in this immediate shortfall.

GENDER INTEGRATED TRAINING

The FY 2020 NDAA directed the Marine Corps to integrate training at both Marine Corps Recruit Depots Parris Island and San Diego. Since the signing of the law, we have trained multiple integrated companies at MCRD Parris Island. In February, the recruits of Lima Company were the first gender-integrated company at MCRD San Diego in the installation's 100-year existence. To train the first females at MCRD San Diego, we graduated the first gender-integrated class at Drill Instructor School in San Diego in December and relocated female drill instructors from MCRD Parris Island. We will take the lessons learned from this company as well as a concurrent study to identify the requirements needed to fulfill the 2020 NDAA within the prescribed timelines. However, as I have publicly stated several times, we will prioritize options that provide the best training and most efficient use of resources to ensure Marines graduating from boot camp are ready for the rigors of service in an elite organization during challenging times.

FORCE DESIGN

Shortly after I testified before this Committee in the spring of 2020, I published the Force Design 2030 report. Force Design 2030 is how your Marine Corps is changing its trajectory to create advantage for the fleets and joint force in both maritime gray zone competition and more traditional conflict. Although we need new capabilities to deter adversaries, we must fundamentally change how we think about armed conflict. We can no longer view warfare through the binary lens of war and peace, but should recognize the existence of a cyclical continuum of competition that occurs every day and involves all elements of national power. Historically, the military viewed maintaining the peace as deterring war through denial or by punishment. Force Design 2030 offers a third option in addition to those two that will counter strategies below the threshold of armed-conflict by winning the reconnaissance and counter-reconnaissance competition and facilitating deterrence by detection.

At its core, Force Design 2030 is a campaign of learning. Through wargames, analysis, and limited experimentation, it has become clear the joint force needs a capability that operates persistently and with maximum organic mobility and dispersion to compete and deter in the contact and blunt layers. The vulnerability of large fixed bases and shore-based infrastructure to long-range precision strike, combined with the impracticality of defending such infrastructure from the pacing threat's emerging capabilities at any politically-feasible level of resourcing and regional posture, necessitates that the stand-in force be able to perform these functions from a strictly expeditionary and highly mobile and resilient naval posture. This refined analysis and understanding is what is driving our Force Design 2030 to support concepts like Expeditionary Advanced Base Operations (EABO), as well as informing the recently released Tentative Manual on Expeditionary Advanced Based Operations. We will continue to refine and update the Tentative Manual with the lessons learned from our FMF experimentation. In the near future, we will release our latest concept—Stand-In Forces.

Much as our 29th Commandant codified maneuver warfare in our principal doctrine MCDP-1 Warfighting to instill a maneuver warfare mindset into every Marine, I felt it necessary to codify how we compete every day around the globe. We recently released a doctrinal publication entitled Competing to instill a competitive

mindset into every Marine, whether above or below the threshold of armed conflict. Marines—and the military as a whole—must be aware that every action or inaction has an effect on reassuring our partners and allies and deterring our competitors. All that we do, from our force laydown, to the activity at each location, to the equipment we buy, signals our commitment to reassure and deter. In a globally connected operating environment, we no longer have the luxury of maintaining a binary combat or garrison mindset; our posture and mindset must be one of continuous competition.

NAVAL EXPEDITIONARY STAND-IN FORCES

Expeditionary advanced bases are a platform for small, mission-tailored groups of Marines to distribute and hide in plain sight with the assistance of advanced camouflage, cover, concealment, detection, and deception (C3D2) capabilities against a competitor who is seeking to locate our forces. Expeditionary advanced bases will enable the convergence of capabilities from multiple domains and create the virtues of mass without concentration. The Marine Littoral Regiment (MLR)—the base unit for our future force—will provide fleet and joint force commanders with persistent, survivable forces that will enable the generation of effects within areas that our adversaries hope to deny to us through their integrated systems of anti-access and area-denial capabilities. In terms of hardware, Marine capabilities will include anti-ship Naval Strike Missiles (NSM) loaded on the unmanned Remotely Operated Ground Unit Expeditionary (ROGUE) Fires; self-sustainment and mobility with the Light Amphibious Warship (LAW); and, long-loiter aerial reconnaissance in an expeditionary environment with the Medium Altitude, Long Endurance (MALE) Group 5 unmanned aerial systems (UAS). Future infantry units operating within the MLR construct will be equipped with organic precision fires to include loitering munitions. The MLRs will be networked with our F-35 capabilities, providing a further layer of combat credibility and sensing. In the future, these forces could employ more advanced munitions such as Tomahawk Land Attack Munitions (TLAM), Maritime Strike Tomahawks (MST), SM-6 containerized anti-ship missiles; and a wide array of unmanned or optionally manned systems to enhance deterrence. Without these long-range precision fires, the MLRs will not be suitable to support the fleets and will lack the ability to influence the vast maritime area your Marine Corps must do.

In the even more critical human domain, these capabilities will encompass the necessary training and education to produce leaders who understand how to deter competitors and provide civilian leadership strategic options across a wider spectrum. The MLRs will offer deterrence by detection through constant surveillance of the competitor, complicating their decision-making calculus if they attempt fait accompli gambits, and doing so while networked into the larger architecture of naval and joint command, control, computers, communications, cyber, intelligence, surveillance, reconnaissance, and tracking (C5ISR-T) articulated in the Joint All-Domain Command and Control (JADC2) concept and previous discussions on Mosaic Warfare.

With global sensors becoming ubiquitous, the value of reconnaissance and counter-reconnaissance or scouting and counter-scouting will increase. Force Design 2030 offers civilian leaders strategic options to identify, deter, and hold accountable competitors challenging U.S. interests or infringing on international norms at any point on the globe. It creates advantage by providing uniformed and civilian leadership with a force capable of denying key maritime terrain to an adversary or to force a change in decision calculus and facilitate de-escalation. Those naval expeditionary forces will also be capable of rapidly sensing, making sense, and acting upon information from inside the enemy's weapon engagement zone (WEZ) in support of the fleet and larger joint force, further complicating adversary decision calculus. These stand-in forces will be able to support anti-submarine warfare (ASW) efforts and help sanitize key maritime straits, thus expanding our strategic undersea warfare advantage. Your Marine Corps is transforming into a force capable of competing and winning the hider/finder competition by proliferating sensors to detect adversary presence, employing advanced C3D2 for resilience, and maintaining a lethal array of long-range precision fires to prosecute targets at a time and place of our choosing—whether ashore or afloat or in the air. Stand-in forces will simultaneously satisfy traditional requirements from the fleet and combatant commanders for a modern, resilient crisis response force capable of responding across the range of military operations. And, as noted in the most recent testimony by the Commander, USINDOPACOM, these stand-in expeditionary forces are further required as the forward leading-edge to any strategic defense in the Indo-Pacific and any maritime defense-in-depth.

From our continued wargaming and experimentation, we have learned much about the utility of multi-domain reconnaissance. As a result, over the coming months a new Marine reconnaissance enterprise will consolidate disparate elements of existing organizations within a structure capable of generating a coherent, persistent, forward-presence focused on key maritime terrain that is vital to U.S. national security interests. The next step will be the development of our Mobile Reconnaissance framework which will deliver expanded all-domain capabilities to our naval expeditionary forces and fleets via a combination of Marine Commandos, manned and unmanned surface platforms to include the Long-Range, Unmanned Surface Vessels (LRUSV) and small boats, manned and unmanned ground Ultra-Light Tactical Vehicles (ULTV), unmanned aerial systems, and unmanned sub-surface vehicles. As with other force design efforts, these forces will be fully capable of networking with our 5th generation F-35 capabilities as well as connecting with the larger joint architecture.

In addition to offering continuous surveillance in the contact layer, the MLR increases lethality, disbursement, mobility, and survivability in a way that our current stable of large, expensive, high-signature platforms cannot match to deter and counter aggression in critical regions. The MLRs will provide a unique expeditionary advanced base capability, but they will not be the sole definition of the FMF as our Marine Expeditionary Units will remain our “crown jewel.” Your Marine Corps can compete, deter, and win as part of a naval expeditionary force operating in international waters and with light footprints ashore on the territory of local allies and partners. It does not require the sustained presence of heavy ground forces or the regular deployment of large, land-based aviation elements. These unique capabilities make the Marine Corps the ideal choice for a force-in-readiness that serves as the backbone of the contact layer because our forces can cooperate with allied and partnered nations without burdening their local infrastructure, whether for steady-state operations or disaster response operations. Additionally, the sensing elements of the FMF coupled with lethality are key attributes in preventing conflict.

POSTURE

21st century strategic competition requires a new posture to deter modern threats. Our current force posture is strikingly similar to the one designed coming out of the Korean War. That posture was designed to deter and confront a Soviet threat that consisted of strategic bombers and Intercontinental Ballistic Missiles. Over the last two decades, our strategic competitors took note of our strengths and designed forces specifically to counter them. We must now adjust our posture against the pacing threat of China due to its ability to hold our fleet at stand-off ranges and prevent significant force projections. This does not mean abandoning our forward position of advantage, but rather adopting a more robust and resilient forward-deployed posture as described in testimony by Admiral Davidson as part of a larger defense-in-depth.

Marine forces working with Navy ships must occupy space within the contested first and second island chains in the Indo-Pacific with the ability to effectively operate in all domains. Guam remains one of our most important strategic locations as it is US territory located closest to contested maritime regions. In order to effectively deter by detection, our forces must be within sensor and striking range to impose cost on the adversary through their allocation of limited C5ISR-T assets or determining that the cost is too high to attempt anything that would cross the line of established international laws and norms. However, while Guam remains a strategically important location within our larger defense-in-depth, we must not ignore the potential impacts to it due to the adverse effects of climate change. We must take the necessary steps to protect Guam and the strategic advantage it provides.

Our posture includes more than the laydown of our forces around the world, it also must include what our forces are doing in those locations. As Secretary Austin has told us, “our success will depend on how closely we work with our friends around the world to secure our common interests and promote our shared values.” Marines regularly conduct training with allies and partners globally. This training is beneficial to building trusting relationships and interoperability. These relationships are not—and should not be—one way, in that US Forces tell partners and allies how to operate. We can learn from other nations as much as we can teach.

For example, the Japanese Amphibious Rapid Deployment Brigade may have used the U. S. Marine Corps as an example in its development, but we have much to learn from them based on how quickly they designed, assembled, tested, and operationalized the brigade. Our commitment to working with allies and partners creates a mutually beneficial relationship for our military organizations while simul-

taneously signaling our resolve to competitors. Initiatives like the Pacific Deterrence and the European Deterrence are so important in supporting our posture.

COMPETITION AND RISK

Some critics of our Force Design 2030 suggest that non-stealthy platforms such as the LAW, LPD-17 class amphibious ship, and the current Group 5 UAS are operationally unsuitable for high-end warfighting. This critique's foundational assumption is that our decades-old stealth technology or military-standard naval architecture will be overcome with technological countermeasures and that stealth technologies will become affordable enough to proliferate the operating environment in large quantities. Survivability under such conditions is likely to prove far more a matter of quantity, dispersion, signature management, and distributed lethality than of being able to avoid technical detection or defend against all threats. We must view survivability in terms of the entire system—the entire system must be able to survive long enough to accomplish the mission vice an individual platform. The expeditionary system of platforms our Marines employ—and the networks they operate on—must be capable of competing and deterring below the level of armed conflict as well as fight at the high-end to reassure our partners and allies as well as demonstrate a credible capability to a would-be adversary. For example, while not a part of the currently envisioned program, LAWs operating in plain sight with containerized missiles could effectively compete and deter. Such a reimagining of the program could involve greater costs, so we will have to study the benefits and make resource informed decisions about tradeoffs in capabilities and capacity. Traditional amphibious ships, such as the LPD-17s, possessing tactical advantages derived from well-decks will confound adversaries and force them to consume resources attempting to positively identify those capabilities loaded inside—whether unmanned surface vessels, unmanned underwater vessels, or more traditional capabilities. Long-endurance Group 5 UAS, like the MQ-9, also provides the persistent presence necessary to win the hide/finder competition for the fleet. Additionally, a proven platform like the MQ-9 supports quickly learning the platform through the experience of the US Air Force while continuing adaptation and innovation over time as we procure the future system.

If competition expands from opening volleys or punishment strikes to large-scale conflict, the Fleet Marine Force offers the Joint Force Commander a persistent stand-in force capable of conducting reconnaissance, counter-reconnaissance, and targeting in the blunt layer. A stand-in force with the ability to support allies and partners while striking the adversary with long range precision fires, 5th generation short take-off and vertical landing aircraft, and a host of electronic warfare options combined with the mobility of the Amphibious Combat Vehicle (ACV), LAW, and unmanned surface and undersea vehicles provides a survivable option to buy time for the remainder of the joint force to bring war-winning capabilities.

LOGISTICS AND RESILIENCE

Sustaining the force we are developing now becomes even more critical in the years ahead. The relative ease with which we have been able to project power into the Middle East over the last few decades has lulled us into a false sense of security. As a result, we have optimized service logistics efforts to support requirements without regard to the threat actions that could disrupt them. My predecessor said “we are going to have to fight to get to the fight.” I will take that a step further by saying we will have to fight to sustain our warfighting efforts over time. The Joint Logistics Enterprise must connect our emerging operational concepts at the tactical edge all the way back to the defense industrial base. We have been an end user of the system, but that needs to change. We must develop new methods for the Naval Force to enable broader joint force sustainment efforts. On a day-to-day basis, today's distributed force strains our systems to the limits. This will only get more challenging considering the dynamic, evolving threats that competitors can apply against our supply chains, manufacturing bases, and global sustainment network.

Based on anticipated funding levels and the additional budget uncertainty that has been introduced by the COVID-19 response, we must clearly consider risk as we move forward. Our force design efforts for the future will provide the context necessary to make the difficult choices for our installations and logistics enterprise. We can no longer accept the inefficiencies inherent in legacy bureaucratic processes nor accept incremental improvements. In order for our installations and logistics organizations to change effectively, we must better understand the implications that Force Design 2030 will have on the FMF across multiple time horizons so we can resource our installations and logistics enterprise appropriately. In coordination

with partners both inside and outside the service, we will evolve our organization to meet the future FMF's operational requirements in the air, on land, and at sea while continuing to provide world-class support to the force today. This may require a change in the existing command relationships between the bases and stations and the forces they support. I will keep the committee fully informed of any such changes as our understanding evolves. Finally, in an effort to modernize our bases and stations in a manner commensurate with our overall force design, we are experimenting with advanced force protection systems enabled by artificial intelligence at several of our installations. This capability is promising and may provide the service an opportunity to greatly enhance the protection of our installations while drastically cutting personnel costs.

MAJOR DEFENSE ACQUISITION PROGRAMS

I have always operated under the assumption that evidence, wargame findings, modeling and simulations, and my own best military advice as Commandant would persuade people across the defense enterprise and within Congress that we need change now. While I remain convinced that this assumption remains valid and look forward to a continued dialogue with the Committee, we have more work to do to persuade key audiences of the merits of our desired changes. Congressional support for Ground Based Anti-Ship Missiles (GBASM); LRUSV; Medium Altitude, Long Endurance UAS; and I believe that Light Amphibious Warship (LAW) will be essential to our modernization efforts. We will continue to work with the Congress to demonstrate the importance of a rapid acquisition of these critical capabilities. I have repeatedly asked for Congressional support to change legacy programs that are no longer operationally relevant or have become cost prohibitive, as well as support for new initiatives that create a relative warfighting advantage. This is the kind of agility we will need going forward in order to sustain that warfighting advantage.

Based on my understanding of the strategic challenges before us and my desire to remain the best steward of taxpayer dollars, I am convinced that we must be willing to critically assess the scope of current Programs of Record for our Major Defense Acquisition Programs (MDAP). As we reduce the end strength of the Marine Corps in order to internally fund our modernization, each MDAP must be reevaluated for capacity and sustainability. We will need the continued support of Congress to re-scope any program that exceeds our requirement or is unaffordable to procure, man, and sustain.

In addition, we should acknowledge that up to three quarters of a weapon system's cost occurs in sustainment—the operational and maintenance upkeep after the initial acquisition. With the new procurement of large weapon systems like the F-35B/C, CH-53K, MV-22, JLTV, and ACV—to name but a few—we should be prepared to modify programs of records to ensure affordability and viability throughout the entire lifecycle of each program. Prioritizing high-end platforms without resourcing the supplies and infrastructure needed to sustain its operational capability is fundamentally irresponsible; the result would be a hollow force.

With every dollar we expend to upgrade a legacy platform that is no longer survivable against a peer competitor, we are slowing our rate of transformation. Our competitors no longer wait to see what America does and follow suit; they have embarked on their own trajectory, which currently outpaces ours. Our Force Design 2030 addresses this problem by forcing the competitor to adapt to us through the tactical, operational, and strategic challenges a truly modern force presents. This does create domestic dilemmas as we are forced to transition from legacy platforms built in certain districts to modern and relevant equipment that may be built elsewhere. However, if we are to succeed in this great power competition, we must make those difficult choices. I remain confident that this can occur in a responsible and balanced way, without creating winners and losers, and look forward to discussions with each of you on a way ahead that satisfies shared interests.

The Marine Corps remains constrained by an acquisition process that tries to eliminate risk—risk poorly defined as uncertainty. We must recognize that incrementally better versions of the current Marine Corps is not going to be enough for real great power competition. As noted in the House Armed Services Committee's Future of Defense Task Force Report 2020, our acquisition process is too sluggish to work effectively at scale with many technology companies, as they need to innovate and compete daily to survive in their dynamic industry. With the rapid transition we need to make over the next decade, we must be willing to incur some short-term risk to better prepare and compete in the future. The ability to prototype new technologies, then aggressively experiment and exercise with prototype equipment to understand its full capability on the battlefield is paramount. Lastly, I agree with the Report's recommendation that we need a process that better bridges the "valley

of death” to transition critical prototype equipment into full-scale fielding without taking years through the traditional planning, programming, budgeting, and execution process.

READINESS AND STRATEGIC ADVANTAGE

As we build a more capable and lethal force, we must also take into consideration the readiness of that force. Since 2017, the Marine Corps has significantly increased the availability of forces to Combatant Commanders based on the generous funding of Congress. As Marines deploy forward in support of operational requirements, they buy down today’s risk by deterring competitors from violating international norms while assuring allies and partners of the strength of our commitments. However, the mere availability of those Marines does not equal readiness to compete in the maritime gray zone, nor does it create strategic advantage to deter or defeat rapidly evolving threats. It is time for us to embrace a more sophisticated and balanced understanding of military readiness and cease using availability as the primary metric in our readiness evaluations. This antiquated model is hugely consumptive and forces us to spend limited resources ensuring the availability of platforms designated for retirement and replacement. This also applies to equipment that we are attempting to transition to more modern capabilities. For example, every dollar spent to make a 4th generation aircraft that has exceeded its intended service life is a dollar that cannot be spent to accelerate the fielding of 5th generation very low-observable aircraft and advanced UAS. We must invest in future capabilities that create, maintain, and expand warfighting advantage to ensure a ready force tomorrow that maintains its ability to compete and deter.

During the most recent conflict between Armenia and Azerbaijan, Armenian ground forces that we would have labeled ready based on availability, were easily targeted and destroyed by Azerbaijani forces employing elements of a precision strike regime to include swarms of loitering munitions and lethal unmanned systems. While Armenia’s tanks and infantry fighting vehicles were available, they were not operationally suitable, thus not ready for the conflict. As our competitors continue to expand their capabilities, we will soon find ourselves outmatched unless we change our readiness framework. To do so, we should embrace a new readiness paradigm in which availability ranks behind generating a relative warfighting advantage. A ready capability in the future must be one that is both available when we need it and creates a strategic warfighting advantage against a specific threat in great power competition and conflict.

A ready force that creates a strategic advantage over the pacing threat must be organized to generate faster decision cycles against the enemy. A large part of our Force Design 2030 efforts is aimed at developing the right capabilities for the future force, but just as important is devising the correct organizational model to employ those capabilities. I do not support creating more or larger headquarters organizations to accommodate the larger quantities of data coming in as I feel this will only slow the decision-making process. I’m also not committed to organizations that we have employed in the past if they don’t work to fulfill our future requirements. In addition to right-sizing our FMF, I’ve also directed an ongoing assessment to reduce 15% of our personnel across Headquarters Marine Corps to generate savings that we can reinvest into our warfighting capabilities without losing the institutional processes necessary to support an adaptable force.

Your Marine Corps, and the Naval Service as a whole, have a proven record when it comes to driving change. Both the People’s Republic of China and Russia modernized their militaries over the past decade based on what they assessed as our strengths and our competitive warfighting advantages. They adapted their operational and strategic approaches to counter us and now we must modernize in order to remedy shortfalls and drive the next cycle of change. Simply making our legacy platforms better or more of them available will not force our competitors to change course, nor will it create the strategic advantage required. I concur with the Air Force Chief of Staff General CQ Brown: we must accelerate change or lose.

One way we can accelerate change is by seeking a more nuanced understanding of readiness as it applies to each service or even common force elements within each service, and to ask—how many forces-in-readiness can we collectively afford? A critical factor of understanding readiness is identifying when a joint force will need a capability in accordance with a detailed mobilization plan. The Marine Corps—as well as other critical elements of the joint force—will always be at the front of the timelines because we are the force who is present before conflict and deters an adversary’s early escalation. Serving as the foundational element of our persistent contact layer allows time for the joint force to mobilize and surge the war winning capabilities of the other services. However, without your Marines forward deployed to

tamp back the aggressor and create decision space, the joint force will not have the time and opportunity to deploy.

FLEET DESIGN AND NAVAL INTEGRATION

Thus far, my comments have focused on issues germane to my role as Commandant of the Marine Corps—to organize, train, and equip Marine Corps forces in support of the Fleets and Combatant Commanders. Please now allow me to share a few thoughts with you as one of the three senior naval officials testifying before you and also as a member of the Joint Chiefs of Staff. My experience and role as a senior Naval officer requires that I share my best military advice in the ongoing fleet design conversation. One thing is clear: serious naval professionals both in and out of service agree that the status quo fleet will not provide the strategic advantages required in an era of great power competition, and must change.

I would like to state for the record my thanks to the CNO and his OPNAV staff for their continued support redesigning the fleet and the amphibious/naval expeditionary portion of it without reservation or hesitation in support of our shared understanding of the operational dilemmas created by peer adversaries. The CNO is leading a major change in future fleet design and I wish to acknowledge that for the record, and formally communicate my support. I agree with the CNO that the Navy does not need to be “reimagined” or “reinvented,” and neither does the Marine Corps for that matter. However, as the CNO has noted, how we perform our core roles and functions of deterrence, maritime security, power projection, and sea control must change—just as it has many times in the past.

Being physically present within the area of responsibility is no longer evidence of success, and we should no longer think presence somehow produces deterrence in and of itself. For naval presence to deter competitors, physical positioning must create real strategic advantage. The specific capabilities present must provide a competitive warfighting advantage against specific peer threats and do so in a resource neutral manner. Dispersing large numbers of militarized fishing vessels with a nuclear aircraft carrier may result in the temporary absence of those adversary vessels in key maritime terrain, but it comes at a fiscally prohibitive cost, not to mention the operational cost of not having that warfighting capability postured to project power via its carrier air wing. However, having a robust inventory of submarines, frigates, light amphibious warships, and networked unmanned or optionally manned surface vessels—or even T-AGOS and military sealift vessels—operating in the same region would provide a competitive warfighting advantage without resource prohibitive operating costs. Such a fleet would further reinforce our strategic advantages in undersea warfare through their modern ASW capabilities and our advantages in naval expeditionary warfare. The process of redesigning the fleet will not be an easy or inexpensive, nor will it be accomplished quickly, but it can be done with your continued oversight and support. I wish to thank the Secretary, the CNO, and the members of this committee for their continued commitment to the construction and sustainment of our ships necessary to support amphibious operations.

Not that long ago, the Amphibious Ready Group (ARG) that comprised the Navy ships for the Marine Expeditionary Unit (MEU) consisted of five ships with a combined gross tonnage of approximately 73,000 tonnes. Today, our standard three ship ARG/MEUs operate in a distributed manner from platforms with a combined gross tonnage of approximately 86,000 tonnes. As with many other systems and capabilities across the joint force, our ARG/MEU has become smaller yet heavier, while simultaneously being asked to be more agile. Distributed Maritime Operations is not only the future of naval operations, but in reality—the present. As we modernize our Marine forces as part of our force design efforts, we must also modernize the ARG/MEU. We have seen the great value of disaggregating the ARG/MEU with each individual ship conducting its own mission within the same Area of Operational Responsibility for a Combatant Commander. Greater numbers of smaller ships would allow us to disaggregate for a greater number of mission sets while maintaining the ability to reassemble into a large force with expansive mission sets. Defining our future operational concept will also help drive us to better understand what we need from LXX—or the next class of amphibious ships. We know they will need to be smaller, faster, more lethal, and better networked, but we don’t yet know to what degree we need these characteristics. As we continue our analysis with the Navy, we know that they must be affordable so that we can purchase and maintain the number of ships we need to operate globally. Therefore, our requirements will be matched to a program that is affordable and sustainable over the long-term.

Finally, I wish to state my support for the observations, positions, and conclusions articulated by Admiral Davidson in his most recent testimony. The vision he articulated for a strategic defense to include a defense-in-depth with naval expeditionary

forces postured forward and west of the international dateline is one I share, and have attempted to communicate as often as possible over the previous 22 months. I share his conclusion that highly lethal and distributable expeditionary forces than can generate the effects of mass without the liabilities of concentration are of the highest utility, and am doing everything possible to create such forces via my force design efforts with the Marine Littoral Regiment.

CONCLUSION

The American people expect us to be our own toughest critics, and we are. We have significant strides to make in the near future, but I know the leadership and support of this Congress will help us to revolutionize our approach to competition and conflict. I pledge to keep you informed and involved in the transformation of your Marine Corps. The American people are counting on their Marines, Navy, and joint force to maintain our ideals and way of life now and into the future. The dustbin of history is crammed with once successful militaries, businesses, and organizations that recognized the world was changing and attempted to meet that change through merely incremental improvements in existing ways of doing business. Despite their previous successes, these institutions failed in the new environment because they could not make the fundamental changes necessary to remain on top. We are now in the midst of just such a period of change, and we will need all the help and support of this Congress to ensure we continue our long history of successful innovation and adaptation.

While our aspirations and expectations are great, I am certain that you expect nothing less from your Marine Corps. With your continued support, we shall succeed. We will achieve our goals of transformation, both in our culture and warfighting capability, to best support the naval campaign and the joint force.

Senator TESTER. Thank you, General Berger. And I appreciate all three of your statements. I think it is critically important that you continue to communicate with this committee so that you are prepared to fight the next conflict, not the last one. So, thank you all very much for your statements.

General Berger, your top priority has been the implementation of Force Design 2030. You talked about it in your opening statement. It is a plan to modernize the Marine Corps and ensure it remains the world's most effective naval expeditionary force.

When we consider what it will take to serve as a credible deterrent to China and, if necessary, fight and win future wars, it is essential that our Marine Corps can successfully modernize and meet the challenge.

This subcommittee is strongly supportive of the strategic concepts associated with force design. We must ensure that force design priority programs stay on schedule and responsibly use taxpayer dollars.

So, here is my question, General Berger. Your unfunded priorities list contains several items that would accelerate the Marine Corps' long-range fires program, increase troop mobility, improve command and control capabilities. Where does the unfunded priorities list provide us opportunity to accelerate force design implementation?

General BERGER. Part of the challenge, Chairman, and as you all are well aware, is that in a pacing threat environment, like we are at right now, both of us are moving. Add to that the speed at which technology is developing.

So, the items on our unfunded priority list, as you mentioned, Chairman that is what we need to ensure we stay in front. We are very ready today, but those items will allow us to be ready in the future, in front of our adversary, with some margin of error, which I believe we must have.

So, things like ground-based, anti-ship missiles, the G/ATOR Radar, the CH-53K, those—the MQ-9 Reaper, those will allow your forward force, your stand-in force, to deter effectively forward, in the future, as well.

Senator TESTER. Are you confident the programs you are requesting funding for in fiscal year 2022 can deliver results quickly?

General BERGER. Absolutely, yes.

Senator TESTER. Okay. And how are you balancing the need to move quickly on strategic concepts while keeping those costs affordable?

General BERGER. We are small enough that we could not set aside an experimentation force in the Marine Corps. So, for example, Chairman, what we did is we have three Marine divisions in the Marine Corps. You pick one battalion in each division, outfit it differently, organize differently, equip differently, and train differently. And for the next 18, 24 months, we will experiment with all three. And the rationale behind that is that is how we are going to learn faster. That is how we are going to introduce the results of experimentation in war gaming into our force design process at speed.

Senator TESTER. Thank you.

Admiral Gilday, recent media articles suggest that the Navy is expecting to face a challenge in next year's budget request and will have to make some difficult funding decisions on how to proceed with the Navy's modernization act. These funding decisions will only become more difficult in the future as the Navy continues to modernize and introduces new weapon systems and programs, like next-generation submarines, surface combatants, and aircraft.

So, Admiral Gilday, we never are going to have enough money to do everything that we would like to do. That is a fact. Which generation systems and programs should be prioritized in the upcoming budget request?

Admiral GILDAY. Sir, thank you. So, big picture, what my intention, or our intention to do with our investment strategy, is to field the most capable, most lethal, most ready force that we can, given the topline that we have. And, so, we have not come off of our priority to continue to invest heavily in readiness and training of the force that we have today because that force needs to be forward to be relevant.

With respect to modernization, key programs include hypersonics. We have doubled our investment in hypersonics and R and D. I think that is a very reasonable investment strategy based on the fact that we are ahead or on track with every milestone in that program, including a very successful multi-thousand-mile test last year and a successful new generation engine burn just a month ago, working very closely with both the Army and the Air Force on that particular project.

Likewise, on the defensive side, directed energy is an important investment for us with respect to fleet survivability. I mentioned up front in my opening statement that the major investments by the Chinese are in space and missiles. We have to have a way to defeat those missiles, and I think an afford—the most affordable way to do that is the defense-in-depth type of framework that in-

cludes laser energy. We have those systems now at sea and are fielding.

Senator TESTER. So, I just want to flesh this out just a little bit more. All four defense committees are going to be making decisions soon on what changes we are going to make to the 2022 budget requests. What views do you wish to share about your investment priorities today so that we might avoid disagreements on what systems deserve more funding?

Admiral GILDAY. Yes, sir. So, if I start in the undersea, that is our most survivable strike platform in the United States Navy, and arguably in the U.S. military. Our underwater superiority over the Chinese, we must maintain that overmatch.

With respect to surface, continue investment in new ships. We know that our cruisers are nearing 35 years old. We need to replace those. We are going with a smaller, more distributed force.

The frigate investment is really important, as are the long-range weapons we are investing to put at sea, and hypersonics on our first—on our Zumwalt-class ships by 2025.

If it needs to be balanced across the three domains, sir—under the sea, on the sea, in the air. The fourth- and fifth-generation mix of aircraft that we are fielding by—we are fielding now, this summer, with our first deployment. But, by 2025, we will have five to six squadrons. And, by the end of the decade, we will have all nine squadrons that have that mix of fourth and fifth. We want to keep that on track, as well.

Senator TESTER. Thanks, Admiral.

Senator Shelby.

Senator SHELBY. Thank you. Thank you, Mr. Chairman.

Secretary HARKER, the Administration's budget proposal includes a request for new language to authorize multi-year procurement contracts for multiple ship classes, including the destroyer, while at the same time breaking the current multi-year contract for the destroyer.

My question is this. How does the Navy, sir, plan to measure the impact of its proposal to breach the current destroyer multi-year contract on the cost of future multi-year procurements? In other words, how can Congress and the industrial base trust the Navy to fulfill its commitments to multi-year contracts, which I think are important?

Secretary HARKER. Thank you, sir. Yes, multi-year contracts are very important to us. We do intend to sign another multi-year for DDGs starting in 2023 through 2027 and continue that procurement into the foreseeable future.

DDG-51 is a very valuable asset for us. We really struggled with the decision to take that out of this year's budget. It was the hardest decision we made, and we would love to have been able to include it.

Going into this next year, we are committed to multi-years for both submarines and for DDGs. Over the last multi-year period, it was a 10-ship, multi-year over a 5-year period. With the assistance of the committees and the Congress, we were able to purchase 10 ships, so the one that is in our budget this year will be an eleventh ship. That gave us the ability to not buy the DDG this year, but it was a very difficult decision for us, sir.

Senator SHELBY. Sir, do you believe that it is very important for the industrial base to believe that the Navy is going to fulfill their contracts?

Secretary HARKER. Yes, sir, I do. Very much so. It is critical for our industrial base.

Senator SHELBY. Okay.

Secretary HARKER. And we believe that we have a strong working relationship with them.

Senator SHELBY. Sir, in the final year of a 5-year multi-year procurement contract for Arleigh Burke-class destroyers, this subject—despite the multi-year contract, in—the 2022 budget request includes only one destroyer rather than the contracted two. This is perplexing because of the Navy's number one unfunded requirement is \$1.7 billion for the second destroyer. Seems like a contradiction.

Admiral Gilday, why did the Navy remove one destroyer from its 2022 budget proposal? Is it no longer needed or is that just playing with the budget, the numbers?

Admiral GILDAY. No, sir, it was not playing with the numbers. So, I go back to the thesis of our budget proposal, which is to field the best, most capable, most lethal fleet that we get—we can, that is 296 ships, and make it the best that we can, including a modernization plan that gives us increased capabilities, and then growing the Navy at an affordable rate.

And, so, it was a balance across those three areas, sir. And as the secretary said in his opening statement, based on incidents like the collisions in 2017, we are unwilling—at least my best advice, sir, is to continue to prioritize training and readiness as our job priority.

Senator SHELBY. I think it is a given by this Committee on Appropriations, Defense to—not to shortchange the Navy, not to shortchange readiness, and also future weapons. And, if we do it, we do it at the peril of this Country; would we not?

Admiral GILDAY. Yes, sir, I believe so.

Senator SHELBY. General Berger, I will direct this to you, sir. In 2019, the U.S. Marine Corps' unfunded requirements list totaled \$235.9 million. In 2020, it was \$2 billion. In 2021, it is \$769.8 million. This year's unfunded requirements list from the Marine Corps is as much as all 3 years' lists combined, totaling nearly \$3 billion, according to our committee.

General Berger, has the Marine Corps been resourced adequately to support your force redesign and maintain pace on modernization priorities and readiness? In other words, sir, what is the impact of such a significant unfunded requirements list to the Marine Corps if left unfunded?

General BERGER. If left unfunded, I think for all of our unfunded requirements list, it equals risk. That is probably the simplest way to categorize it. We are learning as we go with force design. We did not know 2 years ago exactly what the Marine Corps would need to look like a decade out. We have a much clearer picture now.

So, in order to give the committees a larger menu to select from with a clear picture of where the Marine Corps is going, we added to the unfunded priorities list. But, those things near the top that are not funded equal risk, equal strategic risk.

Senator SHELBY. And I will direct this, my last question, to you, Admiral Gilday. The submarine industrial base, construction of the new Columbia-class submarine is now underway at shipyards that are already working on the Virginia-class submarine. You know all of this.

The schedule for the Virginia boats has fallen off of the 2-year per year delivery cadence of the Block III boats, and current ships under construction are as much as 2 years behind delivery, is our understanding.

Admiral, what is the Navy doing to get the delivery cadence of the Virginia back on track as work on the Columbia begins to pick up? And, how is this investment in the so-called integrated enterprise plan paying off in terms of industrial-based readiness and cost reduction to our submarine program?

Admiral GILDAY. Sir, in terms of capacity, I think it is fair to say that our submarine industrial base has probably never been as busy as they are today. We have 12 boats under construction right now. We are going to deliver two this year. I think we will christen Rickover by the end of July.

Right now, we are moving at a pretty good pace to put—to build two per year in terms of subcomponents. That then needs to go to the larger components and they need to be able to build at the rate of two submarines a year, as well.

The investments that the private yards are making include hiring more people, the training that is associated with that. The advanced funding that the Congress has given us, that has allowed us to buy spare parts and materials to help neck down or reduce that delay in those submarine builds.

We are watching the Block IV Virginia class very closely. Those delivery dates are not where they need to be, but they are moving in the right direction to the left.

Senator SHELBY. Thank you, Mr. Chairman.

Senator TESTER. Thank you, Senator Shelby.

Senator Schatz.

Senator SCHATZ. Thank you, Mr. Chairman. Thank you all for your service. Good to see you all.

I am going to start with General Berger and talk a little bit about Marines in the Pacific as part of the Defense Policy Review Initiative.

The plan to realign Marines began with a series of conversations between the U.S. and Japanese governments in 2002. It became official in 2006. There were some changes in 2012. And, stipulating to the fact that, as Senator Mike Mansfield says—said, excuse me that the bilateral relationship between the United States and Japan is the most important bilateral relationship that we have, bar none, and that we should keep our commitments to our greatest ally in the region.

It still seems to me that whether it is lift, whether it is the difficulty in finding a replacement facility, whether it is the challenge of construction on Guam, whether it is beddowns on Oahu, that—and maybe more importantly, that the whole region has changed.

I would like to be reassured that we are striking the right balance between maintaining our ironclad commitment to the Japa-

nese government and still maintaining the flexibility to make sure this thing makes any sense at all.

General BERGER. I think, Senator, your characterization—I would see it exactly the same way. That agreement that was made 9 years ago did not account for, to your point, where the world is right now. I think this is the driving force behind the Secretary's effort right now to do a global posture review because it is not set right for the future. I think he senses that, and he has driven us to undertake a global posture review.

Within the Pacific, I think the view from Japan, to your point, and the view from the U.S. is the threat from PRC (People's Republic of China), from the PLAN, their military, is significantly different than it was in 2012. We have to have forces stationed forward and deployed forces if we are going to have a best chance of preventing the next conflict.

But, the laydown of DPRI (Defense Policy Review Initiative) is worth revising, it is worth looking at, because it was set under different conditions. This is going to be led, as you know better than me, by diplomacy, by an effort with the State Department to work with Japan on what is the best way forward.

Senator SCHATZ. Thank you very much.

Secretary Harker, the Navy's reliance on fossil fuels contributes to a vulnerability. The President issued an executive order to all Federal agencies, including the DOD (Department of Defense), to use their procurement authority to move the Country towards carbon-free electricity by 2035.

So, can you talk about the new things that the Navy is doing pursuant to that? And, as you probably know, I have been tracking this issue for a while, so I am not as interested in pilot projects or separate programs related to clean energy, but more importantly, how we are integrating the President's EO in all aspects of bases, installations, fuel, forward deployments, the smart grid, all of that.

And, I think it is really important that we do not silo clean energy into some space called pilot projects and environmental initiatives and bases and installations and environment, but, rather, to understand this as core to the mission, and therefore core to the way we do our procurement. I am wondering if you can comment on that.

Secretary HARKER. Yes, Senator, definitely. I have looked into this since taking this job, and I have been to several of our bases where we have done a lot to improve our ability to provide a carbon-free energy footprint and to take more advantage of things like solar and wind generation.

I was down at Parris Island on a trip there. They have a huge solar energy capability there that they have built on some old abandoned runways. We have other bases that have been doing that, and it is something that we are focused, where each installation has a climate installation plan focus to try to improve how we are doing in this area.

Senator SCHATZ. And are you integrating that into your requirements when you do the procurements of energy more generally? Again, establishing like a climate person at each base and installa-

tion, that is great, but what matters is your RFIs, your RFQs, your RFPs.

Secretary HARKER. Yes, sir. I know there is projects that focus on this on the R and D side, and we are including it in future requirements.

Senator SCHATZ. Okay. And final question. I want to talk to you about operational energy. What are we doing to make ship hulls more hydrodynamic and our combat aircraft more fuel-efficient?

Secretary HARKER. So, I am going to ask the CNO (Chief of Naval Operations) to help me on that.

Admiral GILDAY. So, our—right now, we are collaborating with industry in a new design for DDG(X), and that will include taking a look at the latest industry best practices with respect to improved hull forms. It is the same thing as we look at a new class of submarine we call SSN(X). The initial R and D that we are putting against that project, again, collaborating very closely with industry, is to look for a submarine that will travel higher speeds, and part of that is based on the shape of the hull.

Senator SCHATZ. Thank you.

Senator TESTER. Thank you, Senator Schatz.

Senator Collins.

Senator COLLINS. Thank you, Mr. Chairman.

Secretary Harker, Admiral Gilday, let me start by thanking you both for coming to the great State of Maine to visit Bath Ironworks and the Portsmouth Naval Shipyard. I know that you saw that they are outstanding assets that are critical to the Navy and our industrial base.

Nevertheless, let me be blunt in my assessment of this budget. It is not close to adequate to meet the challenges that we are facing around the globe. It does nothing to help us counter the increase in the Chinese fleet. In fact, it goes in the opposite direction, and the disparity will be even greater.

And, third, it jeopardizes our industrial base where we have only two yards building large surface combatants. And the information I have is that, if this budget is enacted, that 500 skilled jobs will be lost next year at one of those yards, and even more in subsequent years.

So, my question to you is also blunt, and that is, was the DDG excluded from the budget simply because you were given an inadequate top line that you had to meet? Secretary Harker, we will start with you, and then Admiral Gilday.

Secretary HARKER. Thanks, Senator. I really appreciated the opportunity to tour both Bath Ironworks and the Portsmouth Naval Shipyard with you. The workers there were outstanding, and the integration between labor and management at Bath Ironworks and at the shipyard was just a model for all of our shipbuilding and ship maintenance facilities, and that is something that we definitely want to keep and invest in.

We were unable to procure the DDG because of funding challenges. We did not have sufficient funds in the budget for us to be able to meet the balanced needs of providing a ready force today, the capability that each of the ships needed, and then the capacity of adding that additional destroyer. So, as we went through and we

balanced things out to provide the best budget we could, we did not have room for that destroyer in the budget.

Senator COLLINS. Admiral Gilday, do you have anything to add to that?

Admiral GILDAY. Yes, ma'am. It was absolutely an affordability issue. We fought for that hull right to the bitter end. And, if you take a look at where the money would come from to pay for that additional destroyer, we are decomming—or our proposal is to decommission 15 ships, old cruisers primarily. We would be taking money out of manpower, out of spare parts, out of ammunition, and we have learned those lessons in the past, that that is a bad place to take that money from.

And, so, it really did come down to priorities. As difficult as it was to break the multi-year and to send mixed signals to industry, it really did come down to prioritizing the investments that we had to make right now in the fleet that we have today.

Senator COLLINS. And our job, I would suggest to the Chairman and Vice Chairman, is going to be to look across the entire government and every department's budget as a full committee. Because when you see the double digit increases for all of the civilian agencies, and then you get to the Department of Defense and the Department of Homeland Security and essentially see a cut, in real terms, is just our priorities are out of whack here. And, I hope that we can remedy that.

I just, Admiral Gilday, want to quickly touch on the Shipyard Infrastructure Optimization Plan. That includes 250 million for the second increment of the Portsmouth Naval Shipyard's multi-mission dry dock number one project, and that is really important, as well. Could you explain to the committee what will happen if we do not provide that funding in terms of the ability to return submarines and sailors to the fleet?

Admiral GILDAY. Yes, ma'am. It is my judgment that if we do not fund that, if we do not fund that project in 2022 adequately, it will put at risk the ability to do our first availabilities on Virginia class submarines beginning in fiscal year 2026.

The project up there in Kittery, at Portsmouth, is absolutely critical for us to have that East Coast capability. We are simply not going to have it. We do not have dry docks large enough to put those ships, to put those hulls in, to do the maintenance on them that is required.

Senator COLLINS. Thank you.

Admiral GILDAY. Yes, ma'am.

Senator TESTER. Thank you, Senator Collins.

Senator Murray.

Senator MURRAY. Thank you very much, Mr. Chairman. Thank you to all of you for being here today.

Secretary Harker, let me just start with saying—by saying that I was really pleased that the Navy decided to base the first new Constellation-class frigates at Naval Station Everett. As you well know, Everett is a really important base for the Navy, and we have to continue investing in that base and the community for the long term.

I wanted to ask you today what additional investments at Everett are going to be necessary to accommodate those new ships or additional sailors and their families?

Secretary HARKER. I do not have that information with me, ma'am, but I know we are committed to making sure that we do not send our ships out there without the additional crew facilities necessary for both the crew and the families and so on. The CNO may have additional points.

Admiral GILDAY. Yes, absolutely. So, that work is ongoing right now. The hulls go in the water in—the first hull will be delivered in 2026, ma'am. So, in addition to things like housing, childcare, training facilities that we will need for those crews, as well. So, we will look at it holistically so that we do not cut those crews and their families short.

Senator MURRAY. Good. All right. Well, I look forward to working with you on that as it continues.

General Berger, I did want to ask you. You are proposing the boldest rethinking of the Marine Corps role and structure in decades. And, as part of that, you are proposing to cut end strength and have smaller units operating from inside the area our adversaries can strike.

How will training need to change to prepare our Marines for those missions?

General BERGER. Training will have to, one, take the individual Marine to a higher level than they are right now. From recruitment, in other words, through their entry-level training, to their first unit, we have to raise the bar because we are going to expect non-commissioned officers and junior officers to make decisions than two levels up than they make today.

When we are more distributed, when we are more spread out, then junior leaders are going to make the calls, especially if you are in a high-threat environment where they are kind of challenging your communications. They are going to make their decisions independent of probably great communications with their higher headquarters. So, our training for them has to get higher.

We are lengthening, for example, infantry training right now by 50 percent this year. It has to be longer. It has to get them to another level. The same individual that now maybe three people have three different skill sets, we have to make sure one person has three skills sets, if you follow me.

Senator MURRAY. Yes.

General BERGER. So that one person is not a corpsman and one person is not a machine gunner and the next person is a sniper. We have to have people with multiple skills. So, I think we will raise the bar in training to make sure that we can empower and train them to a level where they can make the decisions on the spot.

Senator MURRAY. How do you expect this to increase the operational tempo? And how are you going to support Marines' families during more frequent or longer deployments that you envision?

General BERGER. Separate issue on the frequency of deployments, and that is really driven by what the Nation needs year to year to year.

But, the difference in force design, ma'am, is from the beginning. Our premise was, we are going to build a force that is manned at 100 percent in the Fleet Marine Force. That is not the case right now. We take risks. In other words, we man them at less than a hundred. But, we are buying—we are building the Marine Corps manned at 100 percent. When you do that, then you can accept an increase of surge for periods of time.

But, your point on the stress on the families, absolutely so. When we deploy forces like we have right now onboard naval ships and it is a planned 6- or 7-month deployment, you know, that is tough. When it is extended, it is to a whole other level because then you are into unpredictable land for them. All of which is manageable, but we need to run the machine at a pace we can sustain, which I think you are highlighting, ma'am.

Senator MURRAY. Okay. Thank you.

And, finally, a vote has been called, so let me just say this, Secretary Harker. The Department of the Navy has been pursuing a number of actions that are—I am concerned are very harmful to workers in my home State of Washington and which jeopardize the stability of the industrial base, and those include proposals to divest UAVs (Unmanned Aerial Vehicles) and virtually brand new patrol boats, changing shipbuilding specifications to circumvent Buy American requirements in appropriations law, and a lack of clarity on the disposition of a dry dock.

I have not gotten satisfactory answers on that. There is not time right now. But, I want to know if there—what reasonable alternatives are considered, and I would like to follow up with you and my staff on that.

Secretary HARKER. Yes, ma'am, definitely. I will follow up with you on that. I know I have been out to the dry dock there over in Bremerton. And I have talked with the shipyard commander there, and I am fully committed to the shipyard infrastructure optimization effort to renew or replace that dry dock and part of our effort to modernize that. And then the other areas, we will definitely get back with you, ma'am.

Senator MURRAY. Okay. I appreciate that. Thank you.

Senator TESTER. Thanks, Senator Murray.

Senator Baldwin.

Senator BALDWIN. Thank you, Mr. Chairman. We are very excited to be building the new frigate in the State of Wisconsin. However, even though this ship is based on proven hull design, new ship classes often experience challenges related to technical concurrency, cost overruns, or schedule slips.

As you know, it is important that our acquisition programs account for these challenges, which means requiring things like technology maturation, systems integration, and full-ship tech data.

I believe these milestones should be achieved prior to bringing on any additional shipyards should the Navy want to increase their buy down the road. Similarly, to avoid affecting the production ramp up, we must avoid any gap-year funding for the frigate.

So, can you—this is to Secretary Harker and Admiral Gilday. Can you commit to requiring these technical milestones are met prior to bringing on a second shipyard? And, can you also commit to avoiding gap years in the procurement profile?

Secretary HARKER. Yes, ma'am. So, first, I have been out to Marinette and have been working with that shipyard for probably 20 years, since I was back in the Coast Guard as the business manager for the buoy tender acquisition project. So, I have got a lot of great experience, a lot of respect for the people that work at that shipyard.

As we go forward, it is definitely something that we want to do is make sure that we do not make mistakes by delivering ships that are not fully mature and proceeding down that road. So, I think there is definitely a need to make sure we get the technology mature, and that is something that I believe the CNO has some thoughts on, as well.

Admiral GILDAY. Yes, ma'am. So, we are—with respect to risk in building that ship, I was just on a FREMM class over in Europe three weeks ago. Really impressive. Really impressive hull. So, we have done this before to minimize risk, where we have taken an existing hull and put a known combat system, a weapon system, on it. We did this back in the '80s and it worked out really well between the Ticonderoga-class cruisers and the Arleigh Burke DDGs.

It is the same type of approach that we have up in Marinette. I went to Marinette myself. That was a—you know, it was a great trip, number one, to get to talk to the ship workers. But, I will say that that risk is something that we are carefully trying to manage. We are not introducing new systems, trying to create success or miracles that have to all line up before the ship delivers in 2026.

So, I am highly confident that both the Navy and the shipyard are working very closely together to make sure we are not introducing any additional risk into that build.

With respect to moving to a second yard, I am taking a very conservative approach myself with respect to anything that we would do in that regard. I understand the benefits of the industrial base, but we have to get that right and we have to leverage what we have learned from other builds, like the LCS, to make sure that we get that right.

The last thing I would say is that predictability with respect to budgets, especially shipbuilding, are really important for industry, and I recognize that. One of the things that struck me at Marinette was the amount of infrastructure that they are building to support the Constellation-class frigate. So, if we change those numbers, that—those investments are going to be a waste. I recognize that, ma'am. And again, I take the formulation of the budget very seriously in terms of how we prioritize and the message that we send to industry.

Senator BALDWIN. Thank you. I appreciate that focus on the industrial base.

And I think we have observed that the shipbuilding industrial base has become more fragile over the last 25 years. Congress has invested significant additional funding to support submarine- and ship-specific workforce and supplier expansion programs, which has really paid off for programs like Columbia, Virginia, and DDG-51. The same rationale for those industrial-based programs holds true for the frigate.

So, do you believe that these types of congressional investments have benefitted the Navy fleet, our industrial base, and our national security? And, if so, do you agree that similar investments into the frigate industrial base and workforce will have the same positive results? And, again, to you, Secretary Harker and Admiral Gilday.

Secretary HARKER. So, yes, definitely. Investing in our industrial base is something that is critical for us. We used funds from the Defense Production Act Authority to invest \$50 million. And, also, we have invested money in other places, and we have worked with the shipyards and other sources of funding to continue to invest in the industrial base. We believe in a strong industrial base, and that is critical to our needs.

Admiral GILDAY. Ma'am, as I answer this question, I am going to speak more generally and not to Marinette in particular. I do think that those investments are important. However, I also think it is important to set expectations.

So, you mentioned, let's say, the Columbia class, which we will be building out to 2035, or Virginia class, which we are going to be building out to the late 2020s. So, when you have—when industry has that kind of set of headlights, as does Congress with respect to a commitment to building that many ships in a class for that long a period, I think it then becomes easier to justify those investments in private yard infrastructure.

And, so, I think that they should be tied together so we should not kid ourselves in terms of putting money down that we are not going to reap the benefits of.

Senator BALDWIN. Thank you.

Senator TESTER. Thank you, Senator Baldwin.

Senator MORAN.

Senator MORAN. Mr. Chairman, thank you.

General Berger, as you look to shift the Marine Corps' focus from counterinsurgency efforts to its original mission of naval expeditionary force, logistics will play a major role in the force structure. Your current CH-53E fleet continues to struggle with readiness issues, so I want to be certain the Marine Corps is prepared for a near-pier fight. Can you describe the new CH-53K heavy lift helicopter's contribution to your force structure redesign, particularly as it pertains to distributed maritime logistics in a contested environment?

General BERGER. I can, Senator. It is a phenomenal aircraft. I flew on that aircraft maybe 3 months ago, this past spring, down in North Carolina. Because growing up in 53Ds and 53Es, you kind of knew what that platform was like. I had not been on a 53K, other than in a simulator. Simulator does not do it justice. It is an incredible aircraft. Speed, lift capability, reliability, its fly-by-wire. He hovered and picked up a weight, hands off. I mean, it is that kind of technology. It is a glass cockpit. Now we just have to right-size it for what we need.

But, distributing the force the way the CNO and I have in mind, we are going to need the 53K. We are going to need the Light Amphibious Warship in order to move the troops and supplies and lethal aspects around. Critical.

Senator MORAN. How is this helicopter currently performing in preparation for the initial operation test and evaluation in July?

General BERGER. Probably like most programs, in the areas we look closest at, its performance, it is meeting the requirements. There are some areas where flight crews have suggestions on how to improve it, as you would expect. But, so far, on track, sir.

Senator MORAN. Great. Thank you for your answer.

General BERGER. Yes, sir.

Senator MORAN. Thank you for your service, all of you.

Senator TESTER. Thank you, Senator Moran.

We appreciate all of your testimony here today and the answers to the questions.

ADDITIONAL COMMITTEE QUESTIONS

Senators may submit additional written questions, and we ask you to respond to them within a reasonable amount of time.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO HON. THOMAS W. HARKER

QUESTIONS SUBMITTED BY SENATOR RICHARD J. DURBIN

Question. Russia has built numerous Arctic bases and seems poised to bring very provocative nuclear weapons capable armaments—notably the Poseidon 2M39 torpedo—into the region that threaten us and our allies. Secretary of State Blinken recently raised the importance of keeping the Arctic a peaceful zone with his Russian counterpart and the Department of Defense says it reserves the right to conduct freedom of navigation exercises in the Arctic. But I remain concerned about Russia's aggressive moves in the region, particularly as the ice melts from climate change.

Please comment on the growing Russia presence and challenge in the Arctic.

Answer. The Arctic is a top priority for Russia as outlined in multiple Russian strategy documents. Russia is investing heavily to enhance its Arctic defense and economic sectors towards its northern flank. About 20 percent of Russia's land mass is north of the Arctic Circle. Russia aims to improve command and control, infrastructure, and joint force employment to project power and defend its northern approaches through modernized military capabilities and posture. The escalatory and non-transparent nature of Russia's military activity and unlawful regulation of maritime traffic along the Northern Sea Route undermines global interests, promotes instability, and ultimately degrades security in the region. Our strong relationships with Arctic allies and partners, further strengthened through exercises and U.S. presence in the High North and Arctic region, are our greatest strategic advantage strengthening our collective deterrent against these strategic challenges.

The Department of the Navy will work closely with interagency, international, and joint partners—especially the U.S. Coast Guard—while building new partnerships to protect the homeland, keep Arctic seas free and open, and deter coercive behavior and conventional aggression. Regional cooperation, built on a bedrock of internationally recognized principles like national sovereignty, is in the United States' interest and contributes to a secure and stable Arctic.

QUESTIONS SUBMITTED BY SENATOR RICHARD LEAHY

Question. Given the administration's priority of taking care of our people, and the important role that unit cohesion plays in improving readiness, it is crucial that the Navy take a fresh look at policies and practices that may not support all servicemembers. To that end, please outline what changes, if any, the Navy has made, is making, and plans to make, or is considering in order to:

Improve diversity in leadership positions;

Answer. Improving diversity in leadership positions compels the Department of the Navy (DON) to focus on diversity at all levels. Admiral Gilday meets routinely with his 17 Navy Community Leaders to discuss various community challenges to include the diversity demographics of each community, initiatives to support the re-

recruiting and retention of under-represented groups, the prevalence of destructive behaviors, and efforts to develop and retain future leaders.

Additionally, the Navy Junior Officer Counsel (NJOC) provides a formal link between Junior Officers and Senior Navy Leadership to provide feedback, ensuring we are doing everything we can to make our Junior Officers feel connected and included. The DON Diversity, Equity, and Inclusion (DE&I) lead will leverage feedback mechanisms and advisory groups similar to the NJOC to help advance DE&I initiatives.

The Marine Corps is focusing on areas where potential bias and discrimination could occur before a qualified officer reaches the selection or assignment board process. The assignment process and the performance evaluation system are areas where evaluation and selection are based on subjective analysis and where intentional or unintentional bias could occur. The Fitness Report Bias Study is an analysis that examines objectivity of the current performance appraisal process. The Basic School Military Occupational Specialty Assignment Study examines historical performance data, based on demographics, to evaluate the impact of performance on MOS assignment. The Marine Corps is also funding an independent study to identify and understand any barriers to advancement and retention of women and minorities in the Marine Corps.

Question. Improve diversity retention at all levels;

Answer. The Navy and Marine Corps are in line with the Office of the Secretary of Defense and the other Services in accomplishing the recommendations set out in the Secretary's Diversity and Inclusion Board Final Report.

Specifically, the Navy is currently implementing 56 recommendations from the Task Force One Navy (TF1N) final report. TF1N identified and made recommendations to dismantle barriers to equality while creating sustainable opportunities, ultimately achieving our desired end-state of warfighting excellence. In accordance with Secretary of Defense guidance, the Navy removed photographs during all Officer Selection and Command/Milestone Boards. Additionally, the Navy requires diverse representation on all boards and provides bias training to board members to be aware of their potential conscious and unconscious bias and ensure board fairness.

The Marine Corps DEI Strategic Plan will focus on recruiting and accessions, talent management, education, training, and commandership over the next 5 years. Independent studies are currently underway to better understand diversity and inclusion challenges and make improvements. The Marine Corps Outreach Program budget has increased from \$150,000 in fiscal year 2014 to \$1M in fiscal year 2021. The program provides opportunities for professional development, mentoring, and networking experiences by fully funding approximately 500 Marines to attend 19 national/regional conferences hosted by non-Federal entity affinity groups events throughout the year.

The various TF1N recommendations and initiatives found in the USMC DEI Strategic plan will be integrated into the DON DEI Implementation strategy to ensure ongoing efforts are sustained, measurable, possible to achieve, and specific enough to assess progress.

Question. Improve trainings, including sexual assault prevention, with input from women, LGBTQ servicemembers, BIPOC servicemembers, and sexual assault survivors;

Answer. The DON is committed to a culture of trust, respect, and inclusion that strengthens and promotes the resiliency and readiness of our force, our families, and our DON civilian workforce. Our DON DEI Team is working closely with the Services and stakeholders to update training and DEI competencies to incorporate the Navy's Culture of Excellence, USMC training frameworks and associated Signature Behaviors with input from DON and Service sexual assault prevention and response (SAPR) experts. The training uses adult learning theory best practices concerning small group-facilitated discussions. Once the training is in the pilot phase, we intend to solicit input from different populations of Sailors that may include specific groups such as women; LGBTQ+; black, Indigenous, and people of color (BIPOC); and sexual assault survivors.

The Marine Corps actively uses collaboration to address SAPR. They have collaborated with sexual assault survivors, members of the LGBTQ+ community, SAPR personnel, women, and BIPOC Service Members to improve SAPR training. The SAPR program works together with the other Services, DON and Department of Defense (DoD) SAPR Offices, and outside entities to enhance the ability to prevent and respond to sexual assault, identify best practices, and leverage resources. Training is tailored to specific levels of leadership. The Commander's Course better prepares senior leadership to prevent sexual assault once they assume command. Likewise, the First Sergeant's Course includes actionable recommendations for sexual assault

prevention, information on responses to trauma, and actions to take if a Marine is sexually assaulted.

In fiscal year 2021, the DON Sexual Assault, Sexual Harassment, and Suicide Prevention & Response Office led a robust revision of civilian training for DON, Marine Corps, and Navy personnel. Key revisions include a focus on early negative behaviors that increase risk for sexual assault (i.e., gender harassment, sexual harassment), skill-building to recognize negative behaviors and intervene, and the promotion of relevant response resources and programs (i.e., SAPR, Equal Opportunity, Employee Assistance Programs, etc.).

Revisions also include additional terminal learning objectives that focus on prevention, response, and supervisory skills related to the protection of populations at increased risk for harm. To protect civilians and Service member survivors or those who identify as LGBTQ+ and/or BIPOC, these objectives reinforce key concepts and skills.

Additional efforts to ensure culturally responsive trainings include Navy and Marine Corps Recruit Training updates that emphasize the knowledge and skills needed for healthy professional and personal relationships (i.e., trust, respect, inclusion, teamwork) and professional development webinars on the intersections between gender, race, sexual orientation, and sexual violence.

Question. Increase availability and accessibility of mental health support services for servicemembers and their families, including services tailored specifically toward minority servicemembers;

Answer. The Navy remains committed to promoting, maintaining and advancing a healthcare environment that adheres to the principles of community and equity by fostering principles that support: Care with Request; Excellence with Equity; Mindful Actions with Transparency, Responsibility, and Accountability; and Diversity with Inclusion.

Specific to mental health support services, the Navy and Marine Corps ascribes to a “no wrong door” policy to assist Marines, Sailors, and family members in getting help and support. This policy helps to facilitate access and decrease stigma in seeking mental health and substance misuse services. Services are available worldwide, including in specialty clinics, within primary care, at Navy and Marine Corps installation counseling centers, on the waterfront, and embedded within the fleet. Sailors and their families can also get mental health support, to include chaplains, Military and Family Life Counseling, Fleet and Family Support Centers, Marine Corps Community Services, and Military OneSource.

Within Navy Medicine, efforts are underway develop more formal structures for addressing and integrating health equity/disparities within the context of the Navy’s Diversity and Inclusion framework. This work includes collaboration with the Defense Health Agency and the other Services to advance access, equity, and opportunity among the healthcare staff, as well as to develop programs to ensure equitable care and treatment for all Service Members and families.

The Marine Corps’ focus is to treat all Service Members and their families with equality while recognizing and embracing diversity. Accessibility of nonmedical support services expanded in May 2020 to telephonic and virtual platforms.

Two significant support programs are the Unit Marine Awareness and Prevention Integrated Training for Marines (UMAPIT) and our Operational Stress Control and Readiness (OSCAR) programs. UMAPIT is a training and education calendar year requirement for all Marines and provides specific information and actions Marines can employ to access mental health resources. OSCAR is a Marine-trained team of Marines within Marine Corps units who help recognize and respond to stress. If a Marine believes their stress-level is negatively affecting their unit, an OSCAR member is there to talk and to connect the Marine with other resources.

Question. Improve outreach to and support for minority servicemembers facing discrimination from within their units;

Answer. DON policy is that each member of the team is entitled to be treated fairly, with dignity and respect, and must be allowed to work in an environment free of unlawful discrimination. The DON is committed to maintaining an inclusive work environment free from unlawful discriminatory practices and inappropriate behavior.

The Navy ensures all personnel are aware of the command and shore-based assistance available to those who need help in processing harassment or unlawful discrimination reports. In addition, the Navy identifies available counseling support or referral services for all personnel involved in incidents of harassment or unlawful discrimination. Follow-up debriefs are conducted with complainants no later than 45 days following the determination or resolution of harassment or unlawful discrimination report to determine the complainant’s satisfaction with the effectiveness of

the corrective action, timeliness, present command climate, and to ensure retaliation did not occur.

The Marine Corps takes a comprehensive approach to support minority Service Members facing discrimination within units. Combatting such behavior is a team effort that requires the commander to set the correct climate denouncing Prohibited Activities and Conduct (PAC) violations, Equal Opportunity Advisors/Equal Opportunity Representatives (EOAs/EORs) to educate and support the command and its unit members, and each unit member to be held accountable for their actions. The Marine Corps' support for minority Service Members facing discrimination within their units is rooted in the DoD's Strategic Elements of prevention, reporting, advocacy, education/training, and accountability; with MCO 5354.IF, "Prohibited Activities and Conduct Prevention and Response Policy." Marines complete PAC training every year, and commands can use their EOAs/EORs to conduct additional PAC training or focus groups, at any time, in order to combat PAC behavioral trends. The PAC order stipulates commanders must ensure Service Members have access to support services such as mental health counseling, medical, EOA, Victim and Witness Assistance Personnel, and Victim Legal Counsel.

Question. Improve medical care for transgender servicemembers, women, and Black parents, particularly for transition care, pregnancy, and post-partum care;

Answer. Navy Medicine is committed to ensuring all Sailors and Marines are treated with dignity and respect and have access to the highest quality healthcare in accordance with current evidence-based practice guidelines. We currently have two Navy Medicine interdisciplinary expert Regional Transgender Care Teams in place to support and improve the health and lives of transgender and gender non-binary Sailors and Marines. Our experts work closely with our Defense Health Agency, Army, and Air Force colleagues to ensure the incorporation of best clinical practices to support the medical readiness of our transgender and gender non-binary Sailors and Marines.

Navy Medicine continues to recognize and emphasize the importance of innovative pregnancy and postpartum care, resources, and educational materials for our Sailors and Marines to facilitate their return to duty. To recover in a healthy manner prior to being required to meet fitness and body composition standard, our updated Physical Readiness Program policies provide postpartum Sailors and Marines more time (i.e., 12 months vice nine months). We are also prioritizing the importance of ensuring our pregnant and postpartum Sailors and Marines have access to the support they need from a headquarters and a front line approach. Navy Medicine has developed a Postpartum Return to Duty Resource to provide Sailors and Marines with critical education on physical fitness, mental health, support services, and Navy and Marine Corps policies related to the postpartum transition to full duty. Within the military health system, our Navy Medicine women's health experts participate with the Defense Health Agency and the other Services. The focus is on women's health, perinatal practices, newborns, and infants, as well as a review of data and issues related to maternal and infant health care disparities, health equity, and social determinants of health, potentially impacted by race/ethnicity.

QUESTIONS SUBMITTED BY SENATOR DIANNE FEINSTEIN

Question. Secretary Harker, the 2017 Navy force structure assessment identified the need for three additional Expeditionary Sea Base ships. Congress included \$73 million in advance procurement funding for the eighth ship in fiscal year 2021. However, that eighth ESB ship was not in your latest long-range plan, and no additional funding is in your budget request. I am concerned that not building the eighth ESB will break critical supply chains for the main shipbuilder on the West Coast.

What operational risks are you accepting by not requesting ESB 8?

Answer. The current laydown plan will assign ESBs to the EUCOM/AFRICOM, CENTCOM, SOUTHCOM, and PACOM Areas of Responsibility. We assess minimal operational risk as five ESBs can provide presence in each of these theaters and can be re-allocated across theaters if necessary.

QUESTIONS SUBMITTED BY SENATOR SUSAN M. COLLINS

Question. I authored an amendment included as Section 121 in last year's NDAA, which required certifications and reports from the Navy if it intended to deviate below the Large Surface Combatants called for in the Navy's 2016 Force Structure Assessment. The fiscal year 2022 shipbuilding plan submitted to Congress proposes a significantly lower range of large surface combatants—between 63 and 65 ships.

However, in the Navy's report required by the NDAA, which the Committee received just 2 months ago, the Navy identified 78 large surface combatants as the best performing mix based on a 2019 analysis of alternatives. The Navy certified that a reduction of large surface combatants down from 104 could be mitigated due to having a reduced number of the Flight III's with the advanced AN/SPY-6 radar. The Navy also stated in its report that it did not expect any detrimental impacts to the industrial base based on current workload. But as we can see with the cut to the DDG-51 in this proposed budget, that workload seems anything but certain.

It seems that the Navy's report required by the NDAA was based on some incorrect or outdated assumptions regarding the number of large surface combatants the Navy planned to procure as well as the impact of this limited procurement on the industrial base. Will the Navy revisit this report?

Answer. To compete and win in an era of peer military competition, the United States needs a balanced naval force capable of striking targets in all domains. The force design must emphasize distributed awareness, lethality, and survivability in high-intensity conflict. The force must be adaptable, demonstrate presence, achieve sea control, and be capable of projecting power by delivering precision effects at long ranges. The Navy, working closely with the Office of the Secretary of Defense Director of Cost Assessment and Program Evaluation, continues to develop comparative assessments of naval force structure options consistent with Interim National Security Strategic Guidance and designed to maximize the maritime contribution to the joint force. The results of these efforts and ongoing experimentation and prototyping will be reflected in the fiscal year 2023 shipbuilding plan.

The Department is conducting analysis to refine understanding of the readiness and performance of the fleet against a future near-peer competitor capable of global operations. Furthermore, the Navy continues to evaluate the industrial base pivot points required to support future platform development and the industrial base development needed for these future planned platforms, such as the next generation attack submarine and the future large surface combatant, including land-based testing to enable success in these future programs. A complete 30-year shipbuilding plan will be submitted with the President's Budget for fiscal year 2023. The Navy does not plan to submit a separate Report to Congress on Large Surface Combatants and AN/SPY-6 in fiscal year 2023.

QUESTIONS SUBMITTED BY SENATOR LISA MURKOWSKI

INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE OSR IN THE ARCTIC REGION

Question. Fonner Coast Guard Commandant Admiral Zukunft, a fellow maritime service chief relayed an alarming anecdote last fall saying, "We have significant domain awareness challenges, and that really begins in the high latitudes." Things start to get pretty dark once you get up higher than 72 degrees north." He went on to discuss the Coast Guard stumbling upon a joint Chinese and Russian exercise in the region without any prior knowledge from our intelligence assets.

And, just last August, a Russian military exercise in our own Exclusive Economic Zone, just off the coast of Alaska, spooked a fleet of our own fisherman out of our own waters—waters that they have every right to be in and cost them millions of dollars in lost catch and equipment.

Secretary Harker, does this budget include capabilities for our naval services that will increase our domain awareness in the Arctic?

Does this budget provide you the ability to operate in the High North whenever called upon and with the proper resources to be effective?

Answer. While the budget does not include investments on ISR specifically focused on the Arctic, it does continue the pattern of equipping our Navy's globally deployable ships, submarines, and aircraft with the ISR capabilities needed to contribute to domain awareness whenever and wherever we operate. It also positions our Naval Forces, through its acquisition programs and Naval Intelligence arm, to maintain strong relationships with the IC. That long-standing relationship sets conditions for us to not only influence the development of IC capabilities but to secure the advantages that come from being able to access those capabilities to advance our worldwide military mission in this era of renewed strategic competition at sea.

ARCTIC STRATEGY

Question. As an Alaskan, I am well aware and proud of our nation's history in the Arctic, but, frankly, I'm focused on the now. With that in mind, your strategy, "Blue Arctic" specifically states "The [Navy] will be postured to deter aggressive and malign behavior, keep the seas free and open, and assure allies and partners of our

long-term commitment to preserving peace and advancing shared interests.” It also emphasizes the need for “credible naval forces [to] ensure the ability to deter competitors and rapidly respond to crises in the region.

Secretary Harker are we postured right now, at this very moment, to deter aggressive and malign behavior in the Arctic? Having the Russians chase off an American fishing fleet or stumbling upon a joint Chinese/Russia exercise doesn’t sound like we’re quite there yet.

Can you discuss how in your proposed budget you are acquiring the means to do so in the future?

Answer. The Arctic is a top priority for Russia as outlined in multiple Russian strategy documents. Russia is investing heavily to enhance its Arctic defense and economic sectors towards its northern flank. About 20 percent of Russia’s and mass is north of the Arctic Circle. Russia aims to improve command and control, infrastructure, and joint force employment to project power and defend its northern approaches through modernized military capabilities and posture. The escalatory and non-transparent nature of Russia’s military activity and unlawful regulation of maritime traffic along the Northern Sea Route undermines global interests, promotes instability, and ultimately degrades security in the region. Our strong relationships with Arctic allies and partners, further strengthened through exercises and U.S. presence in the High North and Arctic region, are our greatest strategic advantage strengthening our collective deterrent against these strategic challenges.

The Department of the Navy will work closely with interagency, international, and joint partners—especially the U.S. Coast Guard—while building new partnerships to protect the homeland, keep Arctic seas free and open, and deter coercive behavior and conventional aggression. Regional cooperation, built on a bedrock of internationally recognized principles like national sovereignty, is in the United States’ interest and contributes to a secure and stable Arctic.

ICEBREAKERS

Question. I have a growing concern with the lack of icebreakers and even ice-hardened surface ships in our fleet to carry out the strategic deterrence that you have identified as necessary in the Navy’s strategy and the use of icebreakers for other purposes. I have long advocated for the procurement of icebreakers and I’m glad we’re making some progress in building some for the Coast Guard, but those are still a long ways away from being sea ready. As it pertains to icebreakers, my number one priority is building them here. My second priority is getting this capability in our hands as soon as possible.

The previous administrations was in discussions about leasing icebreakers through the Navy. To be clear, I am not advocating for leasing instead of building our own, but being cognizant of the fact that we need this capability now, are you doing anything to acquire ice breaking capabilities to bridge the gap between now and when we field new ones ourselves? As your strategy, “Blue Arctic” mentions six times, how the Navy will address issues in the “decades ahead,” but current events illustrate they are needed now. If not icebreakers, are other mechanisms being put in place to overcome this shortfall?

Answer. Icebreaking remains a core U.S. Coast Guard mission. The Navy continues to provide acquisition assistance to the Coast Guard to ensure the Polar Security Cutter meets the demands of the Nation.

Question. Mr. Secretary, your Arctic strategy also states, “Naval forces will work in concert with interagency efforts and ensure our planning efforts are integrated with local, state, Federal, and indigenous communities. Native Alaskan tribes have a long and honorable history of military service that blend seamlessly with such efforts.” Can you discuss these efforts to date, or are they forthcoming? Do you have a timeline or plan for when this coordination will begin? Who in your department has been given the lead for these efforts?

Answer. While the Arctic largely remains a region of cooperation, continuing changes in the physical environment, increased military activity, and efforts by non-Arctic nations to restructure Arctic governance require continual assessment of the region. The Department of the Navy’s (DON) priorities in the Arctic Blueprint include working closely with our partners and allies as well as with interagency partners. As we look to strengthen interagency efforts, the DON is developing its implementation approach to ensure alignment with the 2022 National Defense Strategy and the Secretary of the Navy’s strategic vision. In addition to preserving economic prosperity and keeping the seas open and free, the DON remains fully committed to safeguarding the homeland and protecting our national security. While the DON requires more time to consider specific details of implementation and coordination, the Arctic region remains of significant importance to the DON mission. The Imple-

mentation Plan will be tailored to meet the demands of the Arctic region, to include the integration of planning efforts with local, state, and Federal entities, and with indigenous communities. Additionally, we will have an opportunity to better align the DON's objectives with the impending release of the National Security Council's National Arctic Strategy.

UNITED NATIONS CONVENTION LAW OF THE SEA

Question. At a recent budget-hearing for the State Department, Secretary Blinken told me that, by his own determination, and I quote: "the United States would be extremely well served by ratifying the Law of the Sea Treaty." He even went as far as to say that this is not only his opinion, but "it's been the judgement across the board by our military leadership, uniform and civilian for many years." Secretary Blinken is the latest in a long line of department secretaries to agree on this point. I believe that ratifying the Law of the Sea is in the best interest of the United States. Along with Senator Hirono, I put forward legislation urging the Senate to ratify Law of Sea.

Mr. Secretary, do you believe the Senate should ratify the Law of Sea?

Answer. The Convention reflects customary international law on which the United States has long relied for its freedoms of navigation and overflight around the world. Acceding to the Convention would reinforce these rights and freedoms and could place the United States in a stronger position when challenging violations of international law by our adversaries.

Question. What benefit will it provide to the United States? Would we be in a stronger military position if we were to ratify the Law of the Sea?

Answer. The Convention sets forth navigational rights and freedoms across the globe for civilian and military ships and aircraft that are vital to our national security, including innocent passage through territorial seas and transit passage through, under, and over international straits. The United States must currently rely on customary international law as the legal authority for these and other provisions, which does not adequately protect U.S. maritime security interests over the long term. Becoming a party to the Convention would solidify these and other rights and freedoms in a manner beneficial to naval operation, facilitate closer cooperation with our allies and partners, and silence the claims of some nations that say only member states may enjoy the freedoms the Convention provides. In other words, joining the Convention is the best means of placing our rights and freedoms on a secure footing and maximizing the ability of our armed forces to move through and over the world's ocean waters.

In addition, the Navy's maritime strategy and daily operations are heavily based on the navigational rights enumerated in the Convention. Both current and future operations contemplate operating with allies and partners—all of whom are parties to the Convention. Acceding to the Convention enables U.S. leadership and influence in the shaping of global maritime law and policy in ways that facilitate U.S. interests, lends legitimacy to U.S. maritime activities, and demonstrates U.S. commitment to the rule of law in the conduct of its operations.

Question. And what would you say to those that want to be tough on China and Russia, but are still against the ratification of the treaty?

Answer. The law of the sea is continuously being interpreted, applied, and developed. Accession to the Convention would give the United States a seat at the table to set the course for future law of the sea discussions on a co-equal level with China and Russia, who are member states. China portrays an increasingly aggressive posture in the South China Sea, attacking the international rules-based order embodied by the Convention through gray zone activities that seek to erode its provisions. As a party, U.S. objections to these violations would have significantly more force and credibility.

QUESTIONS SUBMITTED BY SENATOR ROY BLUNT

NO FISCAL YEAR 2022 FUNDING FOR F/A-18 SUPER HORNET PRODUCTION

Question. Secretary Harker, I acknowledge that in this tough budget cycle, difficult choices must be made. I appreciate your efforts toward finding efficiencies, for reducing our reliance on legacy systems and for placing an emphasis both on our people first and on critical efforts to modernize for the future fight. However, I think we need to be mindful of building a sound bridge to future capabilities that also maintains and safeguards our readiness for today's fight.

The F/A-18 is presently the backbone of the Navy's carrier air wing. While I appreciate a forward-looking focus with the Next Generation Air Dominance (NGAD)

program, as I understand it, NGAD will not provide a successor to the Super Hornet until 2030, at the very earliest. I'm concerned that if we end Super Hornet production prematurely, simply relying upon Service Life Modification (SLM) upgrades to get our fleet to Block III-capable is not a sound bridging solution, particularly when the SLM process is already falling behind schedule.

When the Block III program began in 2018–2019, the Navy planned to have 20 Block III-capable Super Hornet squadrons by 2027. But currently, 67 Block II aircraft that were meant to be upgraded between 2018 and 2023 are already pushed back to at least 2024.

If we combine this SLM slow down with no funding for additional Super Hornets this year or next, the Navy is ultimately short 103 Block III-capable Super Hornets that you initially planned to have by 2027. We then have three more years, at a minimum, before the Next Generation Air Dominance Program produces results that we can operationally employ.

My question for you, Secretary Harker, is can you help me understand this modified bridging strategy to the next generation of our carrier's air wing? Would it not make more sense to continue with the original Super Hornet transition plan—to continue the production line for several more years while working Block III modifications—to achieve the necessary inventory levels of the most capable tactical fighter in the Navy's current inventory until a successor is ready?

Answer. To ensure the Navy has the advanced capabilities required to compete with peer adversaries in the 2020s and 2030s, continued investments in the procurement of new F–35C and the Next Generation Air Dominance Family of Systems (NGAD FoS) are necessary. Given the ongoing delivery of new procurement Block III F/A–18E/F, new procurement F–35C, and Service Life Modification (SLM) to extend the life and capability of existing F/A–18E/F Block II aircraft, strike-fighter shortfall (SFSF) is projected to be eliminated by 2025. Additional procurement of new F/A–18E/F Block III aircraft beyond fiscal year 2021 is not required to mitigate near- or long-term SFSF risk. The Navy assesses that new F/A–18E/F procurement beyond fiscal year 2021 would arrive late-to-need to address near-term SFSF challenges—which are actively being managed- and excess-to-need for fourth generation aircraft capacity to meet the demands of the National Defense Strategy.

NAVPLAN 2021 prioritizes development of capabilities to enable a more lethal and better connected fleet that can outpace the growing Chinese threat. New F/A–18E/Fs delivered in fiscal year 2026 will have the service life (10K Flight Hours) to operate well into the 2050s. Current analysis shows the F/A–18E/F is insufficient to meet the Long Range Fires requirement against peer threats in the 2030s, even when partnered with F–35C. Engineering Change Proposals (ECPs) for BLKIII that were anticipated to increase range never came to fruition. The remaining ECPs do increase capability as a stop-gap in the short-term, however further procurement of F/A–18E/F at the expense of future capability will directly inhibit the Navy's ability to fight and win in the Great Power Competition. Procurement of F–35C and SLM remain our best levers to manage Strike Fighter capacity until NGAD FoS comes online.

The Navy is on track to meet the Super Hornet Block III supply requirements demanded by the Master Aviation Plan 20–02 (MAP 20–02). Block III capacity is being delivered through new procurement and upgrading Block II aircraft to Block III capabilities through SLM beginning in Quarter 4 (Q4) fiscal year 2022. Through 2027, Boeing will deliver 78 new Block III aircraft (fiscal year 2021 through fiscal year 2025), and 119 SLM Block III aircraft to meet our Carrier Air Wing requirements.

Today we have 436 BLK II aircraft. Due to fiscal constraints, we are not currently maximizing Boeing's advertised SLM conversion capacity. We have the inventory and capacity to meter SLM output as required in the future.

The flyaway cost for a new Block III F/A–18E/F is \$69 million in calendar year 2020. Block III modifications required to convert a Block II aircraft is currently estimated at \$9 million. Adding Block III modification costs to SLM establishes an estimated cost of \$18–\$23 million per aircraft. A cost range was required due to multiple aircraft configurations of the F/A–18E/F fleet, all of which require different configurations and modifications. Current estimates show that three SLM aircraft can be upgraded to Block III configuration for the same cost as one brand new aircraft, without impacting Strike Fighter Inventory Management (SFIM).

Though there have been unanticipated delays in the early phase of SLM, Boeing is confident it can meet the projected SLM turnaround and delivery times for Block III aircraft. While there is risk inherent in the analysis and projections, there are currently several risk mitigation actions underway by both Boeing and the Navy to ensure the Carrier Air Wings will have enough Block III aircraft to meet operational requirements.

SLM has two phases of execution. Phase 1 is the planned 'crawl and 'walk' phases of SLM which is only a flight hour extension of Block II aircraft from 6000 to 7500 flight hours and does not include Block III capabilities. Phase 1 has experienced unanticipated challenges with the material condition of early aircraft inductions, which has driven a significant increase to SLM workload, staffing gaps, slower learning, significant cost overruns, and schedule delay. In response to these challenges, both Boeing and the Navy have implemented mitigation strategies. Boeing has surged staff at both SLM locations (St Louis, MO, and San Antonio, TX) and has initiated early detection teams for common material condition cost/schedule drivers with a feedback loop to Navy fleet. The Navy has commenced pre-SLM grooming to address known material condition prior to SLM induction and established improved corrosion prevention practices. A total of 49 aircraft will receive SLM phase 1 and will complete in Q4 fiscal year 2022.

SLM Phase 2 is the full Block III upgrade to 10,000 flight hours and the same capabilities as new production aircraft. Phase 2 is expected to commence in Q4 fiscal year 2022 with Boeing advertised turnaround time (TAT) per aircraft inducted of 12 months. The SLM program has seen steady improvement to cost and schedule since mitigations were implemented, and Boeing is confident they can achieve the 12-month TAT for SLM phase 2. As part of the Navy's SFIM planning, the Navy has determined that the MAP 20-02 demand can be met with up to an 18-month TAT. Even if some of the SLM phase 1 complications were to continue into phase 2, there will be minimal to no effect to the Block III capacity to meet the MAP20-02 demand.

The SLM of existing F/A-18E/F aircraft, combined with an active F-35C production line, are the two risk mitigations in place for the Navy to manage total strike-fighter inventory. The total number of SLM aircraft conversions will depend on the timeline for the NGAD FoS initial operational capability and full operational capability in the 2030s. The Navy will continue to SLM aircraft at a rate commensurate with capacity requirements, with an option to SLM all current Block II F/A-18E/F aircraft if deemed necessary.

QUESTIONS SUBMITTED BY SENATOR JOHN HOEVEN

Question. I am a strong supporter of our nuclear deterrent, not only the two legs of the triad located at Minot Air Force Base with our B-52s and the Minuteman III ICBMs, but also the submarine based leg of the triad. You've stated that the *Columbia*-class submarine, which will replace the aging Ohio class, is the Navy's top procurement priority, but of course, you also have to ensure that the D5 Trident, which is the ballistic missile carried by our boomers, is ready and reliable when the *Columbia*-class boats enter the fleet.

Could you describe the basic plan to modernize the Trident missiles and whether there is any coordination with the Air Force's effort to modernize our land-based ICBMs?

Answer. The Navy is committed to ensuring that the transition between *Ohio*-class and *Columbia*-class submarines stays on schedule. This includes a seamless transition of the current TRIDENT II D5 Life Extension (D5LE) weapon system and missile inventory on to the new *Columbia*-class. To be clear, the D5LE weapon system currently deployed on *Ohio*-class will be the same weapon system deployed on the first eight hulls of the *Columbia*-class. To ensure the Navy has missiles for *Columbia* Hull 9 and able to replace the missiles on the first eight hulls when the missiles' safety-related components expire, it is imperative that we start the work on a future missile and corresponding weapons system now. This next generation of the current OSLE missile—a missile in service since 1989 and boasting a remarkable history of 182 successful flight tests—is called D5 Life Extension 2 (D5LE2). Several areas of the industrial base will have to be reconstituted as suppliers of critical obsolete components have gone out of business or shifted production to other fields. D5LE2 will primarily safely extend the D5 strategic weapons system, but this industrial base reconstitution coupled with improved manufacturing processes also provides the opportunity to build in flexibility that will ensure that TRIDENT remains credible in the face of a dynamic threat environment throughout the *Columbia*-class service life. D5LE2 must be developed, tested, and produced with the lead-time sufficient to deploy 16 missiles on *Columbia* Hull 9 in fiscal year 2039.

The Navy works closely with the Air Force and Missile Defense Agency (MDA) through a Flag Level 2018 Memorandum of Understanding (MOU) that governs the collaboration of strategic ballistic missile systems. The efforts established by this MOU enable affordability by avoiding redundant efforts (e.g., Radiation Hardened Electronics Testing and Flight Testing Instrumentation), advance capability by

sharing and leap frogging technology (e.g., Strategic Grade Inertial Measuring Units), and reduce risks across programs via industrial base collaboration (e.g., Solid Rocket Motor Production). With similar technical challenges and a joint industrial base, the Navy fully recognizes the importance of collaborating with both the Air Force and MDA while simultaneously sustaining and modernizing our strategic ballistic missile systems.

QUESTIONS SUBMITTED TO ADMIRAL MICHAEL GILDAY

QUESTIONS SUBMITTED BY SENATOR PATRICK LEAHY

Question. Given the administration's priority of taking care of our people, and the important role that unit cohesion plays in improving readiness, it's crucial that the Navy take a fresh look at policies and practices that may not support all servicemembers. To that end, please outline what changes, if any, the Navy has made, is making, plans to make, or is considering in order to:

Improve diversity in leadership positions;

Answer. Navy has implemented numerous initiatives to improve diverse representation in leadership positions and is currently implementing recommendations from the Task Force One Navy (TF1N) final report. TF1N was established to identify and make recommendations to dismantle barriers to equality while creating sustainable opportunities, ultimately achieving our desired end-state of warfighting excellence. Following the TF1N final report, Navy removed photographs during all Officer Selection and Command/Milestone Boards. Additionally, Navy requires diverse representation on all boards and provides bias training to board members to be aware of their potential conscious and unconscious bias and ensure board fairness.

Question. Improve diversity retention at all levels;

Answer. To improve diversity retention, I meet routinely with our 17 Navy Community Leaders, all flag officers, to discuss various community challenges to include the diversity demographics of each community, initiatives to support the recruiting and retention of under-represented groups, the prevalence of destructive behaviors, and efforts to develop and retain future leaders. We conduct listening sessions around the Fleet to ensure all voices are heard and that Sailors and civilian employees understand their opinions matter and are taken into account by command leadership. Additionally, the Navy Junior Officer Counsel formed a formal link between Junior Officers and Senior Navy Leadership to provide feedback, ensuring we are doing everything we can to make our Junior Officers feel connected and included. Though Navy has more work to do to reduce and eliminate barriers to upward career trajectory based on race, gender, ethnicity, or socio-cultural background, we are encouraged by our team's progress.

Question. Improve trainings, including sexual assault prevention, with input from women, LGBTQ servicemembers, BIPOC servicemembers, and sexual assault survivors;

Answer. Our training is being updated to incorporate the Navy's Culture of Excellence and associated Signature Behaviors with input from our sexual assault prevention and response team. Adult learning theory best practices concerning small-group, facilitated discussions will be also be used throughout the training. Once the training is in the pilot phase, we intend to solicit input from different populations of Sailors that may include specific groups such as women, LGBTQ, BIPOC, and sexual assault survivors.

Question. Increase availability and accessibility of mental health support services for servicemembers and their families, including services tailored specifically toward minority servicemembers;

Answer. Senator Leahy, I want to assure you that the Navy remains committed to promoting, maintaining and advancing a healthcare environment which adheres to the principles of community and equity by fostering principles that support: Care with Request; Excellence with Equity; Mindful Actions with Transparency, Responsibility and Accountability; and Diversity with Inclusion.

Specific to mental health support services, Navy ascribes to a "no wrong door" policy to assist Sailors and family members in getting help and support. This policy helps to facilitate access and decrease stigma in seeking mental health and substance misuse services. Services are available worldwide, including in specialty clinics, within primary care, at Navy installation counseling centers, on the waterfront, and embedded within the Fleet. Sailors and their families can also get mental health support, to include chaplains, Military and Family Life Counseling, Fleet and Family Support Centers, and Military OneSource.

Within Navy Medicine efforts are underway develop more formal structures for addressing and integrating health equity/disparities within the context of the Navy's Diversity and Inclusion Framework. This work includes collaboration with the Defense Health Agency and the other Services to advance access, equity and opportunity amongst the healthcare staff as well as develop programs to ensure equitable care and treatment for all service members and families.

Question. Improve outreach to and support for minority servicemembers facing discrimination from within their units;

Answer. Navy ensures all personnel are aware of the command and shore-based assistance available to those who need help in processing harassment or unlawful discrimination reports. In addition, Navy identifies available counseling support or referral services for all personnel involved in incidents of harassment or unlawful discrimination.

Follow-up debriefs are conducted with complainants no later than 45 days following the determination or resolution of harassment or unlawful discrimination report to determine the complainant's satisfaction with the effectiveness of the corrective action, timeliness, present command climate, and to ensure retaliation did not occur.

Question. Improve medical care for transgender servicemembers, women, and Black parents, particularly for transition care, pregnancy, and post-partum care;

Answer. Navy is committed to ensuring all Sailors are treated with dignity and respect and have access to the highest quality healthcare in accordance with current evidence-based practice guidelines. We currently have two Navy Medicine interdisciplinary expert Regional Transgender Care Teams in place to support and improve the health and lives of transgender and gender non-binary Sailors. Our experts work closely with Defense Health Agency and our Army and Air Force colleagues to ensure we incorporate best clinical practices in support of the medical readiness of our transgender and gender non-binary Sailors.

We continue to recognize and emphasize the importance of innovative pregnancy and postpartum care, resources, and educational materials for our Sailors to facilitate their return to duty. Our updated Physical Readiness Program policy provides postpartum Sailors more time, 12 months vice 9 months, to fully recover in a healthy manner prior to being required to meet fitness and body composition standards. We are also prioritizing the importance of ensuring our pregnant and postpartum Sailors have access to the support they need. Navy Medicine has developed a Postpartum Return to Duty Resource to provide Sailors with critical education on physical fitness, mental health, support services, and Navy and Marine Corps policies related to the postpartum transition to full duty. Within the Military Health System, our Navy Medicine women's health experts participate with the Defense Health Agency and the other Services on lines of efforts focused on women's health, perinatal practices, newborn and infants as well as review of data and issues related to maternal and infant healthcare disparities, health equity, and social determinants of health which may be impacted by race/ethnicity.

QUESTIONS SUBMITTED TO GENERAL DAVID H. BERGER

QUESTIONS SUBMITTED BY SENATOR PATRICK LEAHY

Question. Given the administration's priority of taking care of our people, and the important role that unit cohesion plays in improving readiness, it's crucial that the Marine Corps take a fresh look at policies and practices that may not support all service members. To that end, please outline what changes, if any, the Marine Corps has made, is making, plans to make, or is considering in order to:

Improve diversity in leadership positions;

Answer. Diversity and inclusion are force multipliers and take advantage of the wide array of experiences and perspectives necessary to maintain our current and future warfighting excellence. We are committed to capitalizing on the knowledge, skills, abilities, performance, and potential of every Marine.

Diversity in the Marine Corps is increasing. Since 2009, diverse enlisted accessions have increased from 34 percent to 43 percent, and diverse officer accessions have increased from 16 percent to 35 percent. Women officer accessions have increased from 8 percent to 13.8 percent during this same time period. Women represented in previously restricted military occupational specialties (MOS's) are also on the rise. Last year, 737 women were in previously restricted units; that number is now 1,101. Similarly, 283 women were serving in previously restricted MOS's; today that number is 415, including the first woman Reconnaissance Marine.

This year, the Marine Corps reached the level of 21 percent in diversity for Brigadier Generals and Brigadier General-selects, the highest level of diverse representation at that rank in Marine Corps history. And by the end of July of this year, two minority officers from that cohort will promote to Major General. We look forward to seeing this trend continue.

The Marine Corps is a full partner with the Office of the Secretary of Defense and the other Services in accomplishing the recommendations set out in the Secretary's Diversity and Inclusion Board Final Report. However, the Marine Corps is also taking its own initiative to both study and make changes to continue to improve diversity and inclusion.

First, our Diversity, Equity, and Inclusion Strategic Plan will guide our actions over the next 5 years in the areas of recruiting and accessions, talent management, education, training, and commandership. It provides a framework to align a number of efforts, identify new initiatives, and provide oversight across the Corps for implementation by commanders at every level. One of our first actions to implement our plan was the appointment of a general officer as the Service's Chief Diversity and Inclusion Officer. This position will communicate program goals, develop policy, and action per the aforementioned strategic plan. Concurrently, the Marine Corps bolstered the Diversity, Equity, and Inclusion Review Board (DRB). The DRB serves as the action arm of the Marine Corps Diversity and Inclusion Management Program to address diversity, inclusion, and command climate issues that may affect the Marine Corps.

Second, a host of independent studies are currently underway to better understand diversity and inclusion challenges and make improvements. Our Fitness Report Bias Study is an analysis which is examining the objectivity of the current performance appraisal process. The Basic School Military Occupational Specialty Assignment Study which will examine historical performance data, based on demographics, to evaluate the impact of performance on MOS assignment. We are also funding an independent study to identify and understand any barriers to advancement and retention of women and minorities in the Marine Corps. Finally, our Exit & Milestone Longitudinal Survey provides feedback to better understand personnel satisfaction regarding career opportunities, leadership, performance management, diversity, and work-life programs.

Outreach and external engagement are an important facet of our holistic approach to diversity and inclusion. We have steadily increased our Outreach Program budget from \$150,000 in fiscal year 2014 to \$1 million in fiscal year 2021. This Program provides opportunities for professional development, mentoring, and networking experiences by fully funding approximately 500 Marines to attend 19 national/regional conferences hosted by non-Federal entity affinity groups events throughout the year.

The Marine Corps is working collaboratively with our training command to incorporate unconscious bias training at every rank throughout the training continuum. Diversity of thought and experience that each Marine brings will help us find more creative and innovative solutions to these future challenges.

Diversity and inclusion are, more than anything, a leadership issue. Marine leaders must not just talk about changing culture—they must be the example of how to treat fellow Marines and all individuals with dignity, respect, empathy and compassion.

Question. Improve diversity retention at all levels;

Answer. See response to 1a above.

Question. Improve trainings, including sexual assault prevention, with input from women, LGBTQ servicemembers, BIPOC servicemembers, and sexual assault survivors;

Answer. Collaboration is key in addressing sexual assault prevention and response. We have collaborated with sexual assault survivors, members of the LGBTQ+ community, SAPR personnel, women, and BIPOC servicemembers to improve our SAPR training; we will continue to do so. Our SAPR program works together with the other Services, Department of the Navy and Department of Defense Sexual Assault Prevention and Response Offices, and outside entities to enhance our ability to prevent and respond to sexual assault, identify best practices, and leverage resources.

Our continued focus on prevention seeks to tailor training to specific levels of leadership. This enables a multi-layered approach to prevention to fit Marines of every age, rank, and billet. For example, our updated SAPR annual training for Staff Non-Commissioned Officers (SNCO) provides more focus at the small unit level. This training's goal is to help increase SNCO knowledge about sexual assault, reporting, resources, rank-specific roles and responsibilities, and to build skills consistent with primary prevention.

We also updated the SAPR training for the Commander's Course to better prepare senior leadership to prevent sexual assault once they assume command. This includes information focused on actionable recommendations for pre-command leaders and small group discussions facilitated by Marine Corps mentors and SAPR experts. Commanders set the tone of their unit—we know how important it is to ensure they are equipped before they assume command to establish the right command climate—a climate that encourages Marines to look out for one another and report destructive behaviors and crimes, and that mandates accountability for perpetrators and enablers. Likewise, we updated First Sergeant's Course to include actionable recommendations for sexual assault prevention, information on responses to trauma, and actions to take if one of their Marines is sexually assaulted, appropriate to their new positions.

While we highlight our prevention efforts, we acknowledge that we are not where we need to be; we still have incidents of sexual harassment and assault and so we must ensure we provide the best support possible to victims. A revised SAPR Victim Advocate (VA) training was released in October 2019 and has been fully implemented. The revised 40-hour curriculum focuses on building and refining advocacy skills and includes cultural competency and prevention training. We are currently revising Sexual Assault Response Coordinator (SARC) Initial Training to build on advocacy and cultural competency skills taught in the 40-hour training and prepare SARCs to oversee their SAPR program.

The Marine Corps continually evaluates SAPR initiatives for effectiveness by conducting needs assessments, surveys, and staffing analysis. SARC and VA training curriculum development has been standardized which better ensures that Marines understand reporting options, SARCs and VAs are prepared to support victims, and all understand their role in sexual assault prevention.

We want to leverage technological developments too. We are implementing online evaluation tools for select SAPR annual training, Victim Advocate training, and Sexual Assault Response Coordinators initial training. The evaluation tools measure changes in knowledge, attitudes, and intentions, as well as training satisfaction, consistency of instruction, and quality of instruction. These evaluation results will inform local SAPR personnel, as well as HQMC personnel, on the effectiveness of the trainings.

Question. Increase availability and accessibility of mental health support services for servicemembers and their families, including services tailored specifically toward minority servicemembers;

Answer. Marine Corps' focus is to treat all Service member and their families with equality while recognizing and embracing diversity. Accessibility of nonmedical support services was expanded in May 2020 to telephonic and virtual platforms. Traditional knee-cap to knee-cap counseling remained intact whenever possible as well. Although each installation across the Marine Corps provides published service hours, standard practice from the field staff in the behavioral health programs is to accommodate alternate hours upon request.

Two significant support programs are the Unit Marine Awareness and Prevention Integrated Training for Marines (UMAPIT) and our Operational Stress Control and Readiness (OSCAR) programs. UMAPIT is a training and education calendar year requirement for all Marines, and provides specific information and actions Marines can employ to access mental health resources. OSCAR is a Marine-trained team of Marines within Marine Corps units who help recognize and respond to stress. If a Marine believes their stress-level is negatively impacting their unit, an OSCAR member is there to talk and to connect the Marine with other resources. These and other programs are specifically geared to nonmedical mental health support.

The Marine Corps remains committed to promoting, maintaining, and advancing a healthcare environment that adheres to the principles of community and equity by fostering principles that support: Care with Request; Excellence with Equity; Mindful Actions with Transparency, Responsibility and Accountability; and Diversity with Inclusion.

Specific to mental health support services, the Marine Corps ascribes to a "no wrong door" policy to assist Marines and family members in getting help and support. This policy helps to facilitate access and decrease stigma in seeking mental health and substance misuse services. These services are available worldwide, including in specialty clinics, within primary care, at Marine Corps installation counseling centers, and embedded within the Fleet Marine Force.

Marines and their families can also get mental health support, to include chaplains, Military and Family Life Counseling, Marine & Family Programs, and Military OneSource.

Within Navy Medicine, efforts are underway to develop more formal structures for addressing and integrating health equity/disparities within the context of the De-

partment of the Navy's Diversity and Inclusion Strategic Framework. This work includes collaboration with the Defense Health Agency and the other Services to advance access, equity, and opportunity amongst the healthcare staff; as well as develop programs to ensure equitable care and treatment for all service members and families.

Question. Improve outreach to and support for minority servicemembers facing discrimination from within their units;

Answer. The Marine Corps' support for minority service members facing discrimination within their units is rooted in the DoD's Strategic Elements of prevention, reporting, advocacy, education/training, and accountability; with Marine Corps Order (MCO) 5354.1F, "Prohibited Activities and Conduct (PAC) Prevention and Response Policy," encompassing all of the aforementioned elements of support.

Our PAC order defines that any conduct discriminating an individual or a group based on race, color, national origin, religion, sex (including pregnancy), gender identity, or sexual orientation is prohibited by all personnel. The order describes how qualitative and quantitative data collection from Command Climate Assessments (CCAs) allows commands to best leverage command-level Equal Opportunity Advisors/Equal Opportunity Representatives (EOAs/EORs) to facilitate focus groups and tailor annual PAC training to include additional topics, as part of a comprehensive prevention strategy.

Not only do all Marines complete PAC training every year, commands can use their EOAs/EORs to conduct additional PAC training or focus groups, at any time, in order to combat PAC behavioral trends.

As an additional part of CCAs, any areas falling below the average require a corrective action plan by the commander. The plan is implemented and evaluated during all Comprehensive Command Inspections, Independent Command Inspections, and the Commanding General's Inspection Program Inspections as an additional level of validation by external command entities. The commander is appropriately held further accountable on his/her annual fitness report by a statement identifying a commander's failure, if any, to conduct required CCAs.

Annual PAC training also informs unit members that any complaints of violating behaviors they witness can be reported for command resolution. The complaint will then be resolved through informal or formal resolution. All unit members have access to full-time EOAs and collateral-duty EORs, who provide advice and guidance to complainants on matters related to PAC. Typically, EOAs/EORs provide the annual training and conduct focus groups, so unit members know who these appointed personnel are, but each command also posts fliers identifying these personnel in an effort to ensure service members have this information at all times.

Additionally, the PAC order stipulates commanders must ensure Service members have access to support services, such as mental health counseling, medical, EOA, Victim and Witness Assistance Personnel, and Victim Legal Counsel.

The Marine Corps takes a comprehensive approach to support minority service members facing discrimination within units. Combatting such behavior is a team effort that requires the commander to set the correct climate denouncing PAC violations, EOAs/EORs educate and support the command and its unit members, and each unit member being held appropriately accountable for their actions.

Question. Improve medical care for transgender servicemembers, women, and Black parents, particularly for transition care, pregnancy, and post-partum care;

Answer. The Marine Corps is committed to ensuring all Marines are treated with dignity and respect, along with access to the highest quality healthcare in accordance with current evidence-based practice guidelines. There are currently two Navy Medicine interdisciplinary expert Regional Transgender Care Teams in place to support and improve the health and lives of transgender and gender non-binary Marines. These experts work closely with the Defense Health Agency, as well as Army and Air Force colleagues, to ensure the best clinical practices are incorporated in support of the medical readiness of our transgender and gender non-binary Marines.

We continue to recognize and emphasize the importance of innovative pregnancy and postpartum care, resources, and educational materials for our Marines to facilitate their return to duty. Our physical readiness program is focused on providing postpartum Marines time to fully recover in a healthy manner prior to being required to meet fitness and body composition standards. We also recognize the importance of ensuring our pregnant and postpartum Marines have access to the support they need. Navy Medicine has developed a Postpartum Return to Duty Resource to provide Marines with critical education on physical fitness, mental health, support services, as well as Navy and Marine Corps guidance related to the postpartum transition to full duty. Within the Military Health System, Navy Medicine women's health experts participate with the Defense Health Agency and the other Services on lines of effort focused on women's health, perinatal practices, newborn and in-

fants; as well as review of data and issues related to maternal and infant healthcare disparities, health equity, and social determinants of health that may be impacted by race/ethnicity.

QUESTIONS SUBMITTED BY SENATOR DIANNE FEINSTEIN

Question. General Berger, last year we lost 8 Marines and 1 Sailor during a terrible training accident involving an Amphibious Assault Vehicle off the coast of California. The investigation report highlighted several training and equipment deficiencies.

How is the Marine Corps working to prevent a recurrence of future amphibious vehicle accidents, and has the Marine Corps requested enough funding in the budget to adequately maintain these vehicles and procure the replacement vehicles?

Answer. The Marine Corps is committed to identifying the issues that led to this tragedy and to preventing future occurrences. We have concluded a safety investigation and a command investigation into the facts and circumstances surrounding the sinking of 15th Marine Expeditionary Unit's (MEU) amphibious assault vehicle (AAV) and the resulting loss of life. An investigation into the formation of the 15th MEU is pending endorsement. Finally, a Blue Ribbon Panel of senior Marine Corps and Navy personnel has formed and is currently conducting a strategic review of amphibious operations.

We are confident the safety and command investigations identified contributing and causal factors. As a result of these investigations, the Marine Corps has directed 23 institutional actions to ensure the safe execution of AAV waterborne operations. These actions fall into one of three categories: equipment, procedures, and training. Equipment actions include a combination of equipment advances and additional inspections such as: procurement and sustainment of a Waterborne Egress Capability program; electronic tablets for crewmembers to manage associated technical and procedural manuals; and new criteria for hull watertight integrity, bilge pump function, communications systems, and emergency egress lighting systems. To address procedural actions, the Marine Corps has administered many publication and policy reviews to operating procedures, technical manuals, and safety structure requirements during training. These include updates to: training and qualification prerequisites; authority and decisionmaking procedures; and safety boat requirements. Finally, training actions include implementing additional standards for water survival, underwater egress training for both crew members and embarked personnel, and standardized knowledge tests for crew members. These last two tasks, plus oversight of mechanical and procedural inspections, have to be completed by operational level units and certified by the first general officer in the chain of command in order for them to gain authority to perform waterborne operations.

We have fully funded the AAV program to implement the institutional actions related to the safety and command investigations as well as routine maintenance requirements.

We are confident the directed service level actions will rectify any issues that contributed to this terrible tragedy with the goal of ensuring no similar incident occurs again.

QUESTIONS SUBMITTED BY SENATOR LISA MURKOWSKI

Question. The Navy and Marine Corps Arctic strategy document, "Blue Arctic" specifically states the "The [Naval Services] will be postured to deter aggressive and malign behavior, keep the seas free and open, and assure allies and partners of our long-term commitment to preserving peace and advancing shared interests." It also emphasizes the need for "credible naval forces [to] ensure the ability to deter competitors and rapidly respond to crises in the region."

Do you see any lessons learned in the Marine Corps' Expeditionary Advanced Based Operations (EABO) concept that can be applied to a homeland archipelago, such as the Aleutians, for a deterrence model?

Answer. Yes, the capabilities used to conduct Expeditionary Advanced Base Operations (EABO) would be especially useful in a complex homeland archipelago such as the Aleutians. EABO is a form of expeditionary warfare that involves the employment of mobile, low-signature, persistent, and relatively easy to maintain and sustain naval expeditionary forces from a series of austere, temporary locations ashore or inshore within a contested or potentially contested maritime area in order to conduct sea denial, support sea control, or enable fleet sustainment. The capabilities we are developing to conduct EABO—to include various combinations of manned and unmanned sensors and long-range precision fires—are absolutely applicable to

detecting and countering malign behavior, contributing to integrated deterrence and, if necessary, conducting sea denial to maintain the sovereign integrity of our own waters.

Through an iterative campaign of experimentation and exercises, the Marine Corps will continue to refine and update the capabilities and force structure required to conduct EABO over the coming years.

Question. At a recent budget hearing for the State Department, Secretary Blinken told me that, by his own determination, and I quote: “the United States would be extremely well served by ratifying the Law of the Sea Treaty.” He even went as far as to say that this is not only his opinion, but “it’s been the judgement across the board by our military leadership, uniform and civilian for many years.” Secretary Blinken is the latest in a long line of department secretaries to agree on this point. I believe that ratifying the Law of the Sea is in the best interest of the United States. Along with Senator Hirono, I put forward legislation urging the Senate to ratify Law of Sea.

General Berger, would you expect Marines to be required for missions to uphold UNCLOS norms?

Answer. Yes. Our Marines are expected and trained to uphold our international legal obligations in all military operations.

Question. As a naval service chief, do you believe the Senate should ratify the Law of Sea?

Answer. Consistent with past Commandants, I believe acceding to the Convention could strengthen our position when challenging violations of international law by our adversaries.

While the Convention reflects customary international law on which the United States has long relied for its freedoms of navigation and overflight around the world, acceding to the Convention would reinforce these rights and freedoms.

Question. What benefit will it provide to the United States? Would we be in a stronger military position if we were to ratify the Law of the Sea?

Answer. The Convention reflects the traditional uses of the oceans such as navigation and overflight rights and freedoms across the globe for our civilian and military ships and aircraft. These traditional uses, including innocent passage through other nations’ territorial seas and transit passage through, under, and over international straits, are vital to our national security interests. To date, the United States has relied on customary international law as the legal basis for these rights and freedoms, but customary international law will not adequately protect U.S. maritime security interests over the long term. For instance, a number of our adversaries claim that only States that are party to the Convention enjoy the rights and freedoms that the Convention provides. Acceding to the Convention would solidify these and other rights and freedoms in a manner beneficial to naval operations, facilitate closer cooperation with our allies and partners, and disarm our adversaries of these claims. Joining the Convention is the best means of securing U.S. rights and freedoms, and maximizing the ability of our armed forces to move through and over the world’s ocean waters.

The Marine Corps is a naval expeditionary force-in-readiness prepared to operate inside actively contested maritime spaces in support of fleet operations that are largely dependent upon the navigational rights enumerated in the Convention. Moreover, the United States conducts its operations in coalitions with allies and partners—most of whom are parties to the Convention. Acceding to the Convention will reinforce U.S. leadership and influence in the shaping of global maritime law and policy in ways that serve U.S. interests, validate U.S. maritime activities under international law, and demonstrate U.S. commitment to the rule of law in the conduct of its operations.

Question. And what would you say to those that want to be tough on China and Russia, but are still against the ratification of the treaty?

Answer. Accession to the Convention would allow the United States to participate in future law of the sea discussions on a coequal level with China and Russia, who are member States. In 1983, President Reagan set forth the U.S. Oceans Policy, which stated that the United States will not “acquiesce in unilateral acts of other States designed to restrict the rights and freedoms of the international community in navigation and overflight and other related high seas uses.” China’s increasingly aggressive posture in the South China Sea is a direct attack on the international rules-based order embodied by the Convention. Its conduct of gray zone activities seeks to erode its provisions. As a party to the Convention, U.S. objections to these violations would have significantly more force and credibility. The United States would also be better positioned to contest excessive maritime claims and other unlawful activities by China and others, such as Russia and Iran, who continuously attempt to restrict the Convention’s navigational rights and freedoms.

QUESTIONS SUBMITTED BY SENATOR JOHN HOEVEN

Question. You mentioned in your written statement that you expect to make use of medium altitude, long endurance unmanned aircraft like the MQ-9 even when Marines are deployed in close proximity to our adversaries. Additionally, your fiscal year 2022 budget request includes a substantial investment in the MQ-9A extended range aircraft.

Could you describe the role you expect unmanned aircraft to play for Marines deployed near China or Russia?

Answer. The MQ-9A Extended Range will fulfill a primary mission of communication and data relay with an additional airborne early warning capability. This will provide deployed Marine Corps and Joint Force units with persistent tactical maritime Intelligence, Surveillance, and Reconnaissance (ISR) and command and control gateways. The MQ-9A Extended Range is also a critical enabler to the Naval force in building an alternate Precision, Navigation, and Timing network.

The Marine Corps seeks to procure six MQ-9A Extended Range systems in fiscal year 2022, and a total of 18 systems over the next several years, to form three Unmanned Aircraft Systems (UAS) squadrons. The Marine Corps will leverage an existing Air Force system and two current Marine Corps assets in USCENTCOM to reduce risk, while providing advanced capabilities to the Marine Corps and overall joint warfighting enterprise.

Additionally, the Marine Corps continues to develop and experiment a family of UAS with a variety of plug-and-play payloads. These systems will give ground combat units organic Reconnaissance, Surveillance, and Target Acquisition (RSTA) assets capable of supporting long-range precision kinetic and non-kinetic fires, both afloat and ashore. This includes conducting extended user evaluations with industry leading systems to include the UAV V-BAT and the Stalker UAS to inform requirements for the Ground Combat Element.

QUESTIONS SUBMITTED BY SENATOR JOHN BOOZMAN

Question. General Berger, the budget request includes a significant increase for the Ground Based Anti-Ship Missile program. I understand this program is vital to your future force design. Given the tough budget decisions facing this committee:

Why is this program so important to the Marine Corps and what progress was made on the development of this program since last year?

Answer. Ground Based Anti-Ship Missile (GBASM) is the Marine Corps' top modernization priority and is the key lethality component for the Marine Corps to facilitate sea denial in support of naval and joint operations. The capability creates cost impositions for an adversary by introducing a new and highly credible threat into their decisionmaking, while providing us with a relatively low cost and highly effective capability.

The initial materiel solution for GBASM is the Navy-Marine Expeditionary Ship Interdiction System (NMESIS) which consists of two Naval Strike Missiles mounted on a remotely operated Joint Light Tactical Vehicle (JLTV)-based chassis. By combining existing technologies in the missile and the platform, the Marine Corps has reduced programmatic risks through the use of proven capabilities, which enables us to move faster. The Marine Corps successfully tested this system against a ship target in November 2020, and in our fiscal year 2022 budget request, we are seeking funding for 10 production representative models (PRMs) for further developmental and operational testing. With the ability to strike enemy ships at ranges of 100 nautical miles and beyond, we believe it will be a "game changer" for the Marine Corps, the Naval Fleet Commander, and Combatant Commanders.

Additionally, the Marine Corps is developing a longer-range capability, which we call "Long Range Fires." The Marine Corps successfully tested this program in March 2021.

Question. How will the Unfunded Request for additional missiles support your fielding of this capability?

Answer. Naval Strike Missiles are the munition component of the Navy/Marine Expeditionary Ship Interdiction System (NMESIS) which is the Marine Corps' first iteration of the GBASM capability. These additional missiles in the Unfunded Priority List (UPL) would provide greater magazine depth for the units that will employ them in the Indo-Pacific.

As the pacing threat moves with us and technology develops at a speed faster than the budget, funding the entirety of our UPL request provides us the opportunity to capitalize on successful technological developments. This will accelerate additional capability to the Combatant

Commanders, specifically in the Indo-Pacific, buying down strategic risk for them and our forward deployed forces, and deterring conflict sooner.

Question. General Berger, I want to expand on 2030 Force Design. Secretary Austin recently testified in this committee that China is the #1 pacing threat. How will the different elements of your Force Design support the Joint Force within the INDOPACOM area of responsibility and how does the Pacific Deterrent Initiative support your efforts within the Joint Force?

Answer. A new type of unit, the Marine Littoral Regiment (MLR), is a vital element of the Marine Corps' Force Design transformation. These new units will be task-organized and dispersed across key maritime terrain in the Indo-Pacific region to support the Naval and Joint Force. The MLR capabilities will augment and reinforce a host nation's ability to monitor, expose, and challenge malign behavior, but the MLRs will also be fully capable of operating without host-nation support if required. Additionally, the MLRs will be highly mobile, constantly changing their positioning and posture to increase ambiguity and increase the adversary's challenge of monitoring and targeting MLR units. In order to provide lethality when needed, the MLRs will possess complementary capabilities of sensing, communication, maneuverability, and precision fires. These characteristics and capabilities will reduce an adversary's confidence and encourage off-ramps from conflict.

Marine Corps investments in new capabilities and current operations are in direct alignment with and supported by the Pacific Deterrence Initiative (PDI). Namely, PDI supports the Commandant's Force Design 2030 initiative to build a force able to operate in actively contested spaces in support of the Joint Force, providing the Combatant Commander with ready, relevant crisis response forces and a capability to work effectively with allies and partners.

As part of the Naval Expeditionary Force resiliency, investments allow Marine Air-Ground Task Force (MAGTF) elements to maneuver, communicate, and conduct intelligence, surveillance, and reconnaissance within contested maritime environments. Air defense is provided through investments which will identify, track, and defeat enemy Unmanned Aerial Systems. Funding is also provided for effective Aviation Command and Control, to foster resiliency in logistics lines of communication, deter and defeat threats in the electromagnetic spectrum, and provide precision strike fire support in support of distributed operations. Investments in these capabilities allow our forward deployed Stand-in Force to support Joint operations inside the enemy's weapon engagement zone (WEZ) and to compete and deter in the contact and blunt layers.

Additionally, PDI investments in security cooperation programs will strengthen relationships with our allies and partners in the Indo-Pacific region, and these investments directly support the Marine Forces Pacific Afloat Prepositioning Training and Exercise Employment Plan through the funding of exercises FREEDOM BANNER, BALIKATAN, and COBRA GOLD.

SUBCOMMITTEE RECESS

Senator TESTER. This committee stands in recess.

[Whereupon, at 11:02 a.m., Thursday, June 24, the subcommittee was recessed, to reconvene subject to the call of the Chair.]