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COMMITTEE SUBCOMMITTEE ON
SEAPOWER

STATEMENT

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BEFORE THE

SUBCOMMITTEE ON SEAPOWER

OF THE

SENATE ARMED SERVICES COMMITTEE

ON

MARINE CORPS GROUND PROGRAMS

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Introduction

Mr. Chairman, Ranking Member Hirono, and distinguished members of the Subcommittee, we thank you for the opportunity to appear before you today to discuss Marine Corps Ground Programs. Our testimony will provide the background and rationale for the Marine Corps' Fiscal Year 2018 budget request which is aligned to our strategic priorities and budgetary goals.

The United States is a maritime nation with global responsibilities. These responsibilities include guaranteeing freedom of navigation and commerce on the seas, promoting international stability and order, and protecting ourselves and our allies and partners from threats and aggression. Our Navy and Marine Corps' persistent presence and multi-mission capability represent U.S. power projection across the global commons. Where adversaries would prefer to keep us distant, we are already present on scene, engaging with our allies and partners, and operating routinely inside the potential engagement zone of threat weapons systems.

The Marine Corps is the Nation's expeditionary force-in-readiness. By Congressional mandate, it has a unique role and structure described as a "…balanced force-in-readiness, air and ground." Our forces enable global reach and access through presence, sea control, mission flexibility and when necessary, direct interdiction. This mandate also requires the Marine Corps to maintain a high state of combat readiness and to be "most ready, when the Nation is least ready."

Current Operations

The past three decades have seen an incessant and growing demand from our regional Combatant Commanders (CCMDs) for forward naval forces, Marine Corps forces in particular. Last year alone, the Marine Corps executed over 210 operations, 20 amphibious operations, 160 Theater Security Cooperation (TSC) events, and participated in 75 exercises. Marine Corps units deployed to every Geographic Combatant Command (GCC) and executed numerous TSC exercises to help strengthen relationships with allies and build partner capacity. Advise and Assist teams from Special Purpose Marine Air Ground Task Force – Crisis Response (SPMAGTF – CR) – Central Command helped enable Iraqi Army operations at multiple sites in Iraq. SPMAGTF-CR-Africa's crisis response force maintained alert postures from Naval Air Station Sigonella, Italy, Moron Air Base, Spain and Djibouti during multiple Special Operations Command operations in North Africa. In Afghanistan, the Marine Corps deployed Task Force Southwest to Helmand Province to train, advise and assist the Afghan National Army and Police.

Marine Expeditionary Units (MEU) deployed to multiple GCCs over the year and successfully integrated with U.S. Special Operations Command in support of operations in North Africa and the Southern Arabian Peninsula. Marine Security Augmentation Unit (MSAU) teams deployed 64 times in 2016 at the request of the State Department, executing 20 Embassy/Consulate security missions and 46 VIP security missions. Additionally, at the request of the U.S. Agency for International Development, Joint Task Force-Matthew was activated in October 2016 in response to Hurricane Matthew, a Category 4 hurricane which made landfall in Haiti and left

over 750,000 people in need of assistance. Within 48 hours, SPMAGTF-Southern Command (SC) self-deployed to provide much needed aid to the people of Haiti. Shortly thereafter, the 24th MEU deployed to Haiti aboard amphibious shipping to provide additional support. Overall, SPMAGTF-SC and the 24th MEU delivered 578,491 lbs. of relief supplies to the disaster stricken area.

Future Operating Environment

Today we are at an inflection point. Our priority of effort over the 15 years of war in Iraq and Afghanistan has been meeting the immediate requirements of combat operations. During this period, we risked modernization to ensure the combat readiness of deploying Marines. While our focus was elsewhere, our potential enemies modernized, reducing the technological advantages American forces once took for granted. In many theaters we can no longer assume superiority in any domain; sea, air, land, space or the electromagnetic spectrum. In short, the Marine Corps is not organized, trained, or equipped to meet the demands of the future operating environment.

Growing instability in multiple regions increases the necessity of having forward postured naval forces to protect our national interests. Some regional actors seek to secure their objective by taking a continuous series of small steps to incrementally establish new conditions favorable to their objectives. This undermines existing authority and erodes prevailing norms without resorting to actual fighting. Simultaneously, these actors seek to challenge us in new ways within the littorals, advancing their ability to locate, track, and attack the naval fleet and testing current naval force designs and operating concepts. As a result, the traditional technological and professional advantages enjoyed by US forces for decades are eroding.

The Marine Corps Operating Concept (MOC), published in September of 2016, articulates these problems and several drivers of change affecting the future operating environment. First, increasingly complex and highly populated urban coastal regions magnify the challenges of operating in the littorals. Second, technology proliferation grants many adversaries access to high end technologies that allow them to engage our forces more effectively, from greater distances and in any environment. Third, our adversaries increasingly use information as a weapon, soliciting local support and effecting global opinion. Fourth, every observable aspect of our force is a vulnerability, be it visual, audible, or electro-magnetic. Lastly, the maritime domain is becoming ever more contested, with adversaries challenging our in and around the global commons.

In order to compete in the future operating environment characterized above, the MOC identifies five critical tasks which are guiding our efforts to change how we organize, train and equip our forces. In support of our Title 10 responsibilities to serve as the Nations' expeditionary naval force, we must first integrate the naval force to fight at and from the sea. The MAGTF's ability

to rapidly deploy, employ, and sustain versatile combat power from the sea to the shore and back is crucial to the security of the Nation.

Second, we must evolve the MAGTF by maintaining and improving its ability across the Range of Military Operations, enhance Special Operations Force integration, exploit automation and manned-unmanned teaming, and improve the agility the MAGTF through improved command and control. Third, the MAGTF must be able to operate with resilience in a contested network environment by reducing signatures, improve our networks, enhance the effectiveness of massed and precision fires, and improve our ISR. Fourth, we must enhance our ability to maneuver in and around the littorals, broaden our idea of combined arms to include information warfare, and improve our mobility and ability to disperse in increasingly complex urban terrain.

The fifth and final task identified in the MOC is to exploit the competence of the individual Marine. This requires seeking high-quality human capital first and foremost. Accomplishing this task also requires training and educating Marines in ways that prepare them for the complexity of the future operating environment. Lastly, it requires developing leaders at every level and managing our talent to improve our return on investment.

The 5th Generation Marine Corps

The MOC defined the problem, offers a framework for developing solutions, and an azimuth for the Marine Corps to follow. What remained was the detail work, work that would clearly articulate specific requirements. Over a period of 18 months, the Marine Corps conducted an extremely exacting capabilities-based review. This iterative effort examined end strength, force structure, equipment of all types and across all warfighting functions, in order to identify needed changes. The output of this work, which is collectively called Marine Corps Force 2025, seeks to define a Marine Corps optimized to meet future challenges. Marine Corps Force 2025 also identifies several immediate priorities that must be addressed in order to fight and win against highly capable enemies.

First, within the FY17 NDAA authorized endstrength of 185,000 Marines, the Marine Corps will focus its personnel growth in areas such as intelligence, electronic warfare, cyber and information warfare. This growth will compliment both planned and current equipment modernization efforts. While I want to express my gratitude to the Congress for the additional endstrength authorization, it is also important to be clear about the gaps these extra 3,000 Marines do not fill. For example, we are nearing the official activation of the office of the Deputy Commandant for Information, but our information warfare and cyber capabilities will still be constrained under current endstrength levels.

Most critically, 185,000 Marine endstrength only improves the deployment-to-dwell ratio slightly. A 1:3 deployment to dwell ratio is our goal, which merely means that if a Marine deploys for 7 months, they are non-deployed for 21 months. At the individual and personal level, a 1:3 deployment-to-dwell ensures our Marines achieve a minimal level of work-life balance, taking care of their families and their own personal needs. However, the 1:3 metric

serves a broader purpose which is directly linked to providing for the Nation's defense. The 1:3 ratio is the only way to ensure Marines are afforded the training time necessary to build full-spectrum readiness necessary to fight peer adversaries. Operating below a 1:3 ratio also forces us to choose between the readiness of deploying units and modernizing the force.

The Marine Corps operating forces are currently averaging, in the aggregate, less than 1:2 deployment-to-dwell ratio. Individual unit deployment tempo remains on par with the height of our commitments in Iraq and Afghanistan. Deliberate and measured capacity increases, reduction of our operational tasking, or a combination of the two, are solutions that would put us on the path to improve our deployment-to-dwell ratio..

Naval forces postured forward in formations appropriately tailored to the requirements of a region are essential to continual engagement and underscore our commitment to allies. Fielding naval forces at the capacity needed to operate forward is critical to projecting a credible deterrence. Insufficient endstrength creates a lack of capacity. Marine Corps Force 2025 attempts to mitigate some of these shortfalls.

Requirements of the Future Force

In addition to force structure changes, the Marine Corps Force 2025 effort identified broad ground equipment capability gaps and specific requirements of the future force. Within current budget and endstrength limits, the Marine Corps has prioritized its efforts across the MAGTF. Ground program priorities include modernizing the amphibious vehicles, combat and tactical vehicles, sensor and command and control capabilities, and long range precision fires.

Modernize the amphibious vehicle fleet

The combat and tactical vehicle modernization programs account for a significant portion of Marine Corps modernization investment. The overarching combat and tactical vehicle investment priority is the modernization of the assault amphibian (AA) capability with a combination of complementary platforms. The Amphibious Assault Vehicle Survivability Upgrade (AAV SU) and the Amphibious Combat Vehicle (ACV) programs are the means to replace the legacy AAV.

The AAV SU program will ensure the current fleet of AAVs is more survivable and combat effective until ACV and future systems are fully developed. The AAV SU program will modernize 4 of 10 Assault Amphibian (AA) companies and requisite elements of the supporting establishment. This quantity supports the phased modernization of this critical capability while sustaining sufficient capacity to meet a 2.0 MEB Assault Echelon lift through 2035. The Amphibious Combat Vehicle (ACV) 1.1 program will modernize 2 of 10 AA companies. The program was certified Milestone B in the fall of 2015. Two vendors, BAE and SAIC, were selected to produce 16 prototypes each for further testing. The vendors are currently building and delivering their prototypes for developmental testing. Milestone C is planned for 3rd Quarter FY18, with an Initial Operating Capability (IOC) planned for FY20, and Full Operating Capability (FOC) by FY22. ACV increment 1.2 will modernize 4 of 10 AA companies and is

expected to achieve IOC by FY23, FOC by FY26. Increment 1.2 will also add mission role variants for command and control and recovery.

We plan to replace AAV SU by 2035. We remain committed to evaluating ways to extend the amphibious task force's operational reach. We have identified a decision point in the mid-2020s that will allow us to assess technologies and materiel alternative to enable extended reach without unacceptable trade-offs and unaffordable costs. Science and Technology (S&T) lanes have been established to (1) improve water speed and fuel economy, (2) research future sleds and connectors to transport lower water speed platforms at higher speed and (3) to develop and experiment with small unmanned amphibious vehicles and swarms with modular payloads. This mid-2020s decision point will set conditions to begin a program to replace the Survivability Upgrade AAV.

Modernize ground vehicles

Replacement of the portion of the high mobility multi-purpose, wheeled vehicle (HMMWV) fleet that is most at risk remains our second highest priority. Our most at-risk HMMWVs are those that perform combat functions which typically expose them to enemy fires. In partnership with the Army, the Marine Corps has sequenced the Joint Light Tactical Vehicle (JLTV) program to ensure affordability while in the first increment replacing about one third of the legacy HMMWV fleet in conjunction with the fielding of ACV 1.1. This first procurement constitutes Increment 1.0, which achieves the Approved Acquisition Objective (AAO) of 5,500 vehicles. This AAO is fully funded and will achieve IOC in FY20 and FOC in FY22. Future increments will address the remainder of the HMMWVs.

Modernize our ability to command and control

The ability to coordinate and synchronize distributed Command and Control (C2) sensors and systems is critical to the success of the MAGTF both afloat and ashore. These capabilities are ever more important as our adversaries' technological capabilities rapidly advance. Our top priority in this arena is the Ground/Air Task Oriented Radar (G/ATOR). G/ATOR Block 1 provides the MAGTF a state-of-the-art air defense/surveillance capability. Block 1 is currently in low rate initial production (LRIP) and the first two systems were received by the Marine Corps this spring for testing. G/ATOR Block 2 provides the MAGTF new counter-battery/target acquisition capability and is in the Engineering & Manufacturing Development (EMD) phase of acquisition. Block 1 and 2 systems will achieve IOC during FY18 and FOC by 2024.

In addition to these major programs, the Marine Corps is developing and procuring several critical enablers for the MAGTF of 2025. Common Aviation Command and Control System (CAC2S) provides common, modular, and scalable solutions to replace legacy aviation Command and Control (C2) systems in C2 nodes such as the Direct Air Support Center (DASC) and Tactical Air Command Center (TACC). The system integrates G/ATOR and AN/TPS-59 radar feeds with tactical data link information from other networks in order to conduct air

command and control. CAC2S Phase 2 fielding began on May 8th at Marine Air Control Group 28, Cherry Point, NC. The first nine systems will be fielded by February 2018.

The MAGTF of 2025 must also improve the networking capability of ground systems. Networking on the Move (NOTM) is being procured to enhance networking among both ground vehicles and aviation platforms. NOTM provides the MAGTF with robust beyond-line-of-sight command, control and communication capabilities while on the move or stationary. Using existing commercial or military broadband SATCOM, this system extends the digital network to Marines at the furthest reaches of the battlefield. This system will enable the distributed Marine forces of 2025.

The Marine Corps continues to make rapid progress in the use Small Unmanned Arial Systems (SUAS). Within the next 18 months, every infantry battalion in the Marine Corps will have multiple SUAS platforms for conducting Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISR), enhancing the reach of current communications equipment, and for use in training for countering enemy UAS platforms. As recently as February 2017, 3rd Light Armored Reconnaissance Battalion conducted a proof of concept during training using SUAS as the primary observer for the adjustment of mortar fires. The Marine Corps is using some commercial off-the-shelf systems as well as systems produced through the use of additive manufacturing. Simultaneously, the Marine Corps is advancing the digital interoperability between these systems and digital communications systems in order to synchronize as well as control SUAS platforms.

Lastly, the Marine Corps must advance its long range precision fires capabilities. In support of this requirement, we have prioritized the reactivating 5th Battalion, 10th Marines as a High Mobility Artillery Rocket System (HIMARS) unit. Due to reach IOC in FY21, this battalion will expand long range fires capability to II Marine Expeditionary Force based in Camp Lejeune, North Carolina. In addition, we are exploring the ability to launch Guided MLRS rockets from aboard ships and modifications to the rockets to enable engagement of moving targets.

Create opportunities to innovate and achieve rapid advances in capability (separate section, not linked to "ground programs"

Innovation, both at the individual and institutional level, is key to building the future force. The Marine Corps Warfighting Lab/Futures Directorate (MCWL/FD) leads the Marine Corps' innovation efforts. In constant pursuit of leap ahead technologies and innovative ideas, MCWL, along with the operating forces, the supporting establishment, and coalition partners, conducts exercises and experiments to test ideas that will enable the amphibious force of the future. Just over a month ago, MCWL and its Rapid Capabilities Office (RCO) lead the Ship to Shore Maneuver Exploration and Experimentation (S2ME2) demonstration, part of the Advance Naval Technology Exercise series of experiments. The exercise explored over 110 technologies focused on enabling amphibious operations in a contested maritime environment. Technologies on display included unmanned systems and robotics, additive manufacturing and autonomous technologies and weapons platforms. At little cost to the Marine Corps, the exercise identified

several technologies with potential that will be further explored at exercises like Bold Alligator 17, and subsequently provide operational prototypes for employment and assessment by the operating forces. For FY18, MCWL and DASN, RD&E will seek opportunities to equip Marine units with emergent and disruptive capabilities in areas such as long-range precision fires, swarming unmanned systems, and tactical Information Warfare.

Experiments and exercise like S2ME2 enable the pursuit of practical, cost effective advancements in technology. Authorized funding for these low-risk, potentially high-reward efforts must be protected as the Congress seeks cost savings across the federal budget. The FY17 NDAA enabled the Marine Corps' rapid acquisition process through Section 804 and 806. Though successful, our efforts have been funded by sacrificing funding in other related programs. Access to the funds authorized under the Rapid Prototyping Fund, referred to in Section 84, will enable the service to make the most out of these new authorities.

Continued relevance of the amphibious force

I must take a moment to emphasize our Title 10 responsibilities to serve as the nations' amphibious force in readiness. The MAGTF's role in the nation's defense is to serve as part of the naval force. Our ability to project power and respond swiftly to any crisis is contingent upon the mutually supporting relationship between the Navy and Marine Corps. The ground programs highlighted previously serve little purpose if they cannot be projected to the point of crisis. Power projection from the sea requires a forcible entry capability, capability that is provided by Marine Expeditionary Brigades (MEB) embarked on amphibious warships. Current strategy requires us to be able to response to two crises simultaneously, referred to as the 2.0 MEB requirement. While the on hand number of amphibious warships falls short of the mutually agreed upon 38 ship requirement, the current 30 year shipbuilding plan supports a 38 ship amphibious fleet. The Marine Corps fully supports the 38 ship amphibious fleet and the allocation requisite funding to improve the readiness of the current amphibious fleet.

The requirement for 38 ships remains relevant despite the increasingly contested maritime domain. Peer and near-peer adversaries with increasingly capable technology have caused us to re-examine how we operate and how we gain and maintain access to the littorals. We continuously study the problem, and we explore possible solutions in the form of concepts, such as Littoral Operations in a Contested Environment, through exploration of new technologies such as those highlighted at S2ME2, and through cooperation with the Joint Force and coalition partners. Access to the littorals is a requirement for United States to remain a credible force on foreign shores and to deter aggression.

Lastly, the Marine Corps Operating Concept requires surface and vertical lift capability to transport personnel, supplies and equipment from within the sea base and maneuver them to objectives ashore. The ability to project credible power from the sea is contingent upon the availability of high speed, heavy lift, long range surface connectors that allow future expeditionary force commanders the flexibility to operate in contested environments. We will continue to use multiple complementary systems that buttress the strengths or mitigate the

weaknesses of sister systems to set the conditions for forcible entry operations. However, the current fleet of surface connectors, the Landing Craft Air Cushioned (LCAC) and Landing Craft Utility (LCU), are reaching the end of their services lives. The Marine Corps supports the current Navy Connector Strategy to procure replacement LCAC 100s, but remains extremely concerned with any delay in delivery of these platforms. Further delay risks creating gaps in this critical capability.

CONCLUSION

We are committed to delivering required warfighting capabilities to Marines in a timely and affordable manner. However, continued budget uncertainties risk our ability to fulfill this commitment. The Marine Corps is at a critical juncture. We have delayed modernization so long that our technical advantages over our adversaries have been diminished. The continuing need to maintain and update legacy systems takes the focus off innovation and is costly in its own right. Experience tells us that investing in new capabilities and technologies is a proven cornerstone for your Marines and Sailors to achieve mission success today and into an uncertain, but no less demanding future.

The Marine Corps continues to improve our essential ground capabilities through a strategy that is stable and affordable. We recognize the need for continued vigilance in achievement of a proper balance between current readiness and the long-term imperatives of modernization and innovation. This balance is critical to ensuring the Marine Corps and the individual Marine has the capability to fight and win future battles while being prepared to respond today as our Nation's force in readiness.

On behalf of the Marines and Sailors who provide the Nation with its forward deployed crisis-response force, we thank you for your constant support in an era of competing challenges. These critical modernization investments will ensure our success not if, but when future conflict occurs. Recognizing fiscal challenges faced by the Nation, we remain committed to fielding the most ready Marine Corps the Nation can afford. Mr. Chairman, and distinguished committee members, on behalf of your Marines, we request your continued support for our modernization strategy.