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BY THE HOUSE APPROPRIATIONS COMMITTEE
SUBCOMMITTEE ON DEFENSE**

**STATEMENT OF
GENERAL ROBERT B. NELLER
COMMANDANT OF THE MARINE CORPS
BEFORE
THE HOUSE APPROPRIATIONS COMMITTEE
SUBCOMMITTEE ON DEFENSE
CONCERNING
THE POSTURE OF THE UNITED STATES MARINE CORPS
ON
APRIL 30, 2019**

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Marines – Ready, Expeditionary, and Lethal

The purpose of your Marine Corps remains unchanged since mandated by the 82nd Congress – to be *ready*. Not just ready to go – but ready to go *now*, ready to *respond and compete* wherever sent, and if necessary – ready to *fight and win*. This idea of a “force-in-readiness,” reaffirmed by the 114th Congress, requires a Marine Corps that is “most ready, when the Nation is least ready.” As a naval service, Marines are *soldiers of the sea* ready to secure or protect national policy objectives by military force when peaceful means alone cannot. And if we must engage in the violence of battle to secure our interests, we stand *ready* for the violent struggle, and prepared to impose our will on our enemies. It is this idea of total readiness – a constant preparedness, expeditionary mindset, and aggressive warfighting philosophy – that remains the driving force behind your Marines today. Yet we recognize the strategic environment is changing, requiring adaptations to our organization, training, equipment, and warfighting concepts in order to rebuild our competitive advantage and provide our Nation the lethal, expeditionary naval force it demands.

The Marine Corps is committed to building the most ready, lethal force the Nation can afford. Unfortunately, the testimony that follows is presently a conditional statement as the Marine Corps confronts the impacts of recent Hurricanes Florence and Michael in the fall of last year. Hurricane Florence was the wettest tropical storm ever recorded in the Carolinas, dropping 39 inches of water in less than one week. Just a few short weeks later we felt the impacts of Hurricane Michael, the strongest storm in terms of maximum sustained wind speed to hit the United States since Hurricane Andrew in 1992. The impact of these two disasters in terms of cost to the Marine Corps is estimated to be \$3.7B, but their impacts go much deeper and the gravity of these unforeseen disasters may not be fully known to this committee:

- 3,000 military personnel displaced including 1,000 family members living on base
- North Carolina installations are home to II Marine Expeditionary Force which comprises 1/3 of the combat power of the Marine Corps
- North Carolina installations are also home to Marine Corps Forces Special Operations Command (MARSOC), Fleet Readiness Center–East, and the Center for Naval Aviation Technical Training
- 800 buildings across Marine Corps Base (MCB) Lejeune, Marine Corps Air Station (MCAS) New River, and MCAS Cherry Point were damaged or compromised

- 100 structures were damaged at Marine Corps Logistics Base Albany
- Almost 4,000 of the 6,200 homes across these installations sustained damage

Your Marine Corps is feeling the immediate impacts of these storms through lost and delayed training time; delayed deployments and redeployments; and daily quality of life challenges. Many of our ranges and training areas remain degraded. Damaged infrastructure to include roads, railroad trestles, and beaches have degraded our strategic capacity to deploy. All of these present an unacceptable challenge to the Nation's expeditionary force in readiness who must remain ready at a moment's notice. From a force posture "risk to force" and "risk to mission" perspective, we assess our current risk to both as "moderate." Effective 1 June of this year however, we assess our risk to both moving to "high" as we enter the next hurricane season.

Thanks to the hard work and support of the Office of the Secretary of Defense, Congress, and the Administration, the Marine Corps recently received \$400M of reprogrammed resources to immediately begin addressing our most pressing infrastructure needs. We continue to work tirelessly to address our remaining \$449M shortfall within Fiscal Year (FY) 19, and \$2.8B required over FY20, FY21, and future plans to fully recover. We continue to make the decisions necessary in the short term to return our personnel, repair our facilities, and restore our readiness. Funding the remainder of this requirement internally, however, may jeopardize the readiness gains made over that last few years through the efforts of Congress and your Marine Corps. We must continue the hard work described in the remainder of this testimony to rebuild our readiness and modernize our Corps to maintain our competitive advantage against rising competitors.

Expeditionary

Throughout our history, Marines have been called upon to respond immediately to crises around the globe either from the sea, forward bases, or home station. To meet Congress' mandate to be "...ready to suppress or contain international disturbances short of large-scale war," we strive to prevent war by assuring our allies and deterring rivals with ready, capable, and persistently present expeditionary forces. Forward postured naval forces remain critical to that end, providing the Nation a significant operational advantage through maneuver and access. Supporting steady state operations through theater security cooperation (TSC); building partner capacity; supporting humanitarian assistance/disaster relief (HA/DR); and noncombatant evacuation operations (NEO); or supporting current global contingencies, requires your

expeditionary force-in-readiness to be present.

The 2018 National Defense Strategy (NDS) clearly requires forward-deployed naval *expeditionary* forces that can compete, deter, and provide “inside” forces capable of denying adversary freedom of maneuver as part of our integrated naval defense-in-depth.

“Expeditionary,” however, is more than a simple definition contained within joint publications. Marines view the term expeditionary as a pervasive mindset that is fundamental to our character, and an idea that shapes all aspects of our organization, training, education, equipment, and employment. Marines must be able to deploy rapidly, leverage the sea as maneuver space, enter the objective area, accomplish a broad range of operations, sustain itself, withdraw quickly, and rapidly reconstitute while forward deployed to execute follow-on missions. The Marine Air Ground Task Force (MAGTF) – by design a tailorable, self-sustaining, and scalable expeditionary unit – provides our Nation a combined arms force capable of exploiting advantages over an adversary. Equally important, the MAGTF provides a forward deployed *dynamic force* available *now*. Marines approach this expeditionary mindset holistically – from our training, capability development, employment in austere conditions, and Service culture. Although our warfighting concepts must be continually revised and our capabilities modernized to sustain our ability to respond when called, it is our expeditionary nature, forward presence as a naval force, and preparedness for the violence of combat that define our unique role in the Nation’s defense.

Competition, Lethality, and Deterrence

The strategic environment is complex, informationally and technologically charged, volatile, and dangerous. The proliferation of modern conventional weapons and social media capabilities to a broader range of state and non-state actors, along with the erosion of our competitive technological advantage in areas where we have long enjoyed relative superiority, is likely to continue as peer competitors attempt to contest our influence globally. Competition below the traditional level of armed conflict and global campaigns such as China’s One Belt One Road initiative, create a wide range of strategic and operational challenges that underscore the need for a globally responsive naval force capable of providing an asymmetric maritime advantage.

Threats posed by revisionist powers and rogue states require a change to how your Marine

Corps is organized, trained, equipped, employed, and integrated with the Navy. *We must become a more lethal, resilient, and capable competitor and deterrent.* The Navy-Marine Corps team no longer relies on concepts and capabilities premised on uncontested sea control. We must establish a forward deployed defense-in-depth, anchored on naval “inside” forces, capable of Expeditionary Advance Base Operations (EABO) in support of the naval campaign. Modern sensors and precision weapons with expanding ranges and lethality are redefining how we assess our posture and relative combat power. Advanced adversary defensive networks are forcing us to reconsider methods of assured access required to compete against rising peers within a contested maritime space. As naval “inside” forces, the Navy-Marine Corps team must develop complementary capabilities to compete, deter, and win in all domains and facilitate the maneuver and projection of Joint Force capabilities. Our warfighting contributions must help shape the strategic environment to prevent conflict – one of the original mandates of the 82nd Congress for a “force-in-readiness.”

The Marine Corps assures allies and partners and competes globally every day within the Contact and Blunt Layers articulated in the NDS, in support of respective Fleet Commanders and Geographic Combatant Commands (GCC). Your Marine Corps maintains approximately one third of its operating forces, or roughly 39,500 Active and Reserve Component Marines, forward deployed and forward stationed. Amphibious Readiness Groups / Marine Expeditionary Units (ARG/MEUs), Special Purpose Marine Air Ground Task Force (SPMAGTFs), MARSOC, Marine Expeditionary Force Information Groups (MIGs), Task Force South West, and allocated forces are forward-deployed and forward-stationed to contest the malign behavior of our foes, improve interoperability with our allies and partners, and prepare to delay, degrade, and deny adversary aggression should deterrence fail and competition turn to armed conflict. And if our adversaries mistakenly choose to test our will, we must be capable of providing a combat credible force ready to absorb the initial blow; hold the line; contest their advance; facilitate sea control/denial; win the information operations fight; attrit adversary naval, land, and air forces; and fight until our allies, partners, and the Joint Force reinforces.

At home, your Corps is preparing to contribute to the war-winning Joint Force should deterrence fail. We are preparing to respond to global contingencies against peer rivals in contested environments; to rapidly aggregate forces from across the globe to deliver capable

mass to the fight; and prepared and ready to wage violence in all domains – from degrading and penetrating anti-access area denial (A2/AD) networks – to assuring access and projecting power with command and control (C2), fires, maneuver, and logistics. Every Marine throughout the MAGTF is constantly preparing through training and exercises that approximate the conditions of war as much as possible, and conducting training that introduces friction in the form of uncertainty, stress, disorder, and opposing wills. At the institutional level, we are testing our concepts and developing new tactics, techniques, and procedures. At the unit level, we are focusing on our foundational core competencies, individual discipline, and continuing actions in order to develop the mindset and skills necessary to prevail in any future fight. Only through hard, demanding, and realistic preparation can we achieve total readiness.

We must increase the lethality of our integrated naval forces in order to deter our adversaries; and if deterrence fails, to win. Deterrence requires a combat credible force that possesses lethal capabilities, at sufficient capacities, paired with innovative operational concepts in order to alter the decision making choices of our adversaries. Lethality spans the Corps from the tactical to the operational levels of war, and from small unit formations to scalable MAGTFs. Ground formations must still locate, close with, and destroy the enemy by fire and maneuver, or to repel the enemy's assault by fire and close combat. The Marine Corps is committed to providing every lethal advantage available to our tactical warfighting formations to ensure overmatch against peer threats and improve the lethality of our close combat squads. No Marine should ever enter into a fair fight.

At the MAGTF level, lethality provides the means by which we alter the decision making choices of our adversaries. A *lethal*, integrated naval force that can deny adversary freedom of maneuver is paramount to this idea. That said, sea control is more challenging now than in past decades. Long-range detection and targeting methods possessed by adversaries, combined with extended ranges of their land-based anti-ship missiles, is increasing the interaction between land and naval forces in the littorals, requiring the Marine Corps to further develop and integrate force capabilities in support of the Navy – “*Green in support of Blue.*” While power projection and forward presence remain foundational to our naval force, we are developing new concepts and capabilities for assured access, sea control, and sea denial that include long-range precision strike, raids, Distributed Maritime Operations (DMO), Operations in the Information

Environment (OIE), and EABO. The product of those efforts, through speed, lethality, and an asymmetric competitive advantage, is *deterrence*. Ships and aircraft acting within a networked fleet must contribute to the lethality of the fleet with the ability to protect themselves from air, surface, and sub-surface attack, while possessing organic ship-to-ship and ship-to-shore strike weapons required by future naval campaigns. Current amphibious ships lack these capabilities, and therefore, must rely on support from other combatants to perform sea control and assured access missions.

To increase the lethality and deterrent effect of our existing amphibious fleet, the naval force must upgrade C2 suites; introduce organic ship-to-ship and ship-to-shore precision strike weapons; integrate organic air defense; decrease ship signatures; and launch/recover the MAGTF's growing fleet of unmanned aerial systems – together, a more cost-effective approach than seeking a replacement of existing platforms. An amphibious fleet so equipped is a force multiplier to the larger naval force. The Marine Corps, in support of the Navy, must shift from a focus on a near symmetric land-based enemy to an asymmetric view in which Marine forces, operating from expeditionary advanced bases, threaten enemy naval, land, air, and unmanned forces. Marines must be prepared to task organize in support of fleet operations in highly contested maritime environments; employing mobile, low-signature, operationally relevant, and survivable expeditionary forces to mitigate challenges created by adversary advantages in geographic location, weapons system range, and precision. These are the capabilities and concepts possessed by an integrated naval force that offer our adversaries a choice – a choice to de-escalate to a state of manageable competition, or a choice to escalate and face a lethal naval force at a time and place of our choosing.

Concepts and Experimentation

Marines continue to innovate to build the 21st century MAGTF – a lethal, adaptive, and resilient Corps that executes combined arms as a means to conduct maneuver warfare across all domains. This transformation began in 2016 with the implementation of the Marine Corps Operating Concept (MOC). The MOC represents our institutional vision for how the Marine Corps will operate, fight, and win despite the challenges of the strategic environment, and like the larger institution, will continue to be revised as the character of naval warfare changes. The MOC provides the foundation and context for subordinate operating and functional concepts – like Littoral Operations in a Contested Environment (LOCE) and EABO – and it guides our

analysis, wargaming, and experimentation. These concepts, and our associated thinking on warfighting, are naval concepts which complement broader visions and conclusions articulated in the Navy's DMO concept.

Whereas the MOC, DMO, and EABO provide the concepts for how Marines will fight and prevail, it is through extensive experimentation and wargaming that we validate our force development choices, and inform our resourcing and programming strategies. Our experimentation and wargaming efforts focus on designing a lethal, agile, and resilient MAGTF optimized for the future that incorporates Marines capable of integrating cyber, OIE, artificial intelligence, and long range precision fires capabilities in support of the Navy. As a driver of innovation, our Marine Corps Warfighting Lab completed the first phase of our long-range experimentation plan called SEA DRAGON, and over the next five years will focus on MAGTF hybrid logistics, OIE, EABO, DMO, maritime fires, and maritime C2. Through these efforts, the Marine Corps continues to adapt and refine our capability development, force structure, and resourcing decisions that modernize the force.

Our 2020 Budget

“*Competing with a Peer Threat*” is the theme of our PB20 submission, and directly aligns with the Secretary of Defense’s guidance to increase lethality, improve warfighting readiness, and achieve program balance. This year’s budget of \$45.9 billion builds on the momentum gained over the previous year and seeks to further adapt and modernize our Corps by focusing on three key budget priorities – *modernization, readiness, and manpower*. Through programmatic reforms, divestiture of legacy systems, and key investments in manned / unmanned teaming and autonomous systems, we are transforming today’s Marine Corps into the future force required by our Nation and building the most ready force our Nation can afford. To accomplish this goal, we require adequate, sustained, and predictable funding to properly plan for and resource a ready, capable, lethal force.

The Marine Corps remains committed to fiscal transparency and responsible stewardship of our taxpayers’ dollars. The results of Full Financial Statement Audits for Fiscal Years (FY) 2017 and 2018 generated efficiencies through improvements to financial processes, systems, internal controls, and accountability of equipment. The Marine Corps continues to remediate audit findings

and remains focused on achieving a modified opinion by FY20. Continued emphasis on executing corrective action plans, improving information systems, and better managing funds provided to us by the taxpayer demonstrates our commitment to achieve and sustain favorable audit opinions.

Marine Corps business reforms identified more than \$389 million in savings and cost avoidance in FY20 to reinvest in modernization and warfighting readiness. When combined with reform efforts in FY19, the cumulative reforms and divestitures over the past two years total \$956 million. Examples of vetted and approved reform initiatives include:

- Multi-Year Procurement for Aircraft
- H-1 (Aviation) Program Procurement Savings
- Infrastructure Reset
- Enterprise Lifecycle Maintenance Program
- Legacy Counter-Radio Controlled Improvised Explosive Device (CREW) System Divestment
- DoN Under-Execution Review

Marine Corps business reforms enable us to make strategic choices in the divestiture of certain programs to reinvest our limited resources toward building a more modern, lethal, expeditionary force. We are focused on continuing business reforms in FY20 that foster effective resource management, support audit readiness, and streamline the requirements and acquisition process.

Modernization

Modernization remains critical to meeting the demands of a strategic environment marked by revisionist and revanchist powers, long-term strategic competition, and rogue regimes that have immediate access to advanced, lethal, and disruptive technologies. As part of a naval expeditionary force, what we desire to achieve is a Corps capable of denying freedom of maneuver to deter our adversaries, or when necessary, capable of exploiting, penetrating, and degrading advanced adversary defenses in all domains in support of Naval and Joint Force operations. Deterrence is no longer measured solely by the threat of violence. We require a force capable of operating and winning in the information environment before the physical fight ever begins. Should deterrence fail, we require a future force that can deny adversary freedom of action, impose costs, control key maritime terrain, shape the operational environment in support of integrated sea control and maritime power projection operations, and impose our will in all domains while under attack.

In order to achieve the modern, lethal force required, we must experiment with new

technologies available on the market, determining what will work best in the future operating environment, and then deliver those capabilities to the force quickly to mitigate the rapid rate of technological change. The Marine Corps Rapid Capabilities Office (MCRCO) makes this possible, seeking emergent and disruptive technologies to increase our lethality and resiliency. The MCRCO leverages FY16 and FY17 NDAA provisions and partnerships to accelerate the requirements development and definition process – with the consistent and steadfast support of Congress – we will continue to fund this office. We also embrace the idea of alternative acquisition pathways. We are using and seeing value in other transactions authority and intend to apply middle tier rapid fielding authority at the first appropriate opportunity as a solution to expedite modernization, where production is achievable within five years or less. Accelerated modernization is an essential part of the remedy to our long-term readiness problems and we must not allow ourselves to bury modernization efforts under cumbersome acquisition processes.

Modernization investments represent roughly 30%, or \$13.9B of the total PB20 budget submission, and are synchronized with Marine Corps Force 2025 (MCF 2025), the capability investment strategy which modernizes the force toward implementing MCF 2025, MOC, EABO, and the NDS. The following capability areas support building a 21st century MAGTF across the Active and Reserve components of the force, and are prioritized in the following manner:

- *Command and Control (C2) in a Degraded Environment:* The Marine Corps requires a sustainable, defendable, and resilient C2 network, integrated with Navy and Joint Force networks, which allows for timely and persistent information exchange while enhancing battlefield awareness to dispersed tactical units across the MAGTF. Investments in Networking-on-the-Move (NOTM), Fused Integrated Naval Network (FINN), Terrestrial Wideband Transmission System (TWTS), MAGTF Integrated Command and Control (MIC2), and MAGTF Digital Interoperability upgrades provide significantly increased capabilities associated with maneuver and fires across the battlespace. Additionally, in a contested information environment, artificial boundaries between a “tactical” network and a “garrison” network erode; the Marines at the tactical edge will need seamless connections to the Marines supporting them further back from the front line. We have to modernize our enterprise network and move our data stores to the cloud so that Marines can access the information they need any time, in any place. The Next Generation Enterprise Network (NGEN) program and future programs like it are critical to supporting the warfighter.

- *Long Range and Precision Fires:* The modern day battlefield requires forces capable of conducting lethal strikes at range, in depth, and with precision from air, land, and sea. Marine Corps investments include 5th Generation F-35B/C aircraft, maritime Group 5 MAGTF Expeditionary UAS (MUX) with precision weapons, Guided Multiple

Launch Rocket System (GMLRS) Alternate Warhead (AW), Ground-Based Anti-Ship Missiles (GB-ASM) as well as ground vehicles and Long Range Unmanned Surface Vessels (LRUSV) armed with loitering munitions enabled by Low Cost UAV Swarming Technology (LOCUST).

- *Operations in the Information Environment (OIE):* Adversary use of "information" to manipulate facts, mobilize mass perceptions, and contest our ability to C2 forces undermines our traditional military advantages. We cannot count on uncontested access to the electromagnetic spectrum any more than we can count on uncontested freedom of maneuver on the sea. Establishment of the Deputy Commandant for Information (DC I) provides headquarters advocacy while the development of the MEF Information Group (MIG) enables the planning and integrating of OIE with traditional military activities to enhance lethality and our competitive advantage.

- *Air Defense:* Forward deployed/stationed Marines are vulnerable to attacks in ways we have not considered for decades. Most lack protection and sufficient resilience from long-range kinetic attacks that jeopardize our ability to prepare, project, and sustain combat power. Expeditionary forces operating away from bases in a distributed/dispersed manner provide some degree of resilience through distributed mass and reduced signatures. Investments in Medium-Range Air Defense Systems, Counter-Cruise Missile, squad-level Counter-UAS, swarming technologies operating in a networked manner, and the Ground/Air Task Oriented Radar improve the resilience of our posture and our air defense capabilities.

- *Protected Mobility / Enhanced Maneuver:* To distribute and concentrate forces and effects, we must be able to maneuver to positions of advantage, and engage and defeat threat forces in all geographic, topographic, and climatic environments from littoral waterways to urban areas. The Corps prioritizes modernization and investments in three key vehicle replacement programs required to improve mobility and increase force protection: Amphibious Combat Vehicle (ACV), Joint Light Tactical Vehicle (JLTV), and the Armored Reconnaissance Vehicle (ARV). To improve dismounted mobility, we are investing in lighter, better fitting body armor. Aviation investment priorities include procurement and Block 4 capability upgrades for F-35B/C; and the CH-53K which will provide an exponential leap in vertical heavy lift capability.

- *Logistics:* In a distributed and contested environment, logistics takes on greater significance as a key enabling function requiring global logistics awareness, diversifying distribution, improving sustainment, and optimizing installations to support sustained operations. This requires innovative methods, the ability to leverage new technologies, and integration with Navy, Joint, and Coalition forces. Science and Technology (S&T) efforts in Additive Manufacturing (AM) drove the procurement of 160 3D printers, with more than 125 ground and 83 NAVAIR-approved aviation parts; immediately improving readiness and lethality. Additional investments in developing enhanced logistics C2 systems, bulk fuel transportation and storage, unmanned logistics systems – to include quadrotor cargo delivery systems and littoral connectors – are paving the way in Next Generation Logistics (NexLog) capabilities.

It is equally important that the Marine Corps provide every lethal, modern advantage available to our tactical warfighting formations to make sure our infantry is deadly and protected to the maximum extent possible. Aligned with the Secretary of Defense's Close Combat Lethality Task Force (CCLTF) initiative, the Marine Corps continues to invest heavily in its close combat formation capabilities, including – enhanced combat helmet; binocular night vision devices; M-27 Infantry Automatic Rifle; M320 grenade launcher; M38 Squad Designated Marksman Rifle; and Javelin anti-tank missile. Additional investments include Squad unmanned aerial systems; MAGTF electronic warfare; Joint Battle Command Platform; Handheld C2; target hand-off system; adaptive threat force augmentation; future integration training environment; pattern of life automated behavior development, and warfighter augmented reality. These capability investments, combined with demanding unit training and Service-level force-on-force exercises, provide the path forward to ensuring close combat superiority against peer competitors.

Readiness

The Marine Corps is committed to building the most ready force the Nation can afford. Readiness, however, is the product of two metrics. The first is the ability of the force to execute its mission with ready people, ready equipment, and the right training. The second compares the force against potential adversaries, the importance of which grows dramatically in an environment of rising peers and global competition. If our near-term readiness levels are high and our units are ready, then by the first metric we are ready. If, however, that force is outranged or outpaced by potential adversary capabilities, then by the second metric we are not. This requires an additional long-term view of readiness through capability modernization, as discussed in the preceding section of this statement. As a Service, we will take a deliberate approach to continue the positive trends in our overall readiness while simultaneously balancing the need to modernize our current force, satisfying existing GCC demands, and building the force required by the strategic environment to remain relevant in the future. Thanks to your efforts in Congress to provide increased funding, you have made the choices the Marine Corps has to make less difficult. Our PB20 budget provides \$14.3 billion, or approximately 31% of our total submission towards near-term readiness.

Aviation

While readiness concerns exist across the MAGTF, our most acute readiness issues are found in aviation units. Recent increases in funding enabled the Marine Corps to simultaneously invest in both readiness and modernization, adding capacity to the flight lines by fully funding readiness enabler accounts, depot and Defense Logistics Agency (DLA), spares, training, and people. The Marine Corps has been able to accelerate aviation readiness recovery efforts along four lines of effort:

1. Depot Readiness Initiative: resources to accomplish certain unit level maintenance while an aircraft is being re-worked at the depot, which means aircraft that return from the depot to a squadron are ready to fly almost immediately.
2. Non-Mission Capable Maintenance (NMCM): the qualified maintenance Marines and needed supporting resources (engineers, support equipment, etc.) are available to fix aircraft without delay.
3. Non-Mission Capable Supply (NMCS): all parts are available when needed to prevent extended aircraft down times awaiting parts.
4. In-Service Repair: higher-level maintenance needed at the squadron is properly resourced to perform these repairs without delay, avoiding excessive aircraft down time.

Although much work remains to achieve our aviation readiness recovery goals, we continue to see significant gains realized along these lines of effort: depot throughput met Service goals, NMCM rates have decreased, NMCS rates have dropped, and in-service repairs have reached our Service goal. In short, these gains mean that Marines are able to keep existing aircraft in a mission capable (MC) status for longer periods, affording aircrew more flying hours and training time. In addition to our dedication to fully funding aviation readiness accounts, other readiness recovery initiatives include the CH-53E Reset program, Depot Readiness Initiative, MV-22 Readiness Program, and talent retention efforts aimed at retaining experienced maintainers in operational squadrons. Leading indicators of readiness improvements resulting from these efforts include: an increase in overall flight hours, an increase in average monthly flight time for our aircrew, an increase in MC rates of our aircraft, and an improvement of our aggregate aviation T-Rating. These gains are a direct result of funding provided in the FY17 and FY18 defense appropriations bills, which allowed investments in readiness enabler accounts at maximum executable levels. These investments are now realizing significant results. Should funding decrease in FY20 or beyond – aviation readiness will also likely decrease.

The Secretary of Defense released guidance to the Services directing accelerated readiness recovery of tactical aviation (TACAIR) to achieve 80% mission capable rates by the end of FY19. The Marine Corps is taking action to achieve this goal along five lines of effort. The Marine

Corps is working towards this goal by increasing the number of aircraft available and operating within aircraft and maintenance capacity levels. Our investments in FY17, FY18, and FY19 will produce ready aircraft from our depots, \$1.6B in spares from Navy Supply, and \$16M in additional consumables from DLA. Additional goals from industry partners include accelerated completion of aircraft modifications and retrofits, accelerated depot repair capability, and shifting maintenance to the appropriate levels. Successful implementation of these efforts will ensure we meet the 80% goal and sustain it in the future.

Ground Equipment

Ground equipment readiness rates continue to show significant gains after years of focused effort to reset our equipment. As of 1 October 2018, the Marine Corps completed reset of 99% of our ground equipment programs and returned 72% of our ground equipment to the operating forces. The operational readiness of key Principal End Items (PEI) remains high, and we project to complete our ground equipment reset efforts in third quarter FY19. High operational readiness rates of key PEIs, however, mask certain underlying readiness issues. Units preparing to deploy are still experiencing shortfalls in equipment to train for core mission tasks as we support global equipment sourcing for forward deployed units such as Special Purpose MAGTFs. Equipping requirements for these rotational forces are disproportionately high due to their unique mission sets, placing high demand on low density equipment that approaches or exceeds availability. The result is risk in equipment availability to respond to contingencies and training for non-deployed units. We are addressing these issues through aggressive acquisition and redistribution actions.

Amphibious Fleet

Use of the sea as maneuver space remains as vital today as any time in our history. The Joint Force must maintain access to, and the ability to maneuver through the global commons, assure access, compete in the maritime domain, and defeat any competitor attempting to deny our freedom of action. To adequately accomplish these tasks, the naval force must be distributable, resilient, and tailorable while being employed in sufficient scale and for ample duration. The amphibious fleet allows the naval force to do three basic things:

- Conduct steady state operations around the world, including TSC, building partner capacity, HA/DR, and NEO.
- Execute a global cost imposition strategy if we have to fight.

- Project and sustain the force in a contested environment.

Due to existing shortfalls and maintenance issues within our amphibious ship capacity, the naval force currently struggles to satisfy these basic requirements – an issue that will only grow worse over time if not properly addressed. The operational availability of the existing amphibious fleet is insufficient to meet global demands and negatively impacts the unit training necessary to recover readiness for major combat operations. Consequently, the strategic risk to the mission and the larger Joint Force is increased.

The Navy and Marine Corps are currently operating below the minimum amphibious shipping requirement detailed in the 2016 Force Structure Assessment and 30-year shipbuilding plan. The stated requirement of 38 amphibious warships is the minimum number required to fulfill our Title 10 obligation. Resourcing to a lower number puts contingency response timelines and the Joint Force at risk. Yet, amphibious readiness is more than the simple product of capacity and availability; it requires an amphibious fleet with the right capabilities to remain survivable, resilient, and lethal in a contested environment. Today's naval campaigns still demand an amphibious fleet capable of conducting raids, demonstrations, assaults, withdrawals, and support to other operations (TSC, HA/DR, NEO, etc.) in both permissive and non-permissive environments. The naval force must be able to maneuver; gain temporary lodgments to establish expeditionary advanced bases from which Marines hold adversary naval, land, and air forces at risk; and then withdrawal quickly as the naval campaign advances. Our amphibious fleet lacks the ability to protect itself from air, surface, sub-surface, cyber, and information attack; and absent organic ship-to-ship and ship-to-shore strike weapons, must rely on support from other combatants to perform sea control and assured access missions. To increase the lethality and readiness of our amphibious fleet, the naval force must:

- Upgrade C2 suites, introduce organic ship-to-ship and ship-to-shore precision strike weapons, organic air defense, and decrease ship signatures to become less targetable.
- Modernize the manned and unmanned surface connector fleet that, when combined with our aerial connectors, enable the naval force to establish a web of sensor, strike, decoy, and sustainment locations based on land and sea that will complicate the strategic and operational decision making of our most advanced rivals.
- Address modernization in our prepositioning program to ensure persistent forward positioning of our critical equipment and sustainment supplies in a manner that is scalable, flexible, expeditionary, and survivable in a contested environment; and that will further enable our naval

expeditionary inside forces to persist inside the enemy's weapons engagement zone (WEZ).

- Continue to explore innovative ways to employ alternative platforms for amphibious and maritime operations in more permissive environments in order to compensate for the shortfall of amphibious warships and provide more global coverage in the most resource-appropriate manner.
- Continue to develop and employ Naval Task Force elements consisting of multiple ship types for optimal lethality and force protection; including possible development of more functional and operationally suitable naval vessels and craft to expand the competitive space and create an asymmetric maritime advantage globally.

Deployment-to-Dwell

The rate by which Marines deploy largely depends upon what unit they are assigned to and the operational demand for those units. The majority of Marine units experience a deployment-to-dwell (D2D) ratio that is challenging; we confront this daily. While these demands are clear and unmistakable evidence of the continued relevance of Marines, this tempo is difficult to sustain as it limits our time to train to our full naval mission sets. Our goal is to return to a 1:3 D2D force, which would allow us time to train for the high-end fight and achieve balance for our Marines and their families at home.

There are three types of Marines in our Corps: those who are deployed, those getting ready to deploy, and those who just returned from deployment. PB20 supports an 186,200 Active and 38,500 Reserve component end-strength force, maintaining an overall 1:2 D2D ratio. Operating at a 1:2 D2D ratio, although challenging, is a conscious, short-term decision to balance modernization, meet current demand, and simultaneously recover our readiness. We owe our Marines and their families the necessary time to reset and train for the next deployment or contingency. For many decades prior to the attacks of September 2001, Marines in the operating forces benefited from a 1:3 D2D ratio. The Marines that were not deployed had time to prepare, time to train, and were ready to reinforce their fellow Marines if a major contingency happened. A return to a 1:3 D2D would require a substantive increase in manpower, or decrease in operational requirements – we do not seek a significant increase in end-strength in this year's budget and we continue to experience high operational requirements. Although we manage the risks associated with a 1:2 D2D in the short-term, our long-term goal is to return to a 1:3 D2D force.

Infrastructure

The Marine Corps previously accepted risk in facilities funding to protect near-term

readiness and service-level training. Taking risk in the facilities sustainment, restoration and modernization, and military construction programs resulted in the degradation of our infrastructure, which in turn increases lifecycle costs. We must ensure our infrastructure, both home and abroad, is resilient against attacks, and long-range precision strikes while modernizing to support future capability integration and training facilities needed to hone our warfighting skills. Our Infrastructure Reset Strategy must be a priority – we must improve infrastructure lifecycle management and ensure investments are aligned with Marine Corps capability-based requirements to support our warfighting mission and contribute directly to current and future force readiness. The state of our facilities is the single most important investment to support four critical force enabling functions our installations provide:

- Housing for our Marines and their families
- Deployment platforms from which our expeditionary forces fight and win our Nation's battles
- Training facilities required for our MAGTFs to train and hone their combat readiness
- An organic industrial base for depot-level maintenance, storage, and prepositioning of war reserve equipment to maximize readiness and sustain combat operations

As leaders we have fallen short of our full obligation to our Marines and their families with respect to privatized military housing; we are correcting this shortfall. The Marine Corps has instituted a voluntary Marine Housing Outreach program aimed at every Marine and Sailor residing in government quarters, privatized military housing, or an off-base civilian rental property. This outreach program is designed to raise our awareness of the Marines' living conditions to ensure it is safe, secure, and environmentally healthy; identify maintenance or safety issues affecting the residence, determine any actions taken to date to remedy them, and determine how the chain of command can assist in the resolution process; and ensure our Marines and their families are aware of and understand the support processes and programs available. In concert with the Department of the Navy, the Marine Corps is also reviewing the reporting mechanisms and oversight procedures that govern the way privatized military housing discrepancies are reported, remediated, and verified through our Public-Private Venture partners. The Marine Corps is committed to our Marines and families, to improving the military housing offered aboard our installations, and to ensuring unit commanders are personally involved in advocating for the wellbeing of the Marines they serve.

The Marine Corps' Infrastructure Reset Strategy ensures every dollar is targeted and spent on the highest priorities at the lowest total lifecycle costs, optimizing investment over the long-term to

support our warfighting mission and align investment with our strategic priorities. These prioritized investments align with NDS guidance to increase lethality by supporting new capabilities and platforms; modernizing inadequate and obsolete facilities; relocating and consolidating forces; and improving quality of life. FY20 Military Construction (MILCON) and Facilities Sustainment, Restoration and Modernization (FSRM) accounts support:

- Guam relocation investments: Barracks, central fuel station, and central issue facility
- MCF 2025 initiatives: Consolidated Sensitive Compartmented Information Facility (SCIF) for I MEF MIG and 10th Marines HIMARs complex
- New platform investment: F-35B/C hangar, apron, landing pads, and training simulator; ACV maintenance facility; and CH-53K cargo loading trainer
- Training: Wargaming Center at MCB Quantico
- Quality of Life: Barracks replacement at MCB Hawaii and mess hall replacement at MCB Camp Pendleton
- Recapitalization and replacement of inadequate facilities

Manpower

Our people – Marines, civilian Marines, and families – are our institutional center of gravity, and remain fundamental to our ability to *Make Marines and Win Battles*. Maintaining the most ready, lethal Marine Corps possible requires talented and dedicated people. Our PB20 budget provides \$16.1 billion towards manpower accounts, approximately 35% of our total submission, to continue implementing MCF 2025. The strategic environment our Nation faces requires a more experienced, better trained, and more capable Corps. It requires more than just new equipment and technologies, it requires the right force structure and Marines with the right skills to effectively operate. Modernization priorities require a complementary element of force structure changes to ensure we have the right people, with the right skills, for the deployment and employment of new capabilities and to ensure the future force is compatible and mutually supportive. Our goal is to provide a more mature, experienced force to leverage individual skill and professional talent with emerging technology through select force structure changes that recruits, trains, educates, and sustains the most lethal force possible.

To achieve our goals, our actions focus personnel growth in the right areas. Our PB20 end strength plans for an 186,200 Active and 38,500 Reserve component force. This limited growth of 100 Marines is targeted in specialized fields such as MARSOC and several specialties encompassed by OIE: intelligence, electronic warfare, and cyberspace operations. Equally important, our manpower efforts are addressing the need for more experienced and better trained

leaders within our infantry formations to ensure the superiority of our close combat formations. In order to optimize selection of the most talented infantry squad leaders, we have increased the pool of infantry Sergeants by 330 Marines through realignment efforts within our internal structure. Everything we do must focus on making Marines better, more resilient, lethal, and capable of outpacing our adversaries.

Central to our role in providing a lethal force is recruiting the most qualified men and women within our Nation who are willing to raise their hand, affirm an oath, and earn the Eagle, Globe, and Anchor. We must ensure that we recruit the right people, devoted to upholding the values of Honor, Courage, and Commitment. Our new Marines must be provided the highest level of training that not only prepares them for the rigors of combat, but also successfully transforms and sustains them in their career paths. As such, a fourth phase has been added to Recruit Training. This fourth phase focuses on mentorship and leader-led instruction to better prepare new Marines for transition to the operating forces.

Education and training is continuous for Marines. We must ensure we *train to fight, and educate to win*. New technologies require smarter, more mentally agile Marines capable of exercising sound judgment and decision making in uncertain and challenging situations. Professional Military Education remains essential in developing leaders with the analytical and critical thinking skills required to adapt in ever changing environments. To increase the capabilities of our leaders, the Marine Corps has developed the College of Enlisted Military Education (CEME), creating a pathway for enlisted leaders to increase skill and proficiency through continuing education. We have revamped our PME process, adding new PME courses, and enhancing academic rigor to grow our force with the intellectual skills and capabilities necessary for the future.

As a Marines, we must hold ourselves to the highest standards of personal conduct and ensure all Marines and family members are treated with dignity and respect. This requires us to take an introspective look at our culture to ensure the long-term success of our efforts. To demonstrate our commitment to strengthening our culture, we created the Talent Management Oversight Directorate (TMOD). This office supports the Assistant Commandant in his role as the Talent Management Officer of the Marine Corps, and addresses all personnel and cultural issues impacting the Corps' ability to invest in and leverage a diversely skilled and talented force. The TMOD's mission is to ensure compliance with all objectives, policies, and directives that supports

the Corps' efforts to recruit, promote, and retain the best talent the Nation has to offer. Focused on mission readiness, the TMOD helps ensure we maintain an organization where all members are valued based on their individual excellence and commitment to warfighting. Treating all Marines and their families with dignity and respect, as well as fostering a culture of inclusion throughout the service, is central to our core values.

Taking care of Marines and their families is a key element of overall readiness and combat effectiveness. The adage "we recruit Marines, we retain families" remains as true today as ever. Our comprehensive system of services, to include Sexual Assault Prevention and Response; Suicide Prevention; Personal and Professional Development; Drug and Alcohol Abuse Counseling/Prevention; Business and Recreation Services; and Spouse Employment; seeks to create the holistic fitness and readiness of our Marines and families – body, mind, spirit, and social. In addition, our Wounded Warrior Regiment continues to execute our Recovery Coordination Program to "keep faith" with those who have incurred life changing impairments in service to our Nation.

Our civilian workforce has the leanest civilian-to-military ratio of all the military services, at a current ratio of one civilian employee to every ten Marines. Approximately 95% of our appropriated funded civilians work outside the Washington, DC beltway at 57 bases, stations, depots, and installations around the world. Sixty-nine percent are veterans who have chosen to continue to serve our Nation; of those, 18% are disabled veterans. Civilian Marines perform vital functions at our bases and stations, and are integral to the daily operations and overall capability of the Marine Corps. Challenges with recruitment and retention – notably burdens like the threat of sequestration, possible furloughs, antiquated hiring processes, and limited pay increases – inhibit our ability to retain top talent. Thanks to the hard work of Congress in passing a civilian pay raise this year, we continue to fund these critical members of our team.

Conclusion

The Marine Corps serves as a naval expeditionary "inside" force that is *most ready, when the Nation is least ready*. We seek a constant state of readiness – lethal, forward postured, assuring allies, deterring adversaries, capable of absorbing the initial blow, and holding the line – and if required, prepared to fight and impose our will on the enemy. We are an integrated naval

force – transiting the oceans, aggregating at sea, fighting at sea, and coming from the sea. We are organized, trained, and equipped to operate across the range of military operations, in every domain, and thrive in uncertainty – facilitating assured access operations, sea control operations, or maritime security in support of the fleets. We are self-sustaining for pre-determined lengths of time, and capable of quickly reconstituting for follow-on tasking globally to support dynamic force employment. We continuously live “with our sea-bags packed” and remain the most lethal, credible combat forces available.

However, despite notable improvement in readiness during the past two year years, the preceding seventeen years of war have perilously degraded our overall capability and capacity, as those of our adversaries have increased. We must increase the lethality of our “inside” combat credible forces in order to compete with our threats, deter our adversaries, assure our allies, and if necessary – prevail in any fight. As the force at the forward edge, the force first to make contact and hold – we require the most modern, technologically advanced, *capable* Marine Corps our resourcing will allow. To achieve this end, the Marine Corps must evolve from today’s “1.0” force capable of addressing our current warfighting needs; to a near-term “1.1” modernized force that leverages select, existing platforms to achieve new warfighting concepts; to a “2.0” future force with revolutionized capabilities and the ability to execute new warfighting concepts.

The Marine Corps is increasing lethality and evolving our force through prioritized investment in modernization, readiness, and manpower. This evolution is necessary to ensure we maintain current operational readiness and address whatever contingencies may arise today, and anticipate what our force of tomorrow must look like to be capable of addressing unforeseen threats. But we need Congress’ continued support. To accomplish this goal, adequate, sustained, and predictable funding is required to properly plan for and resource a ready, capable force. Our Marine Corps will ensure there will never be a fair fight...our Nation is not afforded that luxury. We will continue to innovate and build a 21st century Marine Corps – a lethal, adaptive, and resilient Corps that can dominate all domains, that is ready to *fight tonight* – and *win*.