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The USMC is developing a new unit, the Marine Littoral Regiment (MLR), to conduct Expeditionary Advanced Basing Operations (EABO) in potentially contested maritime environment. In order for the MLR to work well, it should be assigned to function as the Expeditionary Warfare Commander (EXWC) under the USN's Composite Warfare Command (CWC) construct. In addition, the MLR should employ a new Light Amphibious Warfare (LAW) vessel to provide the USMC strategic, operational, and tactical advantages that support both the EABO concept and the USN's Distributed Maritime Operations (DMO) concept.

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Marine Littoral Regiment (MLR), Composite Warfare Command (CWC), Distributed Maritime Operations (DMO), Littoral Operations in a Contested Environment (LOCE), Expeditionary Advanced Basing Operations (EABO)

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MASTER OF MILITARY STUDIES

TITLE:

DEVELOPING THE NEW MARINE LITTORAL REGIMENTS TO OPERATE
EFFECTIVELY WITH THE NAVY'S COMPOSITE WARFARE COMMAND

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Preface

The Marine Corps finds itself at a place of enormous change and as a result enormous opportunity. In the current environment, key decisions by senior leaders, the presence of a near peer adversary, and the fiscal constraints have all aligned to produce the development of the new Marine Littoral Regiment (MLR). This study will discuss options for the development of the MLR that will allow the Marines and their attached Sailors to operate effectively in the new maritime threat environment. This research brings together ideas in developing the MLR, the Expeditionary Warfare Commander (as a part of the Navy's Composite Warfare Command construct), and the Light Amphibious Warfare Vessel across the Naval service.

I would like to acknowledge and thank several contributors that were instrumental to the completion of this report. First, I would like to thank Dr. Jorge Benitez for his continued mentorship, guidance, and direction in this project. Thank you to LtCol Douglas Downey for the invaluable input and time put into reviewing my work. Finally, I would like to thank my wife, Janet Bowman, for the continued support and understanding of the work it took me to complete this report.

Executive Summary

Title: Developing the New Marine Littoral Regiments to Operate Effectively With the Navy's Composite Warfare Command

Author: LCDR Tyrchra A. Bowman, United States Navy

Thesis: The Marine Littoral Regiment (MLR) is designed to help the Marine Corps to contribute to Littoral Operations in a Contested Environment (LOCE) in concert with the USN. However, in order for the MLR to achieve the desired mission it needs to include two specific developments. One is that the new MLRs need to be prepared to execute as the Expeditionary Warfare Commander (EXWC) under the USN's Composite Warfare Command (CWC) construct for an Expeditionary Strike Group (ESG) or Littoral Combat Force (LCF). The second specific development is that the MLR should operate from the new Light Amphibious Warship (LAW) Vessel in support of Expeditionary Advanced Base Operations (EABO) in a contested littoral environment independent of an Amphibious Ready Group (ARG) or Marine Expeditionary Unit (MEU) transportation support.

Discussion: After the end of the Cold War and the attacks of 11 September 2001, the United States Marine Corps' (USMC) operational focus was on land-based conflict. But in 2019 the new Commandant of the Marine Corps, General David Berger directed the Marine Corps to fundamentally adjust the structure of the USMC to act as an expeditionary force supporting a naval fight in the littorals. One of the new priorities is for the Marines to be, "prepared to operate inside actively contested maritime spaces in support of fleet operations."¹ The problem is that this will require a level of USMC/United States Navy (USN) operational interoperability and/or integration that is lacking today.

Conclusion: The DOD is shifting its focus from the Middle East to the Indo-Pacific and Great Power competition with China. As part of this shift, the Marine Corps is developing the MLRs to create an instrument for impacting/supporting the USN in the maritime environment. This study shows that to be effective in this new environment the MLRs must focus on an operational role as the EXWC within the Navy's CWC construct. Another necessary element will be the employment of the LAW Vessel to provide the Marine Corps strategic, operational, and tactical capabilities that support both the USN's DMO and the new Marine Corps' EABO concept.

¹ Gen David H. Berger, "Notes on Designing the Marine Corps of the Future," War on the Rocks, December 5, 2019, <https://warontherocks.com/2019/12/notes-on-designing-the-marine-corps-of-the-future/>.

I. Introduction

In his 2011 speech at the Australian Parliament, President Barack Obama made the following announcement, “As President, I have, therefore, made a deliberate and strategic decision -- as a Pacific nation, the United States will play a larger and long-term role in shaping this region and its future, by upholding core principles and in close partnership with our allies and friends.”² In 2012, the administration’s National Security Strategy (NSS) announced a policy change to shift its primary focus to the Indo-Pacific region.³ The 2018 National Defense Strategy (NDS) followed up on that vision and moved to shift the DOD’s focus from the Middle East to the Indo-Pacific region. Specifically, the NDS states that, “Long-term strategic competitions with China and Russia are the principal priorities for the Department...”.⁴ After two decades of conflict in the Middle East, the Marine Corps is shifting to a force more capable of operating in the Indo-Pacific region and the impact has generated changes that alter the outlook of the entire service. General David Berger issued his Commandant’s Planning Guidance (CPG) in July 2019.⁵ Through this document he directed changes that will fundamentally impact the force structure and capabilities of the Marine Corps. Gen. Berger’s guidance makes it clear, “The Marine Corps will be trained and equipped as a naval expeditionary force-in-readiness and prepared to operate inside actively contested maritime spaces in support of fleet operations. In crisis prevention and crisis response, the Fleet Marine Force – acting as an extension of the Fleet – will be first on the scene, first to help, first to

² Obama, Barack. “Remarks By President Obama to the Australian Parliament.” National Archives and Records Administration. National Archives and Records Administration, November 17, 2011. <https://obamawhitehouse.archives.gov/the-press-office/2011/11/17/remarks-president-obama-australian-parliament>.

³ Jisi Wang and Mingwei Zhou, *China International Strategy Review 2012* (San Francisco, CA: Long River Press, 2013).

⁴ Office of Secretary of Defense, “Summary of 2018 National Defense Strategy,” <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>, 2018

⁵ Department of the Navy, 38th Commandant's Planning Guidance. Washington, D.C.: Commandant of the Marine Corps, October 2020.

contain a brewing crisis, and first to fight if required to do so.”⁶ The tenants of this new direction are to restore the Marine Corps to its naval roots after two decades of ashore Counterinsurgency (COIN) Operations in the Middle East by investing in capabilities focused on great power conflict in the Indo-Pacific region, and divest unneeded forces and capabilities.⁷

A key focus of increasing the Marine Corps’ maritime presence is the establishment of three Marine Littoral Regiments (MLR) tasked with the development and testing of operational concepts that maximize effects in a maritime environment and operations as an integrated unit with United States Navy (USN) forces to accomplish those effects. The studies and exercises used to develop the MLR have produced a unit consisting of a Littoral Combat Team (LCT), a Littoral Anti-Air Battalion (LAAB), and a Littoral Logistics Battalion (LLB).⁸ This study will focus on critical developments necessary for the MLR to improve its ability to operate with the Navy during Littoral Operations in a Contested Environment (LOCE). The specific developments examined in this study are the MLR being authorized to execute as the Expeditionary Warfare Commander (EXWC) for an Expeditionary Strike Group (ESG) or a Littoral Combat Force (LCF) and the MLR operating from the new Light Amphibious Warfare (LAW) Vessel to establish Expeditionary Advanced Bases (EAB) in a contested littoral environment independent of an Amphibious Readiness Group (ARG) or Marine Expeditionary Unit’s (MEU) transportation or connector support.

⁶ General David H. Berger, “38th Commandant's Planning Guidance,” United States Marine Corps Flagship, July 17, 2019, https://www.marines.mil/Portals/1/Publications/Commandant's%20Planning%20Guidance_2019.pdf?ver=2019-07-17-090732-937..

⁷ Mark F. Cancian, “U.S. Military Forces in FY 2021 Marine Corps,” Center for Strategic and International Studies, November 2020.

⁸ Matthew Schultz et al., “Distributable Platforms and Determined Marines: The Necessity of Operational Art in a 21st Century Marine Corps,” The Strategy Bridge (The Strategy Bridge, June 22, 2020), <https://thestrategybridge.org/the-bridge/2020/6/22/distributable-platforms-and-determined-marines-the-necessity-of-operational-art-in-a-21st-century-marine-corps>.

II. Transforming the Marine Corps for a New Threat Environment

A. Development of the MLR

The 2018 NDS and the subsequent Defense Planning Guidance (DPG) provided clear direction to the Marine Corps to become more relevant in a future fight; first to maritime battles in the littorals and second to traditional land warfare.⁹ The MLR, as described by the Marine Corps Combat Development Center (MCCDC) is a new kind of unit designed to deliver anti-ground and anti-ship fires and be able to survive inside an adversary's (e.g., China's) Weapon's Engagement Zone (WEZ). These new units are based on a World War II (WWII) capability, which were Marine defense battalions, designed to protect forward bases from naval and air attack.¹⁰ The proposed MLRs will be located on forward staging bases potentially in Hawaii, Japan, Guam, or other locations in the Indo-Pacific region.¹¹ Supporters of the MLR focus on the agility, fast-response, and increased lethality now available to our Combatant Commanders (CCMD) while pundits are concerned with the ability to move and sustain the force without significant attrition or pulling of resources from ARG/MEU. Ronald O'Rourke in his report to Congress describes the MLR as follows:

“...includes 1,800 to 2,000 Marines and Sailors and include three main elements: a Littoral Combat Team (LCT), a Littoral Anti-Air Battalion, and a Littoral Logistics Battalion. The LCT is to be organized around an infantry battalion along with a long-range anti-ship missile battery prepared to conduct missions such as long-range anti-ship fires, forward arming and refueling of aircraft, intelligence, surveillance, and

⁹ Megan Eckstein, “Marines Testing Regiment at Heart of Emerging Island Hopping Future,” USNI News, June 4, 2020, <https://news.usni.org/2020/06/04/marines-testing-regiment-at-heart-of-emerging-island-hopping-future>; and Sean Snow, “New Marine Littoral Regiment, Designed to Fight in Contested Maritime Environment, Coming to Hawaii,” Marine Corps Times, May 14, 2020, <https://www.marinecorpstimes.com/news/your-marine-corps/2020/05/14/new-marine-littoral-regiment-designed-to-fight-in-contested-maritime-environment-coming-to-hawaii>

¹⁰ Megan Eckstein, “Marines Testing Regiment at Heart of Emerging Island Hopping Future,” USNI News, June 4, 2020, <https://news.usni.org/2020/06/04/marines-testing-regiment-at-heart-of-emerging-island-hopping-future>; and Sean Snow, “New Marine Littoral Regiment, Designed to Fight in Contested Maritime Environment, Coming to Hawaii,” Marine Corps Times, May 14, 2020, <https://www.marinecorpstimes.com/news/your-marine-corps/2020/05/14/new-marine-littoral-regiment-designed-to-fight-in-contested-maritime-environment-coming-to-hawaii>

¹¹ William Cole. “Hawaii First to Get New Warships That Can Pull up onto Beaches.” Advertiser, February 22, 2021. <https://www.staradvertiser.com/2021/02/22/hawaii-news/hawaii-first-to-get-new-warships-that-can-pull-up-onto-beaches/?HSA=5a15d2b4215202b4a4e3fbce48c3e517e2f747c5>.

reconnaissance (ISR) of key maritime terrain, and air-defense and early warning. The Littoral Anti-Air Battalion is intended to employ air defense, air surveillance and early warning, air control, and forward rearming and refueling capabilities. The Littoral Logistics Battalion is to provide tactical logistics support to the MLR by resupplying expeditionary advance base sites, managing cache sites, and connecting to higher-level logistics providers and provide medical and maintenance capabilities.”¹²

O’Rourke addresses the question of how the design of the MLR and other proposed changes to the Marine Corps’ force structure and capabilities align with the Navy’s operational concept, and the future fleet architecture.¹³ Understanding the alignment and advantages for force structure and capabilities gained from the MLR first requires a discussion of the maritime operational environment and the challenges an adversary creates in that environment. The USN’s ability to establish sea control, sea denial, and air control in the littorals of the Indo-Pacific region against a near peer competitor are reduced compared to similar operations since the end of WWII.

B. Operational Environment

In the future, Naval forces conducting LOCE are more likely to do so in operational areas that are compressed in size, with a significant number of units working to achieve a level of (local or area) superiority in the domains of air, maritime, land, undersea, and cyber. There is a consensus on the need for units to possess the capability to operate decentralized, but in coordination to provide the most efficient defensive and/or offensive fires and overcome any efforts of the adversary when operating in this environment. The littoral battlespace is defined as follows: “...the maritime domain as consisting of the oceans, seas, bays, estuaries, islands, coastal areas, and the airspace above these, including the littorals...the littoral is comprised of

¹² Ronald O’Rourke, “Navy LPD-17 Flight II and LHA Amphibious Ship Programs ...,” October 2020, <https://crsreports.congress.gov/product/pdf/R/R43543>.

¹³ Ronald O’Rourke, “Navy LPD-17 Flight II and LHA Amphibious Ship Programs ...,” October 2020, <https://crsreports.congress.gov/product/pdf/R/R43543>.

two segments. The seaward portion is that area from the open ocean to the shore that must be controlled to support operations ashore. The landward portion is the area inland from the shore that can be supported and defended directly from the sea.”¹⁴(shown in Figure 1 below). The design and development of the MLR is a force that will operate in this environment.

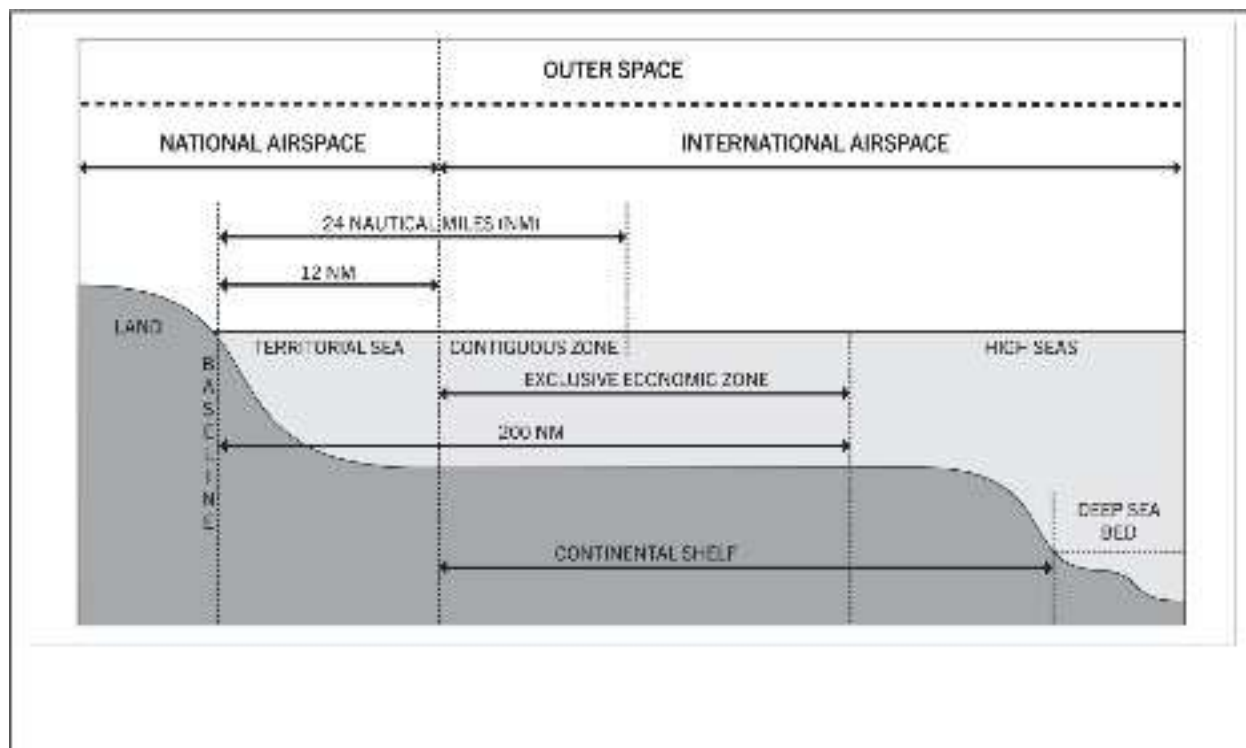


Figure 1 – Littoral Environment¹⁵

In the era of great power competition, our adversary’s Anti-Ship Cruise Missiles (ASCM), undersea capabilities, and long-range tracking/targeting radar systems all work together to create an anti-access/area denial (A2/AD) network that challenges U.S. ship and aircraft combat systems.¹⁶ The USN recognizes that overcoming the A2/AD network will

¹⁴ Department of the Navy, Littoral Operation in a Contested Environment. Washington, D.C: Chief of Naval Operations, Commandant of the Marine Corps, 2017.

¹⁵ Department of the Navy, Littoral Operation in a Contested Environment. Washington, D.C: Chief of Naval Operations, Commandant of the Marine Corps, 2017.

¹⁶ Missile Defense Agency Alliance, “China’s Anti-Access Area Denial,” Missile Defense Advocacy Alliance, August 24, 2018, <https://missiledefenseadvocacy.org/missile-threat-and-proliferation/todays-missile-threat/china/china-anti-access-area-denial/>.

require expert reconnaissance and the employment of the USN's Distributed Maritime Operations (DMO).¹⁷ DMO works to overcome the enemy's system by increasing the number of potential threats to their network. This is completed by having assets with the ability to track/target/strike enemy forces operating in independent locations under a unity of command. The MLR's design allows for operations in a littoral environment either in/on choke points or on small landmasses that provide strategic, operational, and tactical advantages. Effectively operating under the DMO construct will require the MLR to operate as a part of a naval network that ensures fires/strikes are timely, synchronized, and the potential for fratricide is minimized.

Synchronizing strikes in a rapidly changing maritime environment requires unique interoperability and/or integration that the Navy and Marine Corps do not currently possess. The naval combat operating systems that determine the best time to fire a missile and at what target for both forces will need to provide information that is timely to a central command authority and to the units tasked to execute its decisions. The MCCDC provides the following as an overall focus in the area of naval integration,

“Achieving the vision of Expeditionary Force 21 will require greater integration of naval capabilities particularly in sea control, power projection, maritime security, and integrated maritime command and control. Integration is defined as “the arrangement of military forces and their actions to create a force that operates by engaging as a whole.” Integration can be achieved by combining multiple forces or organizations into one, or by better aligning separate forces or organizations with one another. The first method will provide both unity of effort and command, the second will enable greater unity of effort. Both methods will improve the effectiveness and efficiency of naval forces operating in the projected future operating environment. Studies and wargames designed to investigate increased interoperability between navy and marine forces have determined that the Composite Warfare Command (CWC) construct is the best option for a common command structure.”¹⁸

¹⁷ Kevin Ayer and Steve McJesty, “Operationalizing Distributed Maritime Operations,” Center for International Maritime Security, March 4, 2019, <http://cimsec.org/operationalizing-distributed-maritime-operations/39831>.

¹⁸ Chief of Naval Operations, Commandant of the Marine Corps, “Department of the Navy, Littoral Operation in a Contested Environment” 2017

The CWC structure, is defined in the combined Naval Warfare Development Command (NWDC) and Marine Corps Warfighting Laboratory (MCWL) publication, “Primer on Naval Command and Control and the Composite Warfare Organization”, as follows: “The CW organization is based on a philosophy of mission command involving centralized guidance, collaborative planning, and decentralized control and execution reinforced with command by negation. ‘Command by negation’ is unique to the Navy, but the underlying idea is common to the Marine Corps, where it is articulated as silence is consent.”¹⁹ CWC provides an opportunity for the naval forces to operate independently and synchronized by a central command authority that is responsible for eliminating fratricide and the inefficient use of weapons. This framework sets the stage for the MLR to spearhead the Marine Corps’ transition into a Naval Expeditionary Force (NEF).

C. USMC/USN Interoperability and Integration

The Marine Corps and the Navy operate daily in concert, with the ARG/MEU construct being the best example. The current method for integration largely focuses on integrating Naval capabilities to project power ashore from the maritime domain. The Command and Control (C2) is designed around a supported/supporting Commander role with the Navy Commander acting as the Commander Amphibious Task Force (CATF) and the Marine Commander acting as the Commander Landing Force (CLF). Both Commanders share in the planning of operations and designate specific points in the operation where their units will transition from a supported or supporting role. This C2 structure will continue to work well for operations consisting of amphibious assaults, raids, withdrawals, or in uncontested humanitarian assistance missions. However, when faced with the dynamic environment described above in a LOCE, the transition

¹⁹ “Primer on Naval Command and Control and the Composite Warfare Organization,” Primer on Naval Command and Control and the Composite Warfare Organization § (2020), pp. 5-16, 6.

from supported to supporting will continually change and requires a C2 structure that allows for the change to occur seamlessly. This dynamic and changing C2 structure is offered in the CWC construct. The questions of who is responsible for what target, what area, and when are only the start of what must be answered multiple times in seconds by systems designed to also determine what weapon systems are available and of those, what is the most efficient against what this specific adversarial unit brings as a threat. The determination of which Commander has responsibility based on the location, domain, and type of threat must be made in a manner that is seamless in execution. The CWC construct provides a coherent unity of effort vice a collection of individual units conducting different but related tasks.

D. EABO Concept

The USMC's Tentative Manual for Expeditionary Advanced Base Operations, describes the EABO concept as follows, "...seeks to address challenges created by potential adversary advantages in geographic location, weapons system range, precision and capacity while creating opportunities by improving our own ability to maneuver and exploit control over key maritime terrain...by fully integrating Fleet Marine Force (FMF) and Navy capabilities to enable sea denial and sea control, as well as support sustainment of the fleet."²⁰ Additionally, it provides that the current Marine Corps force structure and capabilities are unable to conduct the operations as approved. Therefore, the experimentation and assessment of the future force focused on the MLR and the LAW Vessel are envisioned to support this concept.²¹ To fully leverage the EABO initiative, "...the Marine Corps should determine what changes to existing Marine Systems and capabilities can enhance their utility in a sea denial or sea control fight. Furthermore, new

²⁰ Office of the Chief of Naval Operations and Headquarters, US Marine Corps, (U) Concept for Expeditionary Advanced Base Operations, classified (Washington, DC: US Department of the Navy, 2019), 3.

²¹ HQ USMC, Tentative Manual for Expeditionary Advanced Base Operations. Washington, D.C.: LtGen Eric M. Smith, Deputy Commandant for Combat Development and IntegrationN9 DCNO, February 2021.

initiatives, such as fielding a common anti-ship missile that can be launched from existing surface combatants, submarines, manned (and perhaps unmanned) aircraft and mobile ground launchers should be explored.”²² EABO is designed around the following mission sets: sea control, sea denial (contested or uncontested environment), contribute to maritime domain awareness, provide forward Command and Control, Communications, Computers, Cyber, Intelligence, Surveillance, Reconnaissance, and Targeting (C5ISRT) and counter-C5ISRT capability and forward sustainment. In the fundamentals of developing the MLR the ability to conduct expeditionary warfare includes, “...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...” to complete the implied task necessary to accomplish the missions listed above must be a primary consideration.²³

III. Recommendations for MLR Design

A. Integration into the CWC construct

Gen. Berger has directed the Marine Corps to be, “...prepared to operate inside actively contested maritime spaces in support of fleet operations...”²⁴ This requires the Marine Corps (more specifically the MLR) to operate as an integrated member of the Navy’s CWC construct. Great power conflict in the maritime environment is characterized by brief, violent, and potentially decisive battles. Commanders at all levels have access to sensors, platforms, and

²² U.S. Marine Corps, “Concepts & Programs Home,” U.S. Marine Corps Concepts & Programs, 2019, <https://www.candp.marines.mil/Concepts/Subordinate-Operating-Concepts/Expeditionary-Advanced-Base-Operations/>.

²³ HQ USMC, Tentative Manual for Expeditionary Advanced Base Operations. Washington, D.C.: LtGen Eric M. Smith, Deputy Commandant for Combat Development and Integration N9 DCNO, February 2021.

²⁴ Department of the Navy, Force Design 2030. Washington, D.C.: Commandant of the Marine Corps, March 2020.

weapons capable of engagements at increased ranges in an environment where intermittent or unreliable communications may make it impossible for on-scene commanders to consult others. Seconds matter, and commanders must be empowered to seize these somewhat fleeting opportunities. The general structure for operations in a CWC construct starts with the command structure outlined in Figure 2 below. The CCMD (based on geographical location) is either dual hatted as the Naval Component Commander and/or the Functional Commander (FC) or that role is filled by a Subordinate Fleet Commander (3 or 4 star).

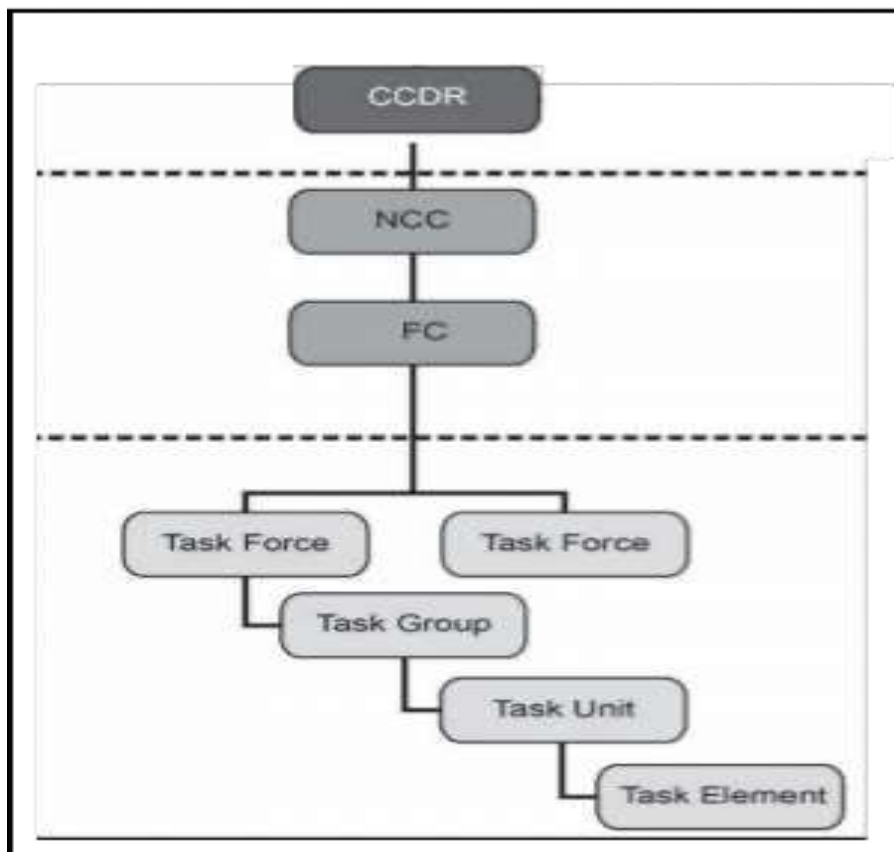


Figure 2 - Navy Operational Chain of Command²⁵

Under the FC the Task Force (TF) or Task Group (TG) is used based on the size and construction of the operational force. The FC may maintain the role of the Officer-in-Tactical command

²⁵ OPNAV N9, Developmental System Concept of Operations for Light Amphibious Warship. Washington, D.C.: VADM James Kilby, N9 DCNO Warfare Systems, September 2020.

(OTC) or have that role filled by the commander of the Carrier Strike Group (CSG) or ESG (1 or 2 star). The OTC denotes the top level of the CWC construct, which is described in Figure 3 below.

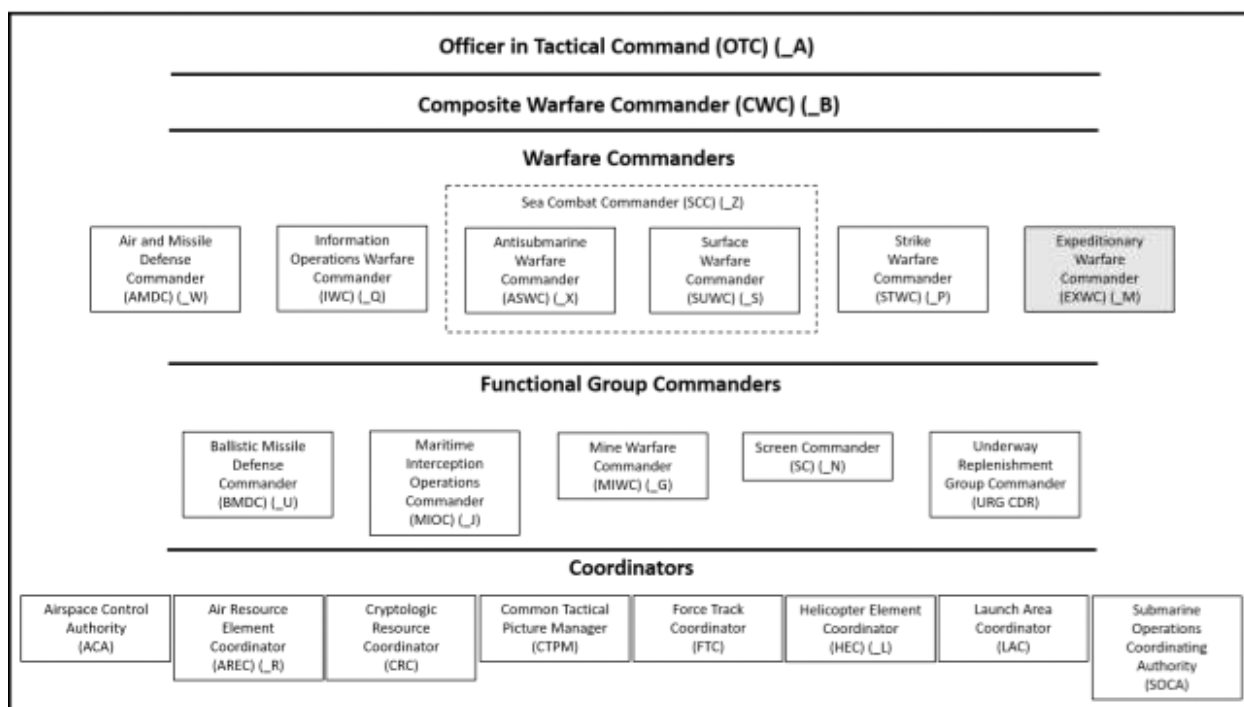


Figure 3 – CWC Framework (with EXWC added)²⁶

Current NEF formations (ARGs and ESGs) often implement a CWC organization to C2 organic Navy capabilities while relying on situational agreements on the integration and use of embarked Marine capabilities for CW missions. Without augmentation, these formations do not encompass the full range of capabilities or requisite capacities needed for optimal use in the contested operating environments of the present and future.²⁷ Naval units operating as a combined force use the CWC structure to designate warfighting function responsibilities to an assigned Warfare Commander (WC). The individual commanders interoperate to conduct the

²⁶ OPNAV N9, Developmental System Concept of Operations for Light Amphibious Warship. Washington, D.C.: VADM James Kilby, N9 DCNO Warfare Systems, September 2020.

²⁷ “Primer on Naval Command and Control and the Composite Warfare Organization,” Primer on Naval Command and Control and the Composite Warfare Organization § (2020), pp. 5-16, 8.

missions assigned by the OTC. The tasking of individual units is determined by the mission type and priority determined by the OTC. When performing multiple operations, unit tasks are usually fluid and controlled through complex communications over the command network.

At the tactical level, Marine Corps forces are attached either to Navy TFs or TGs where they would contribute to sea control, sea denial, or air control either by operating from the sea or by conducting EABO from numerous locations ashore. Within a TF or TG, these Marine capabilities could be better integrated through the creation of a new WC, the EXWC, who would function within the TG's CW organization. The EXWC would lead employment of Marine capabilities afloat and ashore, while also providing Marine capabilities for use by the other WCs in their mission areas. Some may wonder if the role of the EXWC could be functionally filled by the MEU Commander as part of an ESG. However, the MEU does not include the organic assets that will allow for the execution of the mission set associated with EABO or the ability to maneuver in a low signature platform independently and in advance of the ARG. When operating ashore, small units conducting EABO may extend the TG's battlespace awareness, serve as a Forward Arming and Refueling Point (FARP) for the TG's aircraft, or operate an ASCM battery that can hold surface forces at risk.²⁸ The MLR's Command Element is better suited to act as the EXWC with control over specific missions to include landing force operations, strike missions, maritime prepositioning offloads, mine clearance, Visit Boarding Search and Seizure (VBSS), and EABO. The Chief of Naval Operations and CMC describes the testing to support the use of the EXWC in, *Littoral Operations in a Contested Environment*,

“The Navy and Marine Corps will conduct wargaming, experimentation, and exercises to determine the most effective way to integrate Marine Corps capabilities into the CWC construct for operations on the sea and from the sea, and from the land to the sea. The LOCE concept proposes designating the MAGTF commander as an expeditionary

²⁸ “Primer on Naval Command and Control and the Composite Warfare Organization,” Primer on Naval Command and Control and the Composite Warfare Organization § (2020), pp. 5-16, 10.

warfare commander (EXWC) or a strike warfare commander (STWC) depending on the nature of the mission and forces involved. For example, current, emerging and envisioned Marine Corps capabilities (intelligence, surveillance, and reconnaissance (ISR) assets, air defense batteries, F-35B/C, the High Mobility Artillery Rocket System (HIMARS), coastal defense cruise missiles (CDCM), etc.) can be integrated into the CWC construct as additional sensor and firing nodes for the various warfare commanders, including the STWC, surface warfare commander (SUWC), and air and missile defense commander (AMDC). Each warfare commander, whether a Navy officer or Marine officer, will support or receive support from the other warfare commanders as the tactical situation demands and CWC directs.”²⁹

The opportunity to test these new command relationships between WCs through wargames, exercises, and experimentation exists now and will increase the integration of the Marine Corps and Navy forces to improve naval capabilities against a peer competitor in a high-end maritime fight in a contested environment in the littorals.

Gen. Berger summarized the future landscape as follows, “The rapid expansion of China’s area-denial capabilities, coupled with its pivot to the sea as the primary front in a renewed great-power competition, have fundamentally transformed the environment in which the U.S. military will operate for the foreseeable future. For the first time in a generation, sea control is no longer the unquestioned prerogative of the United States.”³⁰ With the increasing threat from Chinese forces, it was no longer practical for a single commander to direct the actions of multi-mission platforms and units against time-critical threats in multiple domains. This enabled the decentralized execution of offensive and defensive missions through WCs and coordinators and allowed the overall commander to focus on mission accomplishment, control overall planning, monitor execution, and intervene when needed. Former Secretary of the Navy (SECNAV), Kenneth Braithwaite, in *Advantage at Sea Prevailing with Integrated All Domain*

²⁹ U.S. Marine Corps 2017, “Concepts & Programs Home,” U.S. Marine Corps Concepts & Programs, February 2017, <https://www.candp.marines.mil/Concepts/Subordinate-Operating-Concepts/Littoral-Operations-in-a-Contested-Environment/>.

³⁰ Gen David H. Berger, “Notes on Designing the Marine Corps of the Future,” *War on the Rocks*, December 5, 2019, <https://warontherocks.com/2019/12/notes-on-designing-the-marine-corps-of-the-future/>.

Naval Power, stated that: “To reverse the erosion of the U.S. military advantages from China’s and Russia’s aggressive naval growth and modernization, the Navy, Marine Corps, and Coast Guard, will develop integrated all-domain forces...”³¹. Our senior leaders are calling for complete integration of the Naval and Marine forces. The C2 provided by the CWC construct will maintain that the MLR is primed to execute the required tasking.

B. Employment of the LAW Vessel

A key component for the MLR to succeed in its proposed mission is the necessity to focus training and operation with and from the LAW Vessel. Lt. Gen. Eric Smith, the Deputy Commandant for combat development and integration and the head of the MCCDC, told US Naval Institute in a recent interview that the LAW, “is a smaller version of a traditional amphib but much more able to hide in plain sight, much more affordable, much more numerous because of its cost...”³² The LAW Vessel is envisioned as a medium-sized (200’ to 400’ long) warship (as shown in Figure 4) that enables distributed maneuver and logistics as described in Naval concepts aligned with the NDS such as DMO/LOCE/EABO.³³ The LAW Vessel will enable distributed fleet force generation and operations at a scale and time that will complicate the adversary’s decision space and complements “L” class ship capabilities.³⁴ The ship is designed for a crew of 100 (25 Navy and 75 Marines) and the ability to transport its load out over a 4,900 nautical mile area.³⁵ Major General Tracy King (Director Expeditionary Warfare (N95)) commented that, “We need to build an affordable ship that can get after the ability to do

³¹ Office of the Secretary of the Navy, US Navy, (U) Advantage at Sea Prevailing with Integrated All-Domain Naval Power (Washington, DC: US Department of the Navy, 2020), 2.

³² Megan Eckstein, “Marines Look to Two New Ship Classes to Define Future of Amphibious Operations,” USNI News, June 12, 2020, <https://news.usni.org/2020/06/08/marines-look-to-two-new-ship-classes-to-define-future-of-amphibious-operations>.

³³ OPNAV N9, Developmental System Concept of Operations for Light Amphibious Warship. Washington, D.C.: VADM James Kilby, N9 DCNO Warfare Systems, September 2020.

³⁴ David Larter, “USMC Wants to Move Fast on a Light Amphib. But What Is It?,” RealClearDefense (Defense News, September 22, 2020), https://www.realcleardefense.com/2020/09/22/usmc_wants_to_move_fast_on_a_light_amphib_but_what_is_it_578195.html

³⁵ OPNAV N9, Developmental System Concept of Operations for Light Amphibious Warship. Washington, D.C.: VADM James Kilby, N9 DCNO Warfare Systems, September 2020.

maritime campaigning in the littorals,” when describing the effectiveness of this new class of amphibious ships.³⁶ The LAW Vessel meets the requirement of providing a cheaper option when compared to classic L-class ships, but also provides increased maneuver space and the survivability required to operate in an austere environment.³⁷ The ability to operate within the maritime environment for the USMC is currently limited to operations from large L-class ships (Landing Helicopter Assault/Landing Helicopter Dock/Landing Platform Dock/Landing Ship Dock) or from the Spearhead-class Expeditionary Fast Transports (EPD). According to a Congressional Research Service (CRS) report, “Compared with LHA/LHD-type ships, which are 844 to 855 feet long and have a full load displacement of 24,900 tons, a LAW with a length of 200 to 400 feet could have a displacement of between 1,000 and 8,000 tons.”³⁸ Additionally, the MLR’s employment of the larger L-class ships will cause competition with the ARG/MEU or ESG teams for resourcing, increasing the number of mobile assets available for operations in the maritime spectrum for the CCMD. EPDs are significantly limited in availability and lethal capability as their mission is geared toward transport in an uncontested environment.

Opponents of the LAW vessel have argued against the cost of establishing a new platform without a designated peacetime task.³⁹ The MLR’s desire to focus on operations in and through the littorals will require the ability to independently maneuver with the ability to provide organic self-defense. According to the, *Developmental Systems Concept of Operations for the LAW*, “LAW is designed to provide a maneuverable, agile, and survivable platform with organic

³⁶ David Larter, “USMC Wants to Move Fast on a Light Amphib. But What Is It?,” RealClearDefense (Defense News, September 22, 2020), https://www.realcleardefense.com/2020/09/22/usmc_wants_to_move_fast_on_a_light_amphib_but_what_is_it_578195.html

³⁷ Alec Bilvas, “6 Platforms for Marine Expeditionary Advanced Base Operations Logistics,” – The Diplomat (for The Diplomat, November 11, 2020), <https://thediplomat.com/2020/11/6-platforms-for-marine-expeditionary-advanced-base-operations-logistics/>.

³⁸ Ronald O'Rourke, “Navy Light Amphibious Warship (LAW) Program: Background and Issues for Congress,” Congressional Research Service, March 2, 2021, <https://crsreports.congress.gov/product/details?prodcode=R46374>.

³⁹ Craig Hooper, “The Navy's 'Light Amphibious Warship' Will Sink Without Better Justification,” Forbes (Forbes Magazine, June 1, 2020), <https://www.forbes.com/sites/craighooper/2020/05/31/the-navys-light-amphibious-warship-will-sink-without-better-justification/>.

close-in defensive weapons against proportional threat systems to support self-sustaining expeditionary shore-based deployments, redeployments, intra-theater distributed logistics and support to amphibious operations.”⁴⁰



Figure 4. Artist Depiction of LAW Vessel⁴¹

Additionally, the platform will employ two remotely operated 30mm Gun Weapon System (GWS), mounted crew served weapons; the ability to launch and recover small surface, air, and subsurface craft and unmanned systems; support electronic warfare; and employ expendable countermeasures.⁴² The space and power requirements will be available for the addition of future mounted missile systems mounted on the ships or in intermodal containers.

In a contested environment, L-class ships operate close to secure areas supporting EABO. The LAW vessel will allow the MLR to provide operations in concert with, complementary, or independently of the ARG/MEU as described below:

⁴⁰ OPNAV N9, Developmental System Concept of Operations for Light Amphibious Warship. Washington, D.C.: VADM James Kilby, N9 DCNO Warfare Systems, September 2020.

⁴¹ OPNAV N9, Developmental System Concept of Operations for Light Amphibious Warship. Washington, D.C.: VADM James Kilby, N9 DCNO Warfare Systems, September 2020

⁴² OPNAV N9, Developmental System Concept of Operations for Light Amphibious Warship. Washington, D.C.: VADM James Kilby, N9 DCNO Warfare Systems, September 2020

“LAWs, operating in support, maneuver select personnel and equipment to austere locations within those areas supporting area denial within the region. While the displacement and non-displacement landing craft provide the assault capability to gain entry, the LAWs with their range, endurance and access to austere locations deliver personnel, equipment and sustainment across a widely distributed area. Shallow draft and beaching ability are key to providing the volume and agility to deploy the required capabilities to key maritime terrain. These capabilities range from anti-ship missile systems, to counter air and radar capability, seabed sensors or optionally manned small craft and unmanned systems. During conflict the LAW continually maneuvers Marine forces within the adversary Weapons Engagement Zone (WEZ) throughout the area of operations to enhance effectiveness and survivability. LAWs will continually maneuver to rendezvous locations, embark Marine forces, and maneuver them to alternative positions. Simultaneously the LAWs maneuver the required additional capabilities and logistics to support forces in contact.”⁴³

At full operational capability the USMC will operate with 27 LAW vessels forward deployed using a single crewing model with an additional eight rotating through maintenance periods.⁴⁴ This capacity will allow the MLR to continually operate in concert with our allies throughout the Indo-Pacific region. Contrary to the claim that LAWs will not be able to perform peacetime tasks, these ships will also provide the Marine Corps with increased opportunity for Theatre Security Cooperation (TSC) exercises/operations. Just one example will be the MLR using LAWs to support CCMD’s theater campaign plans through advanced ISR and the establishments of forward operating areas throughout the region. The LAW vessel will provide the MLR organic capabilities to operate jointly with US and combined (allied and partner nation) forces. When combined with the LAW vessel, the MLR’s ability will be enhanced to provide the Naval force a wide spectrum of mobile combat capabilities to include FARPs, land based ASCM to support sea-denial operations in the littorals and at choke points, employment of manned and unmanned small craft, and employment of containerized fire support and counter air systems. These capabilities will enhance the Marine Expeditionary Force (MEF), Joint Force

⁴³ OPNAV N9, Developmental System Concept of Operations for Light Amphibious Warship. Washington, D.C.: VADM James Kilby, N9 DCNO Warfare Systems, September 2020

⁴⁴ OPNAV N9, Developmental System Concept of Operations for Light Amphibious Warship. Washington, D.C.: VADM James Kilby, N9 DCNO Warfare Systems, September 2020

Maritime Component Commander (JFMCC) and the Fleet's ability to sustain stand in forces when the example operational environment pictured below in Figure 5 escalates from competition-to-conflict continuum. The capabilities include but are not limited to neutralization of adversarial surface forces, deny adversary use of battlespace, deter adversary operations, rapid maneuver from shore-to-shore in a contested environment, sustain a combat force ashore, and enable persistent JF application and power projection.

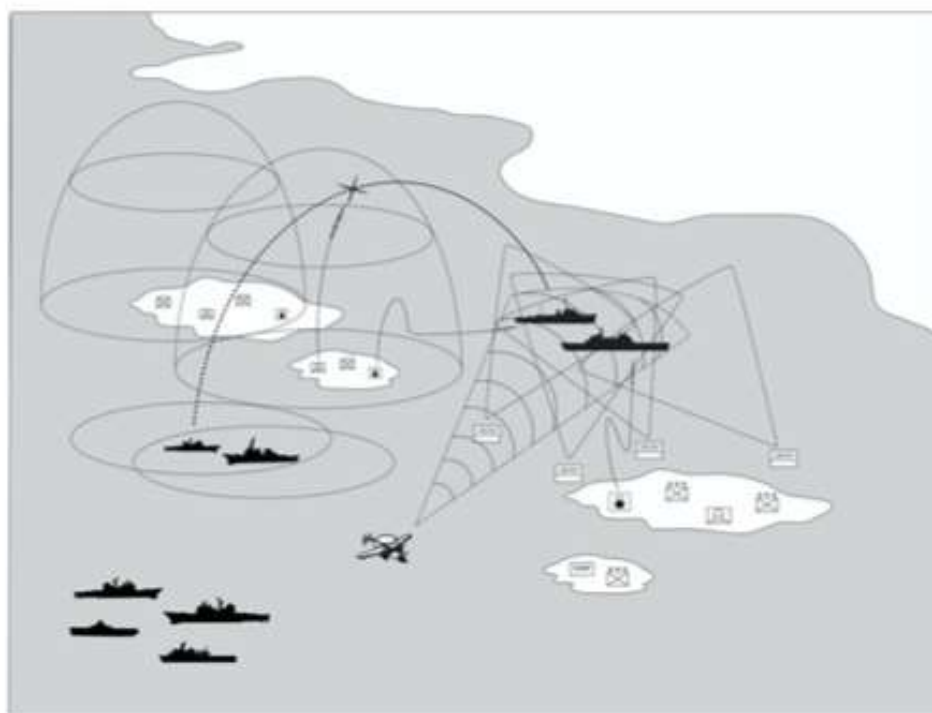


Figure 5. Notional concepts of employment for maritime fires⁴⁵

In the conduct of this study two additional requirements to ensure the success of the MLR moving forward were identified. Both are outside the scope of this study, but

⁴⁵ HQ USMC, Tentative Manual for Expeditionary Advanced Base Operations. Washington, D.C.: LtGen Eric M. Smith, Deputy Commandant for Combat Development and IntegrationN9 DCNO, February 2021.

the following ideas should build on this research explored these other relevant issues. 1) A study should be conducted to understand the requirements for coordination between the MLR and MEU when operating independently of on another or as a part of a larger unit (complimentary operations), 2) Increased coordination between OPNAV N95 and Maritime Expeditionary Warfare Division @ MCCDC to ensure the development of the LAW vessel in space and size supports the expected equipment the MLR will use. This study could not address all the issues that will shape the development of the MLR, but its recommendations and suggestions for further research serve as valuable and necessary steps forward in making the new MLRs more effective.

IV. Conclusion

The DOD's shift to focus on the Indo-Pacific region and Great Power competition with China has generated the necessity for significant changes within the USMC's force structure. One of those force structure changes is the development of the MLRs and therefore a return to operations as an expeditionary force. The MLRs development will generate effects in the maritime environment in support of the MEF, Fleet, and/or JFMCC as part of JF or allied/coalition operations. This study identifies two critical developments for the MLR that will assist in its ability to impact operations in a contested maritime environment. The first development is to operate within the Navy's CWC construct as the EXWC in a LOCE to improve interoperability and integration during a naval operation. The second development will be for the MLR to primarily employ the LAW Vessel platform to provide the Marine Corps strategic, operational, and

tactical advantages that support both the USN's DMO and the new Marine Corps' EABO concepts. These developments will be critical for the dynamic C2 and decentralized maneuver needed to successfully overcome the adversary's complex A2/AD systems.

These recommendations help address two important constructs in the 2019 CPG. The first is to include continued development of the operational capabilities needed in the MLR and the second is the acquisition of a cheaper more versatile platform to supplement operations of the classic large amphibious ships.⁴⁶ Research on the MLR shows a relative consensus on configuration and capabilities needed to deliver a vessel able to contribute to the establishment of EABs and operations in LOCE. The design work specifically mentions the need to provide transportation in LOCE, which has nothing to do with traditional ARG/MEU. The expectation that the Navy and Marine Corps moving forward must plan for contested operations in the littorals, and the need to efficiently operate in the maritime, land, air, undersea, cyber, and space domains decentralized, but with effective coordination is clear. The development of the MLR and the CWC construct concept of operations will be crucial to achieving that goal by 2030 in support of deterring aggression and conflict in the Asia/Pacific region.

⁴⁶ General David H. Berger, "38th Commandant's Planning Guidance," United States Marine Corps Flagship, July 17, 2019, https://www.marines.mil/Portals/1/Publications/Commandant's%20Planning%20Guidance_2019.pdf?ver=2019-07-17-090732-937.

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