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Expeditionary Advanced Base Operations Logistics Planning

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EXPEDITIONARY ADVANCED BASE OPERATIONS LOGISTICS PLANNING

AIM

1. The concept of Expeditionary Advance Base Operations (EABO) is becoming increasingly important for the United States Marine Corps (USMC) as it seeks to maintain a credible and effective presence in the Indo-Pacific region. EABO involves the rapid deployment of Marine forces to forward operating locations, where they can maneuver to conduct distributed operations and project power over extended ranges.[1] Pre-deployment planning is critical to enable the creation of a suitable campaign plan, and logistics planning plays a central role in supporting EABO and ensuring that equipment, supplies, and personnel are delivered to the right place at the right time. This paper argues that there are key considerations when applying the Marine Corps' seven principles of logistics during planning for EABO. In order to adequately support and sustain distributed operations, Marine Corps doctrine should instruct how the principles of economy and attainability should be weighed against survivability as EABO becomes central to countering China in the Indo-Pacific region.

INTRODUCTION

2. In March 2020, General David H. Berger, 38th Commandant of the Marine Corps, published *Force Design (FD) 2030* and outlined his plan to modernize and redesign the Marine Corps to meet the requirements delineated in the 2017 National Security Strategy (NSS) and 2018 National Defense Strategy.[2] In June 2020, he published *The Case for Change*, wherein he presented the reasons why he believed "deep institutional change [was] inevitable."[3] He proposed that restructuring the Marine Corps was necessary due to the shift from almost two decades of resource-draining land-centric conflicts in the Middle East towards the increasingly contested Indo-Pacific region, where China was seeking to "displace the United States."[4] General Berger went on to write:

> In light of the unrelenting increases in the reach, effectiveness, and lethality of modern weapons, the rise of revisionist powers with the technical acumen and economic heft to integrate those weapons and other technologies for direct or indirect confrontation with the United States, and the persistence of rogue regimes possessing enough of those attributes to threaten U.S. interests, I am convinced that the defining attributes of our current force are no longer what the Nation requires of the Marine Corps.[5]

3. Since then, the Marine Corps has undergone the most extensive force restructuring since Vietnam, incorporating two key operational concepts: EABO and Stand-in Forces (SIF).[6] EABO is defined as:

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[1] Marinus, 'Expeditionary Advanced Base Operations', *Marine Corps Gazette* 106, no. 12 (2022): 66.
[2] David H. Berger, 'Force Design 2030' (Washington, DC: The United States Marine Corps, March 2020).
[3] David H. Berger, 'The Case for Change', *Marine Corps Gazette* 106, no. 12 (2022): 8.
[4] The White House, 'National Security Strategy December 2017' (Washington, DC: The White House, 12 December 2017), 45.
[5] Berger, 'The Case for Change', 8.
[6] Berger, 3.

a form of expeditionary warfare that involves the employment of mobile, low-signature, persistent, and relatively easy to maintain and sustain naval expeditionary forces from a series of austere, temporary locations ashore or inshore within a contested maritime area in order to conduct sea denial, support to sea control or enable fleet sustainment.[7]

4. SIFs operate on EABs and are trained to "persist and operate inside a competitor's weapons-engagement zone to cooperate with partners, support host-nation sovereignty, confront malign behavior, and, in the event of conflict, engage the enemy in close-range battle."[8] SIF sustainment must be planned well in advance to ensure delivery of materiel into the theater of operations to guarantee that units maintain the necessary speed and tempo to outmaneuver the adversary.[9] The Marine Corps' *Tentative Manual for EABO (TMEABO)* highlights the importance of littoral forces conducting EABO as a force enabler for maritime campaigns, arguing that the U.S. Navy continues to be the primary service for sustained power projection.[10] Logistics pre-deployment planning will be essential to power projection to ensure that the distributed operations within and outside the adversary's weapons engagement zone (WEZ) will be sustainable throughout the campaign.

DISCUSSION

5. The Marine Corps developed EABO to enhance its ability to operate in contested littoral environments, such as those found in the first island chain in the Pacific Ocean and the South China Sea.[11] The goal of EABO is to enable the USMC to establish and maintain advanced bases near the enemy's coastline, which can serve as hubs for expeditionary forces to project power ashore, disrupt the enemy's logistics, and provide support to friendly forces in the area.[12] However, the challenges of EABO are numerous and complex, including the need to operate in contested environments with sophisticated anti-access and area denial (A2/AD) capabilities and the need to sustain forces over extended periods in austere and hostile environments. Additionally, effective coordination and integration with other military branches and allies are necessary for successful EABO.[13]

a. Adapting and learning are crucial for gaining a competitive edge in contested environments, as technological advancements continue to "change the character of war."[14] Retired Australian Defense Force Major General Mick Ryan asserts that new technologies must be combined with innovative thinking and reorganized tactical units to have a meaningful impact on the battlefield. The development of new ideas and organizations that can incorporate new

[7] Headquarters Marine Corps, *Tentative Manual For Expeditionary Advanced Base Operations* (Washington, DC, 2021), 1–3.
[8] Headquarters Marine Corps, F-9.
[9] Headquarters Marine Corps, *Expeditionary Operations MCDP 3* (Washington, DC, 2018), 2–22.
[10] Headquarters Marine Corps, *Tentative Manual For Expeditionary Advanced Base Operations*, 2–1.
[11] Berger, 'The Case for Change', 10.
[12] Headquarters Marine Corps, 3–1 to 3-3.
[13] Headquarters Marine Corps, 1–3.
[14] Mick Ryan, *War Transformed: The Future of Twenty-First-Century Great Power Competition and Conflict* (Annapolis, Maryland: Naval Institute Press, 2022), 153.

technologies also drives change, which is essential to building advanced and adaptable military institutions.[15]

b. As part of its learning and adapting to the changing operating environment, the Marine Corps' EABO "firebase" concept incorporates low-signature sensors and lethal weapon systems within the Marine Littoral Regiments (MLR) designed to enhance maneuver, mobility, and fires capabilities within adversaries' WEZs and across the Pacific island chains. EABs will form a network of launchers that includes other Marine Corps, U.S. Navy, and Air Force launch cells, to target adversary ships or targets.[16] The Marine Corps' relevancy in the Indo-Pacific region is increasing as it weaves its units into these highly important and strategic launch networks. The challenge will be the sustainment of these forces operating in austere locations for long periods of time.

6. EABO can provide a strategic advantage to the US military, and maritime forces in particular, to project power and deter adversaries.[17] EABO can help disrupt the enemy's logistical supply chains, deny them the use of key facilities, and limit their ability to project power in the region—providing the US with the upper hand in a conflict and contribute to the overall goal of maintaining regional stability and security.[18] Thus, it is crucial to improve EABO logistics planning to increase success in overcoming complex challenges and adversaries.

7. The Marine Corps, known for its expeditionary character, operates in the littoral regions and relies on amphibious and U.S. Navy shipping for support. It strives to maintain a small logistical footprint while maximizing combat power. However, the Marine Corps' focus on counterinsurgency operations in Iraq and Afghanistan since the early 2000s led to a departure from this expeditionary model, resulting in a reliance on large forward operating bases (FOBs) that may not be sustainable or feasible during EABO.

a. There are several challenges to establishing and maintaining these large logistical hubs. Political considerations may prevent their establishment ashore, either due to domestic reluctance to deploy large numbers of troops, or foreign governments' restrictions on establishing military facilities on their soil.[19] This could be true throughout the Pacific island chain in Japan, Indonesia, the Philippines, Singapore, or Thailand.

b. Fiscal constraints may also limit the U.S. military's ability to establish and sustain these bases. The large logistical trains needed to support FOBs, often provided by civilian contractors, are also vulnerable to kinetic threats. Thus, EABO relies on adaptable littoral forces that must create a supply distribution network consisting of smaller securable hubs, while also considering the importance of maintaining low signature profiles to remain undetected.[20]

8. In a 1979 interview, General Robert H. Barrow, then commandant of the Marine Corps, stated "amateurs talk about tactics, but professionals study logistics."[21] General Barrow did not

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[15] Ryan, 154.
[16] Marinus, 'Expeditionary Advanced Base Operations', *Marine Corps Gazette* 106, no. 12 (2022): 66.
[17] Marinus, 65.
[18] Headquarters Marine Corps, *Tentative Manual For Expeditionary Advanced Base Operations*, 2–5.
[19] Carl Forsling, 'Investing in Marines', *Marine Corps Gazette* 101, no. 5 (2017): 56.
[20] Headquarters Marine Corps, *Tentative Manual for Expeditionary Advanced Base Operations*, 7–4.
[21] Brian Straight, 'Soldiers Win Battles, Logistics Wins Wars', *Freight Waves*, 4 March 2022, https://www.freightwaves.com/news/soldiers-win-battles-logistics-wins-wars.

coin this phrase, however, after successfully leading Marines in combat during World War II, the Korean War, and the Vietnam War,[22] he understood the implications of logistics on operations in that regardless of the military superiority of one force over another, success favored those that properly planned and accounted for sustaining the operation.

a. Logistics planning in support of strategic, operational, and tactical operations is emphasized across Marine Corps doctrine.[23] Strategic plans provide guidance for the entirety of a war. Campaign plans, typically developed at the operational level, outline a series of connected military operations intended to achieve a strategic or operational objective within a specific timeframe and geographic area.[24] Logistics planning encompasses synchronized procedures at the strategic, operational, and tactical levels aimed at assessing the materials and services needed, identifying sources for these requirements, and determining the best means of providing support to the forces during the campaign.[25]

b. The Marine Corps Planning Process, used for independent Marine Corps operations or to provide input to the U.S. Joint Operation Planning and Execution System, declares logistics as one of the six minimum core functional activities that must be planned, developed, integrated, and supported; maneuver, fires, intelligence, information, and force protection are the others.[26] Thus, the planning for logistics and sustainment is integral to all operations regardless of scope or duration.

c. The Marine Corps identifies seven principles of logistics, that when applied to EABO provide the framework for effective planning:[27]

(1) Responsiveness- Ensuring that the littoral force receives the appropriate support at the right time and in the right location.

(2) Simplicity- Streamlining the supporting and supported relationships of the littoral force, executing re-supply in conjunction with littoral maneuver, and enabling operational contracting at the point of need reduces complexity in the distribution network.

(3) Flexibility- When supporting a littoral force, it is essential to establish a flexible and adaptable distribution network that can track, support, and control the visibility on supplies as they move through and transition across domains. This network must also include the capability to redirect supplies in routing, which is crucial for supporting mobile littoral forces and generating unpredictability.

(4) Economy- Enabling the littoral force to persist requires the **elimination of unnecessary duplication and redundancy in the distribution network, while still providing the required support. Planners must carefully weigh the risk of the force culminating due**

[22] Marine Corps University, 'General Robert H. Barrow, USMC (Deceased)', accessed 27 February 2023, https://www.usmcu.edu/Research/Marine-Corps-History-Division/People/Whos-Who-in-Marine-Corps-History/Abrell-Cushman/General-Robert-H-Barrow/.
[23] The doctrinal publications referenced here are: *Marine Corps Planning Process MCWP 5-10, Expeditionary Operations MCDP 3, Logistics Operations MCWP 3-40,* and *Operational-Level Logistics MCTP 3-40C.*
[24] Headquarters Marine Corps, *Logistics Operations MCWP 3-20* (Washington, DC, 2016), 4–1.
[25] Headquarters Marine Corps, 2–1.
[26] Headquarters Marine Corps, *Marine Corps Planning Process MCWP 5-10* (Washington, DC, 2020), 3.
[27] Headquarters Marine Corps, *Tentative Manual for Expeditionary Advanced Base Operations*, 7–1.

to lack of support (resulting from an overly conservative approach) against the increased risk to pre-staged stockpiles in the expected operational environment.

(5) Attainability- **To ensure that the littoral force has access to sufficient supplies**, it is essential to provide accurate and timely reporting of stock levels.

(6) Sustainability- Littoral force sustainability depends not only on effective distribution but also optimal asset employment, which increases sustainability and reduces unnecessary usage.

(7) Survivability- A survivable network that facilitates the distribution of logistical support across multiple domains **enables the littoral force to persist** as dispersed SIFs.

d. Marine Corps doctrine states that "these principles, like the principles of war, are guides for planning, organizing, managing, and executing. They are not rigid rules, nor will they apply at all times."[28] It is necessary to integrate the relevant principles within the broader operational plan during EABO planning to help prevent logistics activities and movements from compromising operational maneuver.[29] The challenge for planners will be ignoring the principle of economy, especially in today's resource and budget constrained environment, to ensure adequate support is planned for. A method for weighing economy and attainability against the survivability of logistics nodes considering the adversary's WEZ should be provided through doctrine to assist planners to overcome the possibility of underestimating the potential need for redundancy in logistics support and sustainment throughout the operating environment.

e. Paragraph 8.c.(4) above states that "planners must carefully weigh the risk of the force culminating due to lack of support," yet this guidance is too simplistic and can be misguiding. The *TMEABO* states that "the principles of simplicity and economy imply a force operating in an expeditionary environment must reduce its number of supply hubs/cache sites and volume of stocks located in forward areas."[30] However, by reducing sites and volumes, SIFs on EABs will be vulnerable to culminating during long-term operations, especially if there is great dispersion among sub-units and interrupted operational re-supply. Updating the *TMEABO,* as well as all other Marine Corps publications related to logistics, to identify the potential pitfalls specific to planning EABO could reduce the risk to the survivability of SIFs.

9. The Joint Force must transform into a smaller, more agile, and maneuverable force to make the concept of EABO a reality in the current A2/AD environment.[31] To accomplish several objectives across the continuum of competition, littoral forces must be task-organized and embarked in a manner that allows them to execute various missions. The essentiality of the various Amphibious Assault Vehicles/Amphibious Combat Vehicles and logistic ships cannot be disputed as they will play a critical role as logistics platforms for transporting troops, equipment, and supplies to and from islands as well as between them.[32] They are vital to the execution of

[28] Headquarters Marine Corps, *Logistics Operations MCWP 3-20*, 1–5.
[29] Headquarters Marine Corps, *Tentative Manual for Expeditionary Advanced Base Operations*, 7–2.
[30] Headquarters Marine Corps, 7–4.
[31] Paul S. Panicacci, 'How to Do Logistics in EABO', *Marine Corps Gazette* 105, no. 3 (2021): 65.
[32] Panicacci, 68.

Logistics Over-the-Shore and Maritime Pre-Positioning Operations as outlined in the U.S. *Joint Publication for Amphibious Operations*.[33]

a. *FD 2030* provides relevant examples of how a major military service can make significant modifications to its force structure and operations, developing its logistics support model to adjust to changes in the operating environment (EABO). A key element of sustainment will be wider distribution of "iron hills" vice traditional "iron mountains" (FOBs) around of enemies' WEZs. This approach reduces net losses in a potential conflict with a near-peer threat that will endlessly target supply distribution points. Here is where the principle of economy must be properly weighed against survivability.

b. Dispersed operations in the Indo-Pacific region pose targeting challenges for Chinese forces as they must prioritize objectives over their limitations to mass fires. Moreover, the various types of EABs, including fire support ('firebases'), aviation support, logistics support, and command and control, reinforce the importance of dispersion.[34] Each of these bases can operate independently and can also synchronize their deployment to support joint operations. A fundamental essential task for the joint force will be sustaining the many nodes that make up the network of forces. Once again, the relation between economy, attainability and survivability must be considered to increase the targeting dilemma placed on the adversary, while avoiding the premature culmination of the EABs or SIFs.

10. In May 2022, General Berger provided adjustments to the initial restructuring guidance previously given to the U.S. Congress in 2020. Force-on-force infantry battalion experimentation and Marine Air Ground Task Force warfighting exercises informed the modifications and included improvements to command and control, but more importantly they highlighted the need to further analyze logistics in support of distributed operations and EABO.[35] General Berger wrote that "the challenge of providing distribution and sustainment in the context of our emerging concepts makes logistics the pacing function for both modernization and operational planning."[36] Two recent military exercises in the Indo-Pacific region demonstrate the Marine Corps' progress.

a. The Philippine-led bilateral exercise Balikatan (BK) 2022, completed 28 March to 8 April 2022, was the inaugural deployment for the 3d MLR, the Marine Corps' EABO-tailored unit. Logistics and command and control were tested during the exercise as the Marines and Sailors established small expeditionary sites in austere environments. The Marines devised innovative solutions and utilized novel methods for sustainment to overcome the inherent difficulties of operating in such locations. 3d MLR collaborated with the Philippine Marine Corps Coastal Defense Regiment to oversee several EABs, along with two Patriot Missile Batteries of the U.S. Army's 1st Battalion, 1st Air Defense Artillery Regiment. The U.S. Navy

[33] Joint Chiefs of Staff, *Joint Publication 3-02 Amphibious Operations* (Washington, DC, 2016), X–16.
[34] David S. Rainey, 'Expeditionary Advanced Base Operations in the India-Pacific Command Area of Responsibility' (Fort Leavenworth, Kansas, School of Advanced Military Studies, US Army Command and General Staff College, 2019), 21–24.
[35] Andrew Feickert, 'New U.S. Marine Corps Force Design Initiative: Force Design 2030' (Washington, DC: Congressional Research Service, 7 March 2022), 1–2.
[36] David H. Berger, 'Force Design 2030 Annual Update' (Washington, DC: The United States Marine Corps, May 2022), 11.

also contributed to the coastal defense effort with divers, ship-to-shore connectors, and sealift services from the USS *Ashland.*[37]

b. 3d MLR was tested yet again during the exercise Rim of the Pacific (RIMPAC) 2022, held 29 June to 4 August 2022, as it established EABs across three Hawaiian Islands to assess logistics planners and the innovative adaptation by the SIFs as the exercise coordinators constantly changed the operating environment.[38] Several successes were noted, especially as the SIFs relocated to provide air control, early warning and surveillance, and tactical logistics. RIMPAC 22 also provided the U.S. Navy with the opportunity to support EABO in the 'contested' environment providing logistics support through the use of autonomous Self-Propelled Semi-Submersibles.[39]

CONCLUSION

11. *FD 2030* is forcing the significant restructuring within the Marine Corps and it is still working towards understanding the implications for planning and the cross coordination required across the joint force. Moreover, the implications on pre-deployment planning, specifically regarding logistics and sustainment have yet to be completely developed or tested. In December 2020, then Secretary of the U.S. Navy wrote that "we have not had to conduct logistics in a contested environment since World War II."[40] Exercises BK 22 and RIMPAC 22 offer glimpses into the Marine Corps' and maritime and joint forces' potential capabilities, but obviously under controlled conditions where risks were mitigated to the lowest possible levels.

RECOMMENDATION

12. To successfully support the U.S. Indo-Pacific strategy, the Marne Corps must re-examine the seven principles of logistics and then specify the relationship between the principles of economy, attainability, and survivability and how they inform planning for EABO and distributed operations against China.

[37] Indo-Pacific Command, 'Inaugural Deployment: 3D Marine Littoral Regiment Partners with the Armed Forces of the Philippines During Balikatan 22', *US Fed News Service, Including US State News*, 6 April 2022.
[38] Feickert, 'New U.S. Marine Corps Force Design Initiative: Force Design 2030'.
[39] Brent Stricker, 'EABO Degraded Logistics in the WEZ: Self Propelled Semi-Submersible Solutions', Publisher, Center for International Maritime Security, 11 October 2022, https://cimsec.org/eabo-degraded-logistics-in-the-wez-self-propelled-semi-submersible-solutions/.
[40] Kenneth Braithwaite et al., *Advantage at Sea Prevailing with Integrated All-Domain Naval Power* (Washington, DC: Department of the Navy, 2020), 19.

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