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Advanced Solutions for Last-Tactical-Mile Logistics in Support of Expeditionary Advanced Base Operations (EABO)

June 2023

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Prepared for the Naval Postgraduate School, Monterey, CA 93943.

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ABSTRACT

This study answers questions regarding whether advanced agreements could be used to solve multiple last-tactical-mile logistics issues for Expeditionary Advanced Base Operations (EABO) in a contested environment. The research uses a combination of quantitative and qualitative analysis to investigate the challenges of last-tactical-mile logistics supporting EABO in disaggregated and high-threat environments where units cannot expect to have responsive and reliable supply chains. The analysis and findings suggest that EABO is best supported by using advanced contracts and pre-established agreements that are coordinated during phase zero of the joint planning process. In addition, the Marine Corps can create a network of EABO locations with the ability to rapidly activate by coupling these pre-established support packages with pre-staged equipment sets throughout the Pacific.



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Thank you to my loving wife for doing the real work taking care of our four kids while I focused on school. Thank you to my children for understanding why daddy was always in the office.

Thank you to my advisors. You have made this experience enjoyable and valuable. I have gained so much from your guidance and I promise I will take these tools with me to my next command. I may never change the world, but I'll make it a little bit better because of the time you committed to making me better.



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LIST OF ACRONYMS AND ABBREVIATIONS

A2AD	Anti-Area/Access Denial
AAR	After Action Report
ACSA	Acquisition Cross-Service Agreement
AO	Area of Operations
AOR	Area of Responsibility
BBP	Break Bulk Point
BIC	Blount Island Command
BRI	Belt and Road Initiative
CAC	Cost Account Code
CLF	Combat Logistics Fleet
CMBOK	Contract Management Body of Knowledge
CO	Commanding Officer
CONUS	Continental United States
COR	Contracting Officer Representative
CSIS	Center for Strategic International Studies
CST	Contract Support Timeline
DCCHB	Defense Contingency Contracting Handbook
DFARS	Defense Federal Acquisition Regulations Supplement
DL	Distributed Lethality
DLA	Defense Logistics Agency
DMO	Distributed Maritime Operations
DOD	Department of Defense
EAB	Expeditionary Advance Base
EABO	Expeditionary Advanced Base Operations
eLST	Estimated Logistics Support Timeline
FAR	Financial Acquisition Regulations
FIC	First Island Chain
GAO	Government Accountability Office



GAS	Guide for Acquisition of Services
GCC	Geographic Combatant Command
HN	Host Nation
HSP	Husbanding Service Provider
IDIQ	Indefinite-Delivery/Indefinite-Quantity
INDOPACOM	Indo-Pacific Command
IOP	Initial Operation Procedures
JNLU	Job order Number Line Unit
JP	Joint Publication
LOC	Lines of Communication
LOCE	Littoral Operations in a Contested Environment
MAC	Multi-Award Contract
MARFORPAC	Marine Forces Pacific
MCCLL	Marine Corps Center for Lessons Learned
MCIPAC	Marine Corps Installations Pacific
MEF	Marine Expeditionary Force
MIPR	Military Interdepartmental Purchase Request
MLR	Marine Littoral Regiment
NDS	National Defense Strategy
NLI	Navy Logistics Integration
NSS	National Security Strategy
OCC	Object Class Code
OCONUS	Outside of the Continental United States
OCS	Operational Contract Support
PZCO	Phase Zero Contracting Operations
RCO	Regional Contracting Office
SABRS	Standard Accounting, Budgeting, and Reporting System
SIC	Second Island Chain
SIC	Special Interest Code
SMARTS	SABRS Management Analytical Retrievals Tools



SOCC	Sub-Object Class Code
T-AKE	Dry Cargo Class USNS
TRANSCOM	Transportation Command
USMC	United States Marine Corps
USN	United States Navy



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I. INTRODUCTION

This study is motivated by the Department of Defense's (DOD) focus on solving logistics shortfalls in the Expeditionary Advanced Base Operations (EABO) sustainment plan by utilizing various advanced support agreements. The EABO mission is derived from the 2022 National Security Strategy (NSS) and National Defense Strategy (NDS) directives to perform Integrated Deterrence, which includes the subcomponents of Deterrence by Denial and Deterrence by Resilience (U.S. Department of Defense, 2022, p. 8). EABO is the United States Marine Corps (USMC) and United States Navy's (USN) strategy for denying China access to the littorals thus creating a protective layer for the U.S., its allies, and partners within the First and Second Island Chain (FIC and SIC) regions of the Pacific. The DOD relies on EABO as a strategy to deter and thwart aggression in the Pacific. EABO is not a new concept. In 2022, the NSS updates caused a series of policy adjustments that led to the direction of EABO as a primary mission for the USMC. The recent policy changes have created a strategic requirement that has reshaped how the USMC trains, mans, and equips to better align with a focus on EABO. As this reshaping takes place, the DOD is developing a better understanding of what EABO concepts require for employment and support.

While EABO is of strategic importance to the U.S. and global defense, the logistics sustainment concepts to support last-tactical-mile logistics for EABO are complex and have serious challenges to overcome. The Tentative Manual for EABO focuses on providing support through DOD supply chains with less focus on pre-established agreements and contracting (Smith, 2021). My argument is that EABO support would be better served by expanding procedures to include advanced contracting and pre-arranged agreements that capture foreseeable supply and service requirements. The supply chains or Lines of Communication (LOC) supporting EABO extend to the Continental United States (CONUS) which require costly, slow, and vulnerable sea-surface connectors. This point is not new and has been mentioned in several congressional reports, professional articles, and even podcasts since well before 2021 (Green, n.d.; McGinn, 2020). By partnering pre-coordinated support packages with pre-positioned and forward-staged equipment sets, the



USMC gains a complete capability that can be quickly manned, equipped, and sustained in times of crisis. Preparatory actions to establish these pre-coordinated support packages include advanced contracts, pre-arranged agreements, and including contracting in phase zero planning. Congress has directed that these preparatory contracting actions be completed for all operations plans through various policies including the 2007 and 2015 *Gansler Reports*, *Joint Publication (JP) 4-10*, *Tentative Manual for EABO*, and several Government Accountability Office (GAO) reports (GAO, 2019; General, 2015; Joint Chiefs of Staff, 2019c; C. Russell, 2017; Smith, 2021). By establishing advanced contracts and pre-arranged agreements during phase zero of the Joint Planning Process the DOD reduces the last-tactical-mile logistics requirements supported by the USN and strategic DOD supply chains preserving these Lines of Communication for other wartime requirements.

This study will define methods where planners use historical information to forecast EABO sustainment requirements, review historical challenges for incorporation into plans, and review supporting doctrine. Planners can use these methods to pre-arrange support agreements at EABO locations. A Government Accountability Office (GAO) report from 2023 says that a key component of these pre-established agreements and contracts is managing the relationships with allies, partners, vendors, and agencies that will be providing the supplies and services in the time of need (Gianopoulos, 2023). Maintaining these relationships is primarily diplomatic but also relies on regular communications to ensure the supporting organizations are included in the overarching planning process. By pre-establishing support agreements for each EABO site and rehearsing them with the supporting establishments, the relationships become more reliable, adaptable, and resilient strengthening the Pacific-wide EABO support network.

By forecasting EABO requirements and packaging them with the pre-staged equipment sets throughout the Pacific, supporting establishments will have better visibility over the requirements and plans to support EABO. Therefore, when these capabilities are needed most, the agencies will not have to struggle to compile plans for overly intensive contracting and logistics support but instead will “flip the switch” for the agreements that are already in place. Predetermining the support requirements for EABO allows the USMC



to communicate their operational needs with supporting establishments (e.g., units, allies, partners, and industry) and rehearse them. By doing this, the USMC is more likely to get the types of support they need right and at the right time. A 2020 NPS thesis by Joshua Blythe simulated the lead time of contracting support based on predetermined requirements outlining the substantial time saved if contracts were coordinated in advance of contingencies (Blythe, 2020). Pre-established support packages coupled with the pre-staged equipment sets further gives staffs the ability to plan around known shortfalls for a specific location to create secondary and tertiary support plans. A fallacy is that following this process would solve all EABO support issues or that a commander could expect every contract and agreement to be fulfilled perfectly. History is proof that no matter how well you plan, there will be unforeseen issues. Still, defining requirements and coordinating them ahead of time will reduce the problem-solving burdens during execution and provide the best support to the EABs.

To provide the best response for a method to identify and maintain EABO sustainment requirements, I focused on the following research questions:

A. RESEARCH QUESTIONS

1. Primary Question

- How do we optimize EABO last-tactical-mile support?

2. Secondary Questions

- What is the current literature and policy that applies to EABO support?
- What are some of the challenges associated with EABO support?
- What findings and recommendations can be learned from the literature review?
- Are there solutions to EABO sustainment requirements that can be pre-arranged?



- What is the best way to establish and manage the relationships required to maintain a pre-coordinated sustainment capability?

B. RESEARCH METHOD

This study explores the potential of pre-establishing last-tactical-mile support for an EABO force in a contingency environment. Utilizing the Philippines as the basis for study, I analyzed over a decade's worth of After-Action Reports (AAR), exercise plans, and documents complimented with an analysis of three years' worth of financial data. From these results, I developed a systematic framework for what EABO support requirements and processes consist of. The AAR results were captured in a matrix of 62 categories of critical logistics and support planning factors to determine what trend issues from past operations in the Philippines could be learned and integrated into support for future EABO missions. In the financial data analysis, I analyzed three years' worth of USMC financial transactions consisting of over \$1.5B and over 27,000 transactions to determine whether EABO sustainment requirements could be forecasted to support phase zero planning. Additionally, I analyzed over 100 articles, reports, policies, and publications to identify actionable methods for implementing pre-coordinated support agreements for EABO as part of phase zero of the Acquisition and Joint Planning Processes. The financial data review, AAR review, and policy review capture decades worth of knowledge and lessons learned that can be used to determine the best methods for supporting last-tactical-mile logistics for EABO.

C. CONTRIBUTIONS AND SCOPE

This research is exploratory, based on a single setting, and is not generalizable for all scenarios. Utilizing the Philippines as a basis for study allowed the variables in the research to be scaled and allowed the results to be interpreted directly to the Area of Operations. The resulting models can used across the remaining locations in the INDOPACOM theater to support EABO holistically and better understand support requirements that could be pre-packaged and pre-planned for pre-identified locations in the theater. The pre-staged capabilities support a lethal network of potential EABO sites



Pacific-wide with the ability to more rapidly turn-on and sustain in a contested environment.

D. ANECDOTE

Throughout this article, the author provides his opinion on a variety of strategic and tactical policies. To better understand the author's background, the following anecdote is provided.

Major Erich Lamm is a USMC officer who has served in Supply Officer positions for over a decade. He served as a Battalion, Regimental, and Marine Expeditionary Unit Supply Officer supporting over a 50 joint and combined exercises and operations. Major Lamm has planned and executed USMC logistics concepts for sea basing, amphibious assault, distribution liaison cells, crisis response, Maritime Prepositioning Force, and several proofs of concept for pre-staging equipment throughout the globe. As part of these duties, he was responsible for preparing and executing the support agreements associated with these exercises from phase zero to close out which gives him a unique insight into the difficulties of supporting operational logistics for USMC forces. Many of these operations mirrored force employment concepts that are required for EABO.

The above anecdote is provided to better give the reader an understanding of the author's background for more validity when he provides his opinion throughout this research.

E. OVERVIEW

Chapter I describes, the importance and complexity of last-tactical-mile logistics supporting EABO and how advanced contracting and prearranged agreements are an effective solution for supporting EABO sustainment requirements. In the following research, I will use financial data and AARs to outline how forecasting of EABO support requirements is possible. I will use AARs to give direct insight into what gaps and solutions have been experienced during past exercises and operations and can be applied to EABO today. Lastly, I will review pertinent policies and consolidate them into methods that can be used to better integrate Operational Contract Support (OCS) into the planning process.



The extensive literature review in Chapter II answers a series of the secondary research questions. EABO sustainment and contracting are two complex and broad topics and when mixed with actions required in Phase Zero Contracting Operations (PZCO), they become overwhelmingly difficult. Chapter II covers a broad range of policies, reports, articles, podcasts, and publications that form the foundation for all aspects of logistics and support for EABO from the strategic to tactical level. Chapter II will assist planners in understanding the importance of including contracting in the planning process and to show how integration during phase zero can lead to strategically significant improvements in the ability of the DOD to support EABO. After reading this research, it should be apparent that including contracting in the phase zero planning process is not an option, but that it is a necessity for operational success. Failing to include contracting in the planning process has historically been detrimental and astronomically increases the costs associated with employing and sustaining the force.

In Chapter III, I will outline the methods used to address the thesis question of, “How do we optimize EABO last-tactical-mile support?” Utilizing financial data and AARs, I will prove that it is possible to forecast supply chain support requirements for EABO. I will also address the secondary questions, “Are there solutions to EABO sustainment requirements that can be pre-arranged” and “What is the best way to establish and manage the relationships required to maintain a pre-coordinated sustainment capability?.” Utilizing existing policy and AARs, I will outline the path for success for planners during phase zero of the planning process where contracting can better prepare DOD, industry, allies, and partners to support EABO.

In Chapter IV, I will utilize the financial data, AARs, and policy to define a phase zero planning method that uses financial data and AARs to forecast EABO sustainment requirements and use policy to turn those requirements into pre-arranged sustainment agreements. Some of the key questions that will be answered are: What does policy say to do? What are the planning paths that are directed to be used? What do the DOD Financial Acquisition Regulations (FAR) say about advanced contracts? When do we insert contracting into the planning process to create, refine, and execute these advanced agreements? Are there other solutions for advanced agreements besides contracts? What



are the trending issues from past exercises and how do we best create a sustainable EABO support package?

In Chapter V, I will close with a summary of the findings and recommendations for implementation as an EABO network of pre-coordinated support packages coupled with pre-staged equipment sets throughout the Pacific. I will also call for future research to maintain the pace of progress and define why constant attention to these agreements is pertinent to maintaining our relationships which are undeniably the keys to integrated deterrence in the region and our ability to win in event of a conflict in the Pacific.

F. CONCLUSION.

EABO is a critical element to the nation's integrated deterrence strategy, but it is logistically vulnerable. The DOD strategic logistics support plans for EABO have serious challenges that call to question whether EABO can be sustained in a contested environment. I believe it is supportable and to prove that it is and how to do it, the USMC first must identify EABO's detailed support requirements. Financial data, AARs, and policy are the gateway to the past that shows us what is needed and what challenges will be faced when supporting EABO. The insights gained from reviewing the historical information can be used to build support packages that can be pre-coordinated creating a Pacific-wide EABO network; but this strategy requires the USMC to integrate support planners like contracting, logistics, finance, and budget into the earliest stages of the planning process. In the following chapter, I will explain the policy and history for what challenges must be tackled to ensure support for EABO does not fail during a contingency.



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II. BACKGROUND AND LITERATURE REVIEW

Chapter I provided an introduction to Expeditionary Advanced Base Operations (EABO) and its importance toward achieving integrated deterrence as directed in the *National Security Strategy* (NSS)(Biden, 2022). The supportability of the strategic logistics required to sustain EABO has significant challenges, but EABO does not have to receive its support from a strained wartime Department of Defense (DOD)-centric supply chain with extended and vulnerable Lines of Communication (LOC). My thesis researches how to best optimize EABO last-tactical-mile support by creating pre-coordinated sustainment packages at pre-staged equipment locations throughout the Pacific.

A. BACKGROUND

This chapter captures a literature review that will provide the reader with enough background on the applicable topics that they can understand the broad issues with EABO. This chapter includes a review of EABO policy, concepts for its sustainment, its employment in a contested environment, shortfalls in the United States Navy (USN) supply chain, the difficulties of last-tactical-mile logistics, contracting and acquisition policies, the acquisition and joint planning processes, Phase Zero Contracting Operations (PZCO), United States and Philippine relations, and previous research into this topic. China will challenge our approaches with a desire to capitalize on our mistakes. These interest areas have been subject to extensive research with only a small portion included in this literature review.

In this chapter, I will utilize the findings from my literature review to define the EABO sustainment problem. The literature review lists complex challenges and concerns with synchronizing and managing the joint force's planning and available resources to effectively support EABO. Taking the time to understand these interest areas and their overlaps is essential to overcoming the many challenges surrounding sustainment of EABO and effectively employing it as a deterrent against adversarial aggression in the Philippines and throughout the Pacific. Finally, I will provide a summary of previous research that has provided recommendations for solving many of the issues for today's EABO sustainment



problem set. Throughout the literature review, I will use the findings to answer the secondary research questions, “What is the current literature and policy that applies to EABO support?,” “What are some of the challenges associated with EABO support?,” and “What findings and recommendations can be learned from the literature review?” I will start by reviewing the policies and directives which founded EABO as a United States Marine Corps (USMC) concept. These policies and directives give insights into the challenges associated with supporting EABO.

1. Policy and Directives for EABO, Reshaping the Marine Corps

Based on the *2022 National Defense Strategy* (NDS), Integrated Deterrence synchronizes the instruments of national power to create a dilemma where our enemy believes that the costs outweigh the benefits of conflict (U.S. Department of Defense, 2022). The resilience and denial components of integrated deterrence focus on creating a forward posture that affects the enemy’s decisions by having a denial presence. Great care is taken to ensure that the infrastructure supporting the denial presence is sustainable if the enemy chooses to test these boundaries. EABO concepts in the Pacific focus on establishing a forward presence through decentralized and highly skilled small teams in the First and Second Island Chain (FIC and SIC) which are expected to be high conflict areas (Smith, 2021). These teams achieve the Denial by Deterrence and Denial by Resilience strategic objectives from the NSS by being a credible force in the FIC and SIC and protecting freedom of movement throughout the Pacific. The 2022 NSS focused the DOD on integrated deterrence and assigned the USMC with the EABO mission. This policy shift resulted in a demand for the USMC to shift its structure to support the EABO concepts (Biden, 2022; U.S. Department of Defense, 2022).

The most recent conflict the USMC has been involved in was in Afghanistan. Operations in Afghanistan called for far different capabilities than what are expected to be required to defend the Pacific. During the recent analysis across the DOD for defending the Pacific, the USMC decided the best design for its own mission was the EABO concept (Feickert, 2022). This overlaps with the USN’s focus and realignment to support



Distributed Maritime Operations (DMO), Littoral Operations in a Contested Environment (LOCE), and Distributed Lethality (DL). These USN and USMC overall strategic approaches create highly disaggregated military assets while still maintaining the ability to focus firepower with small highly-capable and mobile teams (Neller & Richardson, 2017; Richard Mosier, 2022; Rosenberg, 2021; Smith, 2021). These joint and combined forces are mobile, lethal, and decentralized. When their aggregated capabilities are synchronized, they form a scalable defense network for the land, air, and sea regions throughout the Pacific.

The overall objectives of EABO are tied to the highest levels of policy starting at the current Biden administration's 2022 NSS and filtering down through the NDS and National Military Strategy to the Geographic Combatant Command (GCC) policies. In the force structure for the USMC, EABO's design is dictated through the *Force Design 2030* outlining the personnel, equipment, and training required for the Marine Littoral Regiments (MLR) (Feickert, 2022). MLRs follow the *Tentative Manual for Expeditionary Advanced Base Operations* (TM for EABO) as their guiding publication (Smith, 2021). The USMC is developing three MLRs, one at each Marine Expeditionary Force (MEF) command. The logistics support plans in the *TM for EABO* have noticeable gaps in supportability. Figure 1 provides an overview of the EABO network of integrated systems that was planned in 2017. Figure 2 provides a more recent updated version of this network.



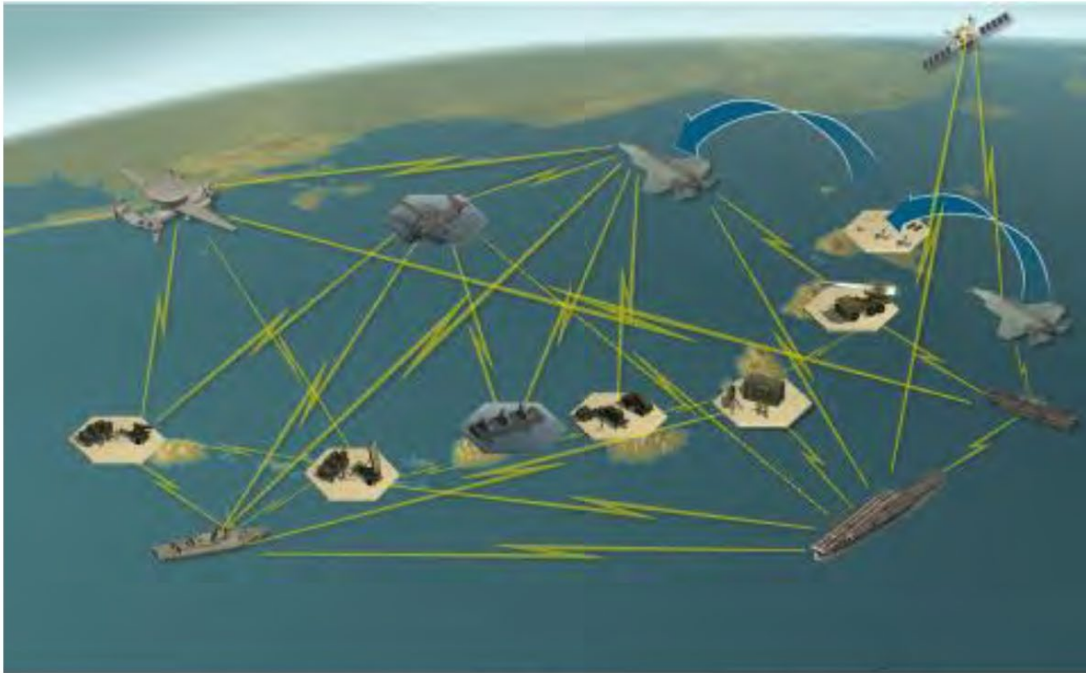


Figure 1. Notional Example of an Integrated Naval Network of Sea-based and Land-based Sensors, Shooters, and Sustainers. Source: Neller and Richardson (2017).

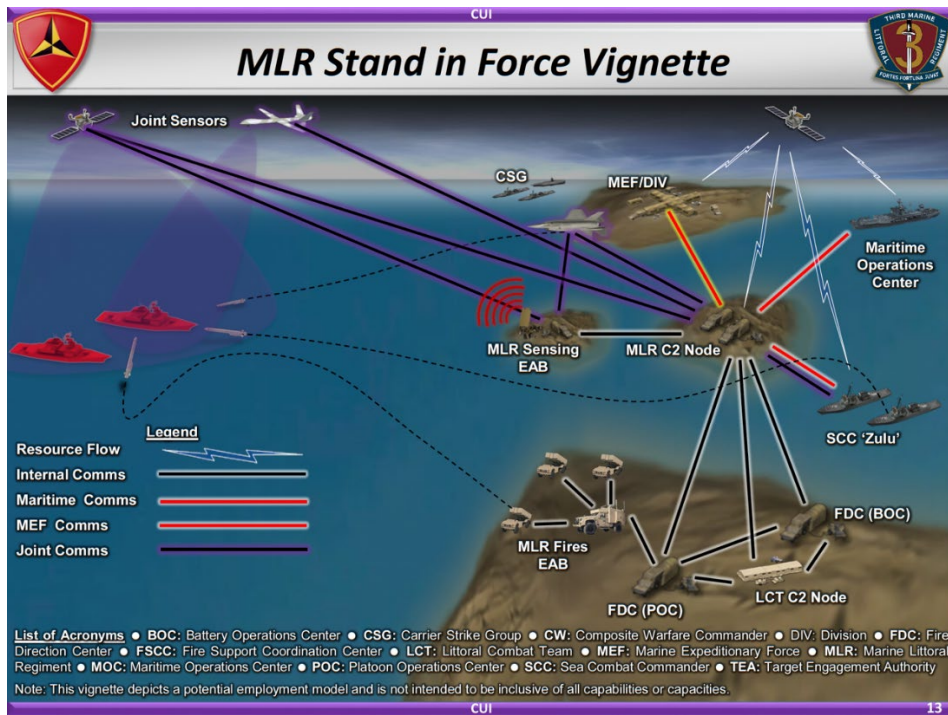


Figure 2. 3d MLR Stand-In Force Vignette. Source: Brady (2022, p. 13).

Finding 1: The USMC and DOD are restructuring to meet the requirements for EABO. This includes changes to policy that affect personnel, equipment, and training as well as supporting service relationships. New relationships are being developed to support EABO concepts.

2. Concepts for Sustaining EABO and its Challenges

EABO operates on the assumption that sustainment will be provided by the USN and DOD supply chains which has not been operated in a contested environment since World War II. *Sustaining the Fight Resilient Maritime Logistics for a New Era* describes the United States (U.S.) maritime logistics force as being in-the-process of re-designing itself from “Cold War-style operations” to create a more resilient force that can sustain while disaggregated (Timothy Walton et al., 2019, pp. 1–2). The report further describes challenges that must be overcome to better synchronize with commercial partners and further describes several interoperability challenges EABO faces with allies and partners. EABO force and process re-designs would be critical vulnerabilities in a protracted war with a peer competitor and greatly affect the reliability of the USN and DOD supply chain which the EABO forces rely on for support. The EABO concept has been tested and refined in the past decade with the publishing of *Force Design 2030, Tentative Manual for Expeditionary Advanced Base Operations*. This force re-design manual outlines a variety of research surrounding supporting equipment and logistics for EABO (Feickert, 2022). Still, a concerning question surrounding EABO is whether the sustainment plan via DOD is supportable?

The nature of the EABO teams’ missions requires them to operate with limited communications and remain mobile as to not be easily targetable by adversaries. The high mobility and uncertain communications with EABO teams complicates the sustainment plans supporting them. Current logistics plans describe EABO sustainment via means that either do not exist or have not been tested as a complete logistics network in a contested environment (Katzman, 2022, pp. 1–2). Gaps in the capability and operational availability of current platforms to support sustainment of EABO are severe and have led many to



question whether supporting these operations is even possible in a sustained peer-to-peer conflict (Brady, 2022; Katzman, 2022; Neller & Richardson, 2017).

EABO in the Pacific is expected to take place on a variety of islands with small teams specialized in radar, refueling, sensors, communications, rearmament, and Anti-Area/Access Denial (A2/AD) (Brady, 2022; Katzman, 2022; Neller & Richardson, 2017). These missions require tailored sustainment procedures, materiel, and personnel requirements which do not lend to a one-size fits all plan. The high mobility of EABs make them a moving logistics target rendering it more difficult to plan for their sustainment. Modular solutions to foreseeable materiel deficiencies are being planned for by the military to address strategic sustainment concerns. There are still several gaps in the logistics, especially at the tactical level of sustainment for EABO (Apte et al., 2020; Katzman, 2022). Fuel, re-armament, and subsistence are three of the requirements with the largest amount of cargo space for sea or airlift transportation. Additionally, these three sustainment requirements would be competing with the rest of the forces in the Pacific for materials transported from logistics hubs based in the Continental United States (CONUS). Figure 3 provides a review of the EABO concept as it is integrated across the joint structure.



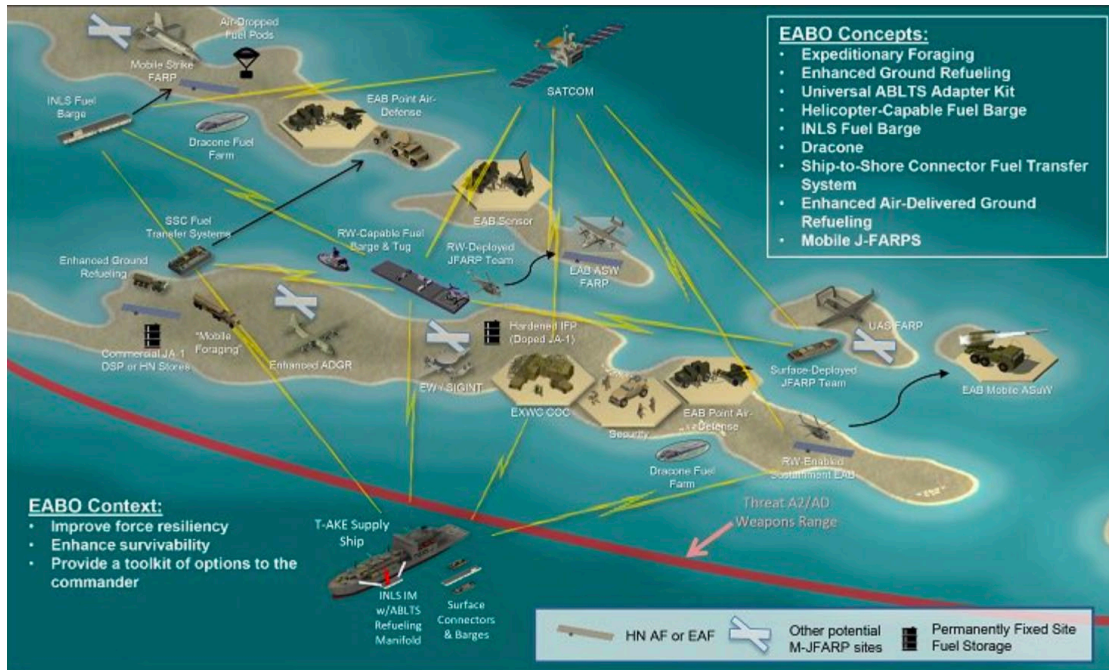


Figure 3. EAB Operations Overview. Source: Katzman (2022).

Strain is being put on the USN to support its own DMO concepts for the defense of its fleet and the infrastructure. The disaggregated nature of both concepts creates complex time-space issues for the U.S. with maintaining LOC, especially when considering a contested environment. As described throughout *Defense Logistics for the 21st Century* and in several separate research articles, there are known issues with contested environment logistics including DOD initiatives like the Littoral Combat Ship; Light Amphibious Warship; integration with sea, land, and air components; and in general sustainability of forces overseas (Apte, 2010; Apte et al., 2020; Feickert, 2022; Katzman, 2022; Smith, 2021; Tuttle Jr., 2005).

MLR's are the foundation for EABO within the USMC. As such, they have the lead for identifying problems with EABO employment including sustainment. 3d MLR's After Action Report (AAR) from 2022 outlines several logistics and sustainment concerns directly which validate the purpose of this research citing their concerns about re-arming, re-fueling, and replenishment as their top logistics problems (Brady, 2022). Several additional analyses and reports have been completed which reaffirm the MLR's findings. An unclassified document by Maj Daniel Katzman in 2022 called *Sustaining Stand-In*

Forces provides a well-documented analysis of many areas for concern with sustainment of EABO forces (Daniel Katzman, 2022). His analysis reaffirms the MLR's areas of concern with re-arming, re-fueling, and replenishment in addition to several other sustainment shortfalls. In Katzman's (2022) conclusion, he said EABO is sustainable with the additional commentary:

Operational Contract Support (OCS) and prepositioning are key enabling logistics capabilities. OCS can leverage local sources of supply to reduce distribution requirements for common logistics items significantly. Fuel and water are two of the most considerable sustainment requirements for EABO that OCS can fulfill. Prepositioning can provide the initial supplies while OCS gets up and running. Furthermore, it can reduce deployment requirements by having equipment staged in the operating area. Combined, OCS and prepositioning will lessen movement and sustainment requirements, resulting in a significant reduction of distribution requirements. (p. 4)

Finding 2: Current doctrinal concepts for strategic logistics connecting EABO forces at forward locations to their Navy supply chains is not supportable.

Finding 3: OCS and prepositioning will play a vital role in support to EABO in a contested environment.

Katzman's recommendation over a year ago substantiates my research into "how" contracting and pre-arranged agreements can be leveraged to support EABO for the benefits he foretold in his article. Katzman's focus is on prestaging materials and equipment to sustain EABO while Operational Contract Support (OCS) has time to establish support contracts. I believe that, with advanced contracts and pre-arranged agreements, OCS could be ready before the EABO forces arrive to their designated locations. This better serves the EABO concept in an actual crisis by being able to "turn-on" these pre-coordinated support agreements. These pre-coordinated agreements will allow vendors to prepare for known force requirements and rehearse their execution during annual training events. Pre-coordinating agreements lessens the chaos and complexity of supporting EABO in a contested environment at the initial onset of a crisis.



3. Contested Environment

EABO is a concept for employment of land-based forces in the forward regions of a contested environment. EABO's Areas of Operation (AO) are expected to be in the highest threat regions in the Pacific in the event of a conflict with China. For this analysis, I have focused on the Philippine theater which is in the SIC region. Both regions are important to strategic wartime policies in the Pacific theater for several reasons. China has a claim for national waters within these two chains (Vorndick, 2018). China's FIC claims are more legally founded than claims to waters in the SIC, but both are recognized claims and strongly opposed by the U.S. and its allies (China Power Team, 2023; CSIS, 2023; Mazarr, 2022). Legal control of either region would give China increasingly more control of the waters to include some of the highest volume areas of maritime traffic in the world. In addition to potential disruptions of trade, China could claim mineral rich areas of the ocean, build bases, and even restrict U.S. military operations in the region if these waters were considered their territory (China Power Team, 2023). U.S. policy has been to defend these regions from Chinese influence in opposition of Chinese policy which has been to infiltrate and dominate these regions. China's policies are counter to free trade and have been ruled a threat to the U.S. and its allies' interests in the Pacific (Executive Order 14017: Industrial Base Policy, 2021).

Based on research done by the Center for Strategic International studies, China has been building its influence, economic power, and its military strength for the past ten years (CSIS, 2023). They have created island bases, built a network of Anti-Access and Area-Denial (A2AD) defense systems, and built up their navy. Chinese policy has attacked American interests in the region brought conflict diplomatically and economically. This has set the Pacific countries, the U.S., and China on high alert for potential kinetic conflict. Conflict has already been non-kinetic frequently exceeding the U.S.' comfortable levels of "grey-zone" operations. With this escalation, the U.S. military begun refinement of its plans for regional conflict and found that it needed to realign the USMC to better serve in the defense of the Pacific. The USMC is still reorganizing its force structure to support EABO. With this realignment, the EABO requires adjustment of outdated support



relationships with other services. First and foremost, with the Navy as the supporting link between EABO forces and the war time supply chain.

Finding 4: China will contest U.S. actions in the FIC and SIC where EABO is expected to be employed.

4. USN Supply Chains Stretched Thin

A top concern reported by the MLRs and highlighted by the Marine Corps Center for Lessons Learned (MCCLL) was that the EABO detachments would be at the forward edge of an already strained logistics network (Katzman, 2022). Katzman's research explains that EABO's supply chain is expected to be supported by a combination of CONUS-based production, commercial transport, and military sea lift. The same supply chain is expected to be used to support the Naval forces, DOD bases, and any other forward forces throughout the Pacific AO. This is a significant concern because initial estimates of supportability show that the Combat Logistics Fleet (CLF) is both short on ships and personnel to support the logistics for wartime demand in the Pacific. The wartime demand currently being used to estimate the DOD supply chain's supportability is nowhere near estimates of what would actually be required in a peer competitor conflict with China (Harper, 2020; Reveron et al., 2022; Timothy Walton et al., 2019). The basis of this thesis is not to research whether the current plan in place for the maritime-based supply chain is adequate. These findings show a legitimacy of concern with respect to whether EABO detachments at the forward edge could be sustained by DOD supply chains alone.

The basis of my thesis revolves around the concept that there are EABO sustainment requirements which are available locally that could support locations where EABs are planned to be placed throughout the Pacific. Additionally, EABO teams are designed to be small which allows their sustainment requirements to be more easily obtained from the local commercial market vice from overburdened USN and DOD supply chains. The availability of supplies and services via the local market are a more effective way to support EABO requirements which also eases the burden on the USN and DOD supply chains. Supporting these requirements via local vendors creates a more resilient and adaptable supply chain by decreasing EABO's requirements on the DOD supply chain.



Food, water, fuel, construction materials, and clothing are all great examples of commercially available sustainment requirements that EABO teams would need in a sustained fight. All of these can often be found locally in greater supply, with faster turnaround times, and often cheaper vice procuring them through DOD supply chains, a majority of which are CONUS-based. My research describes how early establishment of sustainment agreements with supporting establishments (e.g., allies, partners, and industry) would ease the burden on the supply chain; specifically, in the last-tactical-mile where the DOD is struggling to develop logistics plans to accommodate EABs.

The USN's disaggregated fleet and CLF ships would be at risk of engagement when supporting EABs located within the FIC and SIC due to China's A2/AD threat ring (Vorndick, 2018). The gap in the EABO strategic logistics structure is a known concern getting attention at the highest levels (Smith, 2021, ch. 7).

For the past several decades, the United States has enjoyed uncontested access to logistical support bases in the territory of allies and partners and forward U.S. territory near potential conflict areas. This proximity permitted combatant resupply directly from shore facilities. It also allowed rapid CLF resupply, reducing time spent in transit and increasing available station time to provide greater replenishment capability to combatants. (Walton et al., 2019, pp. 29–30)

An assumption this analysis operates on is that, by implementing strategic contracting solutions for EABO sustainment, requirements for last-tactical-mile logistics support required from the USN will be reduced. By reducing reliance on the USN supply chains, EABO support is more resilient and adaptable.

Finding 5: USN is supporting logistics for multiple forward and disaggregated force employment concepts to achieve integrated deterrence. These concepts all strain the standing supply chain which the USMC expects to utilize for supporting EABO. Regular resupply of EABO forces by USN forces will put these strategic logistics assets at great risk.

5. Last-Tactical-Mile

For this research, the difficulties for getting resources from CONUS to the FIC and SIC regions is assumed sustainable. In reality, the capacity of those channels is not endless



and will be a constraint that must be considered by strategic planners. The focus of this thesis starts at what is called the “last-tactical-mile.” The last-tactical-mile is the portion of the supply chain where bulk distribution stops and the unit is responsible for further distribution. Last-tactical “mile” is elusive. It is almost never just a mile. More often, following distribution from the Break Bulk Point (BBP) there are several follow-on nodes supporting thousands of forces which can span entire states or countries. The basis of the last-tactical-mile is that large logistics entities like Defense Logistics Agency (DLA) and Transportation Command (TRANSCOM) must maintain a focus on “big picture” logistics (Joint Chiefs of Staff, 2019a; Reveron et al., 2022; Timothy Walton et al., 2019). When these “big picture” agencies begin to solve the individual logistics requirements for units, they lose their focus on the strategic logistics which can have severe consequences. The line in the sand where big picture logistics ends and the last-tactical-mile starts is where the DLA/TRANSCOM to unit-level logistics hand-off happens.

The last-tactical-mile is where a significant amount of unit resources and planning are expended. It is also where the most difficult logistics problems must be solved. For this thesis, the focus starts where the BBP is assumed to fall, which will be outside of the SIC and outside of high threat of Chinese engagement. CLF and commercial transportation assets are strategic assets that have very little means of defense (Aurelio, 2017; Lundquist, 2021; Neller & Richardson, 2017). Supporting EABO by placing these assets in the FIC and SIC puts the entire theater logistics network at risk. The USN is the main transportation agent from the BBP outside of the SIC. For this research, it does not matter where those points will fall just that the USN is responsible for resupply from the BBP to the EABO forces. The USN now must prioritize limited resources and identify the path for replenishment of the EABO forces and its own fleet across a complex and vast AO. The USN’s own forces are operating distributed with the DMO concept which strains the distribution network by creating more space between each ship and node (Lundquist, 2021). This creates a complex and ever-changing logistics requirement where EABO forces are at the foremost edge and pose a high risk to any assets that are resupplying them.

My thesis research questions apply to the last-tactical-mile where I assume EABO forces pose a high risk for ships or aircraft servicing them. The resupplying ships/aircraft



have limited space, so maximizing the efficiency of each of their cargos will be a high priority and a requirement for long-term strategic success in the AO. Reducing resupply runs required will reduce the threat to transportation assets and preserve the security of the EABO forces (Apte et al., 2020).

In Sections A.1 through A.4, this chapter covered the background for policies and concepts which apply to EABO. The following sections will review the policies and concepts surrounding establishing agreements and the process for using OCS in the planning process.

6. Contracting and Acquisition Policies

Throughout the DOD, Contracting and Acquisition policies are driven by one parent document, the *Federal Acquisition Regulations (FAR)*(Code of Federal Regulations (CFR), 2022). This document provides the legal basis for all contracting and acquisitions procedures utilized by the DOD with the commercial industry. This document gives the foundation for subordinate policies like the *Defense Federal Acquisition Regulations Supplement (DFARS)*, service-specific doctrine, the *Contract Management Body of Knowledge (CMBOK)*, the *Guidebook for the Acquisition of Services (GAS)*, and any local contracting policies established at command levels(National Contract Management Association, 2019; OSD-A&S, 2012, 2023). Understanding what is allowable in the FAR (and its subordinate documents) is a vital requirement for any contracting agreements to work with commercial industry. There are also several handbooks that are valuable for planners that integrate the acquisition planning process with the joint planning process called the *Operational Contract Support (OCS) Joint Concept and the Defense Contingency Contracting Handbook (DCCHB)* (Joint Requirement Oversight Council, 2013; OSD, 2017). These tools together provide the guidance and legal foundation used to implement contracting throughout the DOD and for planners to integrate contracting into the planning process.

As you can imagine, these documents are not short and are full of exceptions to rules, unending requirements for management, and unwieldy timelines for planners. These documents and their unwieldy rules have been a constant source for scrutiny at all levels



of the DOD since their inception. For the sake of this study, we will not be questioning if there is a better way. We will utilize the tools available to approach implementation of advanced contracts and agreements with the timelines required by the current regulations. This actually has a benefit as seen later from a review of the AARs. The policies define timelines that force planners to integrate contract planning earlier in the planning process. Bringing contracting into the planning process earlier also brings industry and other supporting establishments to the planning process early which leads to better support. This is not new news as outlined in many Government Accountability Office (GAO) and service reports on contracting over the past several decades.

Finding 6: Contracting and Acquisition policies direct contracting to be integrated into the Joint Planning Process (including phase zero).

The focus of this study is to take what exists in the *FAR*, *DFARS*, *CMBOK*, *GAS*, *DCCHB*, and the local service policy (*Marine Corps Installations Pacific Regional Contracting Office Initial Operating Procedures- MCIPAC RCO IOP 2022*) to outline “how” the USMC should integrate contracting and other support agreements to best prepackage sustainment agreements with pre-staged equipment sets (Code of Federal Regulations (CFR), 2022; Lopez, 2022; National Contract Management Association, 2019; OSD, 2017; OSD-A&S, 2012, 2023).

7. DOD Support Agreements / Contracts

The definition for “prepackaged sustainment agreements” requires some background. Support agreements can be thought of as “contracts” which per the *DOD FAR* are, “a mutually binding legal relationship obligating the seller to furnish the supplies or services (including construction) and the buyer to pay for them” (Code of Federal Regulations (CFR), 2022, 2.101). Contract, in its most basic definition, does not differentiate between contract actions per the *DOD FAR* and support agreements which are often not viewed as a contracting function. For instance, a warranted Contracting Officer is not required to sign a Military Interdepartmental Purchase Request (MIPR); therefore, the contracting office is not normally involved in oversight of MIPRs. MIPRs are one form



of support agreement that are outside of the FAR type contracts normally within the purview of contracting personnel (Code of Federal Regulations (CFR), 2022).

For the sake of this research, “prepackaged support agreements” include all types of traditional contracts and non-traditional contracts (agreements). Below are the definitions of each contract type for reference:

a. FAR Type Contracts

The following definitions for contract types and actions are provided from the *FAR* for the reader’s reference:

FFP: “A firm-fixed-price contract provides for a price that is not subject to any adjustment on the basis of the contractor’s cost experience in performing the contract. This contract type places upon the contractor maximum risk and full responsibility for all costs and resulting profit or loss. It provides maximum incentive for the contractor to control costs and perform effectively and imposes a minimum administrative burden upon the contracting parties.” (FAR 16.202.1)

CR: “Cost-reimbursement types of contracts provide for payment of allowable incurred costs, to the extent prescribed in the contract. These contracts establish an estimate of total cost for the purpose of obligating funds and establishing a ceiling that the contractor may not exceed (except at its own risk) without the approval of the contracting officer.” (FAR 16.202.2)

IDIQ: “An Indefinite-Delivery/ Indefinite-Quantity (IDIQ) contract provides for an indefinite quantity, within stated limits, of supplies or services during a fixed period. The Government places orders for individual requirements. Quantity limits may be stated as number of units or as dollar values. (FAR 16.504)

MAC: Indefinite-delivery, indefinite-quantity contract entered into with two or more sources pursuant to the same solicitation.” (FAR 2.101)

Emergency Acquisitions: “Emergency acquisition flexibilities, as used in this part, means flexibilities provided with respect to any acquisition of supplies or services by or for an executive agency.” (FAR 18.001)

During a declared contingency, there are many rules that are subject to exceptions which allow Contracting Officers to act more quickly, with less paperwork, and with higher thresholds.



b. Types of Support Agreements (Non-Traditional Contracts)

The following definitions are for agreement types that are not traditional contracts requiring a Contracting Officer but are legal and powerful tools for supporting forward forces:

MIPR: “The Military Interdepartmental Purchase Request (MIPR) is a method for transferring funds from one military organization to another to procure services, supplies, or equipment for the required service. A MIPR is processed on DD Form 448 and may be accepted on a direct citation or reimbursable basis and is defined in the *Federal Acquisition Regulation*.” (FAR 253.208-2) (Code of Federal Regulations (CFR), 2022).

ACSA: “Acquisition and Cross Servicing Agreements (ACSAs) and Acquisition Only Agreements (AOAs) are the formal mechanisms that allow the U.S. DOD to acquire, and in some cases to provide, logistic support, supplies, and services directly from/to eligible countries and international organizations. Logistics support, supplies, and services that may be provided or acquired under ACSAs and AOA are: defined in 10 U.S.C 2350. DoDD 2010.9 ACSAs and AOAs and specifically requires DOD Components to obtain prior written approval from OSD(A&S) to initiate or conduct negotiations of an ACSA or AoA.” (OUSD Acquisition & Sustainment, 2023)

GCPC: “The Government Purchase Card (GPC) mission is to streamline payment procedures and reduce the administrative burden associated with purchasing supplies and services. The GPC provides “on the spot” purchasing, receiving, and payment authority for individuals other than contracting or purchasing officers.” (Defense Finance and Accounting Service, 2023)

FOO: “A Field Ordering Officer (FOO) is an appointed Government purchasing agent authorized to acquire goods and services during expeditionary operations conducted by Marine Expeditionary Force (MEF) and their subordinate organizations by executing Standard Form 44 purchase transactions. The FOO follows procedures similar to those required for use of the GCPC but pays cash through an individual called the Pay Agent to ensure separations of duties.” (FAR 18.201-102)

HSP/ LOGREQ: In FY 2016, the USN implemented the off-ship bill pay process to increase oversight and mitigate risk associated with PVST logistics. The off-ship bill pay process removed Husbanding Service Provider (HSP) contracting functions from ships, created standardized LOGREQs by ship class and mooring type, assigned CORs, and



implemented the three-way match process. (OPNAVINST 4400.11A, Encl (1))

Finding 7: There are a variety of support agreements and contract types that can be used with industry, other services, and other nations.

Contracts and agreements are tools for the services to establish formalized support agreements with vendors, between services, or with other nations. These are tools, but they carry very little weight if the organization supporting the agreement does not fully understand what is expected of them. As part of the planning process, these supporting establishments should be brought into the planning sessions and able to synchronize their support with the overall EABO mission (Disanto et al., 2021; Gansler et al., 2007; GAO, 2011, 2019). Without planning and rehearsals, these support agreements mean very little in a contested environment.

8. The Planning Process

The DOD planning process gets its foundations from a series of Joint Publications (JP). They are vast, and several pertaining to strategic planning are classified. These documents are separated into several series that focus the planning into categories like the JP-3 series for Operations and the JP-4 series for Logistics (Joint Chiefs of Staff, 2019a, 2022).

There are several issues with this style of thinking but the key one for the sake of this thesis is that this leads to a belief that planners can think compartmentally. For contracting and logistics (and honestly any other joint staff function) there is too much overlap to compartmentalize. A failure in logistics leads to operational issues. The joint team only really works when it is viewed as a holistic organization. While the joint publications are separated by functions, the art is combining and synchronizing all of them during the planning process. While this is once again not new news, the issue of synchronization of the joint functions is the basis for a significant portion of the issues contracting and sustainment planners face (Gansler et al., 2007; GAO, 2015, 2019, 2021; General, 2015; C. Russell, 2012, 2017; Young, 2008, 2009, 2010, 2011). Understanding how the joint planning process overlaps with the acquisition planning process and the



timeline when certain actions must be taken both operational planners and contracting teams is vital to planning operations. This is difficult and many GAO reports have been conducted on specific operations, service organizations, and the DOD where we have gotten this wrong (and often way wrong) (C. Russell, 2012, 2017; W. Russell, 2022; Young, 2008, 2009, 2010, 2011). Not effectively integrating contracting into the planning process wastes substantial tax dollars, wastes time, leads to poor support to the warfighter, leads to poor relationships with vendors and even their bankruptcy, and was a source of strategic losses with the Afghani and Iraqi civilian population during the Global War on Terror. Initial estimates from planners had both wars estimated at costing in the billions to complete (Special Inspector General for Iraq Reconstruction, 2006), but recent reports have placed those numbers more near \$8-10 trillion and growing (Kimball, 2021; Myers, 2023).

There is a catch in that even when the planning process is done exactly by the book, there will be issues. Vendors can take advantage of the government, vendors can have issues, the DOD can have issues, contracts can be too vague or too restrictive, or either the DOD and vendors can commit fraud. This is no different than any other planning process that involves supporting relationships. These issues have been subject to endless review with some of the most encompassing reports being provided from GAO and unit-level AARs (GAO, 2015; MCCLL Ops, 2023). The best solution is to give OCS time to build the relationships with the supporting establishments and to integrate them into the team. Oddly, or not so oddly, this is exactly the result of a study on developing international diplomatic relationships in a 2021 thesis from NPS by Disanto, Hunnell, Yoder, and Dew titled *Reenergizing the U.S. and Philippines Relationship: The Philippines Belt and Road Proposal* (Disanto et al., 2021). To summarize their research, they used several relationship and networking models to identify the Philippines as a strategically relevant location for building a greater network of alliance relationships within the ASEAN region. These alliances lead to more effective partnerships to compete with China. These strengthened alliances lead to a stronger integrated deterrence network in the region. The key to making strengthened alliances a reality is putting in the work before conflict arises. Pre-planning and preparatory action is called Phase Zero in the Joint Planning Process.



9. Phase Zero

Phase zero of the Joint Planning Process and the Acquisition Planning Process is the focus of this study. Phase zero is where DOD organizations are directed to planners set the conditions for the execution phases of the planning process (Kelley Poree et al., 2008; C. Yoder, 2010; C. Yoder et al., 2013). The planning staff defines requirements to support the operational tasks needed to achieve mission victory and, for contracting, begin to make the agreements and support required a reality. This often means defining requirements for the plan to a point where they can be placed onto contracts and agreements. The planners have to define the plan enough to outline in a contract the parameters for what they would need from supporting establishments. To make support agreements a reality with supporting services, allies, partners, and commercial vendors funding is often required. This is yet another area where the DOD has issues. When it comes to authorizing funds to be expended for pre-arranged support agreements that may never be used, DOD leadership has a hard time committing. Often, preparing industry for our foreseeable requirements that are not a defined current requirement is seen as a waste. This has led to current strategic issues in the U.S.'s industrial wartime surge capacity, its degradation of domestic wartime supply chains, and the loss of many wartime technical skills like those within the shipbuilding industry. Those are great examples of why contracting during phase zero is a key component for success in the following phases of operational execution.

Oddly enough, effective Phase Zero Contracting Operations have been shown to decrease overall costs in operations, increase the effectiveness of support to the warfighter, and build lasting positive relationships between DOD and industry. It seems that everyone is better served when the supporting establishments are brought into the planning process early. There is a hefty bill to pay when supporting establishments surge for last-minute requirements (C. Yoder et al., 2013; Young, 2008). This dilemma has been captured in multiple AARs and varying reports. A valuable comparison can be made between the Iraq and Afghanistan wars. Contracting was largely caught by surprise with requirements to support the war efforts which resulted in poor contracting support, untimely and inefficient execution, failure to integrate contractors into the operational plans, and a huge expenditure in capital (GAO, 2011, 2015, 2019, 2021; C. Russell, 2012; Young, 2008, 2009, 2010,



2011). There are hundreds of reports within the government and industry which outline the aftereffects coordinating contracts while executing operations had on both wars. The negative consequences of conducting operations this way are significant. The lesson, once again not a new one, is that contracting should be part of phase zero planning. Doing so allows them the opportunity to perform preparatory contracting actions, mitigate risks, and provide the best support possible to both the warfighter and industry.

The defining contract planning document that results from PZCO is called the Annex W (C. Yoder et al., 2013). The annex W is directed to be completed in phase zero of the Joint Planning process, but it does not direct to what level of detail. This allows for the most flexibility for the staff to create strategic policies that do not limit adjustments in future changes to the plan, but the lack of detail can also be an easy way for planners to forego the work of coordinating a supportable contracting plan. One of the outcomes of my research is a review of past AARs to discover whether Annex Ws were present for past operations and if not, whether support for the operations suffered. Although Annex Ws are the doctrinal way of outlining contracting support plans, you can also achieve similar effects (if not better) through power point walkthroughs, exercise handbooks, or Standard Operating Procedures (Headquarters U.S. Marine Corps, 2019; Lopez, 2022; Smith, 2021). Annex Ws are required by doctrine to be on file for all Operational Plans “as part of their logistics supportability analysis” (Joint Chiefs of Staff, 2019, II-8).

The “Annex W provides basic command guidance on the function of acquiring theater support contracting and external support contracts, such as LOGCAP and USACE, in support of a particular operation” (Joint Chiefs of Staff, 2019, II-1). The Annex W is the primary document for communicating with the staff, internal, external, and higher/adjacent commands for the intent of contracting actions that are required to support the operation. It establishes business processes, authorities, and communicates agreements in a manner where operations and logistics can confirm their synchronizations or identify miscommunications. It gives a basis for organizations to rehearse from and identify shortfalls and gaps to be addressed before they are used for real-world execution. The trend, as identified in the 2017 GAO report *GAO-17-428*, is that an Annex W either does not exist, is incomplete, or were not executable for all 11 of the operational plans GAO



reviewed (C. Russell, 2017). This is indicative of poor planning and unrealistic expectations of contracting, supporting establishments, and industry. The Annex W when coupled with the Annex D (Logistics) provide the command guidance for all support surrounding an operation. Lack of a sufficient Annex W leads to systemic challenges seen during the Afghanistan and Iraq wars as well as an inability to confirm compliance with “contracting with the enemy” regulations (Code of Federal Regulations, 2020, p. 183). These regulations are especially difficult with the many ally and partner countries that would be involved in a confrontation with China in the Pacific. A GAO report in listed several blatant gaps in procedures and policies that China would be able to take advantage of which would allow them to imbed fake contractors who would “fall through” on strategic support or even undermine operations, steal intelligence, or cause severe damage in some way (Bagdoyan, 2019). Having an Annex W is only a beginning step toward having an effective support plan for an operation, and as of 2017, we were far from taking the first steps.

Finding 8: Phase Zero Contracting Operations outline the requirements and benefits for contracting for foreseeable operational requirements during phase zero of the planning process. This process includes creating relationships with the vendors and supporting establishments ahead of execution of operations and integrating them into the planning process.

Finding 9: Documents like the Annex D and Annex W are directed to be completed as part of phase zero of the Joint Planning Process. These documents provide overarching guidance to higher, adjacent, and subordinate commands on how support relationships will be executed for operations.

As previously mentioned, the basis for an Annex D, Annex W, or any contract or agreement is a support relationship. The support relationships required for EABO will need to be relied upon even when contested which takes a higher level of trust that needs to be built over time. One important trust relationship that the DOD will be relying on to support EABO is the Philippines. There is a long history between the U.S. and the Philippines with periods of strain; although, they are currently in repair.



10. U.S.-Philippine Relations

Once OCS leadership establishes the Annex W; the goal is to establish, manage, and rehearse the support relationships required to perform an operation. For this thesis, the scope is on the Philippines and how these relationships should be established, managed, and reinforced. There have been several studies that discuss the state of the U.S. and Philippine relations. A recent NPS thesis from 2021 by DiSanto, Hunnell, Yoder, and Dew called *Reenergizing the U.S. and Philippines Relationship: The Philippines Belt and Road Proposal* gives a well-structured argument on why relations with the Philippines are essential to economic and military strategies in the Pacific (Disanto et al., 2021). Their research describes recommended ways of improving these relationships and that doing so will lead to a “prosperous relationship while simultaneously thwarting the actions of the Chinese Communist Party (CCP) sweeping through Southeast Asia” (Disanto et al., 2021, p. 8). The Philippines and the U.S.’s relationship goes back before WWII and is a long history of allying through conflicts with shared bloodshed. In the past two decades, the Philippine leaders have teeter-tottered in relationship with the U.S and China but have recently closed negotiations to open several bases in strategic locations in their territory (Gorlach, 2023; Nakashima & Tan, 2023; Wehner, 2023). This has somewhat been in reaction to Chinese expansionist pressures from their manmade island building threatening the sovereignty of Philippine international waters and a hostile Chinese attempt through loan lending to the Philippines via their Belt and Road Initiative. Now, more than ever, the U.S. needs to focus on creating the strategic support relationships in the Philippines and harnessing them to create an effective integrated deterrence network in the South China Sea.

11. Importance of Relationships in Logistics (Networks)

Support agreements are based on a relationship where one party is relying on the other and, as is often the case in EABO, for their survival. These relationships form what is called the “Anatomy of Alliances” (Bowersox, 1990). Bowersox describes these strategic alliances as having guidelines that need to be maintained to ensure they last in the face of inevitable adversities. He states, “Conflict will arise if all the parties do not fully understand



the score” (Bowersox, 1990, p. 8). For the sake of this study, the most important takeaway is that it takes time to build a trusting and resilient relationship with each individual supporting establishment that make up an organization’s “Anatomy of Alliances” (Bowersox, 1990). Throughout this literature review, it is apparent that EABO will require support from an Anatomy of Alliances that consists of inter-agencies, allies, partners, and industry. Each of these organizations needs to “fully understand the score” of what is being asked of them to support EABO and have the time to build trust with each other.

EABO is one component of the integrated deterrence network. *The Stopping Power of Water* by Trier in 2022 displays how integrated deterrence’s effectiveness is based on the management of the many relationships involved (Kristof Trier, 2022). In the Pacific, it is especially challenging to convince island nations that it is in their interest to partner with the U.S. due to their distance from China and specifically that distance primarily consisting of the ocean. Distance from a problem causes some disregard for a matter’s importance, but Trier’s study shows that island nations are far more likely to diffuse the importance of an aggressor when they are separated by an ocean. Similar to Bowersox’ conclusions, Trier identifies time as necessary for developing these relationships and that the Pacific’s vast oceans will make it even more difficult to convince allies and partners in the area of the threats they face. Support relationships within the EABO construct are overly political due to the international locations required for its employment and the wide network of inter-agencies, allies, partners, and industry required to support it. The U.S. government is aware of the importance of international relations and the challenges the Pacific theater poses on establishing and maintaining them. It is also hyper aware of the adversarial approach China is taking within the Pacific and the threat Chinese political and economic postures pose to the ability of the U.S. to secure support within the Pacific theater. A focus objective in the NSS captures the U.S. stance on becoming the “preferred partner” in the Pacific as the overarching strategy for building reliable relationships with partners (Biden, 2022). EABO and the United States’ operational plans in the Pacific are dependent on the support of its allies, partners, and industry. China knows this and is actively seeking to dismantle these relationships.



Finding 10: U.S. relations in the Philippines are critical to the integrated deterrence objective in the NSS and subordinately the USMC’s EABO strategy.

12. China

The 2022 NSS calls China the U.S.’s “Pacing Challenge” (Biden, 2022, p. 20). This was later coined as the “Pacing Threat” (Biden, 2022). The NSS describes China as intentionally seeking to dismantle the Western-led International Order and seeking to destroy western values globally. China targets any and all allies, partners, industries, and potential partners with the U.S. and Western Nations. Its goals are somewhat hidden but have been defined by the Center for Strategic International Studies (CSIS) as “an aggrieved rising power determined to recapture its place in world politics” (Mazarr, 2022, p. 2). The article describes conditions of competition as similar to that of the Cold War. This research matches many recent articles calling China’s posture towards the world as a “New Cold War.” Overall, the CSIS article warns readers that “China’s economic dynamism, and the innovation and technological sophistication it has spawned, underlies its ability to challenge the United States” (Mazarr, 2022, pp. 2–3). China challenges borders, threatens freedom of movement, and prevents free trade as a means to grow their influence and empire. China has weaponized every component of their instruments of national power toward their cause which has caused global recognition of their aggressive advances.

China’s Belt and Road Initiative (BRI) is a prime example of their weaponization of its economic and diplomatic power to gain competitive advantages outside of their territory at the expense of the nations who are agreeing to China’s predatory loan terms. CSIS is one of the hubs for information that the U.S. uses to analyze the effects BRI has had internationally. For well over two decades, CSIS has analyzed and reported on China’s policies and political stance. Based on review of several CSIS reports, China has secured ports, telecommunications structures, infrastructure, and key data centers world-wide via the BRI (China Power Team, 2023; CSIS, 2023; Mazarr, 2022). Through BRI loan debts, China has targeted strategic locations in nations that has led to default terms which result in China’s lease or ownership of strategic sea ports, airports, bases, and industries. The BRI has grown China’s strategic reach globally in the past 10 years through these predatory



loan-lending practices. On one hand, these tactics have gained China many advantages, but the many countries have noticed China's predatory tactics and have become more defensive toward them.

Finding 4 (Validated): This research supports finding 4 that China will contest U.S. actions in the FIC and SIC where EABO is expected to be employed.

B. WHAT FINDINGS AND RECOMMENDATIONS CAN BE LEARNED FROM THE LITERATURE REVIEW?

After reviewing a significant variety of literature pertaining to EABO, the reader should better understand the strategic challenges for the DOD and USMC to support it. My thesis focuses on pre-establishing support agreements with pre-designated EABO locations and equipment to achieve a Pacific-wide EABO network. To do this, the first challenge to face is a historically systemic one. Based on the following reports, the reader should better understand how including contracting in the strategic planning process and making advanced contracts and support agreements a priority for GCCs will provide the most optimal support to EABO. These reports explain why including contracting in the planning process is challenging. The following reports also provide recommendations on how, from the national level down, the government can get better at including contracting in phase zero planning.

C. GAO REPORTS: WHAT SHOULD WE BE DOING BETTER?

The GAO is the reporting arm of the government and often report directly to Congress on systemic and high-visibility issues. According to the GAO database, GAO has reported to congress over 50 times on contracting and acquisitions issues throughout the government (gao.gov). For my research, I used only a handful of these reports that could be linked to support for EABO and how to best overcome the foreseeable challenges with implementing advanced contracts and pre-established agreements to support it. The GAO's reports showed me that none of the challenges I foresee are false and that they are also known.

The tools for "fixing contracting" are already present and required to be utilized via direction by Congress in 2007. In 2007, Congress provided a direction to the DOD via a



report known as the “*Gansler Report*” which outlined key areas where the DOD was failing to achieve contracting and financial accountability objectives directed by law resulting in egregious misuse of funds and potentially leading to failure to achieve wartime objectives in the long run (Gansler et al., 2007). Gansler’s report provided evidence that the DOD’s contract management issues were “a systemic challenge in executing expeditionary operations, both from an operational and an institutional vantage point” (Gansler et al., 2007, p. 8). It’s hard to plan and execute major operations and it’s even harder to include all of the stakeholders that need to be at the planning table when decisions are being made. Gansler concluded that, “Contracting should be a core capability of the Army (and DOD), but it is currently treated as an operational and institutional side issue.” He recommended that Congress address these systemic challenges in four ways:

1. “Contracting personnel--increase the stature, quantity, and career development of contracting personnel, military and civilian (especially for expeditionary operations);
2. Organization and responsibility--restructure the Army contracting organization and restore its overall responsibility to facilitate high-quality contracting and contract management in both expeditionary and peacetime operations;
3. Training and tools--provide training and tools for overall contracting activities in expeditionary operations; and
4. Legislative, regulatory, and policy--obtain legislative, regulatory, and policy assistance to enable contracting effectiveness in expeditionary operations.”(Gansler et al., 2007, p. 15)

Some compelling quotes from Dr. Gansler’s testimony are below:

- “The success of our warfighters is linked directly to the success of the contracting workforce.” (p. 19)
- “The equipment is world-class, and the equipment is because of the acquisition workforce contracting a big part of that. If we do not get that right, I submit that our military of the future will suffer greatly.” (p. 20)
- “The objective is to better prepare the Army for acquisition and logistical support of combat operations in the future.” (p. 25)
- “Consequently, the Commission recommends that the Army hire, as was mentioned, 2,000 new contracting personnel.” (p. 26)
- “The real question, Mr. Chairman, is, how long does it take to get experienced contract personnel? That’s about a 5-year period, to get them recruited, trained, moved through the various offices, and enough experience that I would feel comfortable putting them in the field,



particularly in a place like Kuwait or Iraq.” (p. 27). Later General Thompson states that it would take “5-10 years before you get those people to the level of training and certification and experience they need to be able to operate somewhat independently.” (p. 27)(Gansler et al., 2007)

A summary of Dr. Gansler’s assessment after Congressional review is that during wartime there needed to be an additional 2,000 contracting personnel who would take 2–3 years to train for entry level and 5–10 years before they would assume leadership or independent positions. In addition, Contracting Officer Representatives (COR) form the backbone of contract oversight during the post-award phase and should be factored into the planning surrounding operations and management in the AOR. These positions which are considered “linked directly” to success in wartime need a minimum lead time of 2 years prior to a wartime event. The DOD was directed to ensure they were “better prepared for acquisition and logistical support of combat operations in the future.” This report goes on to spell out uniformed leadership positions up to the flag level that were required to ensure this was fixed and did not happen again. This thesis does not look at whether we are abiding by the Congressional directives given in the *Gansler Report*, but these “systemic challenges” are visible still throughout the review of the AARs in Chapter IV of this thesis. As background for the reader, the *Gansler Report* is essential to understanding the final analysis provided later in this research.

Finding 11: Supporting operations with contracting and other agreements is systemically challenging for the DOD. Attempts to improve the processes over the last 20 years have not fixed the issues. For major operations, the recommended change requires the planning process to include OCS with operational lead times of 2 to 10 years from the likely date of execution.

In 2014, Dr. Gansler conducted a review and published a follow-on report in 2015 which stated that there was some progress made in each of the areas but overall, there was still a general feeling among the acquisition workforce of: “understaffed, overworked, undertrained, under-supported and, I would argue, most importantly, undervalued” (General, 2015, p. 6). The report covers many other topics in the contracting and acquisitions fields that are foretelling of issue areas that have come to bear today (2023).



The Gansler report outlines several shortfalls within the overall DOD acquisition and contracting processes that have led to systemic challenges in our ability to employ forces in protracted wars. These reported issues largely look at the impacts on DOD, but another GAO report in 2023 looked at the impacts on industry that the DOD's reactionary contracting has caused. GAO report *GAO-23-105534* is titled *Supply Chain Resilience* (Gianopoulos, 2023). It outlines the strategic logistics issues that industry faced during the COVID-19 pandemic and when called to support production for the Ukraine war (2022 to present). Efforts to respond to COVID-19 outlined how globally tied industry is today, how vulnerable these efficiency-based supply channels were, and how efficiency and affordability do not translate to resilience. In addition, the wartime support to Ukraine showed just how degraded the U.S.'s wartime industrial base has become. The key points from this report that relate to my research are that the U.S.'s supply chains are more globally tied than ever before and that these supply chains must be protected and reinforced in anticipation of war. To do so, we must identify our wartime requirements and communicate them with our allies, partners, and industry. The results of this study show just how interdependent the U.S. wartime industrial base is on our allies, partners, and the global market. We can prevent our vulnerabilities from becoming easy targets by identifying our wartime requirements now, communicating them with the supporting establishments, and reinforcing those supporting relationships. These preparatory actions will ensure the U.S., its allies, partners, and industry are prepared for whatever confrontations are on the horizon.

Finding 12: U.S. supply chains are globally dependent and vulnerable to disruption. Supply chains proved less resilient than desired after COVID-19. The U.S. wartime industrial base is similarly vulnerable.

There are thousands of recommendations from the GAO and even more from federal agencies and external auditors identifying issues with the DOD's contracting and logistics. In the end, the problem set is far too complicated to execute perfectly. Still, this cannot be the excuse we use to waive off history and stumble into another wartime effort unprepared. A peer-to-peer war will not be so forgiving and a competition for constrained resources will demand far better preparedness and management, or it will doom us to



failure. The good news, each of these reports and many intelligent leaders have laid out the path to success. By utilizing the tools already available, we can prepare now and reduce the bull-whip effect on contracting, supporting establishments, allies, partners, and industry. Policy and past lessons all point to the conclusion that EABO is necessary, but its employment and sustainment are complex. The DOD has taken the policies and theories a step further to simulate the EABO and other DOD integrated deterrence policies to better quantify the gaps in its sustainment.

D. SIMULATING THE PROBLEM

When employed, EABO detachments are expected to be in the furthest and most contested areas of the FIC and SIC. The resources being brought by ship (bulk) would be a combination of resources used by all forces in the theater. The first priorities for sustainment would be the Naval forces including carriers, destroyers, and submarines which all have significantly larger logistics footprints than the Marine EABO forces. Most of the information on exact volumes of materials required to support these forces is classified, but a study by Apte, Doerr, and Apte in 2020 called *Framework for Augmenting Current Fleet with Commercially Available Assets for Logistics Support in Contested Environment* used realistic but notional numbers to estimate the logistics requirements (Apte et al., 2020). The study produces models that show that, in 2020, there were still many gaps in available and projected sealift assets when considering what was needed to support the USN's requirements for disaggregated operations.

The USN has many capabilities for sealift in development and is heavily investing in automated capabilities (Committee on Autonomous Vehicles in Support of Naval Operations et al., 2005; Jon Harper, 2022). Assuming the USN had the optimal number of future ships developed and in its possession to support the logistics requirements in the Pacific, the slowest resource replenishment turnaround time would be for fuel (Eckstein, 2020). According to the research by Apte, Doerr, and Apte, surface transport lead times would still be a minimum of 16 days from a forward area similar to Guam reaching as far as the FIC (Apte et al., 2020, p. 16). It is important to know that the 16 days turnaround time would be further exacerbated for supporting EABO in a contested environment. In



addition, many of the assets in an optimal model would be destroyed, slowing lead times further and increasing the likelihood that support would not reach the EABs. Surface transport lead times would be greater for materiel that was not already forward staged but instead would need to be sourced from CONUS. Additional concerns with the U.S. shipbuilding industry, delays in maintenance, and survivability of surface ships all make the math far more complex resulting in greater risk of longer lead times to support EABO. Two valuable benefits of supporting EABO requirements from the local market are reduced turnaround time and a decrease in the strategic logistics burden on the USN's supply chain.

Finding 13: Simulations for strategic logistics supporting EABO outline the gaps in current and future sea surface transports.

E. PREVIOUS RESEARCH AND RECOMMENDED SOLUTIONS

This thesis uses two concepts for providing an optimal solution for last-tactical-mile EABO support: pre-arranged agreements and pre-positioning. My research develops a method for forecasting EABO sustainment requirements and creating prepackaged sustainment agreements. These agreements should be maintained in a way that compliments the pre-positioned equipment sets to create a capability that can be turned on when needed. For more information on how to identify the best locations, reference Beebe's 2023 thesis on *Optimal Prepositioning Sites in the Contested Environment* (Beebe, 2023). For information on the procedures for prepositioning equipment sets, reference Achwandi, Hamler, and Hoyt's 2015 thesis on *Analysis of the Capabilities Supporting Humanitarian Assistance and Disaster Relief Operations of the Indonesian Navy (TNI AL) and the United States Marine Corps Marine Expeditionary Unit (USMC MEU)* (Achwandi et al., 2015). For more information on contract actions and planning, reference Blythe's 2020 thesis on *U.S. Marine Corps Expeditionary Advanced Base Operations Operational Contract Support* (Blythe, 2020).

1. Pre-positioning Locations and Humanitarian Assistance Considerations

Beebe's thesis combined with that of Achwandi et al's give a solid foundation for identification of critical equipment and materials for pre-positioning and the most optimal



locations to place them. Achwandi, Hamler, and Hoyt’s research also use Apte’s “Timeline of the Humanitarian Supply Chain” model to identify a foundation for planners to view the sustainment planning process which can be used later to mirror Phase Zero Contracting Operations when planning for EABO requirements (Apte, 2010). This is a valuable planning model to add as a tool along with the DOD handbooks, publications, and directives.

Finding 14: There are already several prepositioning optimization models available to the DOD to identify potential EABO locations and pre-stage equipment and support.

Beebe and Achwandi, Hamler, and Hoyt’s theses provide detailed analyses of the prepositioning concepts that would compliment my research. There are several studies surrounding how to best pre-establish agreements to support EABO. The most recent is Blythe’s research in 2020 which researches how best to integrate OCS into the EABO planning process; specifically, what timelines are needed as part of the planning process.

2. Joshua Blythe, 2020 Thesis

In 2020, NPS student Joshua Blythe published a thesis titled *U.S. Marine Corps Expeditionary Advanced Base Operations Operational Contract Support* (Blythe, 2020). This thesis covers an extensive review of OCS as it relates to its demands on the contracting community and analyzes whether it is supportable. The study finds that while EABO is supportable by contracting, the timeliness of support would be significantly degraded if that support was provided in a reactionary manner. Crisis response operations have been conducted in a reactionary manner in the past as shown in humanitarian operations throughout the Pacific. Although crises are inherently unpredictable, preparations for crises are anticible. Still, the USMC has historically not supported establishment of preparatory support agreements in phase zero (before a crisis).

These findings are identical to conclusions mentioned earlier in the literature review for Afghanistan, Iraq, and a GAO report conducted on the preparedness of the Pacific commands’ contracting support agencies to respond during future crisis response missions (C. Russell, 2017; Young, 2008). Blythe’s thesis performs a simulation and statistical



analysis using the Contract Support Timeline (CST) model as the process flow for contracting operations that would support EABO. His model analyzed the “(1) Total Time in the System aka time it takes to deliver to the warfighter, (2) Contracting Officer throughput capacity, and (3) non-organic support synchronization with organic support at the MEF, Marine Expeditionary Brigade, and Marine Expeditionary Unit levels” (Blythe, 2020, p. 60). His study statistically showed the significance of “Time” and “Personnel” on the contracting process which also aligns with the previous recommendations from GAO and Dr. Gansler. Blythe’s study showed that utilizing the non-standard CST, which starts contract planning and coordination during phase zero, resulted in the most significant reduction in support timelines during reactionary/crisis response. His study showed that this also reduced the amount of contracting personnel required to provide support during a crisis. Blythe calls the lead time for logistics support the eLST or Estimated Logistics Support Timeline which has components of planning and execution built in. By coordinating advanced agreements/contracts during phase zero of the planning process, the burden on the contracting office is statistically significantly reduced and support to the warfighter through decreased lead times are statistically significantly better.

Blythe’s research, once again, proves through simulation that including contracting in the planning process is the best way to support the warfighter. What the study does not touch on is how far out from execution a non-standard CST can begin. Blythe utilizes a no-later-than deadline as a starting point for non-standard and standard CST which results in the bare minimum time for operational planners to define their requirements and provide them to contracting. If planners fail to submit requirements before the minimum CST, contracting must use the non-standard CST process flow which only has the bare minimum amount of time for completing contracting actions prior to the execution phase. Blythe later defines how standardizing contracts for foreseeable requirements has the most significant effect on CST and has the additional advantage of reducing the contracting personnel required throughout the process.

The concept of standardizing contracts for anticipable needs forms the basis for one of the recommendations later in this study. Specifically, when viewing EABO support in the Philippines, these requirements are largely forecastable. Future requirements can be



standardized and established in pre-arranged support packages improving services and reducing the number of contracting personnel required to support a crisis. This thesis builds on Blythe's recommendations 1 through 3 (listed in appendix B) and his second recommendation for areas of future research.

Finding 15: Recommendations already exist via Blythe's research for establishing optimal timelines and processes for OCS as part of the joint planning process.

F. CONCLUSION

At the conclusion of this literature review, the reader should understand the overarching policies and strategies for sustainment of EABO in the Pacific. They should be familiar with the challenges associated to supporting EABO and the relationships with supporting establishments that perform its last-tactical-mile logistics support. These relationships will be a variety of joint, multi-national/combined, and industrial entities. The nature of this support network is that the relationships between these organizations and their policies take time to develop and are complex to manage. They need to be established early and consistently rehearsed to ensure they are achieving a believable integrated deterrence and are ready to rapidly thwart aggression if called upon. Although there are many challenges facing EABO, there is a vast amount of literature which has already been done that provide solutions to problems we know are coming. Understanding what these policies say and what they recommend are important steps toward achieving a supportable EABO concept. These policies, procedures, organizations, and people are a complex web with many inefficiencies and issues that need to be worked through to ensure they are effective. EABO is far from a perfect concept, but the DOD is rapidly innovating and building joint and combined competency. From the background above, the reader should understand that it would be to the DOD's detriment and at the neglect of history if they continue to leave supporting establishments out of the joint planning process. Supporting establishments like the U.S. military, Allies, partners, and industry are key components to EABO's success. These relationships can both prove to be a strategic advantage or a critical shortfall depending on our ability to keep them informed, manage our relationships, and ensure we are collectively prepared to respond to adversarial challenges. A



mismanagement of these relationships will allow adversaries like China to gain the advantages we seek and exploit them to our loss.



III. METHODS AND DATA

The primary goal of this research is to identify advanced solutions to last-tactical-mile sustainment requirements that optimize support to Expeditionary Advanced Base Operations (EABO). Pre-establishing agreements with supporting establishments for foreseeable EABO sustainment requirements will ease the burden of last-tactical-mile logistics on the United States Navy (USN) and Department of Defense's (DOD) supply chains. These strategic wartime supply chains are a specific area of concern when considering a contested environment. This research focused its analysis and data collection on the Philippines as an example of a location where sustainment and overall logistics support will be especially challenging in the event of a conflict with China. Using the Philippines as a focus area for this study allowed the research to analyze specific financial data and After Action Reports (AAR) for prior exercises and operations. The resulting analysis visualizes a method for improving support to EABO locations within the First Island Chain (FIC) and Second Island Chain (SIC) regions. The Philippines was a useful location to analyze because there are over 10 years' worth of United States Marine Corps (USMC) AARs and financial data which can be used to outline contracting actions and lessons learned to justify improvement recommendations.

A. OVERVIEW OF RESEARCH METHOD

Utilizing over 10 years of USMC financial data related to exercises and real-world operational support, I validated that sustainment requirements for EABO forces are anticipable and therefore can be placed on advanced contracts and/or support agreements. I hypothesized that forces' sustainment requirements are similar from year-to-year and therefore forecastable.

Utilizing at least two AARs from each year for over 10 years, I reviewed the lessons learned for commonalities that show what needs are anticipable and provide insight into what Operational Contract Support (OCS) and planners should be pre-establishing agreements and contracts for. I hypothesized that the AARs would provide similar findings as the financial data. My hypothesis is that the support requirements for forces are largely



repetitive and that prior usage can be used to pre-coordinate agreements and advanced contracts.

Utilizing policy, AARs, and Standard Operating Procedures; I provided a method for synchronizing advanced agreements and contracts into the planning process. My hypothesis is that pre-establishing contracts for foreseeable sustainment requirements will relieve pressure on the planning process and contracting staff by not having to repeat contracting actions for repetitive requirements. This section also addresses the secondary question of how best to maintain the relationships with the supporting entities (e.g., host nation (HN), vendors, and other services).

This study analyzed categories of support required to sustain EABO forces. Listing exact volumes of support would make this document a classified report. Also, exact volumes are dependent on changing variables tied to future operational plans. Planners' adjustments to EABO operations plans alter the volume of support required, so volume cannot be correlated with historical data directly. My research will show that the types of support needed for EABO stay relatively consistent. This research captures categories of required support to develop a systematic approach to sustainment planning that allows the staff to integrate OCS and sustainment leaders into the planning process and develop overarching support agreements.

B. DETAILED METHOD FOR ANSWERING THE PRIMARY QUESTION

To answer the primary question, "How do we optimize EABO last-tactical-mile support?," I used two methods including collection and review of USMC financial data and review of past exercise AARs from the Philippines. The goal of the financial data was to validate that EABO sustainment requirements were foreseeable based on previous expenditures in the Philippines during exercises and operations. These previous exercises and operations show a glimpse of reality outlining what it takes to support USMC forces through a variety of combat, life support, and humanitarian aid scenarios. By understanding the financial data, a planner can better understand what will be required to support EABO forces ashore in the Philippines for future operations. While financial data gives hard numbers, they do not capture the non-financial aspect of placing forces ashore and



sustaining them. To best conduct a holistic review of EABO sustainment requirements, I reviewed past AARs from the Philippines including real-world operations and the repetitive exercises normally conducted twice per year. AARs were also used to give insights into sustainment requirements that were not coordinated via financial agreement. These non-financial support agreements are often as important or more important to sustaining the force. With an extensive review of the financial data and the AARs, a recommendation can be provided for what pre-coordinated sustainment packages should fulfill based on how they have been fulfilled in the past.

1. Financial Data Collection and Analysis

First, I collected financial data from the USMC financial database called *SMARTS* for *SABRS Management Analytical Retrievals Tools* (IBM, 2023). *SMARTS* is a financial database analysis tool that pulls USMC financial information from the master financial database called *Standard Accounting, Budgeting, and Reporting System* (SABRS). SABRS houses all financial transactions utilizing USMC appropriations since before 2021.

To compile the data from *SMARTS*, the user needs to gain access at the appropriate level within the tiered access hierarchy. *SMARTS* is now a legacy archive with limited access to data files. By visiting the *SMARTS* weblink in the citations, you will need to login with your Common Access Card and choose the drop down labeled “*SMARTS*” and “USMC.” The reports I pulled used data from fiscal years 2016–2018: “FY16-FY18 MARFORPAC SOF ALL DATA” and “MARFOREURAF All Years.” Use the search bar to choose either of these naming conventions to select the correct report. To export the file, use the “Run As” icon at the top of the screen and choose “Run Excel Data.” This will export the file in the excel data format which is best for use with pivot tables. Further details on what criteria I used for analyzing the data via pivot tables is in Chapter IV.

While the Marine Forces Europe and Africa (MARFOREURAF) report was not specific to the Pacific, it did provided financial data on sustainment to compare with the data from Marine Forces Pacific (MARFORPAC). This outlined anomalies between both Marine Force Commands. After a review of the data, the MARFORPAC SOF file was enough financial data to prove that the USMC had paid for certain types of support in the



Philippines. For the purpose of this study, the data is assumed to reflect what USMC operational support in the Philippines had looked like and will likely look like for EABO in the future.

The data I pulled from *SMARTS* had to include the fields Fiscal Year, DOD Activity Address Code, Job order Number Line Unit (JNLU) or Special Interest Codes (SIC), and Obligation Amounts. It also had to include at least one of the three codes: Object Class Code (OCC), Sub-Object Class Code (SOCC), or Cost Account Code (CAC). These codes are used to identify what types of purchases were being made. Additional coding can add clarity but can also be misleading. Going further into the coding was not required for this study nor would it have been trustworthy without reviewing supporting financial documentation.

After pulling the financial data, it was exported into Microsoft Excel and turned into several pivot tables for analysis. These pivot tables were used to manipulate the data to view different metrics pertaining to support that was provided across MARFORPAC, MARFOREURAF, and in the Philippines. Dollar amounts, types of support purchased, quantities of purchases, and what was not purchased were all different focuses of the analysis. There was no statistical analysis done or sensitivity analysis.

Two gaps are of note. (1) Any support agreements that were paid for by other services (mainly air force and army) would not be present in the data. (2) Any agreements held above the MARFORPAC level would not be present in the data. For instance, Systems Command contracts supporting acquisitioned equipment or large force-wide contracts for services like tactical communications equipment.

After completing the financial data review to address the quantitative analysis on whether EABO sustainment requirements could be forecasted, the AAR review was completed to validate the results and to provide insights into the non-financial support required for EABO.



2. AAR Analysis for Sustainment Requirements

To validate the results of the financial data, I pulled ten years' worth of AARs from the *Marine Corps Center for Lessons Learned* (MCCLL) sharepoint website (MCCLL Ops, 2023). This website requires Common Access Card for authorization. Use the "Document Libraries" drop down and select "After Action Reports." You can choose prior to 2016 or 2016 and after. I used both databases to compile the full ten years' worth of AARs for this study. Once in the AAR repository of the *MCCLL* sharepoint, I used Philippines as my search word for collecting AARs from Philippines-based exercises and operations.

AARs are the USMC' medium for reporting lessons learned for future planners. A review of over ten years' worth of AARs allowed me to compare what commanders and their staffs were reporting as important sustainment and contracting actions in support of real-world operations. When combined with the financial data, this gives a holistic analysis of sustainment requirements that would be required to support EABO. I compiled a table of the AARs listing key topics relating to logistics, sustainment, and contracting. I reviewed the key topics to develop a chart of the logistics and sustainment elements as per the Annex D, Annex W, and the *DCCHB* (OSD, 2017). There were over 110 planning elements in these three documents, so I consolidated them into 62 elements by consolidating similar ones into a single category. When reviewing the AARs, I marked with they listed these elements and whether they were "sustain" or "improve." "Sustain" identifies lessons marked in the AAR as being conducted well during that event and needing to be implemented for future operations. "Improve" identifies lessons marked in an AAR as negatively affecting operations and serve as a warning for future planners. Based on this data, I determined how best to develop a contracting solution to support future EABO forces.

C. HOW BEST IS THIS IMPLEMENTED?

After researching the financial data and AARs that showed the historical use of contracts in the Philippines for sustainment and areas to improve and sustain, I wanted to identify the best methods for implementing a solution. I used several operational



publications to develop the recommended methods for establishing pre-coordinated agreements, advanced contracts, and reliable support relationships that best serve the EABO forces during conflict. The core publications used were the *JP 3-0*, *JP 4-0*, *JP 4-10*, *DCCHB*, *PZCO*, the *Yoder Three-Tier Model*, the *FAR*, and the *2007 Gansler report* (Code of Federal Regulations (CFR), 2022; Gansler et al., 2007; Joint Chiefs of Staff, 2019c, 2019a, 2022; OSD, 2017). A review of these publications showed that there was already substantial supporting policy that directed the use of advanced planning and contracting actions to support foreseeable military needs in times of conflict. These policies also provided answers for the secondary research questions:

- What is the current literature and policy that applies to EABO support?
- What are some of the challenges associated with EABO support?
- What findings and recommendations can be learned from the literature review?
- Are there solutions to EABO sustainment requirements that can be pre-arranged?
- What is the best way to establish and manage the relationships required to maintain a pre-coordinated sustainment capability?

D. RESTRAINTS/CONSTRAINTS

This study was determined to not be subject to the Institutional Review Board. To ensure compliance, all financial data with Personally Identifiable Information was cleansed from the data files before research began.

In late 2021, the United States USMC switched from SABRS to Defense Agencies Initiative (DAI). During this transition, financial coding was not as mature as from previous years in SABRS; therefore, much of the data from late 2021 to 2023 cannot be analyzed to the level of detail of previous financial data. There is little lost by using financial data from 2021 and prior. The data provided useful results for this study.



Since *SMARTS*' archival after the implementation of DAI, several reports have "broken links" and are no longer useable. The reports I would have used provide the full date range of financial data for all USMC transactions and their final obligation amounts. The report I would have pulled was called the "Active File" and provides one data file spanning decades with all of the data fields I wanted. The file's link is damaged and is no longer useable, so I had to search for useable reports within the system. The two reports that I found did not have the full ten years' worth of data I would have liked and instead had Fiscal Year (FY) 16, 17, and 18 data.

Not having a complete 10 years' worth of financial data, as well as some of that data not having several variables were limitations on the level of detail I was able to draw. There are reports that have this data which would be helpful for planners to use when implementing this method. The additional data elements in the "active file" financial reports would provide a complete understanding of sustainment requirements to the tactical level. After the AAR portion of the analysis the gaps in data were not as significant because the AARs provided a more thorough tactical level review of sustainment, contracting, and logistics support. The financial data analysis combined with the AAR analysis provided enough detailed information to complete a thorough review.

E. CONCLUSION

In this chapter, I covered the methods that will be used to analyze the last-tactical-mile logistics supporting EABO and how best to implement advanced support packages within the Philippines. The following chapter reviews financial data, AARs, and EABO sustainment doctrine to show how support packages should be established, managed, and rehearsed to better serve EABO and strengthen it as a vital part of the integrated deterrence network in the Pacific.



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IV. ANALYSIS AND FINDINGS

This chapter further analyzes the topics discussed in the literature review and combines lessons learned to create an actionable pathway for future planners to optimize EABO support. In Chapter III, I described how I will use financial data, AAR analysis, and a detailed review of policy to answer the primary and secondary research questions on how best to optimize Expeditionary Advanced Base Operations (EABO) last-tactical-mile support. The extensive literature review in Chapter II gave insights into systemic challenges and trends based on policy, past reports, and research from previous NPS students. In addition, the literature review provided a glimpse of many paths forward, challenges, and best practices that can be combined to build the best methods for supporting EABO.

A. BACKGROUND

In this chapter of this thesis, I will utilize the methods mentioned in Chapter III- Methods and Data to analyze the primary research question, “How do we optimize EABO last-tactical-mile support?” Then, I will utilize additional data and doctrine to answer the secondary research questions which relate to implementation and management of the EABO support network. I will use the format “Finding” and “Recommendation” to clearly delineate what my research has identified as critical to answering the primary and secondary research questions. These answers provide valuable insight into last-tactical-mile sustainment issues the United States Marine Corps (USMC) and Department of Defense (DOD) have been working to resolve.

Chapters I and II provided the reader a background of EABO sustainment solutions and challenges based on a review of past and current literature. Chapter III provided a method for implementing policies that fix these issues. In Chapter V, the lessons learned, findings, and recommendations from chapters I and IV are organized in a short-, mid-, and long-range goal approach.

Throughout Chapter IV, the findings and recommendations are numbered sequentially as they appear in the thesis. Recommendations 1 and 2 consist of several



related recommendations which I grouped together by labeling them “Recommendation 1.a, 1.b, 1.c, ...” As shown in Chapter V, recommendation series 1 groups together to form a single recommendation for use of historical financial data for forecasting EABO requirements and further to use these forecasts to pre-establish support agreements. Recommendations series 2 groups together to form a recommendation for establishing an EABO handbook that collects and manages the EABO support plans in place of an Annex D or Annex W.

B. FINANCIAL DATA ANALYSIS

In the following analysis, I used *SABRS Management Analytical Retrievals Tools (SMARTS)* to pull USMC financial data to analyze whether it would be possible to identify repetitive and therefore forecastable sustainment requirements for EABO. Also, this process can give indications that the market is able to sustain EABO based on historical ability of the market to fill requirements there. The process was full of small issues that made it difficult to pull exactly the data I needed. I wanted to pull over 10 years-worth of exercise specific data for Philippines exercises, but the USMC recently transitions (2021) to a new financial system called Defense Agencies Initiative (DAI). Due to the change in financial systems, much of the historical financial data reports had links that no longer worked making it impossible to pull the exact financial report I wanted. As a work around, I pulled several USMC-wide, MARFORPAC, and MARFOREURAF reports with some subsidiary reports to get a breadth of data. I reviewed all of these reports to see which would best fit the purpose of this research and decided on the data set from MARFORPAC from Fiscal Year (FY) 16 to FY18. This data shows three years of MARFORPAC data which is applicable to the Philippines Area of Operations (AO) and it had the most applicable data to potential EABO sites throughout the Pacific.

As I reviewed the FY16-FY18 MARFORPAC financial data in Microsoft Excel, it became apparent that the data was not perfect in the using unit data level mainly the Special Interest Codes (SIC) and Object Class Codes (OCC). This was expected as much of the data the USMC houses does not perfectly align with data elements at the tactical level. They are compliant with audit requirements, but they “drilling down” into the data further



than the MARFORPAC level would have many anomalies and should not be fully trusted. So, I analyzed the data as it applied to each Cost Account Code (CAC) and by Job order Number Line Unit (JNLU) or SIC focusing on dollar amounts and number of financial commitments. Focusing on the CAC and not the OCC/Sub-OCC reduced the data from over 2500 cost categories to 170. The CAC categorized the data so that it matched the purpose of the research better by aligning it with specific top-level sustainment packages and associating directly with unit types. This will better help planners to see which support is required for employment of which units. Although this can be elusive because some units are responsible, as the supporting establishment, for managing the sustainment contract for other supported entities and not just themselves. It is still beneficial to view the data by CAC because the supporting establishment relationship would hold true for EABO as well with that specific unit being needed to provide the same role of sustainment during a real-world employment of EABO. These chosen data elements allowed me to research the volume financially in each location and by what sustainment type and it allowed me to analyze the burden on the supporting establishments for completing the agreements.

Figure 4. shows a summary of the overall financial transactions and dollar amount reviewed during the analysis as well as by year totals. As shown in Figure 4, the data was substantial and provided a thorough basis for the purposes of my analysis.

Fiscal Year (FY)	Count of Commitments (CMT)	Total Obligation (OBL) Amount (\$)
2016	9,039	\$568,927,845.96
2017	11,298	\$635,443,996.93
2018	6,992	\$357,704,818.40
Total	27,329	\$1,562,076,661.29

Figure 4. FY16-18 MARFORPAC Financial Data Summary (Appendix A).
Derived from IBM (2023).



Of the 27,329 financial commitment transactions, 16,070 were associated with either a SIC or JNLU which indicated that they were either a special project or associated with an exercise (Figure 3). Due to the uncertainty of the SIC and JNLU titled events, I used the assumption that all SIC and JNLU coded transactions were from operational support used them in that portion of the analysis.

1. By CAC by dollar amount (Summary of Data in Appendix A.1)

Appendix A is the full excel worksheet that consists of each Appendix A.1 through A.4 and the raw data. Appendix A is a localized data sheet which I created using the SMARTS data. This spreadsheet lists the full breakdown for each CAC and OCC whereas the below only provides a summary of the data for the reader to reference.

Appendix A.1 is an excel data sheet that uses three years’ worth of USMC financial data and analyzes the total obligation dollars in a pivot table by CAC and FY. The results listed are the sum of dollars spent in each CAC and the total percent those obligations were by year. Figure 5 shows a summary of this data which outlines the total obligations (in dollars) and the year-to-year amounts. In addition, I provided a column for the percentage of transactions each year against the three-year total.

FY	2016		2017		2018		Total Obligation Amount (Million)
	Obligation (OBL) Amount (Million)	% of Total OBL Amt	Obligation Amount (Million)	% of Total OBL Amt	Obligation Amount (Million)	% of Total OBL Amt	
FY Total	\$569	36.42%	\$635	40.68%	\$358	22.90%	\$1,562

Figure 5. FY16-18 MARFORPAC Financial Data Summary of Obligations by CAC (Appendix A.1). Derived from IBM (2023)



By reviewing the financial data by CAC total obligations by dollar value, the planner can identify by dollar value the top financial support agreements for prioritization in the planning process. The top 10 CACs consisted of 68% of the value of obligations for the total three years. The top 18 CACs made up 80% and the top 47 made up 95%. Based on these findings, I recommend starting planning by analyzing the top 50 CACs to cover over 95% of EABO requirements based on value.

The values did shift juristically year-to-year with the 2017–2018 difference of ~18% total obligation dollars. Top categories for spending stayed relatively the same each year though; especially, when reviewing the top 50 categories.

There were five CACs that were present in one of the years but missing in another. This could indicate a non-repetitive requirement. To be sure, planners should specifically discuss these anomalies with the assigned unit.

Using these data elements to “drill down” into the details for each applicable financial agreement is an effective tool which cut out over 120 CACs and covered over 95% of the value of support requirements.

2. By CAC by commitment count (Summary of Data in Appendix A.2)

Appendix A.2 is an excel data sheet that uses three years’ worth of USMC financial data and analyzes the total count of commitments (or transactions) in a pivot table by CAC and FY. Figure 6 shows a summary of this data which outlines the total commitment transactions and the year-to-year amounts. This format remains consistent throughout appendices A.1 through A.4 for the reader’s comparison.



FY	2016		2017		2018		Total Count of CMT
	Count of Commitments (CMT)	% of Total Count of CMT	Count of CMT	% of Total Count of CMT	Count of CMT	% of Total Count of CMT	
FY Total	9,039	33.07%	11,298	41.34%	6,992	25.58%	27,329

Figure 6. FY16-18 MARFORPAC Financial Data Summary of CAC by Commitment Count (Appendix A.2). Derived from IBM (2023)

By reviewing the same financial data by total count of commitment transactions, the planner can focus on how much manpower will be used to coordinate the numerous support agreements. Each commitment transaction is indicative of a new financial agreement or modification to an existing agreement which correlates to work from the acquisition team. The top 10 CACs consisted of 67% of the total count of commitment transactions for the total three years. The top 18 CACs made up 80% and the top 47 made up 95%. Based on these findings, I recommend starting planning by analyzing the top 50 CACs to cover over 95% of EABO requirements based on volume of work on the acquisition team.

While the by value method allows you to focus manpower on the highest value support agreements, the by count method lets the planner forecast how much manpower would be needed to establish support agreements, manage them during execution, and close them out after completion. This is helpful to build the acquisition team, identify CORs, and build the task organization for the work that will be required based on volume of agreements being managed.

This data also shifted drastically from 2017 to 2018 by over 4,300 commitment transactions and had six CACs that did not appear in at least one of the years. Reviewing the top 50 CACs by transaction volume remains a positive recommendation.



3. By JNLU/SIC by dollar amount (Summary of Data in Appendix A.3)

Appendix A.3 is an excel data sheet that uses three years’ worth of USMC financial data and analyzes the obligation dollars in a pivot table by JNLU/SIC and FY. If the data was not coded with a JNLU or SIC, it was filtered out. This left only the financial data used for operations and special projects which gave a different viewpoint of the financial data potentially filtering out costs that would be more attributable to garrison expenses than with EABO-type support. A summary of the data is provided in Figure 7 for the reader’s reference.

FY	2016		2017		2018		Total Obligation Amount (Million)
	Obligation (OBL) Amount (Million)	% of Total OBL Amt	Obligation Amount (Million)	% of Total OBL Amt	Obligation Amount (Million)	% of Total OBL Amt	
FY Total	\$404	36.49%	\$585	52.81%	\$118	10.69%	\$1,107

Figure 7. FY16-18 MARFORPAC Financial Data Summary of JNLU/SIC by Dollar Amount (Appendix A.3). Derived from IBM (2023)

For the next two financial data reviews, I removed any data that did not contain a SIC or JNLU. These financial data codes are utilized to differentiate between special projects and exercises. With the limited data available, it was not possible to differentiate between what were special projects and exercises. By removing the non- JNLU/SIC coded data, the remaining data best represents what would be utilized by EABO by removing any garrison-type spending data.



For the first JNLU/SIC data review, I reviewed the same financial data by dollar amount with the same intent as previously but with the added effect of more closely representing the non-garrison spending. There was over \$450 M of spending that was not coded with a JNLU/SIC and was removed for this portion of the analysis. The remaining data showed that the top 10 CACs consisted of 75% of total obligations by dollar value for the total three years. The top 13 CACs made up 80% and the top 40 made up 95%. Based on these findings, I recommend starting planning by analyzing the top 50 CACs to cover over 95% of EABO requirements based on value.

In this review of the financial data, not only were there more drastic changes in the value of transactions (over 42% swing from 2017–2018), but there were also nine CACs that were present in one year but not in another. Based on this finding, I recommend reviewing more than one year's data as part of the planner's discovery process. Using one year's data is subject to outliers and at least two of the CACs skipped 2018 but were in the top 13 for 2016 and 2017. Using as much past-year data as available is recommended.

4. By JNLU/SIC by commitment count (Summary of Data in Appendix A.4)

Appendix A.4 is an excel data sheet that uses three years' worth of USMC financial data and analyzes the total count of commitments (or transactions) in a pivot table by JNLU/SIC and FY. A summary of the data is provided in Figure 8 for the reader's reference.



FY	2016		2017		2018		Total Count of CMT
	Count of Commitments (CMT)	% of Total Count of CMT	Count of CMT	% of Total Count of CMT	Count of CMT	% of Total Count of CMT	
FY Total	5,382	33.49%	7,890	49.09%	2,799	17.42%	16,071

Figure 8. FY16-18 MARFORPAC Financial Data Summary of JNLU/SIC by Commitment Count (Appendix A.4). Derived from IBM (2023)

By reviewing the JNLU/SIC-only financial data by total count of commitment transactions, the planner can focus on the volume of support agreements required for non-garrison support. The top 10 CACs consisted of 74% of the total count of commitment transactions for the total three years. The top 14 CACs made up 80% and the top 41 made up 95%. Based on these findings, I would again recommend starting planning by analyzing the top 50 CACs to cover over 95% of EABO requirements based on volume of work on the acquisition team.

This data again shifted drastically from 2017 to 2018 and more drastically than the whole data set without filtering out the JNLU/SIC. From 2017 to 2018, over 5,000 commitment transactions and had nine CACs that did not appear in at least one of the years. Reviewing the top 50 CACs by transaction volume remains a positive recommendation as well as reviewing multiple years' worth of data to better remove any single-year outliers.

5. By CAC Financial Data Trend Review (Summary of Data in Appendix A.1 through B.4)

From the data listed in appendices A.1, A.2, A.3, and A.4; the below table (figure 9) was constructed to give the reader an idea of how the year-to-year financial data compares when a planner would pull the data by CAC and with or without filtering the data by JNLU/SIC.



FY	2016		2017		2018		Total Count of CMT
	Count of Commitments (CMT)	% of Total Count of CMT	Count of CMT	% of Total Count of CMT	Count of CMT	% of Total Count of CMT	
SIC By Cmt Count	5,382	33.49%	7,890	49.09%	2,799	17.42%	16,071
CAC By Cmt Count	9,039	33.07%	11,298	41.34%	6,992	25.58%	27,329
Difference	3,657	-0.41%	3,408	-7.75%	4,193	8.17%	11,258

FY	2016		2017		2018		Total Obligation Amount (Million)
	Obligation (OBL) Amount (Million)	% of Total OBL Amt	Obligation Amount (Million)	% of Total OBL Amt	Obligation Amount (Million)	% of Total OBL Amt	
SIC By Cmt Count	\$404	36.49%	\$585	52.81%	\$118	10.69%	\$1,107
CAC By Cmt Count	\$569	36.42%	\$635	40.68%	\$358	22.90%	\$1,562
Difference	\$165	-0.07%	\$51	-12.13%	\$239	12.20%	\$455

Figure 9. FY16-18 MARFORPAC Financial Data Trend Review (Appendix A.5). Derived from IBM (2023)

Finding 16.1: When reviewing three years' worth of USMC financial data for the Pacific, the categories for support requirements for the organization is largely repetitive both by dollar amount and by quantity of agreements. Planners could use the support



categories as a means for planning future support; although, volumes of support are less repetitive and more dependent on specific planning factors.

Recommendation 1.a: Financial agreements for MARFORPAC are largely repetitive from year-to-year; therefore, can be forecasted. This is beneficial for the planning process because requirements for EABO have been captured for over a decade. With the right financial data, planners could pull multiple years' worth of financial data pertaining to the Philippines (and other potential EABO locations) and research historical support that was used to make a complete EABO capability.

Recommendation 2.a: After reviewing the variation in the data and the over 16,000 financial commitment transactions supporting operations in the Pacific, I recommend that a turnover document be used to captures EABO sustainment requirements. I recommend that a single handbook be maintained for each specific EABO location. I recommend that this document take a similar form to the T-AKE handbook or *Navy Logistics Integration (NLI) Playbook* (Headquarters U.S. Marine Corps, 2019). The dry cargo ship class called "T-AKE" are a Merchant Marine USNS ship whose mission was modified as both a CLF and as a "sea basing" concept for Marine forces to use as an "afloat warehouse." Due to this highly joint relationship between the USMC, USN and USNS; the T-AKE handbooks are well-developed and used frequently since before 2010. They are also regularly updated following multiple joint exercises each year. Each specific ship had one and it was maintained as a tool for Marines to utilize during planning all the way to debark from the T-AKE. Each T-AKE handbook was similar, but they also listed the specific operating and equipment differences for planners to reference.

After reviewing USMC financial data for relevant trends, the data clearly shows repetitive categories for requirements that can be used by planners for forecasting operational requirements. These forecasts should be used to establish pre-arranged agreements for EABO locations. The next question to answer is, "Can the local supply chain support EABO?"



6. Can the local supply chain support EABO?

To answer the question of whether the Philippines local supply chain can support EABO, I reviewed the financial data specific to the Balikatan, Kamandang, and Phiblex exercises. This data shows historical information on what items were purchased during the Philippines exercise. In appendix A.5, the data shows that there were 12 OCCs and 35 SOCCs that had associated costs and financial documents during execution of Philippines-based exercises in 2016 to 2018. The data resulted in over \$25M and 812 financial support agreements for three years of exercises. From the data, it is hard to tell how many exercises this supported. That is irrelevant for the purpose of this study. The data is being used to show a good representation of support agreements that would be required for EABO support specific in the Philippines. For this purpose, more data across more years is better for capturing the trends in types of support.

By reviewing the financial data by OCC and SOCC, I was able to analyze the amount of obligations and volume of commitment transactions processed during the exercise. This technique allows the planner to research financial and support agreements prioritized by total cost and by volume of contracts similar to appendix A.1 through A.4. By analyzing the data filtered for exercises in the Philippines and viewing them by OCC and SOCC, the planner can identify future EABO sustainment requirements for the specific location based on historical spending.

The largest cost categories by OCC and volume of commitments were Transportation of Personnel (39%), Uncategorized (35%), and Other Service Contract Non-Fed (10%) for over 85% of the total financial documents. By removing the 287 errors (out of 812 transactions) in the uncategorized data from the report, the results matched for both methods. Then, viewing the data by total dollar amount resulted in the top OCC categories of Transportation of Personnel (52%), Other Service Contract Non-Fed (26%), Supplies and Materials (8%) for over 85% of the total obligation amount. Based on these findings, I would recommend removing the data errors prior to using any location or exercise specific financial data. Since these data points were real support agreements that would likely need renegotiated for future operations, all of these agreements need to be understood by planners during phase zero planning. Prioritizing efforts based on dollar



value and volume is the recommended approach for using financial data to evaluate future support requirements. Any one of the agreements could be for a critical requirement no matter its volume, so all of the agreements should be analyzed to determine its relevance for future operations.

The data at this level of detail is clearly faulty as 35.4% of the documents show as obligated for zero dollars. This is indicative of data that has either had transactions reallocated to different funding lines than they were originally committed on, but can also be a mix of documents that were originally funded and agreed to but not executed. Either way, this would result in a recovery of committed funds. The reason this is important is because it shows how quickly financial data can become irrelevant for planners as they “drill down” too far. Utilizing the CAC rollup across MARFORPAC’s financial data is an effective way to analyze potential support agreement categories for EABO.

From the financial data, it is hard to tell which financial documents were for support that was provided from within the Philippines (locally) and what support was contracted (externally). In addition, other services may have been the lead agency for certain Philippines-based support agreements that would then not be listed in USMC financial data. Overall, reviewing financial data did not provide a thorough answer as to whether the Philippines supply chain could support EABO locally. The data does prove that the USMC already has experience identifying what is available in the Philippines and what must be sourced from “off-island.” Through multiple exercises a year, the USMC has proven what is and is not available locally. It is unlikely that this information is consolidated and made available for EABO leadership or OCS.

Finding 16.2: USMC financial data filtered by OCC and SOCC provide very detailed historical references for past agreements that will likely mirror future requirements. Financial data can be used by planners to estimate future support requirements for establishing pre-arranged agreements.

Recommendation 1.b: In phase 0, utilize historical financial data for Philippines-based exercises to develop future requirements for EABO. Analyze the data by CAC, OCC, SOCC, JNLU, and SIC to identify over 95% of the cost types that will be required and use



the planning process to establish parameters for volumes. Use this data to develop pre-arranged support agreements and advanced contracts to support specific EABO locations.

Recommendation 2.b: For future iterations of Philippines exercises, specifically, when using the pre-positioned or EABO equipment sets, sustainment agreements and supporting establishments should be listed in an EABO handbook. These handbooks should be specific to each equipment set and the potential locations where they are planned to be employed.

Recommendation 3: The location-specific financial data was proof that the Philippines industrial base can provide support locally. The extent of that support cannot be proven from the *SMARTS* financial data alone. Planners at the execution level should capture what support is provided by local vendors for future exercises and conduct an analysis on their capacity as well as the probability that the support would be available during a contingency as part of a vulnerability assessment.

After reviewing three years' worth of USMC financial data using differing filters to analyze the results from different viewpoints, it is apparent that the data can be used for identifying future EABO sustainment requirements. First, I used the CAC to analyze the data from both the dollar amount and quantity of transactions to identify the highest volume EABO requirements to guide planners in phase zero requirements generation. The CAC analysis covered over 27,000 transactions and over \$1.5B. Next, I used the same data but filtered out the non-exercise related financial data. The results included over 16,000 transactions and over \$1.1B which I then analyzed for the highest dollar amounts and quantity of transactions. For all four analyses (e.g., CAC by dollar, CAC by Count, JNLU/SIC by Dollar, and JNLU/SIC by Count), the results showed that there were 50 categories that should be used during the phase planning for guiding requirements generation. By including these categories, over 95% of transactions by volume are forecastable during phase zero planning. The MARFORPAC FY16 to FY18 financial data was then analyzed from a final angle by reviewing only exercise data by OCC/SOCC resulting in over 800 financial transactions of varying types that need to be reviewed as part of the phase zero support planning.



The data showed that by using 50 general requirements categories by CAC, planners can develop requirements for EABO support during phase zero. Later, using the past financial transactions as a guide, planners need to review over 800 transactions which will likely be a type of support EABO will need during execution. This validates why OCS needs to be included in phase zero of the planning process as the sheer volume of the requirements generation process is better served with proper planning and prior coordination. These different financial viewpoints can be used by planners to develop forecasts of future requirements. With these forecasts, planners can develop pre-arranged agreements for intended EABO locations which are standardized reducing the volume of work they are required to do in response to activation of an EABO site. This analysis was done independently from the operating forces' inputs, but they did provide some recent data from 2022 for comparison.

7. III MEF, MARFORPAC Budget Data:

In coordination with this research, I requested MARFORPAC's most recent budget data for exercises in the Philippines. The financial data I was given by III MEF is below:

Balikatan			Kamandag		
FY22			FY22		
Expense Type	Amount	% Total	Expense Type	Amount	% Total
CONTRACTS	\$ 249,684	3%	CONTRACTS	\$ 1,788,495	53%
MLSRs	\$ 124,725	1%	MLSRs	\$ 87,768	3%
FUEL/POLs	\$ 533,756	6%	FUEL/POLs	\$ 37,568	1%
BOM	\$ 177,603	2%	BOM	\$ 76,362	2%
Maintenance	\$ 7,001	0%	Maintenance	\$ -	0%
MedLog	\$ 102,441	1%	MedLog	\$ -	0%
TAD	\$ 3,310,251	37%	TAD	\$ 748,060	22%
PH/IT	\$ 2,250,499	25%	PH/IT	\$ 417,197	12%
TOT/TOP	\$ 2,300,005	25%	TOT/TOP	\$ 200,000	6%
BDS Total	\$ 9,055,966	100%			

Figure 10. FY16-18 MARFORPAC Financial Data Summary of Obligations by CAC. Source: MARFORPAC G-8 Dines (2023)

This data shows the overview of financial obligations performed for two Philippines-based exercises in FY22 (Balikatan and Kamandang). The data for both



exercises shows a significant difference in dollar amounts and types of support agreements utilized. The data is not useful to develop an understanding of trends for forecasting of specific requirements, but it does show the categories of support that III MEF tracks as pertaining to Philippines-based exercises. This can help the acquisition team by allowing them to plan their task organization around which agreement type specialties they will need to be prepared to plan for and execute. This also proves a later point of mine that EABO support will not just require contracting. It will require a synchronized support package that entails all of the support agreement types listed above, and some that are not listed. It also shows that these spending categories are repetitive; therefore, forecastable. This data supports all previous recommendations.

After analyzing the available financial data for trends based on a quantitative analysis, the data indicated that planners can use historical data to plan for future requirements. To identify any gaps that the data may have had, this thesis conducted an extensive review of AARs pertaining to the Philippines exercises and operations. These AARs can give insight into why data anomalies existed and topics that were non-financial to give a more complete understanding of the EABO support required and challenges associated with supporting them.

Finding 16.3: USMC financial data from MARFORPAC can be used by planners to plan future EABO requirements and establish pre-arranged agreements.

C. AAR ANALYSIS

To answer the primary thesis question, “How do we optimize EABO last-tactical-mile support?,” I completed a financial data review to prove that EABO support requirements can be forecast based on their historical usage. While financial data was very helpful, it does not give the full story behind how EABO is supported and what resources and services are needed. Financial data also does a poor job of providing lessons learned to improve support for future iterations. At best, you can use the financial data to tell you what was used in the past and may be needed for the future. AARs are better utilized as an indicator of what occurred in the past, bad and good. For the following AAR review, I read through over 75 AARs specific to exercises and operations in the Philippines and compiled



28 into a matrix that analyzed 62 different components pertaining to support agreements, sustainment, and financial and logistics planning. I obtained the AARs from the *Marine Corps Center for Lessons Learned* website (MCCLL Ops, 2023). I originally had over 110 data points based on the Annex W topic areas and the JP 4-0 log synch matrix. I was able to consolidate or eliminate some of these based on them not being mentioned or being the same as in both publications.

Utilizing a matrix (Appendix A), I listed the AAR title in the row and the support components in the columns. Then, I went through each AAR and listed whether the AAR mentioned the support component as improve, sustain, or not at all. I chose at least two AARs from each year starting in 2010 ending in 2021 for over a decade of AARs. Following compilation of the results, I summed the data into ratios of improve/sustain/not mentioned for a total of 30 AARs.

The AARs provided some telling trends that aligned closely with the Gansler report's systemic challenges and several of the contracting and support-related GAO reports. The results showed that organizational learning is not happening with respect to planning for and executing support agreements and financial-related tasks for exercises or operations. Although in operations, the USMC executes very well by removing many of the barriers normally in place for exercises; this is a bit of a catch 22 because those same barriers are the timelines required to prepare support agreements in preparation for a peer-to-peer conflict.

1. AAR Trends

After reviewing the AARs for trends, I organized the results into four trend categories that make the analysis easier to compartmentalize. The trend categories are: Missing from Planning, Improves, Sustains, and Crisis Planning. "Sustain" identifies lessons marked in the AAR as being conducted well during that event and needing to be implemented for future operations. "Improve" identifies lessons marked in an AAR as negatively affecting operations and serve as a warning for future planners. Starting with missing from planning which provides insight into topics that were not mentioned in the



AARs or were infrequently mentioned by are often critical to supporting forward deployed forces.

a. Missing from Planning

After compiling the data, several trends revealed themselves. There were 1,730 AAR data points captured during my analysis of which 1,020 were blanks. That means even though these categories were defined in doctrine as essential planning areas, they were not listed in well over half of the AARs. I analyzed these results as two potential outcomes: (1) Planners had plans to for these areas and had no issues with these areas or (2) Even if they did not plan for these areas, they did not have issues. Either way, this would result in the leaders not reporting issues with the below components.

The following eighteen support components were mentioned less than a third of the time:

- Refrigeration/Ice
- Clothing
- Dunnage
- Hygiene Items
- Local Vendors
- Washdowns/Agriculture Inspections
- Blood and Controlled Drugs
- Mortuary Affairs
- Commercial Carriers
- Customs
- Class IX Repair Parts to include 3D printing, fabrication, tools replacement, SL3 or SL4 or a CLS IX Block



- Civil Support (USAID)
- Standby Support Package (Prepositioned Supplies in case of crisis, emergency, or major alteration to plans for the troops not for civilians)
- Emergency Evacuation Plan
- Emergency Shelter Facilities (Hotels or emergency billeting and emergency hangars for aircraft)
- Tolls, fines, and damages (Owed to vendors or the HN)
- Un-Authorized Commitments (UAC)
- Legal. (MCCLL Ops, 2023)

I have found that these areas are often ones that “surprise” leadership during execution. It was not surprising to me that these areas were the least discussed topics in over a decade of AARs. These would be areas that I would highly recommend the acquisition team to ensure are discussed and outlined during planning meetings. Each of these planning factors, if neglected, can result in severe degradation of capabilities and in crisis the inability to sustain your forces. Each time these planning factors were mentioned in the AARs, they were a “surprise” to leadership and caused significant issues often with a high price tag to fix them expeditiously.

Finding 17: Over a decade, at least 18 critical planning components of the Annex D and Annex W are missing from leader’s AARs.

Recommendation 2.c: To assist planning efforts, I recommend that the Annex D and Annex W sustainment planning criteria be clearly outlined in the EABO by location handbook. Most of these plans can be precoordinated with supporting entities, pre-arranged, and/or put on a support agreement that is outlined in advance of execution. Actions that require financial agreements should be established via a contract and included in the handbook for CORs and leadership to turnover.



The AAR review results showed that most of the planning criteria in the matrix were blank, but the runner up was the category of AARs listed as “improves.” What this showed me was that while there was not much to say about most of the logistics areas, there was a lot to say about what needed fixed.

b. Improve:

When comparing which areas were listed for improve more than sustain, 58 of the 62 areas were listed as “improve” more than they were listed as sustain. I would argue that the USMC looks at AARs as a tool to tell future forces what not to do more than what to do. This again supports my Recommendation 2 for establishing a handbook because even reviewing AARs is not going to give you the best methods for how to execute an exercise or operation. Leaders will instead give you the negatives which may or may not have a sufficient recommendation on how to fix the issues in the future. A more useful analysis was that 27 of the 62 support components had over 1/3 of the responses as improve. Those areas were:

- Water
- Food
- Environmental/CBRN
- Billeting and Building Materials
- Latrine/PortaJon/Handwash Station/Waste Removal
- PHIT: Port Handling Inland Transportation, Barges, SPOD/APOD
- Rentals (with and without drivers)
- TOP/Buses
- TOT/ Tractor Trailers
- Commercial Communications Services



- Commercial Vessel Shipping
- Force Protection: Commercial and HN Security, Ashore, In Port, At Sea, and Convoy Escorts
- Emergency Medical Support (Standby Helicopter or Ambulance)
- Distribution and Supply Chain
- Local Supply Support and GCPC
- Local DLA and Inter/Intra-service Support
- Maintenance Support and Recovery: Commercial, On Land, At Sea, and Aircraft
- Including Contracting or Budget in the Planning Process
- Identifying Requirements or Procurement Request (PR) Process
- Budgeting for Requirements or Execution of Budget
- Site Commanders or CORs (In Contract Oversight Process)
- Relationship with Vendors or HN
- Pre-Staged Equipment Sets
- Advanced Contracts or Existing Support Agreements
- FY Crossover
- Retrograde
- Information Management or C2 (Command and Control). (MCCLL Ops, 2023)

These 27 improvement areas were listed over a third of the time from 2010 to 2021 and many of the complaints were nearly identical between each AAR. There were several



scenarios where leadership would remain in place between exercises and improvements would be made, but there are just as many where the same mistakes were made in the same year. The most frequent AAR complaints were with C2 and Commercial Communications Services. Tied with the communications services with over 2/3 of the AARs being complaints was not including contracting or budget in the planning process, followed by exceeding budget estimates, and failure to identify requirements or use the PR process. The AARs from Contracting Officers, Budget Officers, and Supply Officers often contradicted those from the leadership in other sections (in the same AAR) where one blamed the issues on the other and vice versa. This is an age-old dilemma, and this research provides the data to prove that even after the varying reports from GAO and Dr. Gansler, there is still a rift between contracting and planners.

The AAR review detailed recommendations for improve and sustain actions for future planners. I recommend that a similar process be used by future planners to include AAR recommendations in the handbook. Many of the results found in the AAR review validated previous literature review topics including:

- 2010: 1- Recommended a separate confirmation brief for financial leadership with the Commanding Officer (CO)/Commanding General. Should have the Fiscal Officer, Contracting Officer, Logistics Officer, Logreps, and Safety Officers present. This focus would be different from an operational Confirmation Brief.

My Comments: I had never heard this recommendation before and I have never seen leadership do this in my 11 years as a Marine Supply Officer. This seems well-founded and I believe it would get the CO's direct attention on financial and support issues without the distraction of operations when combined with the normal confirmation brief.

- 2010: 2- Recommends spoke/hub system for managing purchase requests with a liaison reporting directly to the LOGCELL and one located with the executing units. Need strong connectivity to operate this way.



My Comments: This would be helpful to include in the handbook on how to organize and support disaggregated operations with a centralized support group, LOGCELL.

- 2011-1: Ensure Ops knows what “Contracting Support” is and is not at the start of the planning process

My Comments: This supported the 2007 Gansler report which said that contracting was not understood by leadership or being included in the planning process. This was 4 years after the report’s release and Congress’ directive to fix Dr. Gansler’s systemic challenge areas.

- 2011-2: Recommend establishing liaisons with HNs and key influential or supporting commands AND to integrate these other entities into workup training/rehearsals.

My Comments: This recommendation went on to explain why “building relationships” with the supporting establishments was important. This validates a topic from Chapter I of relationships/networks.

- 2019-1: Include contracting in operations order (annex w) and pass this guidance to supported units prior to 120 days out

My Comments: Over 12 years from the 2007 Gansler report and there is still no Annex W and contracting was being brought onto the planning team well after 120 days from execution. 18 out of 28 of the AARs reviewed specifically outlined that contracting or budget were not brought into the planning until execution. In addition, none of the AARs ever mentioned an Annex W which makes it seem like there was no Annex W written for any of the exercises or if it was, it was not helpful.

- 2019-3: Used an advanced agreement to bundle all “inland transportation requirements” Transportation of Things, Transportation of People, rentals



to support the exercise which allowed for more expedient and easily managed support.

My Comments: This statement again validated my conclusion that the Philippines can support EABO sustainment requirements locally and that this can be coordinated under an advanced agreement..

- 2021: Use existing Marine Detachment contracts and other embassy contracts for initial disaster responses. (MCCLL Ops, 2023)

My Comments: This proves part of my thesis topic, that advanced agreements are useable in the Philippines and that they are force enablers when conducting crisis response.

The trend these recommendations showed was that the same mistakes were often repeated and areas listed as sustain were often forgotten by the next iteration of the same annual exercise (less than 12 months after the lessons were recorded in the AAR). Oddly enough, even if the leaders listed their recommendations for how to fix and issue, the same mistakes were often still made. In addition, if the leaders listed areas they did well in and how to repeat their success, those areas were just as likely to be listed as issue areas during the next iteration of the exercise.

Finding 18: The results of the AAR review for categories listed “improve” showed that contracting, budget, and supply were systemically not included in the planning process. These results align with Dr. Gansler’s reports and several GAO reports. The results of the AAR review showed that USMC leadership has been aware that contracting not being included in the planning process was an issue for over a decade. Since then, several gaps in support have been repeated indicating that this issue has not been addressed. These results indicate that this is still an issue.



c. Sustain

After reviewing over 75 AARs spanning over a decade, several valuable lessons learned were listed as sustain which would be helpful for inclusion in an EABO location-specific handbook.

- 2013: When administrative barriers that exist in exercises are removed to support operations, things get done a whole lot faster and many of the AARs are positive. What is not present in this AAR is whether removal of these admin barriers resulted in lost accountability, auditability, or increased expenditure of funds which coincide with higher fraud, waste, and abuse rates. Going fast often leaves a mess to clean up after operations are complete.
- 2014: Calls for Sustainment of Philippine USMC Amphibious Capability Development. Which ties a MEU directly to the Philippines for all training and support. This is expected to better develop long-term support relationships and interoperability.
- 2014: Calls for Life Support Area (LSA) equipment that is regularly used by units visiting the Philippines to be set aside for regular use as part of an equipment pool and pre-established contracts.
- 2014: Calls for increased coordination with Civil planners in the Philippines to better prepare crisis response plans.
- 28 More (Column BP of AAR Review). (MCCLL Ops, 2023)

Finding 19: There are advanced solutions to EABO sustainment requirements. Utilizing financial data and AARs proved that sustainment requirements were foreseeable. The financial data can be analyzed from several viewpoints by planners to identify support agreements that would be needed for future EABO requirements. For this research, the Philippines was used as a specific location for researching support requirements. The financial data specific to the Philippines had errors that equated to 35% of the data, but



removing these errors provided data that was still useable for forecasting requirements. Using a variation of top-level data that is less specific to understand categories of support that should be planned for to support EABO and a more location specific review of support contracts is the best method. To prioritize efforts, it is recommended that planners review the financial data by the Top 50 CACs by volume or amount as well as the Transportation of Personnel, Other Service Contracts Non-Federal, and Supplies and Materials agreements specific to the Philippines. All the support agreements specific to the Philippines will need reviewed as part of the planning process, but starting with these three OCCs will cover 85% of the agreements in volume and amount.

Finding 20: The lessons learned from past exercises provide a path to creating sustainable EABO support packages. After reviewing the financial data, a review of the AARs for the specific EABO location will glean valuable insight. The planners should review as many past AARs as time permits to incorporate lessons learned into future plans. AARs reinforce financial review by providing history of the non-financial agreements made to support EABO in the Philippines. These agreements are often critical to supporting EABO but are not captured in financial data due to other services paying as the lead agency (so the financial data does not show on USMC reports) or because the agreements do not require funding. In addition, AARs give valuable background required to improve future execution which financial data does not. Using only financial data would fate planners to execute the same mistakes repeatedly whereas AARs allow planners to improve future support as a learning organization.

d. Crisis Planning

In addition to the recommendations provided by leadership, the trends in the AAR data showed that 1/3 of the disrupted by and emergency or crisis while executing the exercise. These events “surprised” leadership and required the supporting establishments to scramble support for the troops by securing emergency facilities, sustainment, and materials. This is a critical data point that shows that while crises are not forecastable, they are foreseeable. Each exercise should always include plans for supporting the force in case of an emergency because 1/3 of the time there will be, based on history. The forces always



executed well in an emergency, but they had to scramble and often compromise for support that was available instead of getting what they actually needed. If they had pre-arranged support based on an advanced crisis action plan, they could have responded based on their plan and had far less issues to overcome while managing the crisis.

Finding 21: In a decades' worth of exercises in the Philippines, 1/3 of the exercises were disrupted by crisis with very little preparatory crisis planning having been done as part of the joint planning process.

Recommendation 2.d: Include crisis response support plans in the EABO handbook. Having this information in advance is a great tool for establishing what emergency support is needed ahead of time and where to get it. There is no excuse for being surprised by an event that happens 1/3 of the time.

2. AAR Trends Summary

By reviewing over 10 years' worth of AARs and three years' worth of financial data, the conclusion is that both financial data and AARs can be used and should be used by planners to forecast requirements. While this is true, it is not being done. Based on the results of the AARs repeat issues are occurring for over a decade with the same recommendations for addressing the issues in the future. The issues is that these leaders believe they are experiencing the problems for the first time instead of seeing the history of that problem through the AARs. From the logistics and support viewpoint this trend indicates that these problems are systemic. The data concurs with Dr. Gansler and previous GAO reports where OCS (and other supporting staff functions) are either not being included in the planning process or that the results of their planning are not sufficiently addressing the systemic support issues being experienced by units during operations. So, if the lessons learned and recommendations are there for others to read, how do we better support future operations? Or for the sake of this thesis, how do we optimize EABO last-tactical-mile support?



D. HOW BEST TO OPTIMIZE EABO SUPPORT

After reviewing the financial and AAR data, I have enough information to conclude that EABO support requirements are forecastable and that there are at least some requirements that are supportable locally in the Philippines. In addition, I have begun to build information from the financial data and AARs which show that there are trending issues that can be addressed in future exercises and operations. For reasons beyond the scope of this study, these lessons learned do not seem to be being passed throughout the organization and instead units have repeated the same mistakes for over a decade. The following analysis reviews available doctrine to answer the secondary thesis question: “What is the best way to establish and manage the relationships required to maintain a pre-coordinated sustainment capability?.” Following this policy review, I will provide a method on how to integrate the planning doctrine with the financial data and AAR review to support the most recommended method for conducting support planning. This takes a significant amount of time and can only be done as part of the deliberate planning process and relies on the planning team including contracting at the earliest stages of phase zero planning. Once again, policy around military planning already dictates how this is done.

1. Policy Analysis

During the policy analysis, I reviewed hundreds of articles, readings, doctrine, and theses to identify best practices for implementing contracting planning procedures. During this review, I found that the information required for properly planning and executing pre-packaged sustainment support for EABO was already compiled and published. The lessons learned from the AAR review and the financial data captured previously in this research were all present in one or more of these documents. So, this led me to the question of why these lessons were being neglected? While this is not in the scope of my research topic, making an assumption was important so that I could provide a recommendation on how best to establish and manage support planning. My assumption is that planners either do not possess the overarching experience to make sense of all these documents or that even if they possess it, they are not included in the planning process early enough to perform the vast amount of phase zero planning requirements throughout these documents. I tend to



believe the latter based on the results of the AARs showing that about 2/3 of the time planners did not include contracting until execution. This would make it impossible to perform any of the preparatory actions mentioned in the documents and would doom the organization to repetitively incur the same issues during execution. Either way, understanding the requirements for proper planning outlined in these documents is essential to providing my final recommendation and potentially taking the first steps toward addressing this systemic challenge. For the policy review, I categorized the results in the following categories: Planning, Contracting and Acquisitions Plans, Policy Updates Needed, International Relations, Creating an EABO Network, and Establishing Support Agreements. Each of these sections of research captures the challenges of the supporting the EABO mission and recommended way forward.

a. Planning

In the planning section of the policy review, I will summarize some of the challenges with each publication and the processes prescribed in them. I will also provide a way forward based on the findings from my research and the literature review. The planning section is broken down into the sub-sections: JP 3-0, JP 4-0 and JP 4-10, and *JP 4-04* (Joint Chiefs of Staff, 2019b, 2019c, 2019a, 2022).

(1) JP 3-0 (Joint Planning Process)

This Joint Publication outlines the holistic conduct of joint operations, but the most important part to understand as a planner is the Joint Planning Process and at what phases in the process details are needed to coordinate agreements. Often, planners do not want to commit to details early in the planning process due to uncertainty and lack of information, but all support agreements need coordinated with enough lead time to perform the Acquisition Planning Process with enough time to include the supporting establishment or vendor. While volume, dates, locations, and other details will most likely change from 120 days out or greater from execution; the types of support needed will not. This can be valuable to the planning team because the support planner can use the historical financial data, AARs, and policy to help operations planners understand what all needs to be synchronized to effectively execute their plan. By educating the planners at the right time



in the planning process, it is more likely that the plan will have the right support with minor changes near execution vice waiting to do any support planning until execution and hoping you have what you need or going without it.

Recommendation 4: As part of the building of the planning team, OCS should educate the CO/CG on their role in the planning process. This should include an opportunity to regularly brief the CO/CG on logistics, contracting, budget, and supply separately from the operations briefs. (AAR recommendation from 2010). By starting this brief early in the planning process (>120 days from execution), OCS can build rapport with the CO/CG and vie for support throughout the planning process.

Following the review of the JP 3-0 for application of the overall Joint Planning Process, the subordinate documents JP 4-0 and JP 4-10 were reviewed.

(2) JP 4-0, 4-10 (Annex D and Annex W)

Joint Publications 4-0 and 4-10 are supporting doctrine to the joint planning process and include detailed procedures and templates for synchronizing planning efforts throughout the joint planning process (Joint Chiefs of Staff, 2019c, 2019a). Similarly, the JP 4-10 covers the OCS planning process with a synchronized set of tasks and due outs. The tasks and product due outs outlined in both JPs allow the support planners to understand how their planning process aligns with the operational planning process and ensures the right tasks are being done at the right times to include estimates for support requirements. These documents clearly dictate, as doctrine, that the operational planners and staff are required to have enough detail planned to early in phase zero to allow for the support planners to coordinate advanced agreements with supporting establishments. It even gives tools and tips for how to get this done with data that will be well in advance of 120 days of execution. Follow the templates and know the timelines as per each JP. In addition, the JP 4-0 provides a template and process for compiling the Annex D and similarly the JP 4-10 provides information on the Annex W. The Annex D and Annex W combined provide the tactical to strategic Concept of Support for any operation. Based on the many GAO reports, Dr. Gansler's testimony, and the review of over a decade of AARs;



support planners are not getting to this level of detail at all. To do this right, the Annex D and Annex W should be completed in advance of D-120.

Recommendation 2.e: After compiling location-specific EABO handbooks, aggregate the procedures into strategic operating plans via the Annex D and Annex W or a “playbook.”

While reviewing the JPs I was familiar with, I discovered the JP 4-04 on Contingency Basing. This document was unexpected but was in the logistics section of JPs and it had a title that sounded similar to the concept I was researching.

(3) JP 4-04 (Contingency Basing):

Joint Publication 4-04 covers the contingency basing life cycle and “involves the process to plan; design; establish; operate; manage; and transition, transfer, or close a Contingency Location supporting GCC requirements” (Joint Chiefs of Staff, 2019a, p. viii). I am unfamiliar with how this policy is executed, who controls it, and when it actually applies. The definitions for Contingency Location seem to fit what EABO locations would be defined as, but it seems like the policy was written to only apply to designated locations under the Global Defense Posture which specifically must be established in the DOD’s *Enduring Location Master List* (ELML) per the *DODI 3000.12*, Management of U.S. Global Defense Posture. If EABO locations can be entered into this program, it would open up a significant amount of DOD-wide resources including funding. While I doubt this is possible, it would be worth future research time.

Finding 22: JP 3-0, JP 4-0, and JP 4-10 provide detailed guidance on the integration of OCS and logistics support planning documents into the planning process. It also gives extensive guidance on why integrating OCS other support staff into the planning process is critical to an operations’ success. In addition, the JP 4-0 and JP 4-10 direct the publishing of both Annex D and Annex W as part of the planning process.

Future Research 1: Research whether EABO locations throughout the Pacific meet the requirements as Contingency Locations per *DODI 300.12* and can be entered into



the ELML. If they can, what benefits does this afford the USMC strategically by opening up access to the contingency basing spectrum of resources?

After reviewing the Joint Publications, I turned to the contracting and acquisitions doctrine to better understand the tools, restrictions, and processes that applied to EABO support.

b. *Contracting and Acquisition Plans (FAR, DFARS, CMBOK, GAS):*

The overarching policies that define the requirements for performing OCS and establishing and managing advanced support agreements originates in *FAR* and has supplemental procedures in the *DFARS*, *CMBOK*, and *GAS* (National Contract Management Association, 2019; OSD-A&S, 2012, 2023). The detailed “how to” for performing the contracting actions for establishing advanced contracts and agreements is satisfactorily in enough detail within these documents. Contracting representatives are familiar with this doctrine, but it would be helpful to consolidate specific procedures into an EABO handbook for what actions were or would be required to support the exact location. In addition to the review of the parent policies for contracting and support agreements, this section reviewed the several reports surrounding challenges of implementing these policies into the planning process including the *Gansler Report*, Blythes’ 2020 Thesis, PZCO, an overview of several GAO reports, the *DDCHB*, and *Yoder’s Three Tier Model* (Blythe, 2020; Gansler et al., 2007; OSD, 2017; C. Russell, 2012, 2017; C. Yoder et al., 2013; E. Yoder, 2004). These policies cover a range of challenges concerning integrating contracting and support into the planning process, performing advanced agreements, and managing contracting operations during conflict. They all also give us the tools and recommendations to be successful in each of these areas.

Recommendation 2.f: Consolidate Multi-Award Contract (MAC) and IDIQ procedures into the EABO handbook that define “how to” details specific for each EABO location. This should go into as much detail as providing current listings of advanced agreements, their contract information, and how to modify and execute them. The *NLI playbook* had an Appendix K which consolidated this information in a single table with a



centralized number to call for modifying or executing any of the pre-arranged agreements (Headquarters U.S. Marine Corps, 2019).

The *FAR* is the foundational doctrine for all contracting and support agreements throughout the DOD (Code of Federal Regulations (CFR), 2022). It gives the rules and exclusions with mandatory and recommended timelines for planning purposes. Many of these rules are not easily or legally bypassed and must be adhered to by planners. Not including an OCS leader in the planning process would leave a valuable subject matter expert out of the planning process who can advise on these rules and better build a plan that is both executable by contracting in the future and limits the negative effects of poorly planned and hastily strewn together contracts.

(1) Gansler Report

This report should be used to convince leadership of the importance of including contracting in the planning process early in phase zero. Dr. Gansler's recommendations were endorsed by Congress and directed for action including compilation of an Annex W for all operations and preparation of advanced agreements for all operational plans with foreseeable requirements (Gansler et al., 2007). Combining *Yoder's three-tier model* and Blythe's recommendations, an OCS planner can build a process that holistically addresses Dr. Gansler's recommendations and Congress' directives for change (Blythe, 2020; E. Yoder, 2004). As mentioned in the literature review, many of the contracting related issues seen during Afghanistan, Iraq, and since his 2007 report are "systemic challenges." His solutions required the highest levels of the DOD to take contracting seriously and integrate them as part of the planning team. His recommendations also require resourcing of advanced contracts to implement foreseeable military support agreements before operations start which both reduce costs upon execution and give the vendors time to prepare. In addition, doing work in advance allows the contracting team to reduce the amount of reactionary contracting they are required to do when an operation commences by having already started or even completed much of the acquisition process. This has the added benefit of making contracts more manageable; reducing fraud, waste, and abuse; and allowing contractors to work with the government ahead of time to develop better



contractor accountability plans. The benefits of including contracting in the planning process far outweigh the pains on operations planners of defining requirements.

(2) Blythes' 2020 Thesis and Planning

The acquisition plan consists of six phases and these phases do not overlap easily with the joint planning process. In fact, if done properly, five of the phases will be complete or in effect during phase zero (Procurement Planning, Solicitation Planning, Solicitation, Source Selection, and Contract Administration) (Code of Federal Regulations (CFR), 2022). While contract administration is ongoing throughout the remaining planning phases, managing the advanced agreements will be a major planning factor for phase zero with a large manpower requirement on the Acquisition Team. Closeout/Termination is the only phase that would be completed after execution. These phases show how most support agreement's work are done before any execution happens. In Blythes' research, he takes the overall OCS processes and provides recommendations on standardizing them to be more efficient and effective (Blythe, 2020). His research into this topic should be integrated into the handbook procedures for EABO.

Recommendation 2.g: Utilize Blythe's conclusions and recommendations in the EABO handbook to better establish OCS processes that support EABO requirements throughout all phases of the acquisition planning process and joint planning process (Blythe, 2020, pp. 91–96).

Blythes' Research builds off of the PZCO by prescribing detailed timelines and processes and providing simulated data that proves the value of integrating OCS into the planning process.

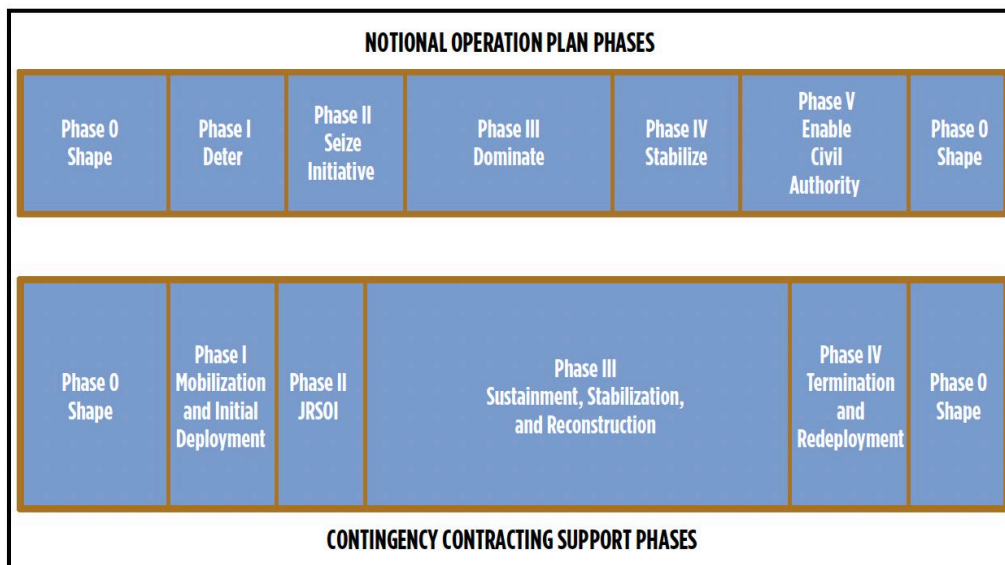
(3) PZCO

As part of the planning process, phase zero involves all preparatory actions required to conduct a foreseeable operation which has not begun yet. Phase zero planning and actions are vital to coordinating support agreements and building relationships with supporting establishments. The *PZCO doctrine* provides procedures for conducting proper Phase Zero Contracting Operations (C. Yoder et al., 2013). It provides tools, lessons



learned, and a process that Contracting planners can use to ensure they are performing the correct planning and tasks ahead of operations. In the *PZCO*, advanced contracts are highly recommended and often cannot be performed hastily in execution as the vendor cannot mobilize quickly enough without an advanced notice. Advanced contracts often require a contract that pays the vendor to provide “on call” support in event the unit requires the services to be activated. This is authorized per the *FAR* and the *PZCO* walks through several different contract types and scenarios to help the planner decide which is best. Figures 11, 12, and 13 provide visual tools for planner’s use in the planning process. They assist the planner in understanding where in the planning process contracting actions occur, how to manage the intertwining requirements, and who should be assigned to completing them.

Recommendation 2.h: Include the PZCO tables and planning tools in the contracting portion of the EABO handbook to ensure OCS planners and the rest of the staff understand why it is important to plan for support requirements during phase zero of the planning process.



Note. JRSOI = Joint Reception, Staging, and Onward Integration

Figure 11. Three-Tier Model: Tier Three, Integrated Planner and Executor.
Source: Yoder et al. (2013, p. 361).



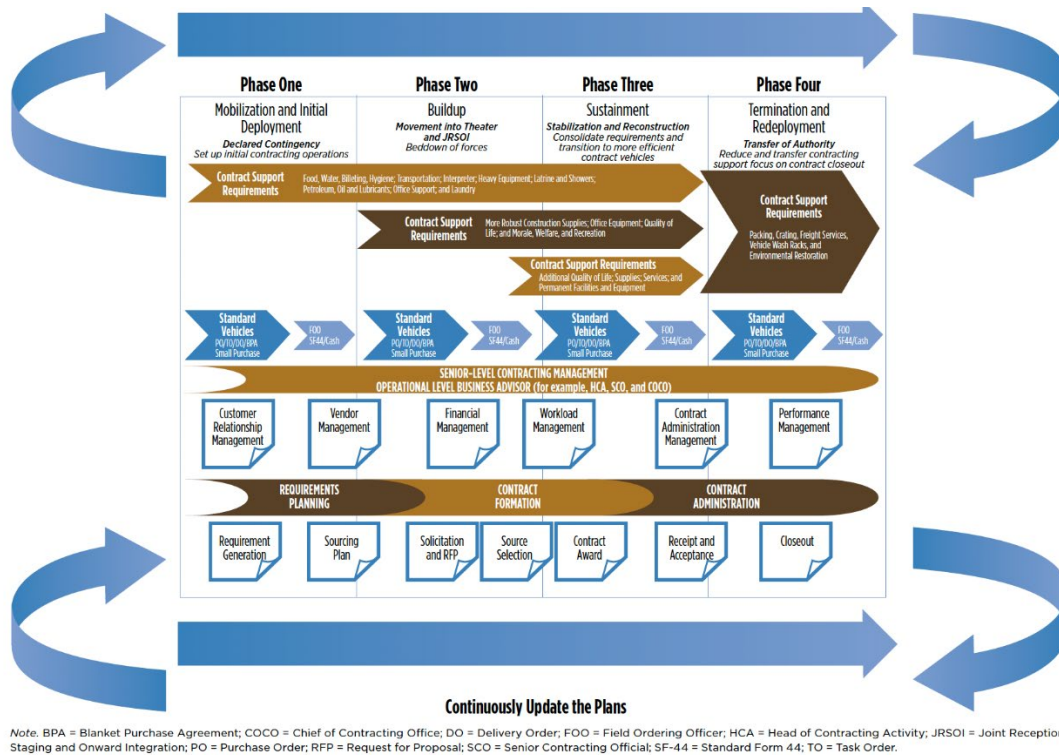
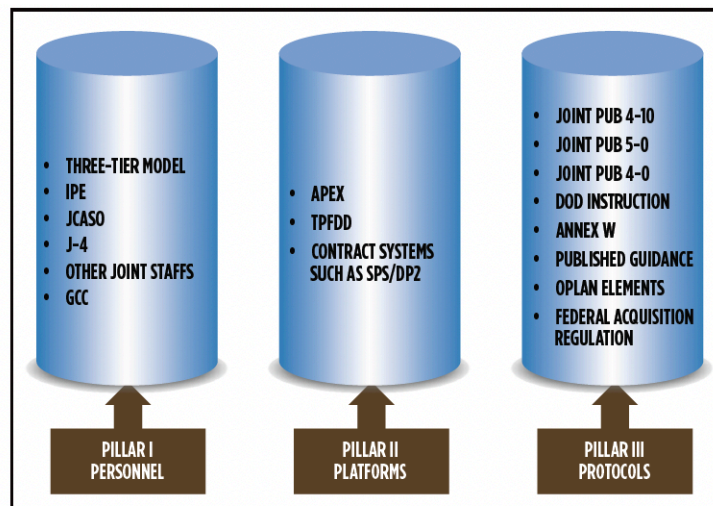


Figure 12. Contracting Phase Zero: Plan, Exercise, Rehearse, and Synchronize. Source: Yoder et al. (2013, p. 362).



Note. APEX = Adaptive Planning & Execution System; GCC = Global Combatant Commander; IPE = Integrated Planner and Executor; JCASO = Joint Contingency Acquisition Support Office; PD2 = Procurement Defense Desktop; SPS = Standard Procurement System; TPFDD = Time Phased Force Deployment Data

Figure 13. Mandatory Pillars for Integrative Success. Source: Yoder et al. (2013, p. 364).

The PZCO is the last of the overall planning process publications starting with the JP series to the specific contracting directives like the FAR. In this section, I also provided Dr. Gansler and Blythe's 2020 thesis to show why integrating OCS into the planning process is important, how using OCS in the planning process can be done. GAO reports give a similar perspective based on issues that have been investigated and detailed recommendations that GAO has prescribed across the DOD.

(4) GAO Reports

The many contracting and support-related GAO reports give insight into systemic challenges the DOD faces for executing support for operations. These reports are vast and each report is detailed. While it may be impossible to read them all, reading a few during the early stages of the planning process will allow the planner to understand systemic challenges and the recommendation GAO provided for fixing them. The majority of these fixes revolve around implementation during the early phases of the joint planning process, establishment of Advanced Agreements/Contracts to ensure the supporting establishment has time to be a part of the planning process, and processes that need to be established prior to execution like accountability of Contractors Authorized to Accompany the Force (GAO, 2011, 2015, 2019, 2021; C. Russell, 2012, 2017; Young, 2008, 2009, 2010, 2011). Knowing these problems exist gives the planner the only real means of potentially fixing the issue at its root and implementing the correct procedures during the planning process.

Recommendation 2.i: Gradually review the EABO location-specific and strategic policies to ensure they address GAO identified issue areas for contracting and support. It is nearly impossible to address all the GAO issue areas and recommendations and even more impossible to do so in one attempt. Reviewing the GAO recommendations over time and gradually updating the policies is a method to creating steady improvement of EABO policies.

Many of the GAO report findings should not be findings. The actions required to eliminate these issues are already built into the available doctrine and tools for planners. One such tool is the *DCCHB*.



(5) DCCHB

My opinion is that the *DCCHB* was the single-most valuable document for integrating Contingency Contracting into the planning process (OSD, 2017). The tools and guidance in this document were invaluable to the Contingency Contracting planner and executor. It contained much of the previous documents' requirements and guidance but in a more condensed and digestible manner that operates more like a "how to" than a "bible."

Recommendation 2.j: Include the *DCCHB* as a reference in the EABO strategic and tactical level policies. Integrate tools from the *DCCHB* into the handbook with the details filled in. For instance, the *DCCHB* has a list of planning considerations in Chapter IV. The handbook should use this list to "fill in" the answers and ensure the support agreements are in place and sustained throughout regular rehearsals. HN laws, Status Of Forces Agreements, and joint force policies are some areas that need to be "filled in" for each specific location in a handbook and regularly validated during rehearsals. Developing these details over time is a manageable way to "eat the elephant."

Even with the best planning and intentions, contracting and other support planners can find it challenging to meet all of the support requirement timelines needed for an operation. One person alone cannot do it all. A study and subsequent policy by Professor Yoder evidenced the need for a tiered approach to contracting operations throughout the DOD and provided a recommendation for how those billets should be aligned.

(6) Yoder's 3-Tier Model

Professor Cory Yoder approaches the systemic challenges in OCS by offering a simple and powerful solution for organizing the support hierarchy in the contracting chain of command. He uses three tiers of specific manpower roles in the contracting field to separate specialties which "maximizes effectiveness and efficiency of theater contingency contracting operations, and directly links operations to GCC broad objectives through integrative planning and execution" (E. Yoder, 2004, p. 25). Figure 17 provides a visual for planners to use on the "Three-Tier Model" defining who should be assigned what responsibilities and some drawbacks to these positions.



Model Tier Level & Model Title	Functions/Education/Rank	Highlights and Drawbacks
Ordering Officer—Tier One	<ul style="list-style-type: none"> • basic ordering • some simplified acquisitions • training: DAU CON 234 • DAWIA Certified CON Level I or II • junior to mid-enlisted, junior officers, GS-7 to GS-9 1102 series civilians 	<ul style="list-style-type: none"> • simple buys • little integration • no operational planning • no broad liaison functions
Leveraging Contracting Officer—Tier Two	<ul style="list-style-type: none"> • leverages to local economy • reduces “pushed” material support • training/education: DAU CON 234, recommended higher education • DAWIA Certified CON Level II or III • senior enlisted, junior to mid-grade officers, GS-11+ 1102 series civilians 	<ul style="list-style-type: none"> • better local operational planning • some integration • more capability for the operational commander • no planned theater integration • no broad liaison functions • may perform to optimize local operations at the detriment to theater ops
Integrated Planner and Executor (IPE)—Tier Three	<ul style="list-style-type: none"> • highest level of planning and integration—joint • linked/integrated with J-4 and J-5 • creates and executes OPLAN CCO strategy • provides direction to tier two and one • links operations strategically to theater objectives of COCOM • education: Master’s degree or higher and, JPME Phase I and II • DAWIA Certified CON Level III, and other DAWIA disciplines (LOG, ACQ, FIN, etc) • senior officers (O-6+), senior civilians, GS-13+ or SES 	<ul style="list-style-type: none"> • performs operational and theater analysis, integrates results into OPLAN • link between COCOM and OPLAN to all theater contracting operations • coordinates theater objectives with best approach to contracted support • can achieve broader national security goals through effective distribution of national assets • includes planning, communication, coordination, and exercising with NGO and PVO in theater

Figure 14. Yoder Three Tier Model for Contingency Contracting Operations.
Source: E. Yoder (2004, p. 17).

By compartmentalizing the level of planning and execution into three tiers, leadership effectively creates three contracting specializations and focuses in the organization. This allows each tier to focus on their level of contracting initiatives with a hierarchical increase of responsibility from tier one to tier three. It is unclear from my



research whether the three-tier model is in effect in MCIPAC for Philippines-based exercises. It is unlikely that the three-tier model is being implemented or that MCIPAC is capable of segregating these responsibilities due to their manpower limitations. Future research could analyze manpower limitations in MCIPAC contracting and determine whether the three-tier model is implemented. If not, this would give insight into why systemic challenges are repeating themselves for the past decade in the Pacific.

Recommendation 2.k: Include names or billets for the three-tier model OCS hierarchy after it is established for each EABO location. The handbook should use the three-tier model to identify the roles of each OCS billet and outline the processes for how they will interact down to the phone numbers, emails, and nine-lines for limited data communications.

After reviewing policies surrounding the “how to” best plan for requirements and use the planning process to develop support requirements, this research looked at how best to implement those agreements and planning processes into a manageable document. This document could ideally be maintained over time and transferred between leadership as part of a turnover of the EABO responsibilities for specific locations.

c. Policy Updates

In this section, I will cover three unit-level policies that could be updated with the information found in this research to better support EABO. The *NLI Playbook*, *T-AKE Handbook*, *TM for EABO*, and *MCIPAC RCO IOP* are three documents that could be used to update policies concerning support agreements for EABO and how to develop these agreements well in advance of operations (Headquarters U.S. Marine Corps, 2019; Lopez, 2022; Smith, 2021).

(1) *NLI Playbook* (Strategic) and *T-AKE Handbook* (Tactical/Operational)

The *NLI Playbook* is an extensive manual that covers the strategic to tactical procedures for executing USN and USMC integrated operations of all levels and types (Headquarters U.S. Marine Corps, 2019). As a planning and execution tool, the *NLI Playbook* is a valuable manual with a vast amount of information on how to perform USN



and USMC OCS Support and execution. The policies are extensive and discuss much of the doctrine and lessons learned from other OCS policies. The *NLI Playbook* even covers the three-tiered model separation of duties from Professor Yoder (without specifically calling them that). It also covers a concept for executing advanced contracts for locations we regularly perform operations through MAC and IDIQ contracts. It states that these contracts are maintained by each geographic Navy Facilities Command and can be turned on for disaster recovery, military conflict, Operations Other Than War, humanitarian assistance, projects with similar characteristics, natural disasters, humanitarian efforts, and contingencies (Headquarters U.S. Marine Corps, 2019). It even provides the point of contact information for the individuals who coordinate execution of these support agreements.

The *NLI Playbook* takes a strategic level view and uses connections to divulge some operational and tactical level OCS concepts that make it very useful, but it does not create an executable manual which is specific to a scenario or location. This level of focus is required to allow a planner to begin detailed execution plans. Instead, NLI bridged this gap and tasked each of the supporting vessels owned by Blount Island Command (BIC) to take the *NLI Playbook* and create their own vessel-specific handbooks called *T-AKE Handbooks*. These handbooks list the details from planning to execution and debark/closeout for how forces integrate with the T-AKE Civilian Mariner-led forces. Every facet of integration is included in the handbook and lessons learned from each use of the T-AKE are taken by BIC and used to update the handbooks annually.

Recommendation 2.1: Instead of starting this process by developing an all-encompassing playbook at the strategic level for EABO support, I recommend starting with the location-specific handbooks. The format for the T-AKE handbook should be modified to match EABO. By starting small with one location, the details can be written into a document that is more easily turned over from exercise-to-exercise and lessons learned can be integrated into later versions. As this specific location handbook is developed, the process can be copied at different locations. When several locations have developed their handbooks, they can be aggregated to the strategic level where an overarching playbook is



written. This will make a difficult process achievable by taking small bites from the elephant.

These handbooks are examples of good formats that could be used to build strategic to tactical level policies for supporting EABO. The current manual does not provide this level of detail nor does it follow an executable playbook or handbook style format.

(2) Tentative Manual for EABO

In the 180 page document defining the “how to” for executing EABO, contracting is not even given its own section. Instead the requirements for contracting are limited to footnotes under the header “Logistical Planning for Expeditionary Advanced Base Operations” (Smith, 2021, p. 100). The TM for EABO is not useful for any level of OCS planning.

Recommendation 4: As EABO is rehearsed and developed, the *Tentative Manual for EABO* needs to be expanded to include integration of OCS into its operations.

Last-tactical-mile logistics (DLA, TRANSCOM, GSA, USN, and CLF): Procedures for military-specific last-tactical-mile logistics are widely not well formulated into doctrine. Defense Logistics Agency (DLA), Transportation Command (TRANSCOM), General Service Administration (GSA), Combat Logistics Fleet (CLF), and even the USN often forego explaining the technical details of where their supply chains end and where tactical level units are expected to perform their own logistics. Of all of the doctrine I reviewed, there was very little on last-tactical-mile logistics. From experience, planning for the transition of responsibilities from these strategic logistics organizations break bulk points and ensuring the “unit level” logistics responsibilities are understood is of vital importance. Questions like “Who owns the heavy equipment at the Break Bulk Point (BBP)?” have crippled the logistics chain due to lack of clarity at this point in the supply chain. This is just one of a vast number of responsibilities that have to be communicated and coordinated well in advance.

EABO has none of the last-tactical-mile responsibilities outlined in doctrine. As they rehearse and develop concepts from the past three years with the establishment of the



Marine Littoral Regiments (MLR) (EABO units), I fear that these lessons are not be established into doctrine with the strategic logistics agencies.

Recommendation 2.m: Establish procedures in the handbook for last-tactical-mile logistics supporting EABO specific to each location. Incorporate lessons learned during rehearsals to build a repeatable “how to.”

Recommendation 5: Build advance agreements with organizations performing the supporting establishment role during the last-tactical-mile logistics portion of the EABO supply chain. Ensure those organizations have adaptable and resilient support plans that will remain reliable in a contested environment.

Recommendation 6: Establish doctrine with strategic logistics agencies like TRANSCOM, GSA, DLA, and the USN which detail where their responsibilities in the supply chain end and where the last-tactical-mile starts for EABO.

Recommendation 7: Coordinate with the Husbanding Service Provider (HSP) to establish EABO-specific port agreements for EABO locations. Using a tiered method similar to the development of the handbooks is recommended. Start with one location in the Philippines and develop each specific site policy with their respective HSPs. After enough of that tactical-level support is created, consolidate into a strategic policy similar to the USN’s HSP policies (Lescher, 2020).

The TM for EABO could be used as a “big picture” policy and exclude details on how to actually execute EABO, but this would require that tactical-level policies have those details published. This is not the case. As seen in the *MCIPAC RCO IOP*, the local-level policymakers are still waiting for strategic policymakers (Lopez, 2022).

(3) Local SOP (MCIPAC RCO IOP)

The local IOP was a short 21 pages and did not cover contingency contracting, Indefinite-Deliver/Indefinite-Quantity (IDIQ), Multi-Award Contract (MAC), or advanced contracting. The policy was focused on procedures for day-to-day operations for the garrisons across Okinawa and not on contingency contracting; therefore, it was not helpful for this research. While expanding the SOP to include contingency contracting SOPs is my



initial recommendation, I hesitate because this may not be the role of the RCO in MCIPAC. The MCIPAC RCO has just around 10 personnel including uniformed and civilian which is under half the size of either of the other two MEF RCOs. Due to manpower limits, the responsibility for managing contingency-type agreements could either reside with the ECP or be consolidated by the larger USN and Air Force contracting elements in the theater. The Marine ECP in MCIPAC also has the same issues with manpower, so it is unrealistic for them to manage these types of contracts. If manpower is the ultimate limitation in MCIPAC for maintaining a Marine contracting capability that assists the planning teams, this would be the root issue for why there are systemic challenges that keep repeating themselves over the past decade.

Future Research 2: Analyzing manpower restraints is not within the scope of this research, but they pose a major challenge to OCS' ability to support phase 0 planning for EABO. I recommend that manpower be analyzed as part of future research to see if lack of manpower is the root cause of systemic contracting issues that lead to degraded phase zero support plans.

Following the policy review, this research focused on how to establish lasting supporting relationships with the Philippines. This would ensure that any work done during the Joint and Contract Planning Processes resulted in actual executable agreements that both parties rehearsed and planned to uphold during conflict.

d. International Relations

The Philippines is one of the U.S.' top allies in the Pacific and China is the U.S. most threatening adversary. A strong alliance with the Philippines can prove to be an effective deterrent to China, but the U.S. has lost faith with the Philippines in the past. This resulted in the Philippines turning to China for the BRI and growing ever closer to them while distancing themselves from the U.S.. Based on past lessons, it would be wise for both the Philippines and the U.S. to develop a stronger support relationship which will also deter China in the region.



(1) U.S.-Philippine Relations (and relations with supporting establishments)

Throughout most of the doctrine and evident in the AARs is the concept of relationships with the HN government and industry in which support is drawn from. Both the HN and industry perform critical support roles for executing EABO. In the literature review, several articles and theses have provided the basis of research that has proven that these relationships are built over time, rely on trust, and that early integration of these supporting establishments into the planning process positively effects the relationship. Better relationships lead to better support and that support is more likely to remain when faced with a contested environment. Currently, the U.S. is increasing their force size in the Philippines. This will give more opportunities for the U.S. to strengthen the relationship with the Philippine government and industry. EABO leadership should take every opportunity to build foreseeable support requirements into pre-arranged agreements and establish them into doctrine.

Recommendation 8: Use the Philippines' increased partnership with the U.S. as an opportunity to establish adaptable and resilient support agreements that can be rehearsed regularly and improved upon. Regular rehearsals will foster team building between the U.S. and the Philippine government and industry giving EABO leadership opportunities to identify shortfalls that need solutions before an actual conflict.

Recommendation 2.n: After these support relationships are better understood, ensure the procedures for executing these agreements are outlined in the EABO handbook. During each EABO rehearsal, these agreements should be validated, and lessons learned should be used to update the procedures and modify the agreements. Overall, rehearsals will build a resilient support network where EABO forces can move and have pre-identified support plans for each location.

China is the common ground for the U.S. and the Philippines to unite efforts and develop combined EABO support policies that build a strong deterrence against any aggression in the FIC.



(2) China

All the previous recommendations were made without attention to the fact that China will try to disrupt our plans. While developing the EABO support procedures and handbook, special attention should be made to identify vulnerabilities that an adversary could exploit whether in the supply chain, with supporting establishments, or any other gaps that become apparent during rehearsals. By building these EABO detailed support plans and procedures throughout the Pacific, EABO can be executed anywhere at any time which makes it harder for China to attack. Without conducting detailed planning, the gaps in the EABO support network remain veiled and cannot be addressed. By outlining the details in handbooks for each EABO-specific location and conducting regular rehearsals, EABO will build a Pacific-wide support network that allows them to execute anywhere expeditiously.

Recommendation 2.o: Develop a portion of the handbook that addresses shortfalls and vulnerabilities in the EABO support network.

Recommendation 9: Use the location-specific EABO handbooks to aggregate and create a strategic EABO employment plan that has a Pacific-wide network of locations that have pre-arranged support packages on call.

China would be a challenging adversary if kinetic hostilities occurred. To best combat this threat and build a barrier as an active deterrent, the USMC has developed the EABO concept. This research discussed several challenges and the purpose behind why EABO exists. The following section is on how to make this concept a reality by using pre-arranged agreements and advance contracts to create pre-packaged support agreements.

e. Creating an EABO Network

To build an executable EABO network in the Pacific with reliable and adaptable support structures, EABO needs to identify equipment sets, their mission, and build credible support. This requires foresight in the planning process to identify what equipment is needed, where, what the mission for that equipment is, and how it needs to be supported (including logistically). Breaking these topics into three areas, I can provide a recommendation for integrating my research with previous research to build and overall



EABO capability that begins with specific sites and is gradually built into a Pacific-wide EABO concept with a credible support network.

(1) Prepositioning Sites in the Contested Environment

In Beebe's research, he identified tools for determining the best-fit staging locations for pre-staged equipment sets. The USMC has begun planning EABO sites throughout the Pacific and Beebe's model gives some great insight into the implications to consider when choosing locations and how to prioritize them in a decision-making tool. The overarching goal of the USMC is to establish pre-identified locations for EABO and this often entails pre-staging equipment sets or at least pre-identifying what equipment would be used at those locations.

(2) Coupling Prepositioned Sites with Prepackaged Support Agreements
(Creating Capability Sets)

My argument based on this information is that EABO support requirements should be planned around what equipment sets are pre-staged or identified for use at each of these locations. Advanced Solutions to last-tactical-mile logistics can then be established with a series of pre-arranged support packages that coincide with each location and are designed specifically for the mission of each. Planners can then analyze each specific location, the equipment that is pre-staged or identified to be there, its mission and use those factors to develop these support packages. As the planning process matures, this information should be captured in a handbook specific to each location, a location-specific EABO handbook. The handbook can be used to conduct rehearsals with the EABO equipment sets to validate, modify, and improve upon the support packages as lessons are learned. Once these support packages are developed for specific locations and coupled with equipment sets and operational plans, the USMC now has a complete EABO capability set that can be turned on expeditiously.

(3) Creating an EABO Support Network in the Pacific

By starting with one location and developing this process, planners can focus on specific planning. Currently, it seems like the USMC is trying to start at the strategic level



and work down which has resulted in inexecutable Annex Ws with far too “Big Picture” support strategies and too few “how to” details. As EABO teams identify one location’s specific requirements and procedures, they can build up to the strategic level policies and give the Annex W substance. Building location-specific EABO support packages with equipment sets (capability sets) will create a Pacific-wide EABO support network.

Recommendation 10: Using the prepositioned sites model, identify specific locations where EABO sites will be needed. Identify what equipment will be placed there and what mission it serves. Use these criteria in the planning process to develop location-specific support packages for all potential EABO sites in the Pacific. Developing location-specific EABO handbooks based on a “template” created from one initial site will make a Pacific-wide network achievable.

This EABO network is established as a deterrent against aggression in the Pacific, but the same people and equipment are far more often used to support crisis response in connection with humanitarian operations.

(4) Supporting Humanitarian Operations

While planning for EABO mainly focuses on its role in the Integrated Deterrence NSS objective, the same equipment sets will be more frequently used in support of Humanitarian Operations. To the USMC’s benefit, EABO support requirements during a contingency closely mirror what would be required to support humanitarian operations. The EABO location-specific handbook should include a section on supporting humanitarian operations. Any support agreements that would be required for humanitarian operations should be established in advance mirroring the process used to plan for and identify support requirements for contingencies. Lessons learned during humanitarian operations should also be used to update the handbook and modify/improve support agreements.

Recommendation 2.p: Include humanitarian operations support procedures and support agreements in the development of the EABO location-specific handbook.



After developing the plan for pre-arranged agreements and advanced contracts including where the EABO locations are going to be placed along with prepositioned equipment sets, the next step is to establish the support agreements and create a lasting manual for its management and employment.

f. Establishing Support Agreements ISO EABO

There are a vast range of support agreement types available for use in support of EABO requirements. Policies for which is appropriate are change by location due to policies established by different HNs, the lead service, the GCC, and diplomatic policies. Once again, this supports my conclusion that EABO support packages should be coordinated in advance and should be implemented with location-specific policies before aggregating into a strategic policy. The good news is that an extremely effective policy has already been put in place by the USN which approaches the same type of global support network with expeditious response times. The USN's HSP program is a great example of what a Pacific-wide EABO policy could resemble at the strategic level. Using the USN's HSP policies as a guide would greatly benefit USMC EABO by taking policies that are working and using them to fit the EABO support needs throughout the Pacific.

(1) USN's HSP/LOGREQ Agreements

For example, HSPs are controlled through a series of supporting USN agencies who work closely with the vendors at each port. If the USMC predetermines potential sites for EABO, they could treat them as "ports" in the HSP model.

The HSPs are on standby to support requirements at each port and are familiar with a variety of ship types and how the support volumes and details change depending on what ship is pulling into port. This is similar to the benefits EABO would experience if they built and maintained support relationships with vendors at each site. Instead of different types of ships, the vendors would be familiar with different types of EABO equipment sets.

The centralized USN management of the HSP has streamlined planning for the ships by creating a list of known requirements for each port and type of ship. These location-specific and mission-specific requirements do not need to be pulled from the staff



as part of a planning process. Instead, the HSP is given the list and can prepare the normal requirements they are used to well in advance. In addition, the ship can coordinate non-standard requirements with the HSP as they are identified in the ship's planning process. This preserves the staffs planning time by having the majority solution already given to the service provider without the ship staff's effort and it gives the HSP time to prepare for the majority of requirements needed. This leaves the remaining minority of non-standard requirements for the staff and HSP to work on together instead of having to figure out the standard requirements every single iteration.

If implemented by the USMC for EABO, the benefits would be the same. The HSP (Supporting Establishment in this case) would be given the majority of standard (pre-arranged) support requirements up front with plenty of time to coordinate. Then, the Marine planners and supporting establishments could spend the majority of their time planning for the minority of non-standard requirements.

(2) Coordinating Advanced Support Agreements (MIPR, ACSA, HSP/LOGREQ):

There are varying support relationships that the USMC uses that do not perfectly align with the USN HSP model. For instance, the USMC often executes interservice support agreements (ISSAs) under a financial agreement called a MIPR. They also receive support directly from HNs via ACSA. Neither of these fit perfectly with the HSP model, but the concept can be modified to support these agreements as well. For instance, when considering MIPRs, my financial data review showed that agreements were largely the same from iteration to iteration and AARs showed signs that this was true. This led me to conclude that EABO support requirements are foreseeable and therefore forecastable. This is important to my current point on MIPRs because if EABO support requirements are largely repetitive and forecastable, then these MIPRs (and ACSAs) will largely stay the same from iteration to iteration. Similar to the HSP IDIQ/MAC contracts support model, the agreements with the interservice and HNs can be done in a way that they become a standardized list of EABO requirements that can be coordinated in advance. Then, they only need to be "turned on" at the time of execution for the majority of the standard support



which frees up time for planners to coordinate the non-standard requirements and gives vendors more lead time on the majority of support requirements.

Recommendation 11: Coordinate standard support agreements with supporting establishments and outline procedures for activating the support agreements when required. Include information of the process for coordinating non-standard requirements. Rehearse these varying support relationships and agreements regularly and modify/improve the agreements, financial documents, and handbook as lessons are learned.

Recommendation 2.g: Ensure all of the contracts, MIPRs, ACSAs, and other support agreements are in the EABO location-specific handbook and that the information in the handbook includes the details of how to activate them. Ensure the handbook includes timelines for activating the agreements and alternate methods for obtaining services as a contingency. Ensure the handbook has procedures for non-standard requirements.

2. Summary of Policy Analysis

An analysis of the policies supporting EABO employment and sustainment provide many detailed approaches that are required to be used as part of the optimization of EABO support. These polices include Planning, Contracting and Acquisitions Plans, Policy Updates Needed, International Relations, Creating an EABO Network, and Establishing Support Agreements. Each of these policies has its own challenges for implementation as part of the EABO support structure. By implementing the procedures in these policies, EABO support can be pre-coordinated through several forms of agreements, contracts, and support relationships. Implementation of all these policies and their synchronization into the planning process involves a complex balance of timelines, priorities, and a meticulous attention to detail. It also involves planning these details during phase zero of the planning process when planning has only just begun for most operations. To begin establishing the required support agreements needed for future operational support, planners will need to make assumptions for estimates of volume; but the research shows that the types of support used stay relatively the same from operation-to-operation. Planners can use pre-established contracts in the form of IDIQ/MACs as one means to implement advanced contracts for known support requirements during phase zero. Each of the agreement types can be



established in phase zero which relieves pressure on the contracting and other supporting staff members during the later stages of the operation. In addition, pre-establishing agreements is a valuable way to build relationships with supporting establishments like those with HNs, vendors, and other services. This allows the planning team to bring the supporting establishments into the planning process reinforcing the relationships and building their ability to support EABO in a contested environment. Support for EABO requires a complex synchronization of many factors, but the most valuable method for overcoming these challenges is to “get ahead of the problem” by solving the foreseeable support requirements early in phase zero.

E. COUNTER ARGUMENTS. WHY WOULDN'T THIS WORK?

The counterarguments on why implementing a bottom-up procedure for developing pre-arranged support agreements to support the last-tactical-mile logistics for EABO are age old. From Dr. Gansler to the GAO, all the way to the individual contracting specialist, they can all tell you why it will not work. Leadership must prioritize support plans like the Annex D and Annex W as part of the Joint Planning Process. They must assign personnel to perform these functions and resource them with the right amount of time and authority to affect change. Then, they must adhere to and enforce the plans implemented by the logistics, finance, budget, and contracting leadership. In well over two decades, Dr. Gansler and the GAO have been reporting on our failure to make these changes even though they have endorsed by Congress. This will not work because we, as an organization, are not implementing enough change to make it work. The changes that are happening, happen in pockets but are not applied across the DOD or even from theater to theater. The GAO and Dr. Gansler were reporting in 2007 on the challenges in the Iraq and Afghan wars (Gansler et al., 2007; C. Russell, 2012), and they also reported great change happening after Congress' endorsement. The lessons and policy changes were not implemented across the DOD or even to the neighboring theater, the Pacific, as shown in the GAO's 2017 report (C. Russell, 2017). The challenges faced in Afghanistan and Iraq are doomed to repeat themselves in the Pacific. We must change our organizational approach for strategic planning before these systemic challenges will ever be addressed.



The way forward, is to fix what we can at the tactical and operational levels. First, the USMC must identify potential EABO locations using methods like found in Beebe's 2023 thesis. Then, identify what mission, unit, and equipment will be assigned to that EABO location. Assign that unit the task of building an EABO handbook that outlines pre-packaged support agreements that are required to support the assigned EABO mission at that specific location. By using one location to perfect the process and handbook template first, the USMC can focus their efforts. After that, they can assign more units more locations and have them build those handbooks as well as the pre-established agreements. As several handbooks are completed, building a supportable EABO network in the Pacific, they can be used by strategic planners. These strategic planners can see the individual differences required for each EABO location which will inform how they write strategic planning documents like the Annex D and Annex W. These annexes will now have substance instead of being "inexecutable" as the GAO found in 2017 (C. Russell, 2017). The strategic planners can also use the location-specific EABO support plans to better understand strategic gaps in the sustainment and logistics of supporting a Pacific-wide EABO network. This will allow them to work strategic level alternatives that the unit-level (tactical and operational) do not have visibility on because they only see their one location's requirements and procedures. Overall, starting small with one EABO location and working the planning for EABO last-tactical-mile support requirements from the bottom-up will remove the effects of systemic challenges seen over the past decades with integrating logistics, finance, budget, and contracting into the planning process. We have tried starting at the top, now its time to start implementing from the bottom.

Alright, convinced? Now, how do we get contracting involved in the planning process at the tactical and operational levels? At this level, there are also many challenges for ensuring contracting is included and resourced to perform operational and tactical level planning. Starting with the good: of the *Phase Zero Contracting Operations*' three mandatory pillars for integrative success for support of operations, two of the pillars are already in place, Platforms and Protocols (C. Yoder et al., 2013). The third pillar, personnel, is where the USMC has the most struggles as pointed to in the 2017 GAO report(C. Russell, 2017). It is not just a question of whether there are enough contracting



officers and specialist, but they must also have the right experience and number of contracting personnel at all three tiers of the Yoder three-tier model for contingency contracting operations. The GAO report and my review of over a decade of AARs from USMC operations in the Philippines showed that the USMC can do the Tier One Ordering Officer and the Tier Two Leveraging Contracting Officer responsibilities but are not performing the Tier Three Integrated Planner and Executor responsibilities.

By starting small and building individual support agreements for EABO locations, this minimizes the manpower required from contracting. This negates the weaknesses in numbers of contracting personnel needed and the process of building and capturing these requirements in a handbook can be done congruently with executing the contracting team's normal responsibilities for exercise support. As the EABO locations are used for rehearsals, exercises, and operations, the contracting team is already doing what needs to be captured for each EABO location's support portion of the EABO handbook. The team just needs to develop a way to capture the agreements and procedures as they are performing their operational support. The first handbook will be a burden, but the following handbooks will become easier as many of the procedures for EABO support will be similar and the handbooks can use a similar format. The aforementioned process was specific to how a contracting team could perform these actions but could equally be applied to any of the budgeting, finance, and logistics staffs.

Even after all of these actions are completed and an EABO handbook is created, how do we sustain the lessons and procedures over time? As this process is implemented, turnovers are a significant challenge to its success. Ensuring the responsibility for maintaining the handbooks is passed during turnovers will be vital to this program's success, but it is also vital to the USMC's success at EABO. The USMC cannot get this wrong or EABO will continue to be an unsupportable concept. Managing turnovers of responsibilities is a leadership challenge and good leadership from the top levels can maintain visibility by appointing individuals responsible for the handbooks and their development. I recommend the 3d MLR CO, as the lead for EABO in the USMC, be responsible for the handbooks. The MLR CO should delegate this responsibility in writing



to the units assigned to specific EABO locations, but maintaining this responsibility with the MLR CO will ensure turnover of the handbooks has the highest visibility.

EABO is a critical but complex concept which the USMC is directed to maintain as part of the integrated deterrence directive of the NSS. EABO has many challenges associated with its employment and sustainment, and many of those issues begin with how to support last-tactical-mile logistics for EABO forces. This research has proven that the policy exists for supporting EABO with advanced contracts and pre-established agreements. In addition, the USMC has made strides toward producing models for optimizing locations where equipment can be pre-staged in support of EABO. By also establishing pre-packaged support agreements with these pre-staged equipment sets and optimized locations, the USMC can create a Pacific-wide network of EABO locations. When the order is given, the equipment sets with pre-packages support agreements can be turned on creating an EABO capability and not just a set of equipment without any support. This is not a “bridge too far.” Policy directs these pre-established agreements to be completed as part of phase zero planning in the Joint Planning Process. GAO reports to Congress have explained why this is important and how to do it. My research takes these policies and supports their findings with financial data, AARs, and methods which show how implementing pre-packaged support agreements for EABO is achievable.

F. SUMMARY OF FINDINGS

My thesis results match what the GAO reports, Gansler reports, and many other audits and inspections have pointed to in the past: contracting plans in the Philippines are not effective. After decades of analyzing the problem from the highest levels, the corrective actions still have not fixed the systemic issues with integrating contracting into phase zero of the planning process. Based on these findings, I propose the problem is viewed from a bottom-up approach. In the past, policies seem to be taking the form of a top-down approach, and they just are not working. It is by taking small bites, that this elephant can be eaten. I propose that we take one equipment set/capability in the Philippines and establish a support structure that can be built into an SOP. Take this SOP and implement it as a Pre-arranged Support Package for that specific equipment set and its associated



mission in the Philippines. Develop the structures such as training, personnel, finances, procedures, and relationships based on its historical and future use. Then, as this equipment is used in support of operations and rehearsals, refine the SOP. After this SOP is developed and tested, it can be used at additional EAB locations. Overtime, these SOPs can be aggregated into an overarching policy like an Annex D and Annex W and reviewed for strategic efficiencies, shortfalls, gaps, and vulnerabilities. The overarching annexes can then be used to address how efficiencies can be gained and vulnerabilities will be mitigated as a strategic/theater planning document. The systemic issue as proven in this research is that EABO planners keep looking at the elephant and trying to create an Annex W that does not come close to addressing the detailed roots of the EABO support challenges. As the GAO found in 2017, the INDOPACOM Annex W's were ineffective for use in any tactical execution (C. Russell, 2017). When Annex W's are ineffective, it creates a dilemma where tactical level commands create their own support plans for every operation and ultimately relearn lessons repeatedly with very little organizational knowledge gained.

The real heartache is that commands are already solving the logistics and sustainment issues and reporting gaps hundreds of times a year in the Pacific alone. If these lessons are captured, organized into a handbook, and used to feed top-level policy; the solutions for EABO are already identified. The solution is to use one equipment set at one location to develop an overarching support package that would simulate the requirements of sustaining EABO. A tactical level command is already assigned to each prepositioned equipment set and they can lead the effort, supported by their HHQ staff, and develop a tactical level handbook. Using the historical financial data, AARs, and doctrine; the command can create a holistic support plan that would be custom fit for that specific command and equipment set's EABO mission. This process, once solidified, can be used throughout the Pacific for establishing EABO support packages with prearranged agreements that can be turned on when needed. This allows for relationships to be built, trust to be gained and maintained, and organizational knowledge to be passed on overtime. In addition, these advanced agreements and established SOPs can be used to inform plans, confirm supporting relationships, and develop alternatives leading to a robust adaptable and resilient support network. Industry has the time to mobilize and prepare for the



expectations of war time production and confirm its own supply chain vulnerabilities. As these relationships grow, they strengthen the deterrence effect on China by showing that the U.S. and its allies are prepared and ready.

G. CONCLUSION

This chapter used the Chapter III methods to analyze the thesis question, “How do we optimize EABO last-tactical-mile support?” By analyzing financial data, AARs, and EABO policies, the research identified challenges associated with supporting EABO and methods which can be used to overcome them. The financial data was used as a means for answering the secondary research question, “Are there solutions to EABO sustainment requirements that can be pre-arranged?” The literature review provided valuable insight into how best to approach EABO sustainment including tools and lessons from history on challenges that have been faced in the past and will be faced again. The AAR and policy analysis in this chapter supported the findings in the literature review and supplemented the current policies by identifying gaps and best practices for implementing EABO support. Coupling these pre-packaged support agreements with pre-staged equipment sets throughout the Pacific creates a Pacific-wide EABO support network that is preparatory not reactionary.

The literature review, AARs, and financial analysis supports phase zero establishment of support agreements and even explains why failing to do so can be detrimental to operations (and costly). By integrating OCS and other support staff into the planning process, they can assist planners in refining requirements into actionable forecasts to use for establishing contracts. These contracts can be tailored in forms that still leave flexibility based on the volatility of plans at this phase in the joint planning process. By pre-establishing these agreements, vendors can prepare and be brought into the planning process for better alignment of support to operations. This reduces the risk of failed support, creates resilient support relationships, and gives all supporting establishments (e.g., services, industry, and HNs) the opportunity to rehearse their support plans. Issues that can only be known through practice can be identified and overcome during rehearsals vice during real-world execution. As identified in Blythes’ 2020 thesis early integration of



supporting establishments into the planning process provides significant reduction in lead times of which will be critical when considering EABO against a peer adversary (Blythe, 2020).

In addition to the benefits to the organization for early establishment of agreements, it also creates time for the organization to implement lessons learned. My research shows that there are volumes of lessons learned, both sustain and improve, that have been identified to make support to EABO forces better. When planning begins early and support packages for EABO are templated, the process leaves time for the organization to review the past lessons and implement them. This practice creates a learning organization that gets better which will be critical when faced with limited resources in a contested environment. If we fail understand history, we are doomed to repeat the past.

Getting into the details and establishing EABO support concepts from the bottom-up is the optimal way for overcoming EABO last-tactical-mile support challenges. By coupling pre-arranged support packages with pre-positioned equipment sets, support can be tailored to specific requirements for each equipment set, AO, HN, and industrial base. These support relationships can be rehearsed and improved based on the requirements for EABO in that specific location. These lessons learned can be directly built back into the contract, Annex W, Annex D, and handbook to ensure future operations receive improved support and lessons are retained. These lessons can be aggregated by top-levels to identify areas for improvement across all support packages throughout the DOD and take advantage of potential economies of scale over time. This will also allow for the identification of common shortfalls, gaps, and vulnerabilities with solutions likely being found in one area that can be applied in others. Overall, this builds a learning organizational structure that will build competency in the employment and support of EABO throughout the Pacific. Starting with one location in the Philippines and later expanding this as the SOPs are matured.



V. RECOMMENDATIONS

This study explored the use of pre-arranged support agreements and advanced contracts to support last-tactical-mile logistics for an Expeditionary Advanced Base Operations (EABO) force in a contingency environment. Utilizing the Philippines as the basis for study, I analyzed over a decade's worth of After Action Reports (AAR), exercise plans, and documents complimented with an analysis of three years' worth of financial data. From these results, I developed a systematic framework for approaching EABO support through phase zero planning and management of pre-established support agreements. To do so required research questions that synchronized forecasting techniques with financial data, a review of lessons learned, and a detailed analysis of EABO policies and doctrine.

A. RESEARCH QUESTIONS

The primary and secondary research questions below have been answered in the body of this work and are summarized in the Summary of Results section of this chapter.

1. Primary Question

- How do we optimize EABO last-tactical-mile support?

2. Secondary Questions

- What is the current literature and policy that applies to EABO support?
- What are some of the challenges associated with EABO support?
- What findings and recommendations can be learned from the literature review?
- Are there solutions to EABO sustainment requirements that can be pre-arranged?
- What is the best way to establish and manage the relationships required to maintain a pre-coordinated sustainment capability?



B. SUMMARY OF RESULTS

The findings and recommendations from the body of my research are numbered sequentially as they appear in the thesis. Chapter II contains findings 1 through 15. Chapter IV contains findings 16 through 22 and recommendations 1 through 11. The findings from Chapter II and IV are compiled below in a summary that allows the reader to correlate them. After the summary of my thesis findings, I provide a summary of my recommendations from Chapter IV organized by short-, medium-, and long-range goal. The intent of Chapter V is to provide an organized summary of both the findings and recommendations to allow the readers to view this chapter on its own and be able to understand the research, its findings, and recommendations. The reader should reference the body of work for details on each finding and recommendation as needed.

As the United States Marine Corps (USMC) restructures to meet the requirements for EABO (Finding 1), they are facing logistics shortfalls that bring to question its supportability (Finding 2). Research shows that prepositioning is one potential solution to reducing the reaction time for EABO forces to respond to a crisis (Finding 3, 14, 15). Predominantly, these EABO prepositioned locations will be in the First and Second Island Chains (FIC and SIC) in the Pacific where China will challenge the U.S.'s presence (Finding 4). These are also locations that will be highly contested in the event of a protracted conflict. The United States Navy (USN) is traditionally the primary supporting establishment for the USMC's supply chain, but their own strategies for approaching conflicts in the Pacific make it near impossible for them to support EABO with their current technology and ship capacity (Finding 5, 12). Most of their current logistics capability will be used to support their own fleet and would be at capacity before it would reach the last-tactical-mile logistics supporting EABO forces (Finding 13). This raises the question, is EABO a supportable concept?

The results of my research show that last-tactical-mile logistics support to EABO can be optimized if we follow the policies that already exist for integrating all available support functions into phase zero of the Joint Planning Process (Finding 6, 7, 8, 9, 22). The research also shows that the Department of Defense (DOD) has systemic challenges with coordinating contracting and support agreements at the earliest stages of planning;



especially, at the strategic level (Finding 11). Over several decades, the DOD has tried to overcome these issues with top-down policy changes and even direction from Congress; but my research shows that the issues persist.

My research outlines the advantages of taking a bottom-up approach at solving EABO last-tactical-mile support by pre-arranging agreements and using advanced contracts. Because support agreements rely so much on lead time, it is essential that Operational Contract Support (OCS) and sustainment planners be afforded the time to prepare the supporting establishments for EABO requirements (e.g., services, industry, and Host Nations) early in the planning process. My findings show that giving OCS time to coordinate with supporting establishments will have the most optimal effect on the level of support given to EABO. Providing requirements to supporting establishments early in the planning process has many benefits including building a trusting relationship. Trust is important to resiliency of the supply chain when in a contested environment. Early integration of the support staff into the planning process is difficult at the strategic level due to the challenges of under-developed plans at the earliest stages of the process. By focusing on specific EABO support locations and developing pre-arranged agreements at the tactical and operational levels, the staff can conduct bottom-up planning with better knowledge of the EABO requirements. The USMC has been executing operations in the Philippines for over a decade primarily from bottom-up planning. The step that my research shows seems to be missing is taking the plans and lessons and compiling them into a policy or document which supports organizational learning.

The financial data analysis showed that EABO requirements throughout Marine Forces Pacific (MARFORPAC) were largely repetitive and forecastable (Finding 16 and 19). By using this financial data, planners at all levels can build EABO requirements into pre-arranged agreements giving industry valuable time to prepare and allowing OCS to front-load the acquisition process. This results in the right support being provided at the right time strengthening the relationship between DOD and industry.

Drawing lessons learned from the AARs for exercises in the Philippines provided detailed recommendations on how to best support pre-arranged agreements and overall, how to optimally support last-tactical-mile logistics to EABO (Finding 20). These lessons



seemed to be repeating from exercise-to-exercise because they were not being captured in a way that was useable for future operations. This led me to the recommendation that developing an EABO handbook would be a valuable way to collect the most optimal methods for supporting EABO. Developing an EABO site-specific handbook will create a process that captures the procedures for execution of support agreements for that location (Recommendation 2.a). EABO consists of a vast network of locations that may be used and requires forces to move as hard targets which means for every EABO site, there may be several coordinates that need to have support agreements covering their logistics requirements and all of them should be in the EABO handbook.

By using a short-, mid-, and long-range approach to building a Pacific-wide support network for EABO, planners can delineate actionable tasks in a phased approach. The short-range goals focus on tactical and operational level tasks that can be used to build a better understanding of what is required to support EABO at specific sites. The short- and medium-range goals are categorized into three sub-areas for the joint planning process, pre-packaged support agreements and pre-staged equipment sets, and the EABO site-specific handbooks. The short-, mid-, and long-range goals are a tiered approach for building a Pacific-wide EABO network. Once the foundation for a single EABO site in the Philippines is built and outlined in a handbook, the mid- and long-range actions can occur. The mid- and long-range goals focus on taking an operational- and strategic-level view of the network to create efficiencies and develop plans for identified shortfalls, gaps, and vulnerabilities throughout the theater.

1. Short-Range Approach to Building a Pacific-wide EABO Support Network

Because compiling many handbooks at the same time is more difficult than compiling one, I recommended that one handbook for one location be completed first. This handbook and the procedures for building it must be captured in a way that can be repeated throughout the theater. The ultimate goal is to create a process that enables units to simultaneously execute exercises while building or updating the EABO handbooks at locations throughout the Pacific. When compiled together, these handbooks create a Pacific-wide network outlining EABO support (Recommendation 2.1). Focusing on the



Philippines first has the benefit of having decades worth of historical support for EABO-like exercises and operations (Recommendation 2.b and 2.c).

a. Joint Planning Process

As part of phase zero planning, assign a single unit the responsibility of conducting planning for an EABO mission in the Philippines. The Marine Littoral Regiment (MLR) is the recommended unit for developing this plan (Smith, 2021) (Recommendation 2.k). MLR will be responsible for outlining a plan to support EABO at a specific location in the Philippines, additionally identifying whether they should pre-stage equipment or pre-identify which equipment will support the mission. The MLR has a Contracting Officer that can perform the OCS role with the unit's logistics and support staff to start phase zero support planning (Recommendation 2.g). This team will be responsible for following the policies and doctrine and outlining support for last-tactical-mile logistics relating to their specific mission and site (Recommendation 2.l and 2.m). Results of my research showed that a third of the exercises conducted in the Philippines since 2010 required an alteration to exercise plans due to crisis response (Finding 21). In the short-range planning process, the process should include procedures for establishing emergency shelter, materials, and support agreements (Recommendation 2.d and 2.p).

My research proves that EABO requirements are forecastable as proven by financial data analysis and AAR review (Finding 16). By reviewing financial data and AARs, the staff can make an informed estimate of the type and volume of requirements needed to support EABO. Planners should review the financial data for past agreements that had to be supported from outside of the specific AO to identify what materials cannot be supported locally (Recommendation 3). Using multiple financial models, a planner can identify different categories that should be included in the support agreements for EABO (Recommendation 1.a. and 1.b). The MLR staff will also have their unit mission, equipment sets, and personnel requirements which allow them to develop concept of support plans for EABO that can be used to identify volumes for the support agreements. Planners should follow policy and doctrine to establish the actionable documents associated with each part of the planning process and use these policies as a guideline



(Finding 22). Policies are valuable tools which guide the planners through a synchronized process that builds toward defined requirements which can be used for coordinating agreements and contracts. Care should be taken to ensure OCS and the support staff are given as much time in phase zero to support coordination with supporting establishments as possible. The result of phase zero planning is an executable EABO support plan for a specific mission and site in the Philippines.

b. Pre-packaged Support Agreements to Support Pre-Staged Equipment Sets

During phase zero planning, the support team must synchronize with the MLR staff to develop a list of the requirements needed to support EABO. To help with planning, the support staff can compile the historical financial data that defines what has been needed in the past. They can also compile the AARs for the Philippines which informs the staff of what has been used in the past, what worked, and what needed improved. The USMC is already shifting toward pre-staging equipment sets in the Philippines (Finding 14). During this phase, the MLR will capture the specific procedures for dealing with the Host Nation including Status Of Forces Agreements and any force level policies and capture them in the hand book (Recommendation 2.j and 2.m). The supporting establishment relationships need to be listed including point of contact information and the process for activating any agreements or contracts. This both provides a clear path for execution and allows future leadership to maintain the relationships (Recommendation 2.n and 2.q). By coupling the pre-packaged support agreements resulting from the phase zero planning process and the pre-staged equipment sets, the MLR will have access to an executable EABO capability in the Philippines.

c. EABO Site-Specific Handbooks

During phase zero of the Joint Planning Process, the MLR must designate an Action Officer with the responsibility of aggregating and maintaining an EABO site-specific handbook. This handbook will capture the process for establishing an EABO support plan, executing that plan, and maintaining the capability to execute it repeatedly and expeditiously. The T-AKE handbook is a recommended format because it matches a



similar concept to EABO where USMC forces embark and integrate with Civilian Mariners and assimilate to their environment quickly. After conclusion of exercises, operations, and rehearsals, the MLR Action Officer should aggregate lessons learned and update the handbook. The handbook should be designed both as an executable document for the support staff and as a list of the support agreements that are pre-coordinated. The handbook is essentially a single location that allows the EABO team to complete their mission with both their equipment set and the support structure needed to sustain it. Equipment plus the support to sustain operations equals an effective EABO capability. The handbook also needs to specifically address tactical level shortfalls in support structures for each location (Recommendation 2.o). Results of the short-range portion of the three-staged process for building an EABO support network is an executable site-specific EABO support handbook.

2. Mid-Range Approach to Building a Pacific-wide EABO Support Network

After the first set of support agreements and pre-staged equipment are established at a single site, this process should be repeated at additional locations throughout the Pacific (Recommendation 10). The result for each site should be a site-specific handbook that outlines what support agreements, relationships, and equipment are required to support each site's specific mission set. The first handbook is used as a template for the remaining locations that require EABO forces to build support networks as well. Additional units should be tasked to support building these handbooks and the MLR staff can advise the units on how the process works as well as on the lessons learned.

a. Joint Planning Process

As the units begin to implement this concept more widely, higher echelons will need to be involved in the planning process. Higher headquarters (Marine Expeditionary Force) will need to be involved in Phase Zero Contracting Operations (PZCO) to ensure all units are receiving OCS support. The larger quantity of agreements resulting from more units conducting this planning will require OCS and other G-level support staff to be involved in the process (Recommendation 2.g, 2.h, and 2.k). Many of the units will not have OCS capability organically and will require technical support for building their



requirements lists. Requesting augmented personnel and equipment support is done through various support request processes as outlined in the *JP 3-0* (Joint Chiefs of Staff, 2022). Units use these processes for most exercises and operations, so this is already built into the USMC planning process. Units who are assigned can perform the normal planning process with assistance from higher headquarters staffs to ensure they have the correct technical expertise supporting their site-specific EABO planning. At the end of the mid-range phase zero planning process, each unit assigned an EABO site-specific mission will have defined their requirements list and equipment sets.

b. Pre-packaged Support Agreements to Support Pre-Staged Equipment Sets

The units will take identify whether pre-staging equipment at their designated EABO location is the optimal solution. With this pre-identified equipment set (fly-in echelon or pre-staged) and their EABO requirements list, the unit will begin coordinating the support agreements to create an EABO support structure at their specific site. With several units doing this at the same time, the prioritization of funding, technical capacity of support staff, and constraints of various other resources will begin to emerge. At the mid-range, is where the operational-level commands will be essential to deconflicting and prioritizing the EABO support structure and ensuring it is sustainable throughout the theater.

c. EABO Site-Specific Handbooks

Each unit will follow the MLR's process for establishing an EABO site-specific handbook. These handbooks will outline the processes and specific list of agreements at their sites as well as how to plan, manage, and execute support at that site. These documents will begin to filter up to the operational-level commands and be aggregated for a holistic view of EABO support throughout the theater.

3. Long-Range Approach to Building a Pacific-wide EABO Support Network

After establishing the site-specific handbooks, support agreements, and equipment sets throughout the Pacific, the processes and capabilities can be compiled at the strategic



level. The gaps in EABO last-tactical-mile support will be identified by analyzing the gaps in the detailed site-specific support agreements. These gaps and shortfalls across the Pacific can be pre-arranged for strategic level support agreements where tactical and operational level units do not have the authority to solve certain thresholds of issues. The strategic level planners can also ensure the overall strategic operations plans incorporate the advantages, limitations, and vulnerabilities each EABO site has identified in their support structures. During planning, these considerations can be weighed when constructing operations plans for the entire Pacific.

The results of the long-range portion of this recommendation are three due outs: (1) Executable Annex Ds and Annex Ws for operations plans (Finding 17, Recommendation 2.e), (2) Include OCS in phase zero planning and allow them to establish Indefinite-Delivery/Indefinite-Quantity/Multi-Award Contracts (IDIQ/MAC) to address theater shortfalls for EABO (Recommendation 2.f, 2.g, and 2.h), (3) A Pacific-wide EABO support network with executable EABO capabilities including support agreements and equipment sets (Recommendation 9). The equipment sets will be a mix of pre-identified equipment and pre-staged equipment. In addition, support agreements will be a mixture of pre-established agreements and advanced contracts. Each site's planners at the tactical level will start by establishing what works best, but these agreements should be viewed holistically at the long-range stage of this process. Efficiencies and vulnerabilities seen across the EABO network will be noticeable from the strategic point of view in which the tactical and operational are not staffed to identify or take advantage of.

One area where the strategic level can gain efficiencies throughout the EABO support network is to establish a system for managing the pre-established agreements at each EABO location. Strategic-level support agreements involve supporting agencies like DLA, TRANSCOM, GSA, and the USN need to update their policies and procedures to reflect their modified roles in supporting EABO. Further, any gaps in these agencies' support plans for EABO will need to be outsourced (e.g., commercial, allies, or partners) to ensure EABO is sustainable (Recommendation 6). In the long-range phase, past research, GAO reports, and internal lessons learned can be reviewed for recommendations and implemented (recommendation 2.i). These lessons should further be used to modify



the EABO manual (Recommendation 4). Creating a standardized process for management of the EABO agreements will take the burden of management from the tactical and operational units and allow for better implementation and retention of best practices across the EABO network.

Using a process similar to the USN Husbanding Service Provider (HSP) procedures for standardizing EABO support and collecting the policies as they are implemented is recommended (Recommendation 7). This process is well-established by the USN with lessons learned that mirror the difficulties and advantages of this type of network for supporting USMC EABO strategies. There should be additional processes built-in for providing flexible support for emergent requirements like crisis response. Beneficially, this is already designed into the USN HSP process as well. Another positive of centralized control of the EABO support agreements is that the support can be standardized which lowers cost, reduces fraud risk, reduces burden on the executing units, along with many other benefits (Recommendation 11). These are all benefits of using a process similar to the USN HSP program.

The EABO support relationships created by pre-establishing agreements and including supporting establishments in phase zero of the planning process will need managed at the strategic level. These relationships can be fostered to build strong alliances and amplify the EABO network as an integrated deterrent in the Pacific (Recommendation 8). There is a long road ahead to getting this right, and there is still much to learn for future studies and from past lessons.

C. AREAS FOR FUTURE RESEARCH

I have identified two areas for future research which would assist in implementation of EABO support agreements in the Pacific:

Future Research 1: Research whether EABO locations throughout the Pacific meet the requirements as Contingency Locations per DODI 300.12 and can be entered into the Enduring Location Master List (ELML). If they can, what benefits does this afford the USMC strategically by opening access to the Contingency Basing Spectrum of resources?



Future Research 2: Analyzing manpower restraints is not within the scope of this research, but they pose a major challenge to OCS' ability to support phase 0 planning for EABO. I recommend that manpower be analyzed as part of future research to see if lack of manpower is the root cause of systemic contracting issues that lead to degraded phase zero support plans.

D. CONCLUSION

By using short-, med-, and long-range goals to create a Pacific-wide EABO support network from the bottom up, the USMC will overcome the challenges of creating supportable operational plans for EABO in a contested environment. A key avenue to achieving a supportable EABO plan is to include OCS in phase zero of the planning process. This allows OCS to create pre-established support agreements that complement the pre-staged equipment sets creating an executable EABO capability. Starting this process for one site and working to others gives the USMC an ability to focus and get the EABO planning process right before creating a Pacific-wide EABO support network. After creating this network, the USMC can take a strategic look at the policies for all sites to create an overarching policy that takes advantage of efficiencies, covers vulnerabilities, and standardizes the processes associated with managing the network of support agreements and equipment sets. Using a process like the USN's HSP program gives the USMC a well-founded jump-off point for establishing their own policies and structure to manage the large and complex EABO support network that is required in the Pacific. My recommendations were compiled from the many lessons learned and policies available which result in the most optimal EABO support. They are not new, but they require the USMC to overcome decades of systemic challenges before they can be implemented. The USMC must take EABO and the challenges for supporting it seriously. The USMC must consider OCS and advanced contracting in phase zero of the planning process, or OCS will not have the time to properly prepare the Host Nation, supporting agencies, and industry to support for EABO prior to conflict. The USMC can not keep making the same mistakes. It must integrate these actionable tasks into the planning process.



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APPENDIX A.1

FY16-18 MARFORPAC Financial Data Summary of Obligations by CAC.

Derived from IBM (2023).

CAC Description	2016		2017		2018		Total Sum of OBL LTD AMT	Total Sum of OBL LTD AMT2		
	Sum of OBL LTD AMT	Sum of OBL LTD AMT2	Sum of OBL LTD AMT	Sum of OBL LTD AMT2	Sum of OBL LTD AMT	Sum of OBL LTD AMT2				
MEF HQ	\$ 106,556,257.90	18.73%	\$ 109,745,035.66	17.27%	\$ 64,628,480.22	18.12%	\$ 281,129,773.78	18.00%		
OTHER SUP & EQUIP	\$ 1,004,984.25	0.18%	\$ 177,034,355.89	27.86%	\$ 9,152,133.94	2.56%	\$ 187,191,474.08	11.98%		
STAFF OPERATIONS AND SUPPORT	\$ 63,851,462.08	11.22%	\$ 50,442,082.43	7.94%	\$ 26,134,126.60	7.31%	\$ 140,430,671.11	8.99%		
SUBSISTENCE IN KIND	\$ 34,202,288.36	6.01%	\$ 35,932,541.58	5.65%	\$ 19,981,788.11	5.59%	\$ 90,116,618.05	5.77%		
CONTRACT SERVICES	\$	0.00%	\$ 74,252,442.82	11.69%	\$ 15,263,193.91	4.27%	\$ 89,515,636.73	5.73%		
UNIT DEPLOYMENT CAP	\$ 45,658,086.73	8.03%	\$ 6,227,007.52	0.96%	\$ 28,392,307.25	7.94%	\$ 80,278,281.50	5.14%	Top 10	68.09%
MARINE LOGISTICS GRP	\$ 8,746,909.92	1.54%	\$ 3,666,940.58	0.58%	\$ 46,020,946.00	12.87%	\$ 58,434,796.50	3.74%		
MFR HQ BATTALION	\$ 35,972,384.89	6.32%	\$ 19,037,591.30	3.00%	\$ 1,852,788.85	0.52%	\$ 56,862,765.04	3.64%		
TAD	\$ 550,832.76	0.10%	\$ 25,185,617.92	3.96%	\$ 15,720,484.66	4.39%	\$ 41,456,935.34	2.65%		
DIV HQ	\$ 12,431,949.93	2.19%	\$ 6,306,182.44	0.99%	\$ 19,512,853.98	5.46%	\$ 38,250,986.35	2.45%		
TRANSP-OTHER	\$ 144,832.24	0.03%	\$ 36,278,326.60	5.71%	\$ 1,160,087.66	0.32%	\$ 37,583,246.50	2.41%		
SUPPLY BN	\$ 8,599,881.43	1.51%	\$ 5,133,622.32	0.81%	\$ 12,254,008.30	3.43%	\$ 25,983,512.05	1.66%		
2ND REP OF CMBT VEH	\$ 20,971,994.40	4.39%	\$ 246,382.10	0.04%	\$ 722,232.35	0.20%	\$ 25,945,611.85	1.66%		
MARINE AIR WING HQ	\$ 12,520,515.43	2.20%	\$ 5,521,386.25	0.87%	\$ 3,758,910.31	1.05%	\$ 21,800,821.99	1.40%	Top 18	80.36%
SUPPORT HQ	\$ 10,485,501.61	1.84%	\$ 3,804,388.82	0.60%	\$ 7,064,604.32	1.97%	\$ 21,354,494.75	1.37%		
CMD ELMT-MEU	\$ 13,031,599.05	2.45%	\$ 5,156,167.89	0.81%	\$ 1,943,759.25	0.54%	\$ 21,031,526.19	1.35%		
2NDREP/COMM/ELECEOP	\$ 15,165,602.08	2.67%	\$ 1,019,816.93	0.16%	\$ 2,999,601.96	0.84%	\$ 19,185,020.97	1.23%		
CMBT LOGISTICS HQ	\$ 13,829,432.58	2.43%	\$ 3,507,307.36	0.55%	\$ 1,471,507.30	0.41%	\$ 18,808,247.24	1.20%		
INFANTRY BN	\$ 11,189,444.65	1.97%	\$ 5,145,011.55	0.81%	\$ 668,400.85	0.19%	\$ 17,002,857.05	1.09%		
INTNMAINT GENRL SPLY	\$ 20,916,435.26	3.68%	\$ 34,944.67	0.01%	\$ (5,324,427.07)	-1.49%	\$ 15,626,852.86	1.00%		
2ND REP OF ENG EOP	\$ 13,237,140.04	2.33%	\$ (56,222.10)	-0.01%	\$ 30,889.78	0.01%	\$ 13,211,807.72	0.85%		
CLASS IX REPAIR PART	\$ 2,285.54	0.00%	\$ 1,168.22	0.00%	\$ 12,730,050.55	3.56%	\$ 12,733,504.31	0.82%		
SPT SQRDN	\$ 5,260,250.13	0.92%	\$ 3,173,557.87	0.50%	\$ 3,996,634.48	1.12%	\$ 12,430,442.48	0.80%		
CMBT LOGISTICS BN	\$ 8,873,265.72	1.56%	\$ 1,429,657.07	0.22%	\$ 716,283.49	0.20%	\$ 11,019,206.28	0.71%		
ORGMANT MTRTRNSPT	\$ 5,587,520.46	0.98%	\$ 2,281,887.63	0.36%	\$ 2,941,937.61	0.82%	\$ 10,811,345.70	0.69%		
ARTILLERY BATTERY	\$ 6,330,974.67	1.11%	\$ 3,143,011.93	0.49%	\$ 624,254.20	0.17%	\$ 10,088,240.80	0.65%		
MARINE AIR GROUP HQ	\$ 4,460,335.32	0.78%	\$ 2,647,473.18	0.42%	\$ 2,546,083.37	0.71%	\$ 9,653,891.87	0.62%		
INFANTRY HQ	\$ 4,576,233.14	0.80%	\$ 3,356,586.44	0.53%	\$ 864,015.97	0.24%	\$ 8,796,835.55	0.56%		
INTNMAINT MTRTRNSPT	\$ 8,109,907.69	1.43%	\$ 40,780.11	0.01%	\$ 134,273.26	0.04%	\$ 8,284,961.06	0.53%		
I/O OVERHEAD	\$	0.00%	\$ 8,240,079.83	1.30%	\$	0.00%	\$ 8,240,079.83	0.53%		
TRANSP-AIRLIFT	\$	0.00%	\$	0.00%	\$ 8,122,630.78	2.27%	\$ 8,122,630.78	0.52%		
RECON BN	\$ 3,441,009.88	0.60%	\$ 2,132,925.21	0.34%	\$ 2,506,335.85	0.70%	\$ 8,080,270.94	0.52%		
CLASS IX DUR/CLDS	\$	0.00%	\$	0.00%	\$ 8,000,000.00	2.24%	\$ 8,000,000.00	0.51%	Top 47	95.19%
2NDREP MTRTRNSPT/TEOP	\$ 3,484,617.97	0.61%	\$ 835,041.61	0.13%	\$ 2,243,220.85	0.63%	\$ 6,562,930.43	0.42%		
CMD ELMT-MEB	\$ 3,113,595.03	0.55%	\$ 2,363,932.78	0.37%	\$ 900,683.46	0.25%	\$ 6,378,211.27	0.41%		
TRNSPRT OF THINGS	\$ 4,201,996.71	0.74%	\$ 1,618,439.37	0.25%	\$ 383,911.29	0.11%	\$ 6,204,347.37	0.40%		
RADIO BN	\$ 3,143,843.66	0.55%	\$ 1,394,202.62	0.22%	\$ 1,165,319.33	0.33%	\$ 5,703,365.61	0.37%		
AAV BN	\$ 3,424,488.36	0.60%	\$ 1,506,673.17	0.24%	\$ 608,445.89	0.17%	\$ 5,539,607.42	0.35%		
ENGINEER SPT BN	\$ 3,213,326.33	0.56%	\$ 1,061,059.41	0.17%	\$ 979,504.84	0.27%	\$ 5,253,896.38	0.34%		
TRANSP-SEALFT	\$	0.00%	\$	0.00%	\$ 4,676,716.23	1.31%	\$ 4,676,716.23	0.30%		
INTELLIGENCE BN	\$ 2,391,404.62	0.42%	\$ 987,859.78	0.16%	\$ 1,263,638.97	0.35%	\$ 4,642,903.37	0.30%		
LAW ENFORCEMENT BN	\$ 2,198,681.74	0.39%	\$ 1,704,887.51	0.27%	\$ 483,165.35	0.14%	\$ 4,386,734.60	0.28%		
2ND REP OF ORDNANCE	\$ 2,705,534.20	0.48%	\$ (1,452,717.21)	-0.23%	\$ 2,907,908.22	0.81%	\$ 4,160,725.21	0.27%		
COMMUNICATION BN	\$ 1,874,125.09	0.33%	\$ 1,180,352.79	0.19%	\$ 1,056,589.96	0.30%	\$ 4,111,067.84	0.26%		
TANK BN	\$ 2,946,732.59	0.52%	\$ 1,104,721.15	0.17%	\$	0.00%	\$ 4,053,453.74	0.26%		
MAINT BN	\$ 2,309,828.93	0.41%	\$ 886,999.21	0.14%	\$ 852,942.16	0.24%	\$ 4,049,768.30	0.26%		
ORGMANT OF ORD	\$ 1,467,603.99	0.26%	\$ 888,214.19	0.14%	\$ 1,441,178.96	0.40%	\$ 3,787,077.14	0.24%		
Grand Total	\$ 568,927,845.96	36.42%	\$ 635,443,996.93	40.68%	\$ 357,704,818.40	22.90%	\$ 1,562,076,661.29			



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APPENDIX A.2

FY16-18 MARFORPAC Financial Data Summary of CAC by Commitment Count.

Derived from IBM (2023).

CAC Description	2016		2017		2018		Total Count of CMT ITD AMT	Total Count of CMT ITD AMT		
	Count of CMT ITD AMT	Sum of CMT ITD AMT	Count of CMT ITD AMT	Sum of CMT ITD AMT	Count of CMT ITD AMT	Sum of CMT ITD AMT				
MEF HQ	612	18.73%	689	17.27%	483	17.58%	\$ 1,294	17.87%		
OTHER SUP & EQUIP	4	0.18%	1,045	27.86%	245	2.43%	\$ 1,294	11.74%		
STAFF OPERATIONS AND SUPPORT	334	11.22%	312	7.94%	323	6.79%	\$ 969	8.82%		
CONTRACT SERVICES		0.00%	253	11.69%	147	5.56%	\$ 400	6.02%		
SUBSISTENCE IN KIND	100	6.02%	100	5.65%	47	5.08%	\$ 247	5.64%		
UNIT DEPLOYMENT CAP	153	8.03%	150	0.98%	71	7.24%	\$ 374	5.03%	Top 10	67.58%
MARINE LOGISTICS GRP	255	1.54%	215	0.58%	535	11.81%	\$ 885	3.69%		
MFR HQ BATTALION	274	6.32%	319	3.00%	69	0.50%	\$ 662	3.57%		
DIV HQ	186	2.19%	266	0.99%	582	5.84%	\$ 1,034	2.61%		
TAD	17	0.10%	339	3.96%	471	4.02%	\$ 1,027	2.60%		
TRANSPD-OTHER	2	0.03%	79	5.71%	29	0.35%	\$ 110	2.36%		
SUPPLY BN	118	1.51%	98	0.81%	41	3.15%	\$ 257	1.63%		
ZND REP OF CMBT VEH	6	4.39%	5	0.04%	2	0.18%	\$ 13	1.62%		
MARINE AIR WING HQ	310	2.20%	318	0.87%	149	1.32%	\$ 777	1.46%	Top 18	80.13%
ZNDREP COMM/ELECEQP	4	2.67%	9	0.10%	4	1.74%	\$ 17	1.44%		
SUPPORT HQ	274	1.84%	210	0.60%	273	1.87%	\$ 757	1.36%		
CMD ELMT-MEU	381	2.45%	390	0.81%	99	0.65%	\$ 670	1.36%		
CMBT LOGISTICS HQ	215	2.43%	132	0.55%	73	0.93%	\$ 400	1.31%		
INFANTRY BN	298	1.97%	194	0.81%	43	0.17%	\$ 535	1.06%		
INTMAINT GENRL SPLY	155	3.68%	5	0.01%	4	-1.35%	\$ 164	0.98%		
ZND REP OF ENG EQP	3	2.33%	6	-0.01%	1	0.01%	\$ 10	0.83%		
SPT SODRN	196	0.92%	182	0.50%	153	1.17%	\$ 531	0.81%		
CLASS IX REPAIR PART	2	0.00%	3	0.00%	39	3.23%	\$ 44	0.80%		
CMBT LOGISTICS BN	251	1.56%	160	0.22%	73	0.19%	\$ 484	0.69%		
ORGMANT MTRTRNSPT	143	0.98%	129	0.36%	55	0.75%	\$ 327	0.68%		
ARTILLERY BATTERY	182	1.11%	133	0.49%	34	0.16%	\$ 349	0.53%		
MARINE AIR GROUP HQ	106	0.78%	152	0.42%	116	0.65%	\$ 374	0.60%		
CLASS IX DLB/CLDS		0.00%		0.00%	1	2.41%	\$ 1	0.59%		
TRANSPD-AIRLIFT		0.00%		0.00%	12	2.33%	\$ 12	0.57%		
INFANTRY HQ	151	0.80%	113	0.53%	47	0.22%	\$ 311	0.55%		
INTMAINT MTRTRNSPT	79	1.43%	12	0.01%	3	0.03%	\$ 94	0.52%		
I/O COVERHEAD		0.00%	585	1.30%		0.00%	\$ 585	0.52%		
RECON BN	89	0.60%	92	0.34%	43	0.65%	\$ 224	0.51%	Top 47	95.03%
TRANSPD-SEALIFT		0.00%		0.00%	4	1.71%	\$ 4	0.42%		
RADIO BN	129	0.55%	109	0.22%	75	0.52%	\$ 313	0.41%		
ZNDREP MTRTRNSPRTEQP	16	0.61%	8	0.13%	2	0.57%	\$ 26	0.41%		
CMD ELMT-MEB	59	0.55%	88	0.37%	35	0.23%	\$ 182	0.40%		
TRANSPD OF THINGS	24	0.74%	12	0.25%	16	0.10%	\$ 52	0.39%		
AAV BN	65	0.60%	85	0.24%	24	0.15%	\$ 174	0.35%		
ENGINEER SPT BN	123	0.56%	65	0.17%	28	0.25%	\$ 216	0.33%		
INTELLIGENCE BN	68	0.42%	90	0.16%	48	0.33%	\$ 206	0.29%		
LAW ENFORCEMENT BN	138	0.39%	109	0.27%	71	0.12%	\$ 318	0.27%		
MAINT BN	103	0.41%	72	0.14%	35	0.28%	\$ 210	0.27%		
ZND REP OF ORDNANCE	6	0.48%	13	-0.23%	2	0.74%	\$ 21	0.26%		
COMMUNICATION BN	100	0.33%	111	0.19%	60	0.28%	\$ 271	0.26%		
TANK BN	29	0.52%	18	0.17%		0.00%	\$ 47	0.25%		
OTHER PERSO SUPPT		0.00%		0.00%	7	0.98%	\$ 7	0.24%		
	2016		2017		2018					
	Count of CMT ITD AMT	Sum of CMT ITD AMT	Count of CMT ITD AMT	Sum of CMT ITD AMT	Count of CMT ITD AMT	Sum of CMT ITD AMT	Total Count of CMT ITD AMT			
Grand Total	9,039	33.07%	11,298	41.34%	6,992	25.58%	27,329			



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APPENDIX A.5

FY16-18 MARFORPAC Financial Data Trend Review.

Derived from IBM (2023).

Row Labels	Sum of OBL ITD AMT	Sum of OBL ITD AMT2	Count of CMT ITD AMT2	Count of CMT ITD AMT
⊖	\$ -	0.00%	287	35.34%
\$	-	0.00%	287	35.34%
⊖ ADVISORY & ASST SERVICES	\$ -	0.00%	1	0.12%
NONFFRDC MGMT PROF	\$ -	0.00%	1	0.12%
⊖ COMM UTILITIES & MISC CHARGES	\$ 3,744.62	0.01%	10	1.23%
COMMERCLY PURCH UTIL	\$ -	0.00%	7	0.86%
LEASE CELLPHN/AIRC RD	\$ 3,744.62	0.01%	3	0.37%
⊖ EQUIPMENT	\$ 1,000,380.63	3.99%	6	0.74%
COMMERCLY PURCH EQP	\$ 30,737.18	0.12%	3	0.37%
EQP OTH PROCUREMENT	\$ 964,887.04	3.85%	1	0.12%
PURCH CELLPHN/AIRC RD	\$ 4,756.41	0.02%	2	0.25%
⊖ LAND AND STRUCTURES	\$ -	0.00%	3	0.37%
LAND & STRUCTURES	\$ -	0.00%	3	0.37%
⊖ OPERATION/MAINT OF FACILITIES	\$ 338,471.52	1.35%	3	0.37%
NAVFAC CONTRACTS	\$ 338,471.52	1.35%	2	0.25%
OP&MAINT OF FACILITIES	\$ -	0.00%	1	0.12%
⊖ OTH GOOD/SERVICE FEDERAL	\$ 4,056.25	0.02%	1	0.12%
OTH INTRA-GOV PURCH	\$ 4,056.25	0.02%	1	0.12%
⊖ OTHER SERVICE CONTRACT NON-FED	\$ 6,634,171.55	26.47%	89	10.96%
FNIH	\$ 1,692,293.75	6.75%	23	2.83%
OTH CONTRACTOR SPT	\$ -	0.00%	2	0.25%
OTH OVERSEAS PURCH	\$ 7,411.03	0.03%	2	0.25%
OTHER TRAINING SPT	\$ -	0.00%	1	0.12%
SERVICES - OTHR COST	\$ 313,719.26	1.25%	20	2.46%
SVC-OTHR CONTRACTS	\$ 4,620,747.51	18.43%	41	5.05%
⊖ RENTAL PAYMENTS TO OTHERS	\$ 93,858.60	0.37%	5	0.62%
RENTS (NON-GSA)	\$ 93,858.60	0.37%	5	0.62%
⊖ SUBSISTENCE & SPT OF PERSONS	\$ 146,575.27	0.58%	14	1.72%
SUBSIST & SPT PERS	\$ 146,575.27	0.58%	14	1.72%
⊖ SUPPLIES AND MATERIALS	\$ 2,028,721.47	8.09%	55	6.77%
DFSC PURCH VHCL FUEL	\$ 54,723.20	0.22%	2	0.25%
DLA SUBSISTENCE	\$ 1,456,245.45	5.81%	11	1.35%
DSSC PURCHASE	\$ 280,492.12	1.12%	25	3.08%
LOCAL PURCH FUEL	\$ 207,273.90	0.83%	6	0.74%
PURCHASE GCPC	\$ 9,380.58	0.04%	5	0.62%
PURCHASE GCSS	\$ 20,606.22	0.08%	4	0.49%
SUP MTL OPEN NONGCPC	\$ -	0.00%	2	0.25%
⊖ TRANSPORTATION OF THINGS	\$ 1,554,152.62	6.20%	17	2.09%
AMC SAAM FUND	\$ 1,414,456.00	5.64%	2	0.25%
FREIGHT TRANSPORTATI	\$ 125,022.71	0.50%	1	0.12%
SDDC CARGO/PORT HNDL	\$ -	0.00%	1	0.12%
TRANS FOR JCS EX	\$ 14,673.91	0.06%	6	0.74%
⊖ TRAVEL/TRANSPORT OF PERSONNEL	\$ 13,262,966.65	52.91%	321	39.53%
CONFERENCE-NO TRNG	\$ 763,505.72	3.05%	27	3.33%
IN & AROUND TRAVEL	\$ 72,856.65	0.29%	6	0.74%
MISSION OPERATIONAL	\$ 254,044.33	1.01%	11	1.35%
RENTAL VEHICLE-COM	\$ 7,476,744.96	29.83%	178	21.92%
RENTAL VEHICLE-GOV	\$ 90,071.77	0.36%	7	0.86%
TRAINING	\$ 55,159.78	0.22%	5	0.62%
	\$ 4,550,583.44	18.15%	87	10.71%
Grand Total	\$ 25,067,099.18	100.00%	812	100.00%



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APPENDIX B

Summary of Blythe's Results

Source: Blythe (2020, pp. 70–75)

The following conclusions, recommendations, and areas for further research were taken from Blythe's NPS thesis in 2020 titled *U.S. Marine Corps Expeditionary Advanced Base Operations Operational Contract Support*. This information is provided as part of my thesis' recommendations to include Blythe's recommendations into the EABO handbooks.

Blythe's Conclusion 1:

The current III MEF organic support and non-organic support functions are out of alignment when it comes to delivering goods or services beyond the MPT to the warfighter at each MAGTF size—MEF, MEB, and MEU.

Blythe's Conclusion 2:

Standardizing a portion of the current III MEF OCS process timeline takes steps towards synchronizing organic and non-organic warfighter support; however, only the MEB and MEF elements are likely to realize synchronization between organic and non-organic support before days of self-sustainment expire, with MEU elements likely to receive non-organic support within a week of days of self-sustainment expiring.

Blythe's Conclusion 3:

A delay in OCS planning and execution has the greatest impact in prolonging delivery of requirements to the warfighter when the delay in OCS planning and execution exceeds 14 days (or 2 weeks)

Blythe's Conclusion 4:

Adding additional KOs to the current III MEF OCS process increases throughput for operational requirements beyond the MPT; however, there are only marginal gains to throughput by going beyond two KOs working requirements simultaneously.

Blythe's Conclusion 5:

The misalignment between organic and non-organic support timelines can be mitigated by increasing the number of KOs; however, synchronization between organic and non-



organic support functions is still lacking, which suggests that the problem is process-related, or product related.

Blythe's Recommendation 1:

Standardize, to the maximum extent possible and with cost versus benefit in mind, as much of the current III MEF OCS process as possible. The purpose of this recommendation is to take steps toward synchronizing the organic support and non-organic support to the warfighter. As the operational environment becomes more complex, we can better serve the warfighter by simplifying and standardizing the machine that is intended to deliver goods or services to them at the point and time they need it most. Under the current process structure, we are doing the warfighter a potential disservice by not ensuring non-organic support (if operationally required) is not readily available at the point when their days of self-sustainment run dry and they are operationally incapable of an organic resupply.

Blythe's Recommendation 2:

Incorporate KOs as soon as possible in the development of non-organic OCS requirements. The model showed that a delay in the contract support planning and execution phase led to decreased wait time to delivery of goods or services to the warfighter. Although the data does not explicitly state it is due to a greater degree of well-defined, non-organic OCS requirements, it is likely the case considering a more refined package can be handled more efficiently and effectively, which means it can transition throughout the procurement process with less friction, delay, or disruption.

Blythe's Recommendation 3:

Incorporate typical EABO scenarios, along with common logistics and non-organic OCS requirements, into USMC KO formal education and formal training systems. This recommendation comes from the notion that educating and training additional KOs on common EABO mission types and corresponding logistics and non-organic OCS requirements better aligns education, training, and practice. Thus, it equips the future workforce to handle the rigorous demand of EABO-OCS requirements in the future.

Blythe's Areas for Future Research #2:

Develop a model that looks at the current USMC OCS process from a “products” perspective to identify tools of contracting that are facilitating or inhibiting contracting support beyond the micro-purchase threshold, not just III MEF. Further research in this area may prove beneficial because the current contracting process may not need to be standardized if the appropriate contracting tools can be fielded.



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