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Analysis of Logistics Support via Acquisition and Cross-Servicing Agreements and Contracted Support

December 2017

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ACQUISITION RESEARCH PROGRAM
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ABSTRACT

The Marine Corps is an expeditionary force in readiness, constantly deployed around the globe. In order to respond to any situation within the range of military operations, the Marine Corps must remain in a high state of operational readiness and leverage the resources of partnered nations. The purpose of this research is to analyze how the Marine Corps utilizes Acquisition and Cross Servicing-Agreements (ACSAs) and Operational Contracting Support (OCS) to meet logistical requirements in an overseas environment.

This project focuses on how contracting and ACSA processes are used to support military operations by determining the best value of contracting and ACSA transactions, as well as factors for deciding which support method to utilize in order to achieve mission success. Comparing the costs between contracting and ACSAs, we conclude that ACSAs provide a significant cost savings compared to traditional contracting. The results of the analysis may serve as a model for commanders to implement during the planning process of future military exercises and operations.

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LIST OF ACRONYMS AND ABBREVIATIONS

ACSA	Acquisition and Cross-Servicing Agreement
AGATRS	ACSA Global Automated Tracking and Reporting System
AIT	Accountability, Integrity, and Transparency
AO	Area of Operation
AT&L	Acquisition, Technology, and Logistics
CAPT	Contracting ACSA Planning Tool
CCDR	Combatant Commander
CCF	Contingency Contracting Force
CCMD	Combat Command
CJCS	Chairman of the Joint Chiefs of Staff
CJCSI	Chairman of the Joint Chiefs of Staff Instruction
CLIN	Contracting Line Item Number
DOD	Department of Defense
DODD	Department of Defense Directive
DODI	Department of Defense Instruction
ECP	Expeditionary Contracting Platoon
EVE	Equal Value Exchange
FAR	Federal Acquisition Regulation
FPDS-NG	Federal Procurement Data System–Next Generation
FY	Fiscal Year
GAO	Government Accountability Office
HNS	Host Nation Support
ID	Indefinite Delivery
IQ	Indefinite Quantity
JOPES	Joint Operations Planning and Execution System
JOPP	Joint Operations Planning Process
JP	Joint Publication
LSSS	Logistic Support, Supplies, and Services
MAGTF	Marine Air Ground Task Force
MARFOR	Marine Forces

MCO	Marine Corps Order
MCPP	Marine Corps Planning Process
MCSC	Marine Corps Systems Command
MCWP	Marine Corps Warfighting Publication
MLA	Mutual Logistics Agreement
MLS	Mutual Logistics Support
MNL	Multinational Logistics
NATO	North Atlantic Treaty Organization
NDLO	Norwegian Defense Logistics Organization
NLC	Norwegian Logistics Command
OCS	Operational Contract Support
OCONUS	Outside the Continental United States
OSD	Office of the Secretary of Defense
PME	Personal Military Education
POL	Petroleum, Oil, and Lubricants
RCO	Regional Contracting Office
RIK	Replacement-in-Kind
RSO&I	Reception Staging Onward Movement and Integration
SE	Supporting Establishment
SECDEF	Secretary of Defense
SME	Significant Military Equipment
SOP	Standard Operating Procedure
SOR	Statement of Requirements
TIPS	Three Integrative Pillars
USC	United States Code
USMC	United States Marine Corps
VAT	Value Added Tax

I. INTRODUCTION

This project focuses on how contracting and Acquisition Cross-Servicing Agreement (ACSA) processes are used to support military operations by determining the best value of contracting and ACSA transactions, as well as factors for deciding which support method to utilize in order to achieve mission success. Comparing the costs between contracting and ACSAs, we conclude that ACSAs provide a significant cost savings compared to traditional contracting. The results of the analysis may serve as a planning tool for commanders to implement during the planning process of future military exercises and operations.

The purpose of this chapter is to introduce the Marine Corps and its logistics mission—specifically when operating in foreign theaters—and the use of ACSAs and contracting as solutions outside the organic support capabilities of Marine Corps operating forces. It also presents the authorities, capabilities and limitations, and planning considerations for both methods of support. Additionally, this chapter provides the background, purpose, scope, and methodology for the research process and closes with an overall summary.

A. BACKGROUND

The ability to maintain, sustain, and reconstitute troops and equipment in a foreign theater is a decisive factor to mission success. The logistical plan must support the commander's overall objectives in the area of operation. Detailed planning conducted early and often ensures these objectives are achieved. The following paragraphs identify the Marine Corps organization and logistical methods to support its mission.

1. The Marine Corps and Logistics Requirements

The demands on the Marine Corps continue to evolve as Marines deploy across the globe conducting multiple missions. Even several years after major combat operations have ceased in Iraq and Afghanistan, the Marine Corps maintains an active presence across the globe. Although direct combat actions are their main focus, Marine Corps missions are not limited to that. The Marine Corps engages in a multitude of roles, including disaster relief, humanitarian aid, theater security cooperation, and advising and training foreign security

forces across the globe. Regardless of the nature or location of a mission, the Marine Corps must always rely on logistics to support operations and accomplish the mission. Marine Corps Warfighting Publication (MCWP) 3-40, *Logistic Operations*, states that "logistical self-sufficiency [is] an essential element of Marine Air-Ground Task Force (MAGTF) expeditionary warfighting capabilities" (United States Marine Corps [USMC], 2016b, p. 8). The construct of the MAGTF—its flexibility and its scalability—is an essential cornerstone of how the Marine Corps operates. The MAGTF is a platform that can task-organize forces according to mission requirements. Led by a headquarters, referred to as the command element, MAGTF operations usually center around the ground combat element, which utilizes combined arms capabilities. The aviation element is comprised of various platforms and provides robust capabilities of air support and transportation. Finally, the logistics element is tasked with providing all logistical support to the entire MAGTF. The logistics element must be as agile as the other elements, in order for the entire MAGTF to work together as an expeditionary force. Logistics "must be rapidly deployable, self-reliant, self-sustaining, and flexible" (USMC, 2016b, p. 8). Providing logistics for the Marine Corps is a constant and complex challenge because logisticians are tasked with delivering goods and services to forces that are distributed across the globe, completing a wide variety of missions while being ready to adapt quickly.

2. Logistics Abroad and in Joint Operations

Marine Corps forces must balance having a sufficient amount of resources on hand and becoming overburdened with excessive stocks of supplies. Large supply depots are a target for adversaries and prevent the MAGTF from maintaining an expeditionary posture and conducting effective maneuver warfare. Having the right supplies and services at the right place at the right time is critical to mission success. Outside the continental United States (OCONUS), the complexity of logistics is increased as forces move away from supply hubs and supply chains are stretched across continents and oceans. With a constant presence overseas, Marine Corps logisticians need to understand where the responsibilities of logistics requirements lie and how to procure goods and services in different theaters. In an overseas environment, the overall responsibility of logistics support to subordinate units falls to the combatant commander (CCDR). The combatant command is a joint military organization

charged with maintaining a presence in the theater of operations, maintaining good standing relationships with foreign allies, and planning for operations in that particular theater. Joint Publication (JP) 4-0, *Joint Logistics*, states that "CCDRs exercise authoritative direction over logistics, in accordance with Title 10, USC, Section 164" (Joint Chiefs of Staff [JCS], 2013a). While the CCDR maintains the authority for logistics responsibilities, the leader of a joint or service component commander, who is subordinate to the CCDR, is usually tasked to plan and execute logistics operations to support the CCDR's mission. The Marine Corps has several Marine Forces (MARFOR) headquarters that serve as the service component command headquarters for assigned geographical areas. These include MARFORs in Europe and Africa, and Northern, Southern, Pacific, and Central commands. These permanent headquarters assume responsibility and operational control over Marine units as they enter the theater. A MARFOR headquarters is critical for assisting tactical level units in obtaining logistics support in foreign countries. This includes use of strategic assets to move materiel in and out of theater as well as providing oversight for contracting and ACSAs.

Because the Marine Corps is smaller than the other Department of Defense (DOD) services, in many instances the Marine Corps levies support from the other services, especially when co-located on bases or working in a joint environment. These arrangements are made by the MARFOR headquarters and can take considerable time to plan and coordinate. While there can be some efficiencies with obtaining lateral support from sister services, the Marine Corps needs to maintain its capability to provide its own support. In many cases, and especially in contingency operations, arrangements with other military services cannot be made in time for initial operations.

With its ability to deploy and provide support quickly, Marine Corps forces are usually the first to respond and arrive in theater. In these instances, it is necessary to be self-sufficient, and it is even possible for the Marine Corps to become the lead agency for support in a joint environment. In other words, the Marine Corps may be tasked to provide logistics support for other services in the initial stages of major operations. The Marine Corps requires logisticians to provide responsive and flexible support in an expeditionary manner, so if arrangements or authorities are not planned well in advance, the Marine Corps will need to provide 100% of support independently. While the Marine Corps has a diverse array of military occupational specialties and equipment to provide various technical capabilities, it

also has its limitations. In some instances, when a certain Marine Corps capability has reached its maximum capacity, logisticians can contract support from commercial industry. As an agile and adaptive force abroad, Marine Corps logisticians need to maintain the competencies to procure goods and services from all available resources for support. When logistics requirements exceed the internal capabilities, Marine Corps logisticians must either contract from industry, or receive assistance from allies.

3. Contracting Support

"Contracting out" is an option that commanders and logisticians have at their disposal to meet the needs of logistics requirements in garrison and abroad. The U.S. military has used contracting since the Revolutionary War. Today, contracting support consumes roughly half of the DOD's overall budget authority. While the DOD budget has fluctuated considerably to support campaigns in Iraq and Afghanistan, contracting has always represented a large portion of the overall DOD budget (see Figure 1). Peaking in 2008, the era of very high spending levels is over, and it is increasingly important to continue focusing on effectively spending U.S. taxpayer dollars.

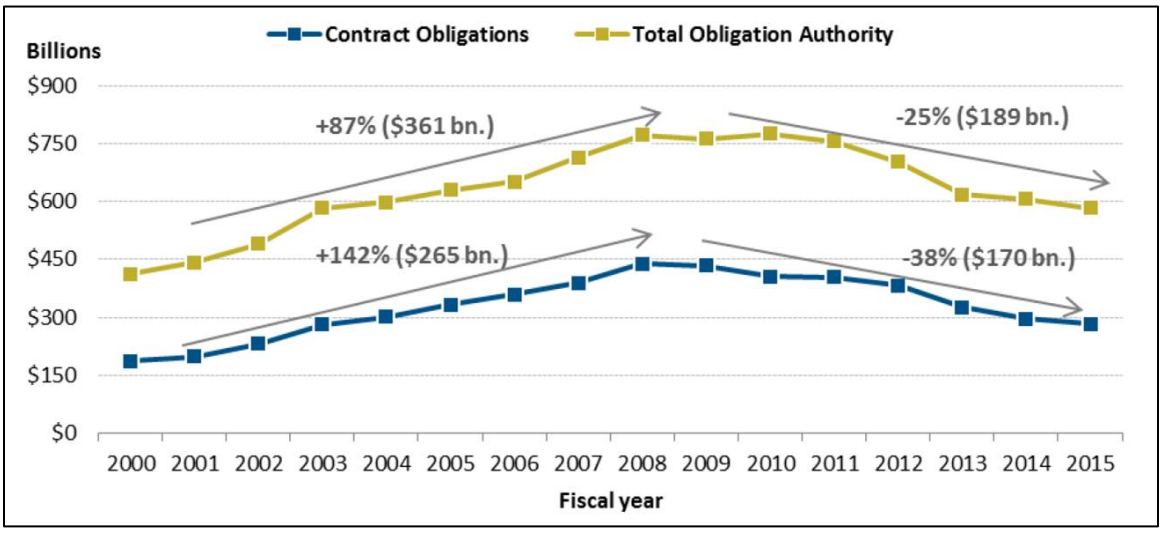

Figure 1. Total Obligation Authority versus Contract Obligation FY2000–2015. Source: Coral, Nelson, Sargent, & Schwartz (2016).

a. Contracting Obligations in the DOD

Over the past decades, contracting has become a force multiplier in providing goods and services to the DOD during wartime. However, contracting is not a new phenomenon that federal organizations have just started using to provide logistical support.

> The DOD has long relied on contractors to provide the U.S. military with a wide range of goods and services, including weapons, vehicles, food, uniforms, and operational support. Without contractor support, the United States would be currently unable to arm and field an effective fighting force. (Coral et al., 2016)

In 2013, the DOD obligated more than $300 billion on contracts, or almost half of the overall budget that year; in fiscal year (FY) 2015, the DOD spent $283 billion (FY2017 inflation-adjusted dollars) on contracting, equal to 7% of all the spending for the entire federal government (Coral et al., 2016).

b. Contracting Process Overview

Contracting is a very complex process governed by numerous levels of regulation. Despite the challenges that the system can present, the benefits of contracted support can become a significant force multiplier for a commander. Today, many operations include contracted support for logistics and even non-logistics support. Numerous rules govern federal contracting. A Marine Corps contracting officer is responsible for adhering to the regulations set forth in the Federal Acquisition Regulation (FAR), the Defense Federal Acquisition Regulation Supplement (DFARS), the Navy Marine Corps Acquisition Guide, the Navy Marine Corps Acquisition Regulation Supplement, and any other local standard operating procedures (SOPs) or guidelines. The amount of regulation placed on federal government contracting demonstrates that binding the government to an agreement, spending taxpayer dollars, and meeting the socioeconomic goals set forth by public policy can make contracting a complex and difficult process.

Garrett (2007) describes contracting support as three broad phases: pre-award, award, and post award. He further identifies and explains the contracting management steps as procurement planning, solicitation planning, the actual solicitation, awarding, source selection, contract administration, and contract closeout. Lastly, the elements of a contract

include the offer, acceptance, considerations, competent parties, legality of purpose, and clear terms and conditions.

Contracting officers have many things to consider throughout the contracting process. The three main measurement factors used in acquisition are typically referred to as the triangle of schedule, cost, and performance (Garrett, 2007). The three aspects are all interrelated, and contracting officers must find the balance among them to support operations. Socioeconomic goals that enforce fair employment practices, working conditions, and environmental regulations, and provide preferential treatment of disadvantaged groups are all considerations within the FAR. Contracting also requires the maximum use of competition. By using the market forces of competition, the DOD aims to maintain a base of suppliers to support government functions for mobilization if required and to ensure that the government receives the best quality product at a fair and reasonable price. All of these factors must be considered throughout the contracting process, and the contracting officer must make trade-offs such as quality versus cost, time versus cost, and risk versus cost.

As contracting began to be used for supporting mission critical functions and constituted a significant component of operations, the DOD sought to standardize the process of integrating contracting into operational planning and execution. The comprehensive approach to the various elements of contracting has been coined as Operational Contract Support (OCS). “OCS is the process of planning for and obtaining supplies, services, and construction from commercial sources in support of CCDR-directed operations through the related contract support integration, contracting support, and contractor management functions” (JCS, 2014, I-4). OCS focuses on making contracting a team responsibility, not just the contracting officers. By making contracting a staff function, the process of contracting is better supported by different sections of a staff and provides better capabilities for the commander.

c. Supporting Overseas Operations

For contracting to be successful, contracting officers must integrate planning for contracting early in the planning process with all divisions within the organization. Yoder (2013) identifies the early development of contracting planning as phase zero operations. He emphasizes that phase zero operations consist of ensuring market research is conducted

within the theater, all agency plans are coordinated with each other, and arrangements are made in advance of contingencies. At the onset of an operation, contracting can assist with mobilization and initial deployment of basic life-support functions. Contracting then builds up support by providing reception, staging, onward movement, and integration for the forces; for long-term operations, contracting can expand to provide additional quality of life, more permanent facilities, and equipment to maintain forces (Yoder 2013). As the number of forces decreases in the final stages of an operational deployment, contracting can assist forces in the redeployment of forces by taking over functions to maintain stability until operations are complete.

d. Contracting in the Marine Corps

In the Marine Corps, the contracting workforce was previously referred to as the contingency contracting force (CCF), but has recently adopted the word *expeditionary* instead of *contingency* to better describe the nature of contracting in an overseas environment. The word *contingency* represents a limited aspect of contracting; a *named contingency*, such as Operation Iraqi Freedom, occurs when the secretary of defense makes a formal declaration that U.S. forces may intervene or participate in an event, typically because of a disaster or hostilities (Defense Procurement and Acquisition Policy [DPAP], 2015).

Although the name of the contracting workforce has changed, the mission remains the same. Distributed in 2016, MCO 4200.34, *Contingency Contracting Force Program*, states that

> the mission is to support the Marine Air Ground Task Force (MAGTF), Supporting Establishment (SE), Special Operations Forces, and Joint and Supported Coalition Forces by planning and obtaining supplies and services from non-organic sources through associated contract support integration, contracting support and contractor management functions (USMC, 2016a, p. 7).

Contracting supports the Marine Corps through routine garrison support functions at a regional contracting office (RCO), in deployed environments for combat and exercises from an expeditionary contracting platoon (ECP), and for major systems acquisition at Marine Corps Systems Command (MCSC).

e. Example of Contracting Out

Under certain circumstances, Marine Corps forces can predetermine that contracting for services is a more cost-effective method for obtaining support. When conducting overseas exercises, it is not always efficient to deploy Marine Corps logistics capabilities. A short example would be providing potable drinking water to Marine Corps forces in the country of Norway for several weeks in support of an exercise. While it would exercise mission-essential tasks for engineer Marines to deploy to the area of operation (AO), find suitable water sources, set up their equipment, and provide tactical water purification, the costs would greatly exceed that of receiving external logistics support from either contracting or ACSA with the partner nation. In this example, the costs could include the following:

- cost of deploying a Tactical Water Purification System (TWPS) plus 10 potable water container trailers on a commercial or military sealift
- cost of deploying a platoon of Water Support Technician (MOS 1171) via chartered plane (15–20 seats on a chartered commercial plane, lodging, food, support requirements)
- cost of operating the system (fuel, oil, lubricants)
- cost of maintaining equipment after the operation
- cost of issuing permits to pull water (hours or days spent working with local authorities to obtain permission to pump water from freshwater sources)
- cost of pulling resources from the operating forces, resulting in a theoretical decrease in readiness (intangible costs)

Although the value of experience and training in a new environment is important to military occupational specialty proficiency, it may make more sense to use an external logistics capability like contracting or ACSA. For example, using contracting or host nation support to procure the following items:

- cost of procuring 20,000 bottles of water from commercial sources (contracting)
- cost of using potable drinking water sources from partner nation dining facilities (ACSA)

While monetary figures are not represented in this simple example, it should illustrate that cost efficiencies can be quickly realized when planning, and that, in some instances, the

planning for contracting or obtaining support from partner nations can be made much less complicated.

f. Contracting Considerations

Contracting in the DOD has undergone many changes in the past few decades. During the Iraq and Afghanistan campaigns, the DOD relied heavily on contracted support with the ratio of contractor to military personnel estimated at 1 to 1 (Bruneau, 2015). The Commission on Wartime Contracting states "that at least $31 billion, and possibly as much as $60 billion has been lost to contract waste and fraud in Iraq and Afghanistan" (Bruneau, 2015, p. 8) with a "widespread negative attention to contractors in general" (Bruneau, 2015, p. 7). Contracting in Iraq and Afghanistan demonstrates risk in contracting, need for oversight, and core competency (Bruneau, 2015).

Over the past decade, OCS has made incremental steps towards standardization and integration across the components in the DOD. OCS must be incorporated into joint publications, professional military education (PME) for all field grade officers, service level orders, and directives. Contracting needs to be a core competency because the Marine Corps is contracting out mission-essential tasks. Contracting officers operate within the scope of their warrant and contract for goods and services up to a specified dollar amount. Another issue that the Marine Corps experiences is the training and retention of contracting officers. It takes a considerable amount of time to educate and train individuals. Officers also are disadvantaged in that they normally rotate in and out of the contracting field to their primary military occupational specialty to remain promotable. The long training cycle, rotation in and out of the contracting community, and availability of jobs outside of the military make the manpower management of contracting a difficult task.

The environment in which the Marine Corps operates also is a consideration for the contracting process. Regulations meant to deter fraud, waste, and abuse are normally removed in contingency and combat operations in order to provide more responsiveness and capability to the commander.

g. Contracting Summary

Even in the earliest recordings of military history, contracting has been used as a tool for the commander to achieve victory. Contracted or mercenary armies were a way to quickly and cost-effectively source additional forces for major campaigns. Contracting can be a useful tool in helping military forces extend their organic logistics capabilities. However, if internal controls, core competency, accountability, integrity, and transparency (AIT) are not available, it provides the opportunity for corruption and fraud, such as is the case of contracting support during major campaigns in Iraq and Afghanistan.

4. Acquisition and Cross-Servicing Agreement

ACSAs originated in the 1980s with the North Atlantic Treaty Organization (NATO) nations because the process for cooperative logistics support involved very cumbersome and bureaucratic paperwork (Matlock, 2009). Although it began with just NATO countries, the ACSA program has grown over the past several decades to include many other nations. By 2017, the United States had partnered with numerous countries, totaling 112 ACSAs (Appendix C). ACSAs are identified by several names, synonymous with mutual logistics support (MLS) and mutual logistics agreements (MLAs).

a. ACSA Obligations in the DOD

ACSAs provide U.S. military forces a significant amount of logistics support, supplies, and services (LSSS) in a foreign theater, which helps the CCDR reduce overall logistical risk to the mission. The success of joint operations, in both training and real-world contingencies, are increased. Thus, we observe that the use of ACSAs has significantly increased over the past several years. Figure 2 shows the rising value of ACSA obligations over the past five fiscal years, from $0.16 million in FY2012 to $111.49 million in FY2017.

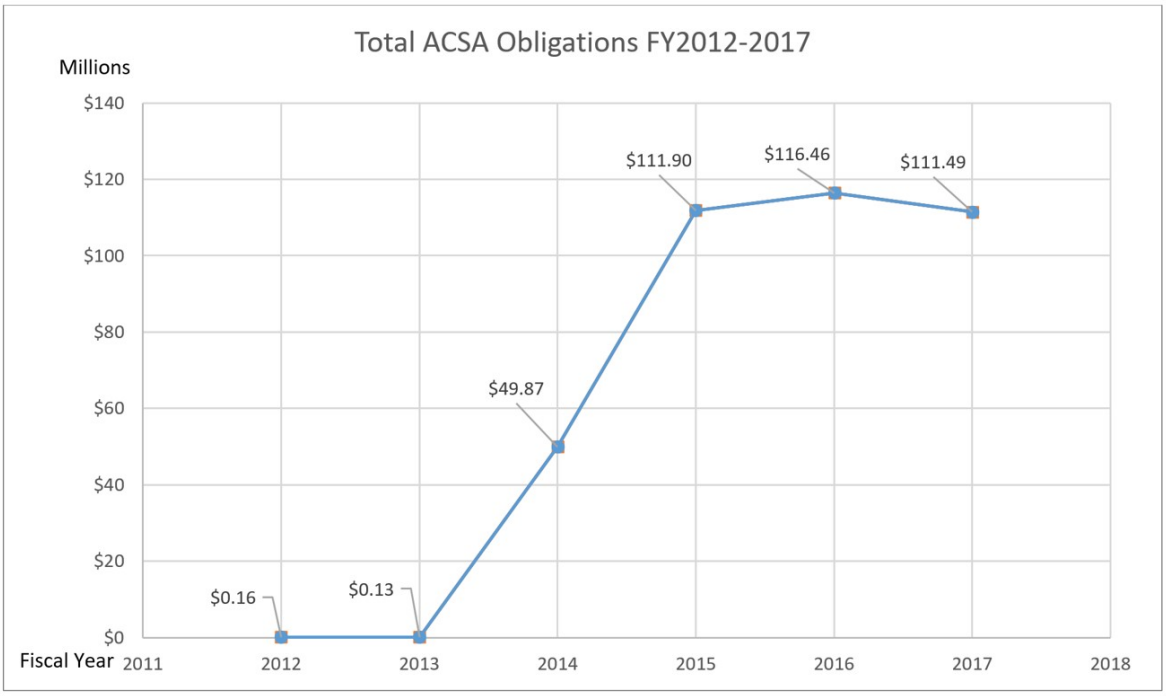

Figure 2. Total ACSA Obligations FY2012–2017. Source: Joint Staff J4 Multi-National Agency Division (2017a).

b. ACSA Process Overview

After an ACSA is signed between the United States and another country, the process for requesting support from either party is relatively simple. First, the request is generated and discussions are held concerning the details of the requests and availability of support and compensation. ACSA/MLS order forms are used as supporting documentation (Appendix B). The request will then need to be routed for approval by the presiding ACSA manager, which can be viewed in Appendix D. After the execution of services or delivery of goods, the partner nation is compensated per the arrangement. In addition to having minimal paperwork requirements for accountability and auditing, ACSAs are very flexible in how support is compensated. Unlike contracting, where the customer can only be compensated for goods and services with monetary compensation, ACSA exchanges can be made with an exchange of similarly valued goods or services. This is also known as replacement-in-kind (RIK) and equal value exchange (EVE). In some instances, negotiations may take place to determine an equitable pricing, but the regulations allow service members the latitude to make that decision. The EVE and RIK provide flexibility for countries to work with the United States

in a number of ways. When NATO countries cannot pledge troop support to an international operation, they can provide logistics support, or when a country may not be able to fund participation in a multinational exercise, the United States can exchange monetary support in return for services or other support.

c. Supporting Overseas Operations

Like contracting, the ACSA is a means to provide responsive and flexible logistics support to Marine Corps forces. ACSAs have been used for combat operations, contingency operations (including disaster relief and humanitarian aid), combined training exercises, and deployments (Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics [OUSD(AT&L)], 2014).

d. ACSA in the Marine Corps

In the Marine Corps, ACSAs are managed at the MARFOR level where the vast majority of ACSAs are executed. Because units move in and out of the theater and the MARFOR is a permanent office that maintains the relationships with our partner nations, the MARFOR G-4 maintains control of the ACSA program even though they are not necessarily on the ground or executing the arrangements. The ACSA program manager is responsible for training Marine logisticians that may utilize an ACSA agreement while in theater. Training requires knowledge on the authorities for ACSA, the restrictions on certain goods and services, and the standard operating procedures for processing requests. When Marine units need to initiate an ACSA agreement, the MARFOR ACSA manager will provide guidance and oversight, as well as act as the final approval authority. Once the ACSA process has started, the MARFOR ACSA manager will input all documentation into the ACSA Global Automated Tracking and Reporting System (AGATRS). ACSAs are commonly used for supporting partner nations, as well as obtaining support from partner nations while overseas. A Marine Corps Order for ACSA has not yet been finalized, but roles, responsibilities, and execution of the Marine Corps ACSA program will not likely differ.

e. Considerations

The authority for ACSAs comes from U.S.C. Title 10 and is authority delegated to the DOD and combatant commands for execution. ACSA exchanges are available for a large

array of logistical support such as food; billeting; transportation; petroleum, oil, and lubricants (POL); communication services; medical services; and many others (CJCS, 2015). Additionally, there are clearly defined restrictions for support transfers or receipt. These restrictions include weapons; biological, chemical, and nuclear munitions; guidance systems; and significant military equipment (CJCS, 2015). A listing of authorized logistical support can be viewed in Appendix A. Furthermore, ACSAs are restricted from use as a routine method for foreign countries to receive goods and services from the United States (OUSD[AT&L], 2014). This prevents the misuse of ACSAs and the interruption of foreign military sales processes. Lastly, ACSAs are subject to the principle of reciprocal pricing; that is, the United States and partner nations should only charge one another the cost that they incurred in delivering goods and services, and they should not profit from an ACSA exchange.

B. PURPOSE

The purpose of this paper is to analyze Marine Corps logistics support in an overseas theater, specifically comparing the use of contracting and ACSAs. This research was conducted to answer the following primary questions:

- Primary Question 1: What are the processes and planning considerations for utilizing contracting or an ACSA?
- Primary Question 2: Does the Marine Corps receive a good value in ACSA transactions?

We found this research applicable to our academic studies and future assignment as Marine Corps contracting officers. The DOD spends a considerable amount of money on each support method, and the expenses continue to rise. It is imperative that the DOD efficiently uses its financial resources because of the high dollar value spent on support and the limited manpower available to manage support. As future contracting officers and potentially ACSA managers, we would like to contribute to a better understanding of contracting and ACSAs in order to assist logisticians in providing an effective level of support for the CCDR and the mission.

C. SCOPE

This research project is focused on contracting and ACSAs as methods of support outside of the Marine Corps internal capabilities while operating in a foreign theater. We selected the European theater due to increased national interests in the region. We further narrowed the scope of research to Norway in order to increase the quality of our assessment. Norway was chosen for a number of reasons including the Marine Corps recurring exercises with the partner nation, previous operational experience and familiarity with the area, and the availability of historical data for analysis.

D. METHODOLOGY

The research for this project consisted of a three-step approach to answer our primary research questions. First, we conducted a thorough literature review of doctrine, policies, and regulations in order to understand contracting and ACSA processes, capabilities, and limitations. This provided a baseline of understanding to help categorize the types of logistical support required in a foreign theater. Second, we collected data on ACSA and contracting support. We compiled historical cost data from ACSA and contracting databases and collected our own cost data from commercial vendors. During the last step of research, we analyzed the data collected. We created a framework for determining whether ACSA or contracting would be more appropriate to support Marine training exercises. Foundations for our comparison tool came from the reputable Three Integrative Pillars for Success (TIPS). Using our cost data from ACSA and contracting support, we determined which process provided the best value for goods and services rendered. Based on our findings, we provided recommendations for improving logistics operations utilizing contracting and ACSA.

E. SUMMARY

This chapter introduced the reader to the topic of research, purpose, research questions, scope, and methodology for the research process. The research comparing ACSAs and contracting in an overseas environment is important for future planning efforts. This research is relevant because the answers to these research questions may help Marine Corps logisticians decide whether to use ACSAs or contracting to support future operations. In the next chapter, we discuss the literature review and information relevant to this project.

II. LITERATURE REVIEW

The purpose of this chapter is to provide a brief and general overview of contracting and ACSAs. We conducted a thorough and comprehensive review of doctrine, directives, scholarly journals, and after-action reports to gain a better understanding of the underlying support methods. Throughout our research efforts, we found a significant amount of research conducted on contracting. These research topics consisted of various functional areas of contracting, including acquisition planning, pre-award activities, award, post-award activities, auditing, and many others. On the other hand, there was a minimal amount of information and research conducted on ACSAs. The majority of the ACSA information consists of federal policy, DOD directives, and military service regulations. Moreover, we found no other literature or research comparing the use of ACSAs and contracting processes. To limit the scope of our project, we focused on the doctrine and directives that guide contracting processes and ACSAs during the planning and execution of logistical support for military operations in a foreign theater.

The research documents and information were organized into four overarching themes: regulatory framework, Operational Contract Support (OCS) doctrine and directives, ACSA doctrine and directives, and methodology sources. By organizing the research into these themes, we are able to provide a baseline understanding of how and when contracting and ACSAs are used in a foreign theater to support exercises and deployments such as Cold Response, a joint exercise conducted by European military forces and U.S. military forces in the country of Norway.

A. REGULATORY FRAMEWORK

1. 10 U.S.C. 137 Procurement Generally

The laws of federal procurement fall under Title 10, Chapter 137, of United States Code (U.S.C.), titled *Procurement Generally*. Under these regulations, the government is authorized to acquire certain goods and services, using a variety of procurement methods and instruments. Additionally, these regulations identify the left and right lateral limits on the types of procurement methods and instruments that are authorized for use. These instruments include the use of the various contract types to meet the user requirements. Specifically,

when contracting in a contingency environment, some areas of federal regulations are relaxed or waived in order to increase efficiencies and deliver goods and services to the warfighter in a more streamlined manner.

2. 10 U.S.C. 138 Acquisition and Cross-Servicing Agreements

To fully understand the nature of international agreements, we reviewed the federal law that provides authority to provide goods and services with foreign countries. Specifically, this is reserved as a military-to-military only interaction when acquiring or providing logistical support. Also in Title 10 of the U.S.C., *Acquisition and Cross-Servicing Agreements* states that an agreement occurs when "the United States agrees to provide logistic support, supplies, and services to military forces of a country or organization in return for the reciprocal provisions of logistic support, supplies, and services by such government or organization to elements of the armed forces" (10 U.S.C. § 2341, n.d.). This specific authority permits U.S. military forces to acquire logistical support within a foreign country when conducting exercises, training, or deploying in an overseas capacity. Additionally, the U.S. military can also provide logistical support to the host nation's military forces as long as there is an agreement in place. This authority is delegated to the secretary of defense (SECDEF), and in turn can be delegated down to CCDRs for execution (10 U.S.C. § 2341–2350, n.d.).

B. OPERATIONAL CONTRACT SUPPORT DOCTRINE AND DIRECTIVES

1. Joint Publication Operational Contract Support (JP 4-10)

According to JP 4-10, *Operational Contract Support* (JCS, 2014c), *OCS* is defined as the "process of planning for and obtaining supplies, services, and construction from commercial sources in support of joint operations." In other words, OCS is the contracting process used by U.S. military services to meet the logistical requirements of the warfighter in both garrison and deployed environments. OCS is divided into three main functions: contract support integration, contracting support, and contractor management (JCS, 2014c). In essence, these main functions refer to the planning, execution, and management of contracting. Figure 3, Operational Contract Support Functions, provides a specific breakdown of tasks for each of the OCS functional areas (JCS, 2014, p. 22). Ultimately, these

functional areas provide the geographic CCDR the methods and resources to achieve his or her objectives and desired end state within the area of operations.

Figure 3. Operational Contract Support Functions. Source: JCS (2014).

2. Department of Defense Instruction Operational Contract Support (DODI 3020.41)

OCS is a complex process that must be fully understood and implemented by executive-level senior leadership in order to achieve mission success. It is a critical function that should be involved in the planning process in the same fashion as the other functional staff sections in DOD agencies and organizations. Furthermore, accountability procedures must be established to prevent OCS integration from being overlooked. To set this precedent, DODI 3020.41 "establishes policy, assigns responsibilities, and provides procedures for OCS, including OCS program management, contract support integration, and integration of defense contractor personnel into contingency operations outside the United States" (DOD, 2017a, p. 1). The instruction identifies specific key personnel to implement and oversee OCS

policy, such as the undersecretary of defense for acquisition, technology and logistics, the chairman of the Joint Chiefs of Staff (CJCS), and geographic combatant commanders (GCCs).

3. Multi-Service Tactics, Techniques, and Procedures for Operational Contract Support (Marine Corps Reference Publication 4-11H)

Each of the U.S. military services possesses some type of contracting organization to fulfill its internal logistical requirements. As identified in JP 4-10 at the joint level of planning, OCS is the planning for and execution of contracted support. Diving deeper to the tactical level of planning, the *Multi-Service Tactics, Techniques, and Procedures for Operational Contract Support* publication serves as the specific guiding policy and operating procedures for each military service (USMC, 2016c, p. 6). Although the types of contracting organizations and missions may vary among the military services, this document standardizes the contracting processes at the tactical level and creates the baseline of knowledge to allow interoperability.

4. Marine Corps Order Contingency Contracting Force (MCO 4200.34)

The Marine Corps' contracting organization consists of a small force of OCS advisors and warranted contracting officers to carry out and execute all OCS functions. They are primarily task organized to support all operational and non-operational units, for example, Marine Expeditionary Units, Marine Special Operations Command, and Marine Corps Logistics Bases (USMC, 2016a, p. 7). With the Marine Corps being an expeditionary fighting force, Marine Corps contracting officers are primarily used to provide support for international training exercises and operations such as Exercise Balikatan (Philippines), Exercise Cobra Gold (Thailand), and Exercise Cold Response (Norway). MCO 4200.34 serves as the Marine Corps' guiding policy for all OCS personnel, OCS roles and responsibilities, and OCS mission.

C. ACQUISITION AND CROSS-SERVICING AGREEMENT DOCTRINE AND DIRECTIVES

1. Joint Publication Logistics in Support of Multinational Operations (JP 4-08)

According to JP 4-08, *Logistics in Support of Multinational Operations* (JCS, 2013b), *multinational logistics* (MNL) is defined as "any coordinated logistic activity involving two or more nations supporting a multinational force under the auspices of an alliance or coalition" (p. 9). This document provides the CCDR with overall guidance and planning considerations when using MNL to support U.S. military forces in the joint operating environment. Working with partnered nations to maintain and sustain the force during overseas operations is critical to success due to limited access to resources. International agreements, specifically ACSAs, among the different nations help to provide the needed logistical support to the military forces. As JP 4-08 states, by combining the resources and capabilities of MNL, the commander can

> (a) Enhance the ability of the United States and its multinational partners to deploy and sustain forces.
>
> (b) Increase operational flexibility and enhance logistic sustainment of the Force.
>
> (c) Enable more effective use of intra theater resources through host-nation support (HNS) and theater support contracting. It can especially minimize undesirable competition for contracted support in regions where the local economy and infrastructure have been degraded. Such competition can stress local populations and cause price escalations, reduced availability, quality of local goods, services, and result in the inefficient distribution of resources.
>
> (d) Provide opportunities for nations without sufficient logistic resources to participate in the operation.
>
> (e) Allow nations to provide logistical support instead of forces, when it fits national policies. (JCS, 2013b, p. I-3)

2. Department of Defense Directive International Agreements (DODD 5530.3)

International agreements between the United States and varying countries occur for a variety of reasons including bilateral training and exercises, humanitarian operations, and theater security operations. Examples of international agreements include relationships in

accordance with a treaty, reciprocal exchange of military LSSS, combined military exercises and operations, and exchange of military intelligence (DOD, 1987, pp. 14–15). This directive identifies specific personnel to arrange, conduct, and conclude international agreements on behalf of the United States. Furthermore, DODD 5530.3 defines an *international agreement* as

> any agreement concluded with one or more foreign governments (including their agencies, instrumentalities, or political subdivisions) or with an international organization, that:
>
> 1. Is signed or agreed to by personnel of any DOD Component, or by representatives of the DOS or any other Department or Agency of the U.S. Government;
>
> 2. Signifies the intention of its parties to be bound in international law.
>
> 3. Is denominated as an international agreement or as a memorandum of understanding, memorandum of agreement, memorandum of arrangements, exchange of notes, exchange of letters, technical arrangement, protocol, note verbal, aide memoire, agreed minute, contract, arrangement, statement of intent, letter of intent, statement of understanding or any other name connoting a similar legal consequence. (DOD, 1987, p. 19)

3. Department of Defense Directive Acquisition and Cross-Servicing Agreements (DODD 2010.9)

Title 10 U.S.C., sections 2341 to 2342, provides the statutory authority for U.S. military forces to acquire and transfer LSSS to authorized foreign countries and organizations in support of exercises, training, or operations. This key statute is the foundation for the U.S. government's doctrine, directives, and military service–specific orders in an overseas environment. This directive, DODD 2010.9, provides the implementation and governance guidance for all DOD agencies and organizations for ACSAs. Furthermore, DODD 2010.9 defines *acquisition* and *cross-servicing agreement* as follows:

> Acquisition. For purposes of this Directive, obtaining logistics support, supplies, or services under an acquisition agreement (Section 2341 of reference (b)) or under a cross-servicing agreement (Section 2342 of reference (b)). This includes purchasing (whether for payment in currency, replacement-in-kind, or by exchange for equal value), renting, leasing, or any method of temporarily obtaining logistics support, supplies, or services.
>
> Cross-Servicing Agreement. A legal instrument entered into under the authority of section 2342 of reference (b) that authorizes the reciprocal

provision of logistics support, supplies, or services. Also referred to as a Mutual Support Agreement. (DOD, 2003, p. 12)

4. Chairman of the Joint Chiefs of Staff Instruction Acquisition and Cross-Servicing Agreements (CJCSI 2120.01D)

Similar to the DODD 2010.9 ACSAs, the Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 2120.01D is another policy document that governs the use of ACSAs when acquiring or providing logistical support to foreign countries. This instruction specifically applies to "the Combatant Commands (CCMD) and Defense Agencies reporting to the Office of the Secretary of Defense (OSD) through the Chairman of the Joint Chiefs of Staff" (CJCS, 2015, p. 5). Additionally, these organizations are provided with the standard operating procedures to properly manage and maintain accountability of all transactions associated with the ACSA program.

D. METHODOLOGY SOURCES

The methodology sources used to support this research consisted of the OCS and ACSA doctrine and directives identified in this literature review. Additionally, we used the Joint Operation Planning Process and Yoder's *Three Integrative Pillars of Success* model during the data analysis process. By using these sources, we understand the regulations and processes that implement OCS and ACSA in the operating forces. As a result, we effectively navigated through the market research, data collection and analysis, process and cost comparison, and findings of this project.

E. SUMMARY

This chapter provided a comprehensive overview of the federal government's use of contracting and ACSAs in a foreign theater. The regulatory framework provides the authority for U.S. military forces to plan for, procure, and consume goods and services. The contracting and ACSA doctrine and directives govern and implement the policy and processes for federal agencies and specific to this thesis, the military services. Additionally, the contracting and ACSA doctrines and directives guide the research process as methodology sources. In the next chapter, we discuss the preparation and conduct of the data collection process.

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III. DATA COLLECTION

A. DATA COLLECTION PROCEDURE

After 15 months of graduate-level education at the Naval Postgraduate School, we obtained a better understanding of the contracting process through our study of the federal acquisition process, including planning for contracting, conducting market research, contract law, price analysis, negotiations, contract management and administration, and contingency contracting. With this background of academic studies, we were prepared to conduct our data collection. In addition to our academic foundation in contracting, we studied all relevant doctrine, directives, scholarly journals, and after-action reports for contracting and ACSAs. We also reviewed other theses, government reports, and journals for additional reference. By reviewing a wide range of material, we gained a better understanding of the various perspectives on contracting.

For the data collection, we aimed to answer our research questions. The data collection was conducted in two distinct parts. In the first part, we used historical cost data from contracts and ACSAs. In the second part, we traveled to Norway and obtained cost estimates for the goods and services that were previously received via the ACSA process. By breaking down costs for the identified goods and services into standard rates, making appropriate currency conversions, and adjusting for a baseline consumer price index, we created a platform for accurate cost analysis and comparison. In order to make a precise cost comparison of ACSAs and contracting, it was imperative that this data synthesis was conducted.

1. ACSA Data Collection

To complete the research and answer research questions, we decided to narrow the scope of the research to a specific partner nation and limit the timeframe for comparison. We decided to focus the scope of data specifically on international agreements between the United States DOD and Norway because we had operational experience in the country and a considerable amount of data was available. Over the past several years, the Marine Corps has increased the amount of joint training with the Norwegian forces.

The ACSA Global Automated Tracking and Reporting System (AGATRS) is an online database used when executing an exchange via the ACSA process. AGATRS is used by all federal agencies including the offices of the secretary of defense, the Joint Staff, combatant commanders, and all DOD organizations (Joint Contingency and Expeditionary Services, 2014). It is mandated by regulation that AGATRS be utilized for all recording of ACSA transactions from initial request to transfer of funds and final settlement so that logisticians, financial specialists, and leadership can have visibility of transactions (Joint Contingency and Expeditionary Services, 2014).

For data collection in AGATRS, we first captured all requests in which the United States had received support from Norway between January 2014 and September 2017. There were a total of 41 ACSA orders for LSSS, valued at $21.985 million. We then reviewed and cataloged the supporting documentation for each of the 41 ACSA orders to determine exactly which goods and services were provided by the partner nation and at what cost.

The Norwegian military uses a statement of requirements (SOR) template for Marine Corps logisticians to document their requests. The SOR has data fields for item description, quantity requested, the unit of issue, unit cost, and total costs. In many of these documents, the actual rates or details of support received were not adequately documented. In many cases, the final signed SOR was uploaded to AGATRS as supplemental documentation. We encountered a large number of requests with limited amount of supporting documentation. The DODIG-2016-067 report, *DoD Components Did Not Properly Use the Acquisition and Cross Service Agreement Automated Tracking and Reporting System*, identified a trend across the agency of ACSA managers improperly inputting information into the AGATRS system, which limited the visibility of ACSA transfers (Inspector General, U.S. DOD, 2016). We noted that the level of detail in ACSA orders greatly increased after 2016, but prior to that point, detailed information was scarce and difficult to extrapolate. If more detailed information were available, the depth of data used would have increased, as well as the quality of the research. From the information that was available, we organized the collection into nine categories of support:

- Base Operations Support—Laundry
- Base Operations Support—Portable Toilets

- Billeting
- Communication Services—Air Card
- Communication Services—Mobile Phone
- Food Services
- Transportation—Cargo Truck
- Transportation—PAX Bus
- Transportation—Rental Vehicle

2. Contracting Data Collection

According to the Federal Service Desk (2017), the Federal Procurement Data System-Next Generation (FPDS-NG) is an "automated system used to collect and report on federal procurement spending." Specifically, this site provides a summary of federal contracting spending and the associated data elements such as vendor name, type of contract, and award amount. For the purpose of this project, we used FPDS-NG to identify all Marine Corps contracting actions from FY2012 to FY2017. As a result, we identified nine historical contracts that could provide relevant data for this project. Because FPDS-NG provides only a summary level of contracting information, we reached out to the Expeditionary Contracting Platoon (ECP), II Marine Logistics Group in Camp Lejeune, for assistance. The ECP was able to provide the granular information associated with the contract such as contracting line item numbers (CLINs), period of performance, and estimated delivery dates.

Overall, we identified 26 ACSA orders and nine historical contracts with relevant information that could be used for research. This historical data provided a good baseline to conduct a cost comparison analysis between ACSAs and contracting, with the end state of answering our research questions. In the next part of the data collection, we aimed to recreate the exact support requirements of Exercise Cold Response and turn this information into logistical requirements for our project.

a. Market Research

Understanding the environment and conducting market research are integral foundations for success when contracting. We utilized a number of websites and online sources to begin our market research. We utilized the website https://www.gulesider.no/, the Norwegian version of

Yellow Pages, to obtain listings of Norwegian vendors for various services that we could contact to obtain quotes. Other websites commonly used in the United States, such as Yelp and Google Maps, were useful.

Google Translate services were instrumental during the initial market research on the internet. While many of the international and large corporations had English versions of their websites, many Norwegian vendors had Norwegian-exclusive websites. The Google Chrome web browser automatically translated several sites, but in most cases we were forced to spend a considerable amount of time copying and pasting text from websites into Google Translate for translation.

Before departing the United States, our internet search results were limited because we were using an IP address from the United States, which distorted our feedback from Norwegian vendors. Once we traveled to Norway, search engine feedback became more relevant and numerous, increasing the pool of potential vendors for contact.

b. Other Preparation

We further prepared for working with Norwegian commercial industry by reading excerpts from a book on business etiquette. We felt more prepared for our data collection once we gained a better understanding of Norwegian business culture, including the following differences from U.S. practices: business communication is slightly informal, Norwegians are generally less boisterous than Americans, and businesses close promptly at the end of the day (Morrison & Conaway, 2006). We used this information specifically when making initial contact with vendors and scheduling our limited time in the country for data collection.

We attempted to gain insight into the commercial industry by contacting military partners met during previous exercises in Norway. Norwegian military officers were quick to assist us in assisting with our research endeavors. It was very beneficial to have colleagues who are members of the Norwegian Defense Logistics Organization (NDLO) because they were able to provide assistance in verifying the details of support that was rendered to the Marine Corps during various exercises from 2014 to 2017. Additionally, members of the Norwegian military introduced us to a Norwegian military contracting officer who was able

to provide a great deal of information on how the Norwegian military contracted support from commercial industry. Norwegian military contracting is centralized with the Norwegian National Logistics Command (NLC). The NLC has numerous contract arrangements established across the country for a multitude of goods and services. After we arrived in the country, the NLC contracting office provided us with additional vendor points of contact for goods and services.

c. Field Data Collection

Because we were acting in a purely academic pursuit, we were upfront with vendors about the information they provided to us, that it was non-binding and that their efforts to provide information would not be compensated. Because a majority of ACSA requests were made for Marine Corps forces operating in central Norway, we flew into Trondheim and focused our efforts on contacting vendors in that city and the surrounding area. Most of the commercial vendors we contacted were within the local area where we visited and all attempts were made to meet in person. We called ahead with a brief introduction to our pursuit and scheduled a meeting. When we met face-to-face with vendors, they were generally very interested in assisting us and providing accurate quotes. When it was not feasible to meet in person, we relied on telephone and email but noted that the exchanges were encumbered by delays and that, overall, vendors were less receptive to providing information over phone and email. Norwegian businesses typically began their business hours at 8 a.m. and, depending on the type of business, were quick to close at either 4 or 5 p.m. We were also restricted in the data collection because very few offices were open during the weekend.

B. LIMITATIONS

In the first phase of the data collection, we had to rely on historical data from the AGATRS database. Any data that was not 100% complete in its documentation was not able to be verified, and therefore, that data was not used. We rejected a lot of ACSA data pulled from AGATRS because the details of the support rendered or cost breakdown were not included as supplemental documentation.

During the last phase of data collection, we had only five days in Norway to conduct market research in the central Trøndelag area. In central Norway, there is only one large city that has a significant industrial base. A small vendor base to support large-scale military operations limits the market forces of competition and inflates prices. Due to the limited number of LSSS items for comparison and the geographical and market analysis, a complete comparison of ACSA and contracting costs cannot be determined. If more time were allocated for collecting cost estimates on all functional areas of logistics and quotes were obtained from the northern and southern regions of Norway, the quality of the data would be enhanced.

C. SUMMARY

We conducted the data collection in two parts. First, we captured historical cost information from the AGATRS and FPDS-NG for contracting and ACSAs in Norway. We were unable to use a significant portion of the ACSA data due to missing supporting documentation or vague data entries that made it impossible to determine per unit costs. After establishing a baseline of nine categories and 50 line items of support for comparison, we traveled to Norway and by working with Norwegian vendors, received price estimates for goods and services mirroring those received from previous ACSA transfers. After adjusting prices for inflation to a base year, the relative costs of support via ACSA and OCS were clearly identified. The next chapter presents the findings of our research from this methodology.

IV. FINDINGS

A. INTRODUCTION

The purpose of this chapter is to present the collected data and analysis results. The data collected supported our analysis in answering our primary research questions. Our findings are separated into two parts. In part one, we created a planning tool that evaluates contracting and ACSA processes in order to answer the first research question for planning considerations and execution processes of ACSAs and contracting. In part two, we conducted a cost comparison analysis of ACSA and contracting to answer the second research question on whether ACSAs provide a good value to the Marine Corps.

B. PROCESS COMPARISON

The process comparison of ACSA and OCS is meant to be a better business practice for logisticians to use when determining how best to meet the logistics requirements of an operation. During our literature review of joint and service component doctrine, we were unable to locate any guidance that directs logisticians to consider the costs and benefits of various methods for providing logistics. Taking the time to assess the various mechanisms for outsourcing is critical to meeting the needs of the warfighter in the most effective manner. Improperly assessing the capabilities and limits of ACSA and contracting support leaves the logistician unprepared to execute those services, thereby limiting the reach of logistics and thus inhibiting the operational capabilities of the commander. By creating a planning tool to compare ACSAs and contracting, we hope to provide logisticians at combatant commands the ability to determine the best solution for providing logistics when logistics shortfalls are identified.

The potential number of criteria to evaluate ACSA and contracting are numerous; therefore, we created a simple yet effective method for systematically addressing the most important aspects of ACSAs and contracting. This comparison is best conducted by a logistics staff. Ideally, the assessment of capabilities in different countries and for particular contingencies would occur before the receipt of a mission, or phase zero operations. Due to competing demands and high operational tempos, staffs may need to make this kind of assessment quickly after the receipt of a mission order and prior to a unit's deployment. In

the worst-case scenario, if a unit initially plans to fulfill logistics requirements via internal capabilities and after the initiation of an operation determines it needs to outsource a requirement, this assessment may need to occur at a rapid pace.

1. Contracting and ACSA Planning Tool

The Contracting and ACSA Planning Tool (CAPT) was created to assist in determining whether ACSA or contracting should be utilized as the primary means for obtaining external support. The analysis of ACSA and contracting was aided by our familiarity with the Marine Corps Planning Process (MCPP). Because the MCPP is similar to the joint operations planning process (JOPP) and other service component planning processes, the terminology and process used in the CAPT should be germane to DOD officers and therefore easy to apply. We took the elements of planning guidance, evaluation criteria, wargaming, and course of action (COA) decision from the JOPP to compare the planning and execution of the ACSA and contracting processes. Conducting a side-by-side comparison, we evaluated their strengths and weaknesses and came to a decision on which method of obtaining external logistics support was better suited for the Marine Corps to use when conducting operations in Norway.

Utilizing this tool comes with the assumption that ACSA exchanges with a partner nation and contracting are both viable options for outsourcing of a logistics requirement. The first step in utilizing this tool is to receive the commander's planning guidance. The second step is to compare the strengths and weaknesses of utilizing either ACSA or contracting to support an operation by wargaming. The last step is to evaluate the identified strengths and weaknesses exposed by the wargaming process, and then determine a primary means of outsourcing.

a. Planning Guidance and Evaluation Criteria

The commander's planning guidance is the part of the planning process where commanders brief their staff on elements that they should focus on when organizing their planning efforts. The intent of the commander's planning guidance is to provide unity of effort for the planning staff. Commander's planning guidance can be as simple and direct as a list of three adjectives to describe how they desire an operation to be executed. After the

issuance of the commander's planning guidance, the staff sections' unique perspectives and competing priorities are merged to meet the commander's objectives. The commander's guidance can be substituted or augmented by the officer in charge of logistics operations. Normally the G-4 will provide specific guidance to his staff in creating a logistical support plan. The logistics support plan is a separate plan that focuses on all logistical functions that support the overall commander's mission objectives. For large operations, this can be more effective since planning guidance tailored for logistics can provide better focus and more detail, and relate more to the contracting and ACSA deliberation.

In addition to planning guidance, evaluation criteria are provided by a commander to assess and compare different plans, also known as courses of action (COA). The CAPT has prescribed evaluation criteria, but mission requirements may dictate that others be added or not utilized. The CAPT was developed to allow flexibility for the commander to make decisions, and uses a simple scale for grading ACSA and contracting according to the evaluation criteria. When briefing the evaluation criteria, the commander can also dictate that more weight be given for certain criteria that are more critical given the military, environmental, and political factors affecting an operation.

b. Wargaming

The second step in using the CAPT is to wargame ACSA and contracting as methods for meeting logistics requirements. JP 5-0, *Joint Operation Planning* (JCS, 2011), defines *wargaming* as "a conscious attempt to visualize the flow of the operation, given joint force strengths and dispositions, adversary capabilities and possible COAs, the [operating environment] OA, and other aspects of the operational environment" (p. IV-27). The wargaming process can be modified in many ways to support a staff's planning efforts, but at a minimum it should identify all the strengths and weaknesses of an intended COA. COAs are inherently using an ACSA or contracting. Wargaming can be conducted chronologically on a timeline or calendar, mirror the phases of an operation, or focus around critical logistics requirements. For comparing ACSA and contracting, we recommend wargaming after logistics requirements have been determined and shortfalls cannot be supported internally. When wargaming, there should be different individuals who brief ACSA and contracting. When utilizing the CAPT and wargaming according to the phases of an operation,

individuals should brief all actions that will need to take place in that timeframe and list out any assumptions and areas for uncertainty. Briefing can go back and forth across each phase of an operation, or each process can be briefed from start to finish. At the end of each briefing portion, the remainder of the participating staff should identify probable and possible scenarios that may occur in the environment—militarily or politically—that would impact the intended results. Wargaming should end when the staff understands how ACSA or contracting can support the mission from the current phase to the end of operations, as well as the risks and limitations of each.

c. Evaluation and Decision

Evaluation and decision is the last step of assessment and involves revisiting the topics covered in wargaming and reaching a consensus on how the two methods of support compare according to the structured evaluation criteria. We have defined each of the evaluation criteria in the CAPT, utilizing JP 4-0 where applicable, and have provided supplementary reference for clarification.

(1) Core Competency

Core competency reflects the organization's ability to plan and execute an ACSA or contracting program. Aspects of a contract can be measured using numerous collection methods, tools, and models. When determining the core competency to execute either process, an excellent model to use is the Three Integrated Pillars for Success (TIPS) (Appendix E). TIPS provides a flexible tool for leaders to estimate their organization's capability to conduct contracting actions. The TIPS model focuses on personnel, processes, and protocols as elements to support the overall contracting mission, and ensures that the overarching authorities and regulations are followed. Success in personnel is demonstrated by the mixture of personnel inside and outside of the acquisition workforce that contribute to the logistics process. Credentials such as DAWIA certification, rank, and experience all contribute. Platforms include processes and systems, including hardware and software for information gathering, integration, and decision-making to initiate logistics actions. This includes how well systems like JOPES, AGATRS, and FPDS-NG are used within an organization to plan and execute. Protocols are measured by how well an organization

understands and conforms to regulations, doctrine, and internal SOPs to execute the processes of ACSA and contracting (Yoder, 2017). The last pillar was used only in the last part of our evaluation criteria.

(2) Planning Requirements

Planning requirements entail the necessary time and man-hours required to initiate the ACSA or contracting process. Complex processes usually require more time to plan and prepare prior to execution. Planning requirements for contracting include all the actions described as phase zero operations (Yoder, 2013) including market research. Planning is the link between commander's priorities, the logistics requirements, and processes utilized for execution (JCS, 2013a, p. I-10). The level of simplicity is a major factor in evaluating planning requirements:

> Simplicity fosters efficiency in planning and execution, and allows for more effective control over logistic operations. Clarity of tasks, standardized and interoperable procedures, and clearly defined command relationships contribute to simplicity. Simplicity is a way to reduce the "fog of war" or the friction caused by combat. Clear objectives, relevant processes, and documented procedures assist unity of effort. (JCS, 2013a, p. I-9)

(3) Responsiveness

Responsiveness "is characterized by the reliability of support and the speed of response to the needs of the joint [friendly] force. Clearly understood processes and well developed decision support tools are key elements enabling responsiveness to emerging requirements" (JCS, 2013a, p. I-9). This definition demonstrates a linkage between simplicity of planning requirements and the speed at which goods and services are provided. While responsiveness can be linked to how fast you can plan to execute, the emphasis on evaluating responsiveness should be the time it takes for the external partners in the procurement to initiate actions to support logistics requirements. This includes the partner nation and commercial industry, as well as higher and subordinate forces.

(4) Capability

Capability relates to the variety of goods and services that can be obtained to support the mission. "Attainability is the assurance that the essential supplies and services available

to execute operations will achieve mission success" (JCS, 2013a, p. I-10). When evaluating capability, it is important to consider every potential category of LSSS that has been and may be requested and the ability to procure and deliver them to the requesting forces.

(5) Capacity

Capacity is the total amount of goods and services able to be procured from a process to sustain a force. "Sustainability is the ability to maintain the necessary level and duration of logistics support to achieve military objectives. … Sustainability is focused on the long-term objectives and requirements of the supported forces" (JCS, 2013a, p. I-10).

(6) Efficiency

Efficiency "is related directly to the amount of resources required to achieve a specific outcome. In the tactical and operational environments, inefficiency increases the logistics footprint, force protection requirements, and risk" (JCS, 2013a, p. I-10). When evaluating efficiency, it is important to consider the total costs and associated benefits with either process.

(7) Survivability

Survivability in the context of this evaluation focuses on how well goods and services are integrated into the tactical environment. This includes the transportation and delivery of goods and services in a contested environment and the ability to train, integrate, account, and manage civilian contractors. Survivability is reflected in the "dependability of the global providers and the development of a resilient distribution network able to deliver required support when promised. Reliability is characterized by a high degree of predictability, or time-definite delivery of support" (JCS, 2013a, p. I-10) whether in a friendly or contested environment.

(8) Internal Controls

Internal Controls relate to the risks associated with utilizing a process and the susceptibility to fraud, waste, or abuse. Internal controls are especially important for maintaining accountability of material and maintaining legitimacy and the trust and confidence of the American people. For measuring the risk involved with a particular

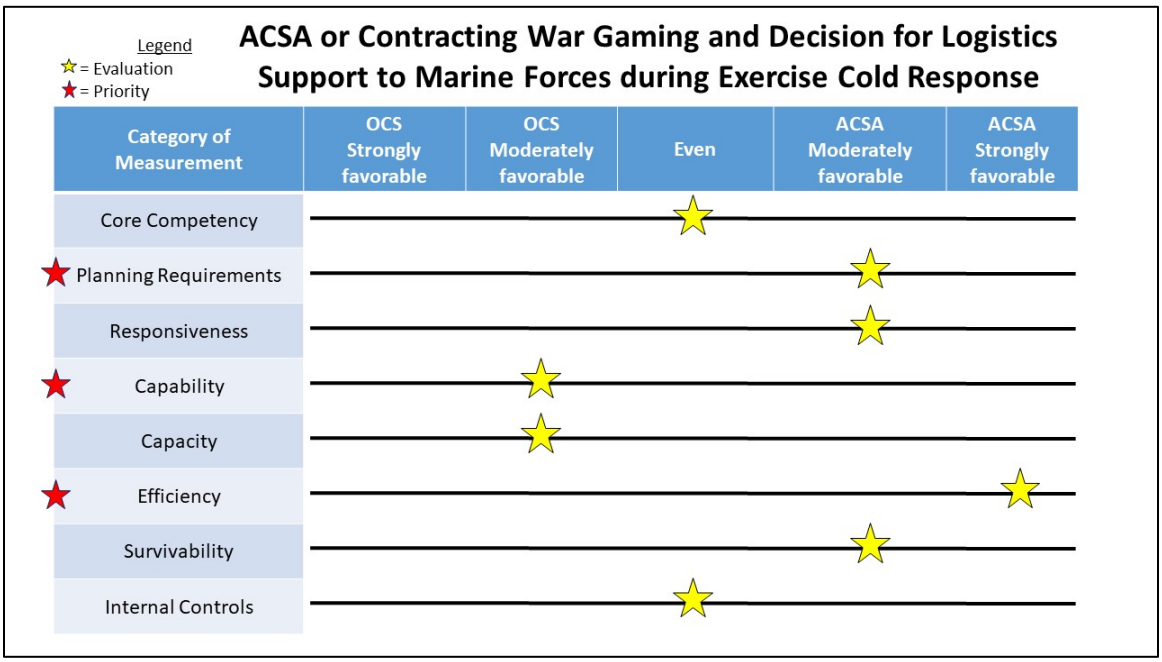
method, we utilized the last element from the TIPS model, which is protocols. Protocols are measured by how well an organization understands and conforms to regulations, doctrine, and internal SOPs to execute the processes of ACSA and contracting. Oversight and adherence to established protocols dissuade loss by fraud, waste, and abuse.

The outcome of the evaluation process should result in a decision by the commander or logistics officer on how to proceed in continued planning efforts and execution of providing support. This decision should provide the staff a priority on initiating either ACSA or contracting to fulfill logistics shortfalls. It is important to note that the commander is not limited to choosing one or the other. Both support methods can be used simultaneously. This may occur when the force has a severe gap in providing its own logistics services, in a contingency environment where support is needed immediately and it is not feasible to deploy logistics capabilities in an extremely short timeline, or the characteristics of the operation call for all of the initial support to come from the host nation.

2. Analysis of Contracting and ACSA Integration in Norway

We executed the three steps of the CAPT to determine which method was better suited to support operations of Marine forces in Norway. Additionally, we selected three priority criteria for extra deliberation. For a large-scale exercise like Cold Response, we determined that there would be many competing priorities for planning, that the ability to provide an assortment of LSSS in extreme arctic weather is critical, and that the costs for the exercise should be held to responsible limits. Trotman represented the ACSA process, and Chargualaf represented the contracting process. We briefed our respective processes according to the operational phases of the exercise according to each criterion. After each round of briefing, we provided feedback to one another based on our collective knowledge and experience as Marine Corps logisticians and Naval Postgraduate School students. Table 1 illustrates our findings after our wargaming of both processes. Red stars represent our planning priorities that were deliberated more in-depth, and yellow stars represent our final ratings for ACSAs and contracting.

Table 1. Contracting and ACSA Planning Tool (CAPT)—Analysis in Norway



(1) Core Competency

At this point in time, OCS is not fully integrated into all Marine Corps staffs and planning processes, but contracting regularly supports exercises overseas. There is currently a limited availability of Marine Corps contracting officers, but recent influxes of personnel into the training pipeline may remedy this shortfall. The increasing use of ACSAs has established a baseline competency in MARFORs for execution. The gaps in supplemental data within AGATRS demonstrate that internal controls and training may need to be addressed to improve the ACSA program at MARFOR Europe.

(2) Planning Requirements

Our experience conducting market research for data collection demonstrated how tedious and time-consuming market research could be. We spent approximately 32 man-hours conducting online market research, and four business days meeting with Norwegian commercial vendors collecting quotes. With our defined requirements for various LSSS, we believe that initiating an ACSA request with the Norwegian military would take half the time to conduct the necessary market research.

(3) Responsiveness

We determined that ACSAs are moderately more responsive than contracting due to the time it would take to deploy a contracting officer into the country and begin executing contracts. Alternatively, if an ACSA request was submitted, it can be assumed that it would not be the top priority for the Norwegian unit handling the request and that it would take some time to fulfill all the requests. ACSAs have the benefit of using pre-established contracts via the Norwegian military. For many of the LSSS categories, the ultimate delivery of goods and services would be limited to the responsiveness of the market.

(4) Capability and Capacity to Provide

We evaluated contracting to be moderately superior to ACSA in capability and capacity. Utilizing contracting methods would provide the commander full-range logistics, whereas ACSAs may be limited in the categories of LSSS the partner nation would provide. ACSAs are restricted from delivering routine goods or services and items normally procured through the DOD supply system.

(5) Efficiency

Part two of the research details how ACSAs are cost effective compared to contracting. ACSAs generate a better value because the Norwegian military passes along their negotiated rates with lower costs based on economies of scale and structured agreements.

(6) Survivability

In a tactical scenario, having a military partner deliver goods and services would be in ACSA favor; for example, the use of tractor-trailer and heavy equipment trailer. The Norwegian military would be better suited to deliver long haul in a tactical scenario compared to contracting a commercial tractor-trailer.

(7) Internal Controls

We assessed that there was equal risk to inefficient use of each vehicle, and susceptibility for fraud, waste, and abuse due to both processes having been cited in multiple GAO, DODIG, and other government reports.

After evaluation of both support methods, we conclude that the ACSA process is better suited for meeting the logistics requirements of Marine forces operating in Norway. The CAPT determined ACSAs to be strongly favorable in the efficiency measurement. Additionally, ACSA was moderately favorable in planning requirements, responsiveness, and survivability. On the other hand, the CAPT determined that contracting was moderately favorable in the capacity and capability measurement. Core competency and internal controls were identified as even for both ACSAs and contracting.

C. COST COMPARISON

The following paragraphs describe the details of each commodity and considerations for the cost variances. All monetary values represent the final price with taxes included and are expressed in 2017 U.S. dollars. The intent of our field data collection was to gather data on the cost of contracting in the event that the partner nation was unable to provide support via the ACSA and organic capabilities were not available.

1. Selected Categories of LSSS

During the data collection process, we identified nine categories of LSSS that would support the scope of the project. These selected categories of LSSS are necessary functions of logistics that provide support to the commander's objectives in an operational environment. The categories of LSSS are identified as follows:

- Base Operations Support—Laundry
- Base Operations Support—Portable Toilets
- Billeting
- Communication Services—Air Card
- Communication Services—Mobile Phone
- Food Services
- Transportation—Cargo Truck
- Transportation—PAX Bus
- Transportation—Rental Vehicles

2. Data Synthesis

Once we obtained a price estimate, it was necessary to synthesize the data so that the recently obtained price estimates would share a baseline with the ACSA costs encountered over several years. As an example on how we made our comparative analysis, we referenced the ACSA database and identified that in April 2014, the Marine Corps requested transportation of personnel from the station on the Norwegian Army Garrison to the nearby airport for departure after the exercise Cold Response 2014. The Marine Corps utilized several buses that were contracted by the Norwegian military. The total length of the trip was less than five miles, but due to the window of time required, the buses were contracted for a total of three hours. The cost of each bus was 1,200 Norwegian Kroner (NOK), the local currency, per hour. This rate included the required value added tax. We then utilized currency conversion rates that were used in April 2014. The exchange rate at that time was 1 U.S. dollar (USD) to 5.45 NOK. The last step in creating a direct comparison was to adjust the cost to the value of 1 USD in 2017 using the consumer price index (CPI). The following list illustrates an exchange rate conversion and adjustment for inflation from year 2014 to 2017:

- $1,200 NOK, Year 2014
- $144 USD, Year 2014
- $146.77 USD, Year 2017

This historical ACSA cost data provided the first part of data required to compare costs. In order to obtain quotes via the traditional contracting method, we contacted all the commercial bus enterprises and requested quotes for transporting 50 personnel approximately five miles and the buses being available for three hours. We received multiple quotes for the requested services. Three quotes were received for services that were broken down to an hourly rate of $138, $215, and $125 dollars. After categorizing into the different types of LSSS, we further synthesized the data and determined the price per unit cost for each category. The results of the data analysis are identified in Table 2.

Table 2. Cost Comparison of Contracting and ACSA in Norway

Category of LSSS	Unit of Issue	ACSA Mean	Contracting Mean	Delta +/-	ACSA Cost Difference
Base Operations Support - Laundry	Per Kg	$5.76	$6.80	-$1.04	-18.06%
Base Operations Support - Portable Toilets	Daily Rate	$20.43	$28.94	-$8.51	-41.65%
Billeting	Daily Rate	$9.41	$113.82	-$104.41	-1109.56%
Communication Services - Air Card	Monthly Rate	$6.12	$40.58	-$34.46	-563.07%
Communication Services - Mobile Phone	Monthly Rate	$12.25	$46.74	-$34.49	-281.55%
Food Services	Per Meal	$9.59	$16.59	-$7.00	-72.99%
Transportation - Cargo Truck	Hourly Rate	$74.93	$154.72	-$79.79	-106.49%
Transportation - PAX Bus	Hourly Rate	$279.28	$159.78	$119.50	42.79%
Transportation - Rental Vehicle	Daily Rate	$48.45	$95.69	-$47.24	-97.50%
Average Cost Savings by Using ACSA					-249.79%

a. Base Operations Support—Laundry

Laundry services are defined as cleaning, drying, and basic folding of bulk laundry. Bulk laundry describes cleaning garments together in a single load. The cost of pickup and delivery were included in all arrangements.

When operating overseas for a long duration of time, Marines need to do laundry on a weekly basis to maintain hygiene and professional appearance. When conducting large-scale exercises, like Cold Response, that last for more than six weeks, the few individual washer and dryers located at various locations do not have the capacity to service hundreds of personnel. In previous exercises, commercial laundry services were utilized to fulfill this requirement. Typically, personnel would be afforded the opportunity to turn in a bag of laundry, typically weighing about 20kg, for cleaning and have it returned several days afterwards. The ACSA-provided laundry services averaged $5.76 per kilogram of laundry.

When soliciting RFQs, we asked laundry service vendors to pick up dirty laundry, clean uniforms, and return to the base after being cleaned. The estimated laundry service would be for 1,000 bags per week, for five pickups (once per week). We described the typical garments enclosed to include camouflage trousers, camouflage blouse, three or four undershirts, three or four underwear, and three or four pairs of socks. Estimated weight of

each soldier's bags is 20kg. Commercial vendors provided quotes that averaged $6.80 per kilogram of laundry.

b. Base Operations Support—Portable Toilets

Portable toilets are defined as the complete package of portable toilets, necessary cleanings, and the delivery and pick up at a specific site. Due to the high influx of U.S. personnel during exercises, portable toilets were used as a primary facility on established garrisons as well as off-base working and billeting locations. Even though portable toilets were provided on several ACSA requests, there was only one occurrence where we could fully determine the number of toilets and duration of the request. The ACSA-provided portable toilet services were charged at $20.43 per toilet per day.

When soliciting the RFQ, we requested the rate for 20 toilets for six weeks. That included servicing every day, or as required to maintain sanitary conditions, on the first day, delivery should occur no later than 1000 and on the last day of service, pickup should occur no later 1200. The commercial vendor provided a quote that was calculated at $28.94 per toilet per day.

c. Billeting

Billeting is defined as accommodations for troops to berth in. Accommodations should at a minimum provide shelter from weather conditions, supply heat, and provide access to commode and showers. In addition to hosting U.S. personnel in Norwegian hard-structured military barracks, there were instances that was impractical due to work locations or the number of U.S. personnel exceeding the barracks occupancy capacity. In those instances, the Norwegian military contracted industrial tents with plastic flooring and large heaters for comfort.

The billeting accommodations via ACSA included a number of areas and qualities of rooms. Some rooms were for multiple occupancy, between two and six individuals, and others were individual officer rooms. Supplemental documentation from AGATRS indicated separate charges for utilities and cleaning at the end of the exercise. The mean cost per person per night via the ACSA was $9.41. The range of costs was $6.59 as a low, and $13.38 as a high.

The costs associated with establishing and operating those tents was not found during the data collection, so we focused on finding the best alternative to military barracks. Because of the pricing complexity of tentage services of that scale, we made the decision to focus our comparison on meeting the same quality of billeting provided by hard structure barracks. The best alternative to tentage was to billet Marines in local hotels. Rates were determined by the Defense Travel System for hotels in and around the garrison area. If the Marine Corps had to use Norwegian hotels for billeting, the cost per person per night would average $113.82. If Marines were to share rooms, the rate could be split in half.

d. Communication Services—Air Card

Air cards are communication devices used for obtaining internet service, merging mobile broadband and Wi-Fi capabilities. This capability helps provide data services to personnel that are mobile and cannot connect to hard lines or access civilian or tactical data services. This is a commercial item that includes hardware that is typically rented and internet service. For comparison, we broke down costs into a monthly rate and utilized a standard 10 GB per month service when collecting vendor quotes.

Utilizing the ACSA process, Marines received commercial air cards from the partner nation. Because the costs charged were so minimal, we assume that the partner nation had already procured the hardware, which minimized the monthly price to solely service charges. The cost for each air card per month totaled $6.12. This was considerably less than the prices advertised by the major Norwegian telecommunication service providers. The average cost for 10 GB of data services via contracting was $40.58. Even though that average was much higher than the costs via ACSA, we determined the prices received to be fair and reasonable because there was ample competition with five national carriers and a vast number of users utilizing the service at those rates.

e. Communication Services—Mobile Phone

Mobile phones are force multipliers for a unit operating overseas, especially working in remote, mobile, or disaggregated sites. When conducting our field research, we asked several sales associates about the different cellular plans and programs. In Norway the vast

majority of cellular plans have unlimited voice minutes with free text messaging. Data packages were added at different levels of data usage for increasing premiums.

Recalling experiences from past exercises, cell phones and SIM cards were purchased, which allowed us to make phone calls and send text messages for official business. The cell phones provided during exercises Cold Response 2014 and Cold Response 2016 were low-end phones and did not have smartphone technology or internet capability. The ACSA cost data shows that each phone costs $12.25 per month for operation. Using the same carriers that we contracted for air cards, we received quotes for unlimited talk and text at $46.74 per month, with prices ranging from $33.50 to $68.65 per month.

f. Food Services

For this research, *food services* were defined as the average cost per person consuming two complete meals plus beverage per day. A full meal consists of a cooked meat, starch, and vegetable or fruit. We focused on food services provided at traditional cafeteria facilities and field kitchens, or delivered in individually packaged meals. We compared food service costs on the price to feed one person for one day.

In ACSA requests for food services, there were two unique methods to provide meals for personnel. The predominant use was to allow U.S. personnel to eat at the garrison cafeterias, which provided economies of scale and avoided unnecessary costs. In some cases, U.S. personnel were billeted away from established garrisons, and field kitchens had to be established to support their meal requirements. Supplemental documentation does not differentiate costs between meals provided in a cafeteria or field kitchen. We assume that the costs for commercial caterers were higher than the costs for meals from a cafeteria and that the costs were combined. The cost for food services via the ACSA process ranged from $4.06 to $20.28 per person per day. The large variation can be attributed to cafeteria services being more economical than commercially catered services. The mean cost for food services via ACSAs was $9.59.

When making the comparison of food services, we created RFQs to mirror food services receive by ACSAs. We contacted commercial catering companies that would be able to provide a minimum of 100 and maximum order of 250 complete meals to Marine Corps

personnel, twice per day. In Cold Response 2016, there were over 3,000 Marines participating, but no catering company had the internal capacity to support the duration of the exercise.

The requirements on the RFQs included that the Marine Corps would inform the business the exact quantity and delivery times no less than seven days prior to delivery, that meals should be prepared in individual servings such as a plastic container, include disposable cutlery, and be delivered to work locations. Other requirements included that a health inspector would verify the caterer's processes, garbage removal, and the length of the contract would be between four to six weeks. The best quote was provided by the same catering company that provided services during previous exercises and totaled $15.41 for a breakfast and supper meal. The highest quote was for $17.77, and the mean cost of food services via the contracting process was $16.59.

g. Transportation—Cargo Truck

The requirement for a cargo truck was for fulfilling the need to transport Marines' luggage when arriving into or departing from the airport. When deploying overseas, every Marine typically carries a pack that can be carried on their back and a rolling luggage bag. Collectively, the two bags weigh from 100 to 150 pounds. Prices for cargo transport via ACSA averaged $74.93 and averaged $154.72 for contracting.

h. Transportation—PAX Bus

Coach or touring buses were a primary means of transporting large numbers of U.S. forces. Buses were used to transport personnel over long distances, short distances, and even as a shuttle around the garrison. After speaking with several bus companies, we discovered that most businesses only charged by an hourly rate and distance was not factored into the cost for services. We decided to use an hourly rate for buses that could accommodate over 45 personnel as the standard requirement. When utilizing an ACSA to procure bus services, Norwegian military contracting officers utilized pre-negotiated rates with vendors. The range of costs were from $146.77 as a low, $391.40 as the high, and $279.28 as the mean.

When collecting quotes from commercial businesses, we utilized RFQs that contained two scenarios for services. The first RFQ represented a requirement for a shuttle around a

garrison for morning and evening transportation of personnel, with established pickup and drop-off points from 0600 to 0900 and from 1500 to 1800, 7 days a week, for 6 weeks. The second RFQ represented trips transporting personnel from the garrison to the airport and vice versa. On arrival and departure flights, three or four buses would be needed to transport troops no more than 10 km from the airport to the garrison, with buses on standby prior to arrivals, contracting for four hours total on arrivals. The RFQ also stated that the service would be required on eight total occasions—four arrivals and four departures—and included the option to extend the base duration in the event of flight delays. The quotes ranged from a low of $125.09 per hour, a high of $215.27 per hour, and a mean of $159.78 per hour. This was the only category of LSSS reviewed where contracting was more cost effective. We did not determine any significant changes in the market that would lower the costs significantly, such as a drop in oil prices or taxes.

i. Transportation—Rental Vehicle

For the scope of this project, we focused on rental sport utility vehicles (SUVs) due to the abundance of use. We included all associated costs including insurance and taxes, and measured by a daily rate. Similar to the bus transportation, we found out midway through the data collection that the Norwegian military used a pre-negotiated rate and passed those savings on to the Marine Corps. The cost for an SUV using an ACSA was $48.45 per day. The prices for a very similar SUV using commercial prices and contracting ranged from a low of $69.86, a high of $166.12, and a mean of $95.69.

3. Considerations for Cost Comparison

In addition to LSSS cost comparison, we identified instances of cost sharing, also known as burden sharing, that demonstrate the cost efficiencies gained by the ACSA. During Cold Response 2016, Norwegian military contracted crane support for a ship offload. Marines shared the cost of contracted crane support with Canada with a 50/50 split, saving the U.S. over $7,000. There would have been no additional paperwork, administration, or approval process for this ACSA arrangement. If the Marine Corps had contracted the crane support themselves, there would likely be additional paperwork and administrative workload. We assess that ACSAs are more cost effective than contracting, and most cost effective when

partner nations are able to provide goods or services that are not available from commercial industry.

When conducting the data collection in AGATRS, we identified that the Norwegian military provided LSSS via their internal capabilities or from commercial goods and services. In instances where the Norwegian military provided LSSS from their internal capabilities, cost savings were higher than commercially sourced goods and services because the Norwegian military did not charge for the service or only charged the U.S. what appears to be the minimum fees to cover operating expenses. This is clearly identified by the billeting arrangements. Although we did not conduct comparisons for additional military-sourced support, the cost savings for services such as snow removal, heavy equipment support, military transport of personnel and equipment, and the use of facilities should be considered when conducting operations with a partner nation.

D. CHAPTER SUMMARY

This chapter presented the data collected from our literature review, historical cost data from AGATRS, FPDS-NG, field research collection, and our analysis. We were able to answer our research questions by conducting a process comparison and cost comparison of ACSAs and contracting. As a result, we determined that within the scope of Marines operating in Norway, the planning considerations and execution of ACSA were favorable over contracting methods. This decision was made using our OCS/ACSA evaluation and decision tool, simple planning requirements, and identifying capability and efficiency as the priority evaluation criteria. Furthermore, we determined that ACSAs provide a significant cost advantage over contracting. The next and final chapter provides our recommendations, areas for further research, and conclusion of the project.

V. SUMMARY

The purpose of this chapter is to revisit the primary research questions and provide the recommendations derived from our analysis and findings. Additionally, we identify areas of potential further research and provide a conclusion to the project.

The purpose of this project was to answer the following primary questions regarding the use of contracting and ACSA in a foreign theater:

- Primary Question 1: What are the processes and planning considerations for utilizing contracting or an ACSA?
- Primary Question 2: Does the Marine Corps receive a good value in ACSA transactions?

In order to answer the first primary question, we conducted a thorough literature review of OCS and ACSA doctrine. This provided us with a baseline understanding of the high-level processes of these support methods. In addition to reviewing military doctrine, we contacted Marine Corps OCS advisors based out in the European region. Interaction with these Marine subject matter experts provided insight into the OCS and ACSA processes in that specific area of operations. Ultimately, we identified the process of how the Marine Corps requests logistical support in Norway.

After understanding the LSSS request process, we then determined what planning considerations are critical to support the commander's plan. By using the principles of logistics as planning considerations and running through the joint planning process, we determined the strengths and weaknesses of contracting and ACSAs. As a result, we developed the CAPT to compare the favorability of using either support method to fulfill logistical requirements. Based on the selected planning considerations in the CAPT, logisticians can determine the best support method to support the commander's overall objectives.

In order to answer the second primary question, we specifically focused on Marine Corps historical exercise expenses in Norway from January 2014 to September 2017. In addition to historical costs, we conducted market research and collected cost estimates from Norwegian commercial vendors for logistical requirements similar to these historical

exercises. We then categorized the types of LSSS requirements and conducted a cost comparison analysis of the collected data. The results of our analysis are identified in Table 2, Cost Comparison of Contracting and ACSA in Norway. Thus, we determined that the sole use of ACSAs provided an increase in costs savings versus the use of contracting to fulfill logistical requirements.

A. RECOMMENDATIONS

1. Finding and Recommendation 1

Logistical requirements fulfilled by the ACSA support method in Norway provides U.S. military forces increased cost savings versus fulfillment by the contracting support method.

When conducting operations in a foreign theater, U.S. military forces should leverage the ACSA support method to the fullest extent possible to fulfill logistical requirements. The remaining logistical shortfalls should then be fulfilled through the contracting support method. The combination of using both support methods achieves efficiencies and reduces the commander's overall risk to the mission. Moreover, the over-reliance on one support method to support the operation is inherently risky. As U.S. military forces continue to conduct operations overseas, commanders must use cost-effective measures to fund their missions.

2. Finding and Recommendation 2

The OCS and ACSA doctrine does not mention a procedure to conduct a cost–benefit analysis when assessing the two support methods to fulfill logistical requirements in a foreign theater.

Although monetary cost is not the sole planning consideration of providing logistical requirements to the end user in a foreign environment, it should be a high-priority planning consideration. ACSA and OCS doctrine should incorporate the use of a cost–benefit analysis when determining when to utilize either support method. The current rate of spending in support of overseas operations is unsustainable. Therefore, U.S. military forces need to utilize the most cost-efficient support method to fulfill logistical requirements.

3. Finding and Recommendation 3

Spending data and supporting documentation for ACSA orders in AGATRS varied significantly for each exercise expense.

Recommend that ACSA managers identify uniform supporting document forms and ensure proper use for future ACSA orders. By doing this, future data analysis can be easily accomplished with the level of accurate information in the system.

B. FURTHER RESEARCH

As U.S. military operations overseas continue, the use of contracting and ACSAs as support methods to fulfill logistical requirements are critical to success. Accordingly, we identified areas for further potential research and analysis.

1. Contracting and ACSAs of Partner Nations

The United States has 112 ACSAs with partner nations throughout various regions of the world. The scope of our research was scaled down to the European region and specifically to the country of Norway. Logistical capabilities and market conditions of partner nations are varied across the board. Conducting an assessment of contracting and ACSAs processes in a different region and with other partner nations would aid commanders and logisticians in the planning process for future operations.

2. AGATRS Process Improvement

During our data collection, we utilized historical data from the AGATRS system. We experienced instances of incomplete information and inadequate financial supporting documentation. Conducting a process improvement project for the AGATRS in order to standardize processes would improve the level of accurate information, accountability, and auditability.

3. Auditability of ACSAs

Similar to contract spending, ACSA expenses have significantly increased over the past several years. As a result, the potential for fraud, waste, and abuse of appropriated funds increases. Furthermore, there is a need for increased management and oversight of the ACSA

program. U.S. military forces must ensure that appropriated funds are being used efficiently and for their intended purpose. Conducting an audit of ACSA transactions using the components of the audit triangle for personnel, processes, and internal controls would ensure that the ACSA program is operating in accordance with federal regulations.

C. CONCLUSION

The Marine Corps logistical element supports overseas operations by fulfilling logistical requirements via organic capabilities, contracting, or host nation support. The purpose of this project was to analyze the use of the contracting and ACSA support methods when providing LSSS to the end user. Based on the analysis of collected data, identifying critical processes, factoring in planning considerations, assessing risk, and determining best value, we conclude that a combination of both ACSA and contracting methods should be used in order to best support and fulfill logistical requirements in a foreign theater. By using both of these support methods, U.S. military forces receive an increased cost savings, reduced logistical footprint, lengthened sustainment, and joint logistical interoperability training.

APPENDIX A. LSSS ITEMS AUTHORIZED UNDER ACSA

CJCSI 2120.01D provides the most common types of LSSS authorized under ACSAs for exchange between partnering nations. Examples of LSSS are identified in the following table (CJCS, 2015).

Category of LSSS	Examples
Food	U.S. forces feeding troops from ACSA countries or organizations and vice versa; acquisition or transfer of rations.
Billeting	ACSA countries or organizations providing billeting for U.S. troops; temporary shelter for U.S. or ACSA country or organization units; and hygiene services for both ACSA nation and U.S. troops.
Transportation	Moving personnel and equipment by air, land, or sea; moving one country's petroleum products in another nation's tanker; airlift of personnel to or within a theater of operations; one force providing another force with temporary use of general-purpose vehicles, with or without drivers.
Petroleum, Oil, and Lubricants (POL)	Refueling of equipment and vehicles of forces of an ACSA country or organization; RIK or EVE of POL with ACSA countries or organizations.
Clothing	Cold weather items (gloves, thermal underwear, socks) and protective clothing provided in an emergency during exercises or operations. Does not include provision of distinctive items of military uniform and insignia or clothing.
Communication Services	Field radio operator support; use of base installation communications facilities and equipment; access to communications satellites; translation and interpretation services; computer hardware and software encryption.

Category of LSSS	Examples
Medical Services	Furnishing or receiving health care services; emergency provision of medical supplies; use of medical facilities of another country during exercises, operations, or for mass casualties.
Ammunition	Although most ammunition is categorized as significant military equipment (SME) in the U.S. Munitions List and is therefore excluded for transfer under the ACSA, NDAA 2007 House Conference Report 109-702 updated the term "ammunition" under section 2350(1) of title 10, U.S. Code as: Transfer of small arms ammunition between forces on exercises when one side runs low and another has sufficient supplies with repayment in cash or kind.
Base Operations Support	Foreign country or international organization support of U.S. installations, maintenance of facilities, grounds keeping, perimeter security, laundry services, minor construction (construction under title 10, U.S.C., sections 2804, 2805, and 2803) incident to base operations support; support of units in exercises or operating from a collocated operating base. LSSS provided to U.S. Armed Forces from the resources of a foreign military installation and vice versa.
Storage Services	Use of a foreign country's storage, maintenance, petroleum storage and pipeline system, and security services (i.e., warehousing); temporary storage of assets belonging to another ACSA country's armed forces.

Category of LSSS	Examples
Use of Facilities	One force receiving temporary use of a building on another ACSA country's base; temporary use of cold storage facilities; temporary use of mortuary facilities. Does not include paying for the use of facilities provided free of charge under host nation support, status of forces agreements, or NATO standardization agreements.
Training Services	Use of training ranges; orientation visits with ACSA country units; training U.S. and ACSA country forces in aircraft and vehicle cross-servicing (including uploading, fly away, and downloading of ammunition), use of flight simulators, target services, calibration of test equipment, and in theater orientation and training of ACSA country pilots (subject to Service-specific regulations) in aerial refueling procedures.
Spare Parts and Components	Mutual spare parts support; replacement of defective radio equipment in aircraft or vehicles.
Repair and Maintenance Services	Servicing of aircraft and vehicles of one force at another force's bases; preventive maintenance services; calibration services; host country provision of vehicle maintenance services for weapons systems.
Port Services	Offloading U.S. or ACSA country equipment at foreign country ports of embarkation or debarkation; country equipment and petroleum products; temporary storage of offloaded equipment; minor vehicle maintenance, such as battery recharging or jump starting.

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APPENDIX B. ACSA/MLS ORDER FORM

Requests for LSSS are submitted using the ACSA/MLS order form. Once the host nation approves the request, the ACSA/MLS order form is documented in the AGATRS system for tracking and accountability purposes (DOD, 2017b).

ACQUISITION AND CROSS-SERVICING AGREEMENT (ACSA)/MUTUAL LOGISTICS SUPPORT (MLS) ORDER FORM

1. Requisition Number	2. Support Agreement MSA Germany, 21 Jan 83	3. Operation/Theater	4. Order Date 05/16/2017
5. Requesting Unit	6. Requesting Nation Germany	7. Providing Unit	8. Providing Nation United States
9. Deliver to Unit	10. Deliver to Country	11. Deliver Place	12. Deliver Time

13. Requested Line Item Summary (See Attached Line Item Detail Sheet)

No.	Class	Fund Citation Abbr.	Stock No. & Description	Unit of Measurement	Quantity Requested	Quantity Received	Unit Price	Total

14. Method of Payment CASH	15. Currency UNITED STATES - DOLLAR	16. Not to Exceed Amount 0.00	17. Agreed Return Date	18. Line Item Value 0.00
21. Authorized Requestor (Signature)		22. Authorized Acceptor (Signature)		19. Trans & Other Costs 0.00
Name (Last, First, MI, Rank/Title) / Date		Name (Last, First, MI, Rank/Title) / Date		20. Total Claimed 0.00
Unit/Office / Nation/Organization		Unit/Office / Nation/Organization		25. Send Bill To:
23. Inspected/ Received By (Signature)		24. Supply Official (Signature)		
Name (Last, First, MI, Rank/Title) / Date		Name (Last, First, MI, Rank/Title) / Date		26. Send Payment To:
Unit/Office / Nation/Organization		Unit/Office / Nation/Organization		
27. Purchase Order No.	28. Fund Citations		30. Remarks	
29. Invoice No.				
31. Invoice Certify that the amount invoiced is exclusive of all taxes from which exemption has been granted under provisions of existing agreements and that the invoice is correct.				
32. Financial (Signature)	Finance Name (Last, First, MI, Rank/Title)	Unit/Office	Nation/Organization	

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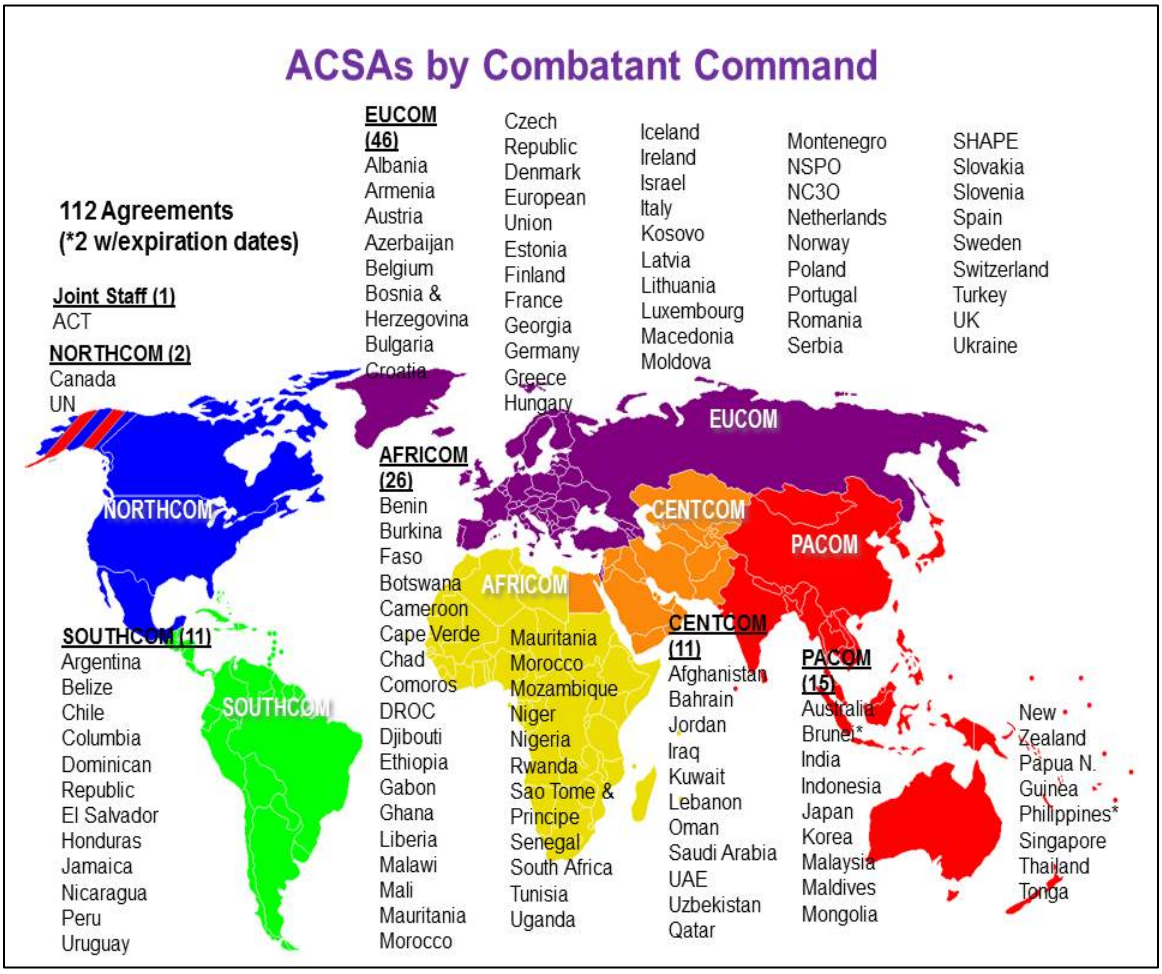
APPENDIX C. ACSA BY COMBATANT COMMANDS

This figure shows the ACSA agreements between the United States and partnering nations, organized by combatant commands (Joint Staff J-4 Multinational Interagency Division, 2017b).



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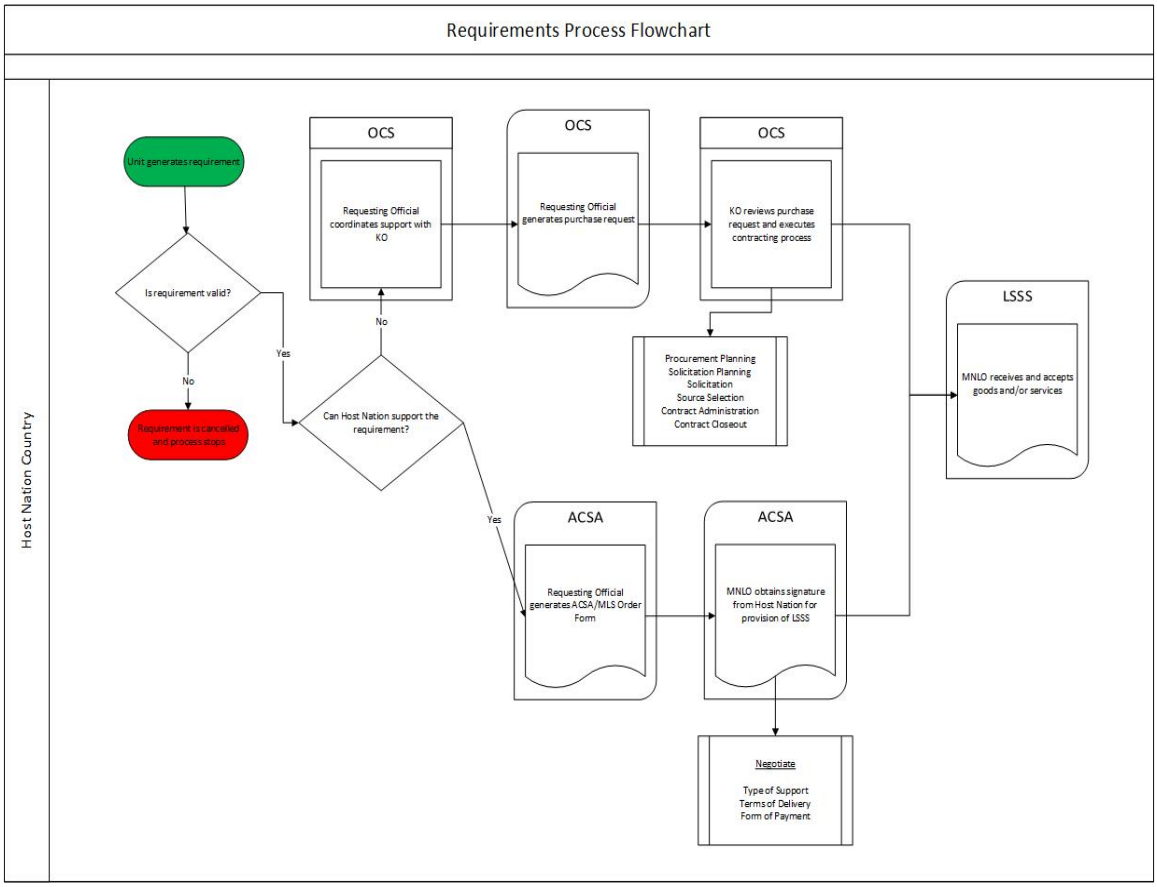
APPENDIX D. REQUIREMENTS PROCESS FLOWCHART

This figure shows how requirements are requested in a foreign theater. The process begins with the generation of requirements and submitted for fulfillment by either the contracting or ACSA support method (Garrett, 2007; Joint Staff J-4 Multinational Interagency Division, 2014).



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APPENDIX E. THREE INTEGRATIVE PILLARS OF SUCCESS

Created by E. Cory Yoder, this model provides logisticians an effective method for measuring integration and execution capabilities of OCS. The three pillars and the foundation of authorization and appropriation were used for creating the Contracting ACSA Planning Tool. The incorporation of this model into the research aided our ability to analyze individual processes and compare their strengths and weaknesses (Yoder, 2017).

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