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THESIS

THE PERFORMANCE OF LOGCAP IN OPERATIONS ENDURING AND IRAQI FREEDOM

by

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December 2004

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THE PERFORMANCE OF LOGCAP IN OPERATIONS ENDURING AND IRAQI FREEDOM

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ABSTRACT

The purpose of this study is to examine the role of the LOGCAP Logistics Support Unit (LSU) in Southwest Asia during the early stages of Operations Enduring and Iraqi Freedom. The study provides a summary of the LSU makeup, their roles, training and their processes and procedures. The study goes on to analyze the impact of the training and processes and procedures on the mission of the LSU and changes that were made during their deployment. Evidence is provided to demonstrate the difficulties the LSU encountered as a result of role confusion and inadequate training. The empirical data presented shows a correlation between role confusion and inadequate training as the cause of extended timelines and numerous changes to efforts undertaken to meet U.S. Military needs. The research then outlines the improvements that were attempted as well as the results of their implementation. In conclusion, the study provides conclusions based upon the analysis and presents three recommendations for improving the LSU to ensure the next deployment of the LSU to large-scale contingency leverages the lessons learned from this experience. Review and analysis of empirical data gathered from December 2002 through May 2003, interviews with LSU members, and General Accounting Office (GAO) audit reports provided the basis for this study.

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CHAPTER I – INTRODUCTION

A.   BACKGROUND

The Logistics Civil Augmentation Program (LOGCAP) has aided the US Army and other Government organizations respond to contingencies around the world for over a decade. LOGCAP teams with a contractor to provide facilities and various life-support functions to our soldiers who are deployed during contingencies.

The LOGCAP Logistics Support Unit (LSU), those responsible for being the interface between the Army and the contractor at the site of the contingency operation, is comprised of Army Reserve Officers and a small number of active Army Officers. The Forward Deployed Cell or LSU interfaces with Directorate, LOGCAP during the execution of the contingency.

The Directorate, LOGCAP resides at Army Material Command (AMC) Headquarters, Fort Belvoir, VA. The Contracting Officers responsible for the administration of the LOGCAP contract reside at Rock Island, IL and the contractor, Brown and Root, is located in Houston, TX.

The LSU relays requirements and status to Directorate, LOGCAP whom, then in turn coordinate with the Contracting Officers and Brown Root to affect new or changes to existing requirements.

Because the members of the LSU are not skilled in acquisition functions and members of Directorate, LOGCAP and the Contracting shop do not deploy for extended periods of time, there are issues as to what the processes and procedures are, the length of time of which requirements are addressed and what types of training the deployed members should receive. This is compounded by the turnover in members of the forward deployed cell and the differences in roles the deployed cell encountered.

The objective of this thesis is to provide a detailed analysis of the items discussed above. In addition, it will provide information that will be useful for acquisition professionals in general and Directorate, LOGCAP in specific, to take the lessons learned from operations in support of Operations Enduring Freedom (OEF) and Iraqi Freedom

(OIF) to enhance the LOGCAP organization. This will allow for greater ease of meeting Army and US requirements in the future.

B.   OBJECTIVE

The purpose of this thesis will examine LOGCAP; it's forward deployed cell, processes/procedures, the evolution of those procedures, and the end affect of the evolution. It will be broken down into the following research areas: 1) a discussion of the what LOGCAP is and where have they been; 2) a discussion of LOGCAP's role in Southwest Asia (SWA) as part of OEF/OIF; 3) a discussion of the makeup of the LOGCAP Forward Deployed Cell; 4) a discussion on the initial processes and procedures of LOGCAP in SWA; 5) an analysis and measurement of the results of the initial processes and procedures of LOGCAP; 6) a discussion of the evolution of the processes, procedures and training; 7) a discussion of results and lessons learned of the evolution identified in item 6 and 8) recommendations to improve the efficiency and effectiveness of future LOGCAP missions.

In addition, it will provide useful information to LOGCAP to assist them in revising their methodologies and tools to enhance their processes to better meet the needs of the US Military.

In order to clarify the above issues, data gathered will address the following research questions:

Primary Research Question:

How can LOGCAP improve its processes and procedures to affect positive change in its ability to meet requirements during large-scale operations similar to OEF/OIF?

Subsidiary Research Questions:

1. What is the genesis of LOGCAP and what is its mission in contingency operations?

2. How has LOGCAP improved itself prior to OEF/OIF?

3. Who constituted the LOGCAP Forward Deployed Cell?

4. What was the state of LOGCAP's forward deployed cell in Southwest Asia at the beginning of OEF?

5. What types of training did the LOGCAP Forward deployed cell receive prior to deployment? What types of training was received while deployed?

6. What were LOGCAP's processes and procedures and how well did they support mission objectives?

7. How can LOGCAP leverage off the experiences in OEF/OIF to enhance performance during future deployments?

C. SCOPE

The scope as discussed above will focus on the following topics:

1. What LOGCAP is and where have they been;

2. LOGCAP's role in Southwest Asia (SWA) as part of OEF/OIF;

3. The LOGCAP Forward Deployed Cell;

4. Processes and procedures of LOGCAP in SWA;

5. Analysis and measurement of the results of the initial processes/procedures;

6. Evolution of the processes, procedures and training;

7. Results of the evolution identified in item 6 and

8. Recommendations to improve the efficiency and effectiveness of future LOGCAP missions.

D. METHODOLOGY

The methodology followed for this thesis consists of the following:

1) Document experiences as deployed in Support of OEF/OIF acting as a procurement analyst for Directorate, LOGCAP

2) Establish and track metrics for the measurement of time frames for the completion of LOGCAP related efforts.

3) Compare and contrast LOGCAP processes at the beginning of the deployment to the revisions made during the course of the deployment for the LOGCAP Forward Cell.

4) Identify areas required for improvement related to LOGCAP processes.

5) Identify additional training requirements for the LOGCAP Forward Deployed Cell.

6) Conduct a search of acquisition related web sites.

7) Research literature available in the form of books, journal articles and other library information sources.

E. ORGANIZATION OF THE STUDY

The research results will be presented in five chapters. The first chapter will discuss the background and provide a framework for this research. Chapter II will present what is LOGCAP, where LOGCAP has been as well as their performance and methodologies in Operations Enduring and Iraqi Freedom. Chapter III will discuss the measurement and data gathered consisting of the reduction in timelines, the process of generating changes to or new requirements, and the results of training, towards the development of a smarter LSU. Chapter IV will provide an analysis of the evolution of LOGCAP operations based upon the information gathered in Chapter III. Finally, Chapter V will provide specific conclusions and recommendations resulting from the thesis research.

CHAPTER II – WHAT IS LOGCAP

A.   WHAT IS LOGCAP

"LOGCAP is a U.S. Army initiative for peacetime planning for the use of civilian contractors in wartime and other contingencies. These contractors will perform selected services to support U.S. forces in support of Department of Defense (DoD) missions." [1]

In 1985, Army Regulation 700-137 established the need for civil augmentation of the U.S. Army and outlined the policies and methods to employ the Logistics Civil Augmentation Program (LOGCAP). LOGCAP had four original top-level goals.

"1.) Resolve the combat support and combat service support unit shortfalls represented in operations plans (OPLANS) and in the Army program.

2.) Consider conversion of existing support units based upon availability of contract support in wartime.

3.) Provide rapid contracting capability for contingencies not covered by global OPLANS.

4.) Provide for contract augmentation in continental United States (CONUS) during mobilization." [1]

The first action taken by the newly formed LOGCAP mission was in 1988 when the Third United States Army (TUSA) requested contract support from the U.S. Army Corps of Engineers (USACE) in the development of a plan to build and maintain two petroleum pipeline systems in Southwest Asia. [2] From that point on, LOGCAP became the preeminent organization to support the U.S Military in a number of contingencies worldwide.

From the four original top-level goals, LOGCAP responsibilities grew to include contingency support of various US Military actions throughout the world, from humanitarian crisis and natural disasters to the most recent military operation, Operation Iraqi Freedom. Programmatic efforts of LOGCAP include "deliberate planning". [2] This consists of a number of preplanned events developed out of the overarching Worldwide

Management Plan contained within the basic contract. The Worldwide Management Plan outlines the resources necessary to perform a number of functions throughout the world. It takes into consideration the force size, ability to leverage off the local economies and outlines the "on the ground" services that are required to sustain the force. From the Worldwide Management Plan, a number of derivative plans as part of "deliberate planning" are also developed. These plans are based upon geographic location (i.e. Kuwait or Southern Africa) or upon the mission requirements. Other programmatic support includes; Contractor Risk Mitigation Management, Support for three concurrent efforts, the Annual LOGCAP Warfighter Exercise and Concepts, Policy, Doctrine, Publications and Training. [2]

LOGCAP provides a number of services to forces in the field with a 72-hour forward deployed team on the ground to analyze and make recommendations. LOGCAP "on the ground" services [2] include the items identified in Table 1.

Table 1.   LOGCAP Services

Food Service	laundry service	Field Service
Billeting	Office Space	Mortuary Support
Electrical and Plumbing	Postal Support	Supply Service Activity
Vehicle Maintenance	Waste Management	Vector Control
Chaplain Support	Fire Fighting/Protection	Heliport Maintenance
Motor Pool Management	Container Handling	Maintenance and Cleaning

The Army Corp of Engineers began as the Army's organization for control and execution of the LOGCAP mission. In 1997 the Army Material Command replaced the Army Corp of Engineers as the responsible organization for oversight of the LOGCAP mission. The Major Subordinate Command (MSC) initially responsible for oversight was the Communications-Electronics Command (CECOM) at Fort Monmouth, NJ. It was subsequently transferred to the Army Field Support Command (AFSC) at Rock Island, IL, where it remains today. The day-to-day management and operational duties for this program belong to Directorate, LOGCAP, located at AMC headquarters at Fort Belvoir, VA. The current contractor supporting the LOGCAP mission is Brown and Root Services, a Halliburton subsidiary, located in Texas.

The first contract for LOGCAP was awarded to Brown and Root Services (BRS) in 1992, with a period of performance of one year with four option years. The follow on contract was awarded to DynCorp with an identical period of performance, one base year with four option years. This contract ran through 2001. The follow on contract was a competitive effort with one base year and nine option years, which was won by Brown and Root Services. The total period of performance of this new contract is through 2011 if all options are exercised.

The LOGCAP mission has been used within the continental United States during disaster relief; however, its main mission is to support the U.S. Military overseas. LOGCAP has conducted missions in the following countries [2] outlined in Table 2.

Table 2.   LOGCAP Missions by country

Iraq	Kuwait	Afghanistan	Philippines
Uzbekistan	Djibouti,	Panama	Korea
Kosovo	Haiti	Somalia	Saudi Arabia
Qatar	Bosnia	United States	Colombia

B.   TEAM LOGCAP

"TEAM LOGCAP" is a collection of government agencies and military organizations that work together in support of the planning, management and execution of the LOGCAP Contract. Team LOGCAP facilitates the teaming of the customer and contractor for peacetime planning, exercises, and program execution during a contingency. The following description of team members is from a LOGCAP LSU intra-theater information paper. [3]

TEAM LOGCAP consists of a Program Management Office for the LOGCAP (Directorate, LOGCAP) Contract, the Directorate of Contracting within the Army Field Support Command (AFSC), the AFSC Legal Office, the LOGCAP Support Unit (LSU), the Defense Contract Management Agency (DCMA), the Defense Contract Audit Agency (DCAA) and the LOGCAP contractor. Each team member has unique responsibilities that, when leveraged, provide for quick response to changing needs of the solider in the field.

Directorate, LOGCAP is the overarching organization responsible for all aspects of the LOGCAP contract from pre-award planning to post-award execution. Directorate, LOGCAP's primary responsibilities include the management of the overall contract, acting as an interface between the LSU, DCMA and the PCO. Directorate, LOGCAP coordinates program reviews, conducts future operations planning, manages the LOGCAP program to ensure customer requirements are met, prioritizes planning requirements based upon funding, workload and HQDA guidance.

The AFSC Directorate of Contracting is responsible for award and management of the LOGCAP contract and award and management of task orders under this contract. This responsibility is assigned to a team within the Directorate consisting of a lead Procuring Contracting Officer (PCO), PCOs, Contract Specialists and Cost/Price Analysts. The warranted PCO has statutory authority to obligate the US Government to pay the contractor for services under the contract. The PCO reviews the scopes of work to ensure they are adequate and appropriate, requests proposals from the contractor, issues Notices to Proceed (NTP), formalizes the NTPs into Task Orders, delegates administration to the Administrative Contracting Officer (ACO) within the DCMA organization, negotiates the cost proposal, conducts the Award Fee Board and manages the task order until close out. The PCO manages the interface between the Government and the contractor to ensure that all actions under the contract comply with applicable Public Law, Regulations and sound business practices.

The AFSC Legal Office provides guidance to the program and contracting offices on matters such as the proper use of contractors in support of contingencies, interpretation of international agreements and Standards of Forces Agreements (SOFA), interpretation of host nation laws and contractor status there under; protest and litigation defense, enforcement of contract provisions, interpretation of contract and SOW language, claims and dispute resolution, long term liability and risk assessment.

The LSU, the forward deployed cell, works with supported units on the ground in theatre to identify and determine requirements. The LSU assists in the writing of SOWs, the calculation of Independent Government Cost Estimates and acts as an interface between the supported unit and the contractor. The LSU also networks operational

information between all members of TEAM LOGCAP. The LSU is comprised of Army Reserve Officers and a small number of active Army Officers who rotate on a six month or yearly basis. [2]

DCMA administers the task orders in theater, acts as the interface between the supported unit and the contractor, oversees contractor performance to ensure schedule and quality is met. DCMA derives responsibilities from the Federal Acquisition Regulations (FAR) as directed by the PCO.

DCAA reviews and approves the contractor's cost accounting system and practices. DCAA audits the cost proposal submitted by the contractor for individual task orders and provides recommendations to the PCO. DCAA auditors participate in negotiations at the request of the PCO.

The LOGCAP Government attorney provides guidance to the program and contracting offices on matters such as the proper use of contractors in support of contingencies, interpretation of international agreements and SOFAs, interpretation of host nation laws and contractor status there under, protest and litigation defense, enforcement of contract provisions, interpretation of contract and SOW language, claims and dispute resolution, long term liability and risk assessment.

The LOGCAP contractor develops cost estimates and schedules based upon identified requirements in accordance with the basic contract and the worldwide management staff plan. The LOGCAP contractor mobilizes the necessary resources to complete and provide the required services in accordance with established timelines.

Together, these team members provide the ability to rapidly meet the needs of the soldiers in the field through innovative, flexible contracting.

C. EFFORTS IN OPERATIONS ENDURING AND IRAQI FREEDOM.

LOGCAP Operations in CENTCOM span four different countries and over 30 different locations. LOGCAP provides over 250,000 soldiers varying degrees of support dependent upon location. Through integrated planning among all TEAM LOGCAP members, LOGCAP was able to provide the above-mentioned services to over 250,000

soldiers, marines, airmen and sailors in theatre. From the time the task order for Camp Arifjan was awarded in October of 2002, LOGCAP has been able to stand up or will have stood up over 30 sites providing a wide range of services from life support operations, to transportation support, to support for coalition forces and retrograde of military equipment bound for a return to the US. All of this was accomplished during the first large-scale use of LOGCAP to support a major theatre war without a defined process and minimal training. Table 3 lists active sites under, the control of the LSU Commander in Southwest Asia. One note, cost estimates were base upon the period of performances laid out in each specific task order as of July 2003.

Table 3.   Active Sites, July 2003

SITE	Military Population	Cost Estimate
Jordan	6,800	$69M
Djibouti, Africa	1,500	$50M
CAMP Arifjan	>20,000	$105M
SPOD, PORT SUIABA, Kuwait	3,700	$35.6M
Ball Parks, Camp Arifjan	6,400	$107M
APOD, Kuwait Airport	5,800	$123M
CAMP Udairi, Airfield Services	N/A	$24M
CAMP Kohima, Camp Arifjan	800	$2M
Transportation, theater	250,000	$127M
ORHA, Iraqi Reconstruction	2,000	$205M
AMC SWA LSE, Support	120	$2.5M
Camp Bucca, EPW Camp	2,000	$47M
Field Repair at Camp Arifjan	N/A	$1M
Bulk Fuel for theater	N/A	$10M
CECOM Motor Pool	N/A	$.044M
Defense Intelligence Agency Support	1,600	$56M
Tallil AFB, Iraq	14,000	$139M
Retrograde, Camp Arifjan	N/A	$139M
V-Corp, Iraq (25 sites)	115,000	$807M

D.   THE PROCESS, DOCUMENTATION, AND TRAINING

The overall process for initiating new actions or revisions to existing efforts consisted of the following. The SOW would be written or revised by the LSU and based upon the emerging or changing requirement. The LSU would develop an Independent Government Cost Estimate (IGCE). This requirement would be passed through the

Combined Forces Land Component Command (CFLCC) to ensure funding would be available and that the requirement fit the scheme of the overarching plan. If the IGCE was sufficient, it was also possible to request funding based upon the IGCE to expedite the requirement. Once approval was provided, the SOW and IGCE would then be forwarded to Directorate, LOGCAP at HQ AMC. The SOW and IGCE would be reviewed again, once this review was completed, the documentation would then be forwarded to Rock Island, IL for review by the Contracting Officer. At this point the Contracting Officer would request what is called a 'Rough Order of Magnitude' (ROM) or simply an initial cost estimate from Brown and Root Services (the contractor).

Brown and Root would then prepare a ROM based upon the SOW that was provided. At this point the ROM would then be provided to the Contracting Officer at Rock Island, IL and returned to the LSU on the ground in SWA via Directorate, LOGCAP at HQ AMC. The ROM is then coordinated with the Supported Unit for approval to ensure their higher command is aware and funding is available.

Once Supported Unit approval and funding is provided, the Procuring Contracting Officer issues a Notice to Proceed (NTP) letter authorizing Brown and Root to commence work. The Contracting Officer then requests a full proposal in order to negotiate the effort in total.

Upon examination, the documentation consisted primarily of the SOW, the IGCE and the ROM. The SOWs were extremely detailed in their verbiage, creating a highly rigid and inflexible document. The reporting requirements contained in the SOWs were vague and married up in part to the language found in the Worldwide Management Staff Plan, yet the language was incomplete. Thus very few reports were available to the LSU on the ground to review. Due to the rigid nature of the SOWs, multiple changes were required to change even the most elementary of requirements. Combining this frequent change to the lengthy time to pass the documentation through its various channels created time lapses in the ability to respond quickly for emerging, critical requirements in the field. Essentially, LOGCAP was issuing multiple changes to the SOWs in rapid succession. The effort to issue and track numerous changes caused a backlog of work and missed or partial requirement. LOGCAP was working hard but not smart.

The second piece of the documentation puzzle is the IGCE. The IGCEs initially were either absent or poor in the depiction of what new costs could be anticipated as a result of additions to the existing SOWs or in the generation of new requirements. Inadequate IGCEs prevented the requesting of funds earlier in the overall process, thus delaying a release of funds and increasing the time until effort could begin.

The third significant document is Brown and Root's ROM. The ROM documented their initial cost estimate for completion of the additional or emerging requirement. Proper evaluation of the ROM was necessary to ensure that Brown and Root understood the requirement fully and that the Government could reasonably expect Brown and Root to complete the effort on time and within schedule. The first key to understanding the ROM was to compare it with the IGCE. However, with deficient or absent IGCEs it was difficult to analyze the ROM. This was compounded by the lack of training on the generation of IGCEs and the evaluation of ROMs, provided to the LSU prior to entry into theater.

Training is key to the ability of the LSU to complete their mission successfully. The LSU should receive training in a number of areas prior to deployment. The LOGCAP website lists the following as training areas for LSU Members soon to be deployed; drill weekends, contract plan/review, case studies, soldier tasks and support areas.

E. CHAPTER SUMMARY

LOGCAP is the program responsible for planning and execution in the augmenting of shortfalls in force structure, as identified by theater LSU members, with civil expertise. This augmentation of the U.S. Military presence allows the armed forces to concentrate on mission specific operations while allowing civil participation in force support. As the U.S. military is downsized, civil augmentation and host nation (local economy) support becomes even more important to the success of the mission.

In order to meet this new requirement of civil augmentation, it is highly critical that Team LOGCAP have identifiable and efficient processes, procedures, documentation

and training in place to ensure mission success. The remaining chapters will analyze the data collected from the LSU deployment to Southwest Asia from February 2003 through May 2003. The data will then be analyzed to assess the adequacy of predeployment training and the efficiency of LOGCAP contracting processes.

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CHAPTER III – DATA PRESENTATION

A.   BACKGROUND

LOGCAP was deployed to Southwest Asia in response to contingency operations in support of Operations Enduring and Iraqi Freedom. As a result of this deployment and the downsizing of the US Armed Forces, LOGCAP would be responsible for more activities than in anytime throughout its past. This placed added burden and greater oversight upon LOGCAP and the forward deployed Logistics Support Unit.

In determining what data would best suit an analysis of LOGCAP, its makeup, processes, procedures and overall approach, this researcher decided to outline LOGCAP's responsibilities, the LOGCAP LSU and factors affecting its performance, and the changes to LOGCAP processes and procedures in theater.

B.   THE LOGISTICS SUPPORT UNIT (LSU)

The Logistics Support Unit (LSU) is the tip of the spear for LOGCAP. Their role is to deploy quickly to the area of contingency and act as the liaison between the Government and contractor in the preaward planning phase. This researcher will define the makeup of the LSU, their required role and their role on the ground in SWA, training deficiencies prior to deployment and training sessions provided to the LSU during the reviewed deployment.

1.   LSU Makeup

The LSU is comprised of a number of commissioned officers commanded by an O-6 Colonel. The team deployed during the reviewed deployment included one Lieutenant, ten Captains, four Majors, and three Lieutenant Colonels. The LSU Commander remained in CONUS during operations. The LSU members are primarily reservists, being called only during situations in which numerous members are required. During peacetime, there are four Active Guard Reserves (AGRs), which are on duty full time to respond to training and planning activities.

2. LSU Role

The LSU teamed with a number of organizations during their performance under Operations Enduring and Iraqi Freedom. The following sister organizations, Directorate, LOGCAP and the Defense Contract Management Agency, work with the LSU in accomplishing its mission. Per AMC PAM 700-30, The LSU "Deploys worldwide in support of any contingency using LOGCAP capabilities and provides on-site interface between the customer and contractor. Advises requesting activities on LOGCAP Capabilities". [4] The LSU is on-site to act as a planner and facilitator, to assist supported units from requirement definition through award. Their efforts are facilitated by Directorate, LOGCAP.

AMC Headquarters is the home station for the LSU and acts as a conduit for information flow as well as a check and balance on requirements. As outlined in AMC PAM 700-30 Directorate, LOGCAP "manages LOGCAP to meet customer requirements and directs Team LOGCAP interface with the customer. Prioritizes planning requirements based on funding, work load and HQDA guidance".[4] Directorate, LOGCAP coordinates with the contracting officers to authorize the NTP for each change to the SOW.

After award, DCMA is the oversight organization responsible for contract performance to ensure schedule and costs are controlled. DCMA teams are led by Administrative Contracting Officers (ACO) with executable warrants. AMC PAM 700-30 requires DCMA to "provide a quality assurance team for contract and property administration". [4]

Customers to LOGCAP also have duties. They are required to "develop a comprehensive and supportable SOW", "include LOGCAP early in the planning process" and "participate in the LOGCAP award fee evaluation board process" [4]

3. LSU Role on the Ground

The LSU, during performance under Operations Enduring and Iraqi Freedom, performed the role of planner and facilitator. They also performed duties above and

beyond those called for by the established procedures. The LSU performed the following duties as outlined in Table 4. These roles were above the anticipated role as outlined in paragraph two.

Table 4.   Additional LSU Roles

Post Award Surveillance	Process Reinvention
IGCE Generation	Supported Unit Approvals
Training Seminars	SOW Generation

The expanded LOGCAP Role was further identified in a number of interviews in which LOGCAP LSU members discussed their role and how they were unprepared to assume the additional duties. CPT Frank Acensio, a LSU member, stated, "Our roles were not adequately explained prior to deployment." and "Much of the LSUs role in theater was duplicative of DCMA". [5] These duplicative roles include post award administration, as identified in Table 4. The LSU, who had no authority to direct or evaluate a contractor's performance, was routinely required to conduct site surveys and perform contract surveillance. This led to confusion on part of the contractor as two different organizations were reviewing their efforts and schedule. Also, because DCMA was not part of the reporting chain within the Combined Forces Land Component Command (CFLCC), many requests for status on post award issues fell on the LSU. This led to a recurring cycle of constant monitoring of post award issues and continued confusion. These actions inhibited the LSU from performing their duties as facilitator between Directorate, LOGCAP and various supported units.

4.   Training

The LSU conducted training prior to and after deployment. In four interviews conducted with LSU members, the following was a consistent theme regarding predeployment training. Training was described as inadequate. The general focus of pre-deployment training was on Contracting Officer's Representative's responsibilities. Training was limited to a "bring up to speed weekend" [5] which outlined SOW (SOW) issues and Areas of Operation (AO) and a "right seat ride with the incumbent". [6] One

of the interviewees was MAJ Jeanine Cunliffe, appointed the LSU Training Officer in February 2004 who stated,

> My training was not adequate prior to deployment. The focus prior to OIF was on Contracting Officer Representative training. There was minimal training on writing SOWs & IGCEs and no training on review of Rough Orders of Magnitude (ROM) or Task Execution Plans (TEPs). [7]

During Deployment a number of training sessions were conducted to aid the LSU. Training was coordinated and conducted between the LSU, DCMA and the Principle Assistant Responsible for Contracting (PARC) Office to receive their input. The training covered a number of areas to include generation of performance based SOWs, ROM evaluation, Independent Government Cost Estimate generation, and LSU member roles.

C.   PROCESS AND PROCEDURES

Under this section this researcher will outline the changes and updates to the processes and procedures and also the templates and tools generated to aid the LSU in the evolution and understanding of their duties. Lastly, the effectiveness of these changes and tools will be evaluated.

1.   Process and Procedure Changes

The processes and procedures outlined in Chapter II held true for the early portion of the operations in Southwest Asia and were modified as operations continued. Updates to the processes included establishing an agreed upon approval procedure through the proper chains of commands to ensure all requirements were captured and approved by the requesting units' higher command. The change in this requirement required a requesting unit to document that their higher command did in fact approve the requirement prior to the LSU moving forward to change the SOW.

A second added process improvement included moving away from LSU generating the SOWs, forcing the requesting unit to provide a detail SOW to ensure all requirements were captured and to remove any ambiguity with requirements.

A third process change consisted of DCMA input into SOW generation and/or changes. The Defense Contract Management Agency (DCMA) input was requested to minimize post award issues. This change allowed DCMA to voice their concerns on a number of issues that had been prevalent throughout the earlier months. These concerns consisted of tight/rigid language and difficult to understand technical requirements.

A fourth change included seeking input in the creation of the IGCEs. The LSU had little or no experience and training in preparing IGCEs as identified above and thus employed the knowledge of the requesting units as well as cost/price analysts from Directorate, LOGCAP.

A fifth process improvement dealt with the SOWs themselves. The SOWs were updated to ensure they met the intent of the basic contract as well as the requirements of performance based contracting. This update consisted of ensuring the SOWs have the correct reporting requirements and match the efforts outlined in the basic contract SOW. Until this point, the reporting requirements spelled out in the basic contract were not added to the SOWs, nor were the efforts during the creation and award of the basic contract leveraged. This lack of proper reporting requirements prohibited by the LSU and DCMA from getting accurate and timely post award information on cost and schedule. As a result of this lack of reporting, it was difficult to assess and monitor contractor performance, again forcing the LSU to conduct numerous site visits as dictated by CFLCC to ascertain progress. These time-consuming site surveys caused delays in aiding new and emerging requirements from various supported.

2.   Templates and Guides

In addition to the changes in processes and procedures, a number of new templates were developed. A requirements checklist, outlining what is available from LOGCAP, a SOW Template and a SOW Change Matrix were all developed. In addition, a number of guides were developed to aid the LSU and the requesting unit. These guides include a ROM evaluation guide, an IGCE template and a LSU Guide.

3. Measurement of Changes

Two measurements were developed to assess the affects these tools and guides would have on the LOGCAP Process. The first of these tools measured the number of changes to SOWs from January 2003 through May 2003. This can be further broken down into two time frames, December 2002 through February 2003 and March 2003 through May 2003. These time periods correspond to the split between original processes and procedures and the improvements which were undertaken in the March 2003 through May 2003 timeframe as outlined above. The researcher included December 2002 in the timeframe as LOGCAP was utilized and new efforts were begun in December 2002. There were five changes to existing efforts in December 2002. Figure 1 outlines the changes by month and through analysis; one can determine that from December 2002 through February 2003, there were 43 changes to SOWs while only 26 occurred from March 2003 through May 2003 with a downward spiral from March to May 2003. In May of 2004, only four changes were made, indicating a downward trend.

Figure 1.   SOW Changes by Month in 2003
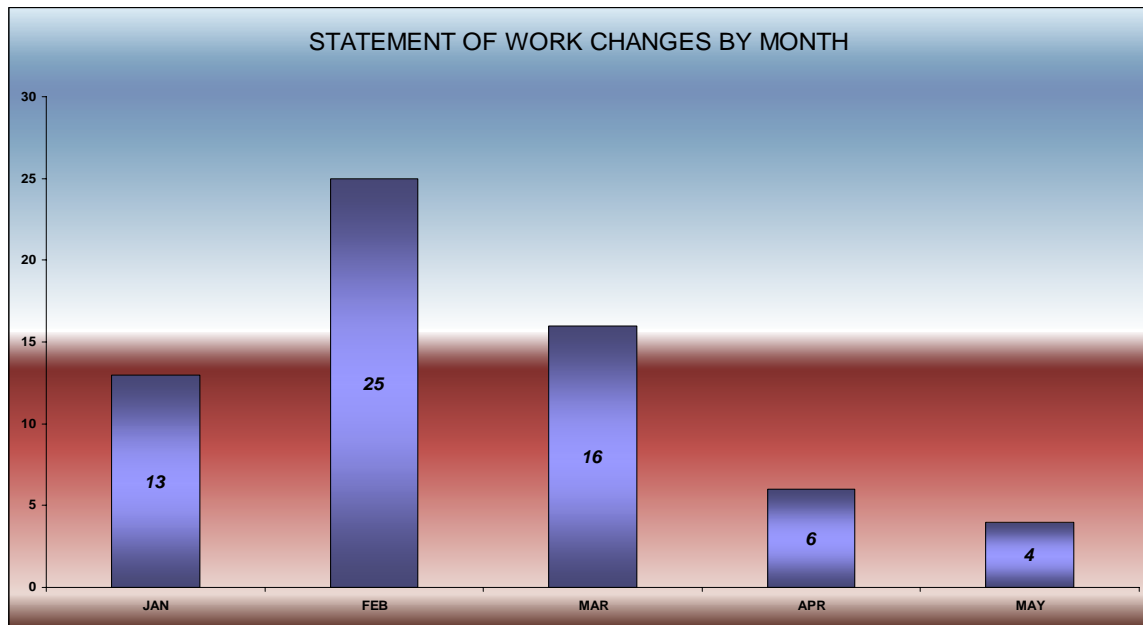
In order to qualify the results as not just a decrease in effort, the number of total Notices To Proceed (NTPs), the award of SOW changes as well as new efforts, requires comparison to the to the number of new starts under the LOGCAP over the entire time frame of December 2002 through May 2003. These changes represent significant changes to existing efforts, which required a scope determination by the PCO. The need for these changes as well as their decrease is documented throughout this thesis. Figure 2 outlines the start of new efforts in the prescribed timeline. Reviewing Figure 2, one can identify that from December 2002 through February 2003, seven new starts were issued. Thus nine total efforts required 43 changes over those three months. Then one can further identify five additional new starts were implemented from March through May 2003 for a total of 14. These 14 efforts required just 26 changes, a 37% drop in changes to existing efforts even as Coalition Forces established operations in Iraq.

Figure 2.   New Efforts Established

LOGCAP ACTIVITIES IN SUPPORT OF OPERATIONS ENDURING AND IRAQI FREEDOM

NEW STARTS

Phase IV

Initiation of Hostilities

Decision to use LOGCAP
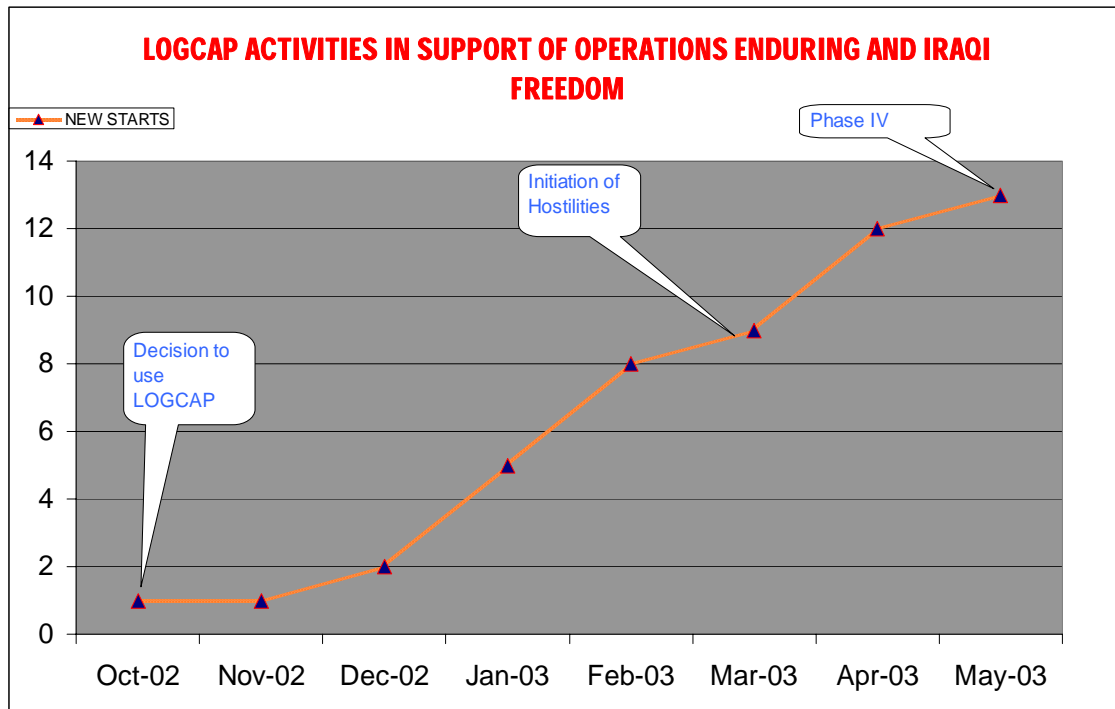
The next step compares the overall number of NTPs of both SOW changes and new efforts. Figure 3 outlines this comparison, by reviewing the figures, one can identify a sudden and dramatic drop in the number of NTPs issued per month in the March 2003 time frame at the same time a steady increase in the number of new starts is visible. Further, while the total number of NTPs, identified by the diamond line, continues upward, its slope decreases and is close to leveling off. By May 2003, it is clear that the number of efforts is closely approaching the number of changes to current efforts, as a result of requirement changes.

Figure 3.   Total Notices to Proceed
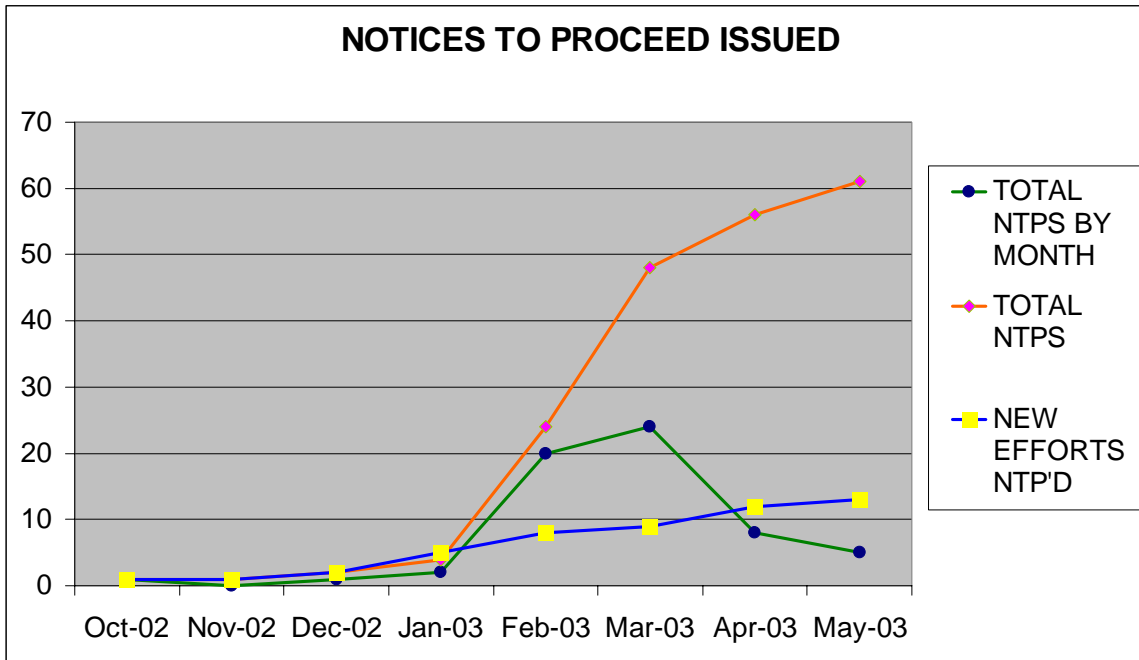
The second measurement tool outlined the decrease in overall time from requirement definition and/or SOW generation through NTP. The measurement of this process was broken down into three areas to allow visibility into what area provided the longest time to complete. These areas included SOW generation/SOW change to ROM receipt, ROM receipt to the requiring unit reviewing, analyzing and accepting the ROM and from approval of the ROM through an authorization to proceed. Figure 4 presents this information on an overall basis, while Table 5 breaks down the information by task order. Figure 4 and Table 5 both demonstrate that overall, the time from SOW generation through issuance of an NTP decreased seven days from 24 to 17 or roughly a 30% decrease. These sets of numbers consist of changes to existing SOWs, thus some sites may or may not be represented in both time periods if changes did not occur. An example is Task Order 22, no changes occurred in the March – May 2003 time period, thus it is not represented. One can identify a slight one-half day increase in the time from SOW finalization to the ROM Receipt and a substantial four day decrease in time from ROM Receipt to ROM Acceptance as well as three day decrease in receiving the issuance of a NTP. These figures outline an overall decrease trend in timelines between the two differing timeframes.

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Figure 4.   Timelines
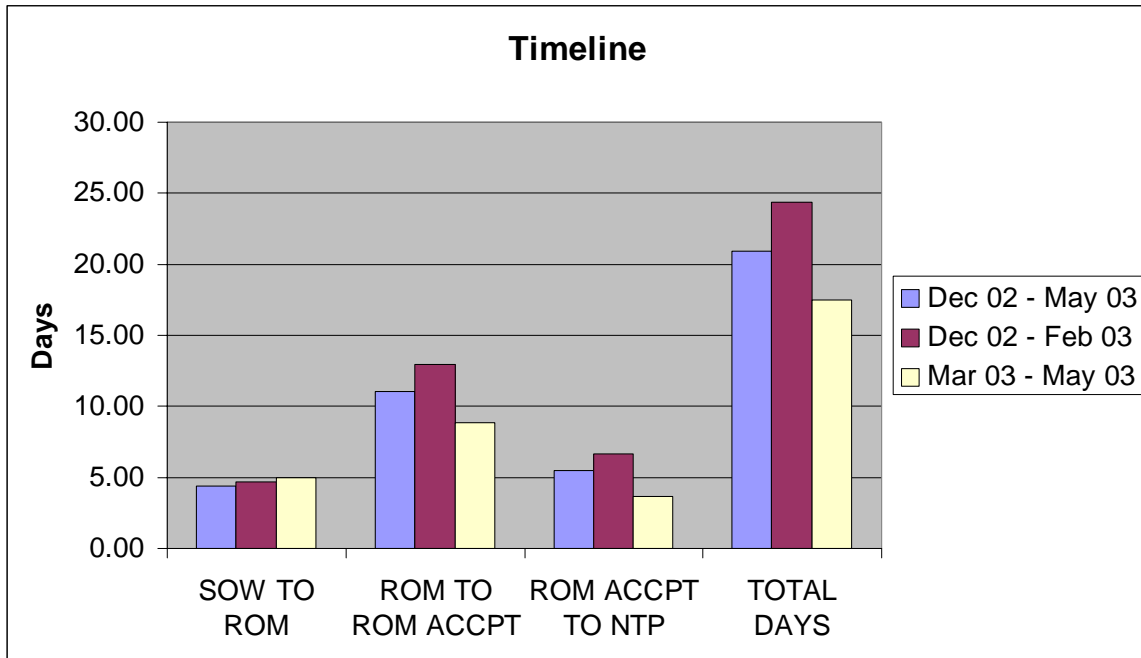
Timeline

Table 5.   Timelines – by Task Order

Dec02- May03

Task Order	SOW TO ROM	ROM TO ROM ACCPT	ROM ACCPT TO NTP	TOTAL DAYS
TO 27	3.33	30.33	8.00	41.67
TO 34	5.67	25.33	7.00	38.00
TO 35	4.00	22.50	5.50	32.00
TO 36	3.30	5.50	5.10	13.90
TO 41	1.50	5.75	5.00	12.25
TO 43	4.33	6.67	4.33	15.33
TO 46	7.00	7.60	2.20	16.80
TO 48	4.50	10.00	6.00	20.50
TO 50	9.00	8.50	3.00	20.50
TO 52	1.00	14.00	20.00	35.00
TO 56	5.00	0.00	1.00	6.00
TO 57	5.00	4.00	3.00	12.00
TO 58	3.00	11.00	6.00	20.00
TO – V Corp	5.00	3.00	1.00	9.00
AVG TIME	**4.40**	**11.01**	**5.51**	**20.93**
Dec02 Feb 03				
TO 27	3.33	30.33	8.00	41.67
TO 34	5.67	25.33	7.00	38.00
TO 35	5.00	20.00	9.00	34.00
TO 36	3.30	5.50	5.10	13.90

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TO 41	1.50	5.75	5.00	12.25
TO 43	4.33	6.67	4.33	15.33
TO 46	6.75	8.25	1.50	16.50
TO 48	5.00	4.00	4.00	13.00
TO 50	11.00	10.00	3.00	24.00
TO 52	1.00	14.00	20.00	35.00
TO 56	0.00	0.00	0.00	0.00
TO 57	0.00	0.00	0.00	0.00
TO 58	0.00	0.00	0.00	0.00
TO – V Corp	0.00	0.00	0.00	0.00
AVG TIME	**4.69**	**12.98**	**6.69**	**24.37**

Mar03-May 03

TO 27	0.00	0.00	0.00	0.00
TO 34	0.00	0.00	0.00	0.00
TO 35	3.00	25.00	2.00	30.00
TO 36	0.00	0.00	0.00	0.00
TO 41	0.00	0.00	0.00	0.00
TO 43	0.00	0.00	0.00	0.00
TO 46	8.00	5.00	5.00	18.00
TO 48	4.00	16.00	8.00	28.00
TO 50	7.00	7.00	3.00	17.00
TO 56	5.00	0.00	1.00	6.00
TO 57	5.00	4.00	3.00	12.00
TO58	3.00	11.00	6.00	20.00
TO – V Corp	5.00	3.00	1.00	9.00
AVG TIME	**5.00**	**8.88**	**3.63**	**17.50**

E.   CHAPTER SUMMARY

In this chapter the LSU member's role as outlined in AR 700-137 and AMC PAM 700-30 was discussed as were the actual roles experienced on the ground in Southwest Asia during Operations Enduring and Iraqi Freedom. The second part of this chapter outlined additions or revisions to the overall processes and procedures in theater. The five improvements involved: ensuring approval was provided from the requesting unit's higher command prior to processing; requiring units generating the specific requirements for the SOWs instead of having the LSU attempt to derive their requirements for them; providing for DCMA input as they were the post award administrative tool; the conduct of in-theater training to educate the LSU members on the basic fundamentals of contracting; and lastly, updating the SOWs to ensure they were in accordance with the basic contract. The third section of this chapter described the templates, which were

developed and employed, and finally, the measurement tools developed in theater to ascertain the effectiveness of the new process changes. One note must be established, in Chapter II, 18 sites were outlined as active on 10 July 2003. However, in June 2003, the researcher transitioned duties, due to a pending return to the states, to another individual and records required to add these sites were not consistent with the format the researcher had developed, thus the information would not of been relevant and possibly skewed the results. In the next chapter the researcher will analyze the above data to see if the changes were in fact positive or negative.

CHAPTER IV – ANALYSIS

A.   BACKGROUND

In Chapter III, the researcher on the makeup of the LSU, the expected and actual roles of the LOGCAP LSU in Southwest Asia; the training provided to the LSU; the process and procedures; changes during the deployment to these processes and procedures; and the templates and guides developed in country to aid the LOGCAP LSU.

Also presented were the results of the changes to the two measurements described and quantified in Chapter III. These areas include the actual number of changes to existing SOWs due to requirement changes and/or deficient contracting language. The second area consisted of the time it took to complete changes to existing efforts as well as the award of new efforts. This timeline measurement was broken down into three areas. The areas consisted of SOW generation to the receipt of the Rough Order of Magnitude (ROM), ROM receipt to ROM Acceptance, and ROM acceptance to the issuance of the NTP.

In this chapter, the researcher will analyze the data presented in Chapter III in the following format. First, the number of changes to existing SOWs will be analyzed against the role of the LSU in SOW preparation, training received by the LSU, the development of templates and guides, and the affects of the change in the processes and procedures.

Secondly, the researcher will analyze each category associated with the timeline from SOW generation to issuance of an NTP. Each category will outline what the researcher believes is the negative and positive affects of the above referenced items of the LSU role and makeup, training, the use of templates and guides, and changes to the processes and procedures.

B.   SOW CHANGES

Numerous and unneeded changes to existing SOWs were the hallmark of LOGCAP in its early stage from December 2002 through February 2003. An astounding 43 changes were made to only nine efforts in theater. By moving through the LOGCAP

process outlined in Chapter II, this equates to 43 separate SOWs, 43 ROMs provided by the contractor and 43 separate NTPs were issued. This was a wholly unacceptable problem, which was systemic throughout each effort and is directly traceable to a number of issues within LOGCAP. The researcher will outline those issues tied to the LOGCAP LSU, new tools and training, and changes to the processes and procedures.

1. LSU and SOW Preparation

As outlined in Chapters II and III, supported units are required to "develop a comprehensive and supportable SOW" and "include LOGCAP early in the planning process" [4]. This identifies the supported unit as the organization responsible for the generation of the SOW with LSU assistance if required during the pre award phase. This was not the case in OEF/OIF and is the primary reason for the large number of changes to SOWs during the December 02 – February 03 timeframe. The LSU members did not have insight into the specific requirements of the supported units and used historical references as to what the requirements would be based on previous efforts. This referencing would result in incomplete and erroneous SOWs, which would require multiple revisions to either add omitted requirements or remove requirements that were never needed in the first place. This rework compounded the LSU's work effort. As they revised SOWs, they continually misrepresented what was required on the ground, which simply generated another change. These facts were identified in GAO Report 04-854 "Task orders were frequently revised. These revisions generated a significant amount of rework" and "While operational considerations might have driven some of these changes, we believe others were more likely the result of ineffective planning." [8]

This situation went generally unchanged until mid March of 2003. At that time, the LSU began to implement a number of changes to improve the LSU across all areas but importantly, in the generation of SOWs. These changes included training, template/guide creation and process improvements.

2. New Tools and Training

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Not only was the LSU preparing SOWs for supported units for which they did not know the extent of the unit's requirements, they were doing so with little or no knowledge in either SOW preparation or basic contracting principles. This was a direct result of the lack of proper training provided to the LSU prior to deployment. During the interviews with LSU members and from the researcher's experience in assisting the LSU, the theme was consistent; there was a complete and total lack of training and thus no knowledge in contracting terms. The training deficiencies are documented in Chapter III and confirmed by GAO Report 04-854 "DOD did not have sufficient numbers of trained personnel in place to provide effective oversight of its logistics support contractors. The Army has deployed units responsible for supporting the LOGCAP contract, but some of the personnel have little knowledge of the contract." [8] Seven years earlier, GAO reported that training is insufficient per GAO Report NSIAD-97-63 which states to address LOGCAP implementation problems, "AMC plans to deploy a fully trained group of experts during the initial phase of an operation to provide technical and contractual support". [9]

The net affect was the creation of SOWs that were neither correct in their determination of requirements nor consistent with fundamental contracting language. Thus, during each change to an existing SOW, it was common to correct the requirement but fail to do so in accurate and definable contracting language. The primary area of concern with respect to the contract language was the "handcuffing" it did to the contractor. In today's day and age, DoD is pushing the notion of performance-based language, identifying what the Government wants and not how to do it. "Performance-based contracts offer significant benefits. Primarily, they encourage contractors to be innovative and to find cost-effective ways of delivering services. By shifting the focus from process to results, they also promise better outcomes." [10]

The SOWs in the theater failed to adopt performance-based contracting techniques and thus created difficulties in post award administration and numerous contract changes. This issue was referred to AMC command in theater via the following example. The SOW required the contractor to provide 'X' amount of trucks vice the requirements to transport 600,000 gallons of fuel. If at a later date it was discovered that

'X' amount of trucks could not haul 600,000 gallons of fuel, a SOW change would be required, whereas, if we stated 600,000 gallons, the contractor could meet that need in the best possible approach. The lack of appropriate training added to the number of changes which added to the already existing problem of lack of knowledge on the types of requirements needed by the supported unit.

In March 2003, a number of new efforts were initiated to streamline the overall processes of LOGCAP in theater. Part of this change included in-theater training on preparing SOWs and the creation of a SOW template and a requirements checklist. The training focused on the basics of using performance-based language and the use of the newly created templates and guides.

The primary need for training focused directly on SOW preparation and here is where the LSU made the most remarkable turnaround. As a result of the training goals identified in Chapter III, a SOW template was developed to aid in the training of the LSU. This template addressed both structure and uniformity issues. The template provided the basic structure for each and every site and included identical reporting requirements as depicted in the LOGCAP basic contract. Uniformity was addressed as this template provided for specific sections of the SOW to relate to specific areas outlined in the basic contract SOW. The template allowed the LSU to create SOWs that were contractually sound. No template was developed for performance based language, but the training on the basics allowed the LSU to begin to understand and implement this approach, however, neither addressed the issue of multiple requirement changes as a result of preparing the SOWs for supported units. Multiple changes occurred when the supported unit was not aware of all the services available to them or the LSU did not have an accurate understanding of what could be provided. This lack of information ensured supported units would return to the LSU to add additional services to their existing efforts. A primary example can be demonstrated at Camp Wolf. During the initial stages of camp construction, the SOW consisted of the basics, providing billeting, water works, waster disposal and dining services. Various other requirements such as communications, increased power generation and recreational efforts were not included. This can be traced to the lack of information available to both the supported units. Thus

as requirements emerged, additional changes were required. This could have been overcome had the supported unit been aware of what was available and if the LSU had been full trained on what LOGCAP can provide. A requirements checklist was developed to reduce changes in this area.

The second and more meaningful template that was developed dealt specifically with requirements. The requirements checklist laid out exactly what LOGCAP can provide and is based both on the LOGCAP basic contract and LOGCAP Worldwide Management Staffing Plan. The development of this checklist greatly minimized the number of changes as a result of requirement confusion; however, it failed to solely correct the situation of supported units "passing the buck" to the LSU when it came to creating SOWs. Upon completion of training on these two new templates and the use of performance based language, the LSU still had difficulty in completing the requirements portion of SOW preparation. It was determined that an overhaul of some essential processes and procedures were required to effect the necessary changes.

3.   Process and Procedures

Chapter III outlines a number of changes to processes and procedures. The first two process improvements, obtaining higher command approval and the use of the requirement's checklist were combined into one "Supported Unit's Guide". The Supported Unit's Guide required supported units to generate a SOW based upon the requirements checklist and obtain higher command approval prior to processing it through the LSU. This process change included the LSU preparing the official SOW in accordance with the SOW template after receipt of the documentation from the supported unit. The third process also had a positive effect on the ability to create sustainable SOWs. This process was developed in the late April timeframe and required coordinating the SOWs with DCMA. The use of performance-based language was also coordinated with DCMA to ensure the proposed language would allow DCMA to accurately monitor and assess the contractor's performance. This action was directed to specifically address the issues identified by GAO in regards to performance based contracting. "Standards should be set in terms of quality, timeliness, and quantity among other things." [10]

DCMA can provide quality input in these areas as they are the experts in post award surveillance. The researcher's brief to AMC Command in theater reiterated the need to encourage DCMA-LOGCAP Teaming by outlining various teaming efforts of "Coordination on SOW prior to award, Coordination on SOW Changes after award and combined quality assurance checks by DCMA and the Planner on site". [11]

By leveraging the contracting expertise of the ACOs at DCMA, the quality of SOWs was enhanced. This change facilitated improved post-award administration and a reduction in contract changes.

The LSU had many issues from December 02 through February 03 in the number of changes to their SOWs, from role confusion, to lack of training and inadequate processes. As a result of these issues, the LSU was severely hamstrung by a blizzard of paperwork. This situation centered on the LSU's inability to effectively handle supported unit requires in a timely manner. An example of such rapid changes can be identified at Camp Wolf outside the Kuwaiti International Airport. Without the tools and training developed and provided in the latter half of the measured time period, 9 changes were implemented through two months at one location. These changes were additional functionality that the requiring activity did not identify in initial meetings. This was compounded by the lack of information available to the LSU to identify potential gaps. This resulted in 43 changes to existing SOWs from December 02 through February 03.

By creating the above referenced templates; conducting training on the fundamentals of contracting and performance based SOW writing; and forcing change in their roles and processes, the LSU was able to significantly decrease the number of changes to existing efforts. However, the number of changes facing the LSU was just part of the problem; the extended timelines to award was also a concern of leadership in Southwest Asia.

C.   TIMELINES

As outlined in Chapter III and per AMC PAM 700-30, The LSU "Deploys worldwide in support of any contingency using LOGCAP capabilities and provides on-site interface between the customer and contractor. The LSU advises requesting activities

on LOGCAP Capabilities" [4] LSU members assist supported units on the ground by receiving their requirements and providing them to Directorate, LOGCAP stateside to ensure the requirements are communicated properly. The LSU members are the "boots on the ground" to act as a buffer between the contractor and the unit. The LSU is a conduit for the flow of information and has no authority on contractual matters. They are the preaward tool for the overall LOGCAP Team through contract award as described in Chapter II. LOGCAP was affected by a number of pre and post award issues that affected the timelines from SOW Generation through the issuance of a NTP.

1. SOW Finalization to ROM Acceptance

The data presented in Chapter III outlines no discernable increase or decrease in the overall time it took to receive a ROM after issuance of the SOW Change. The data presented outlines an average of 4.4 days for the contractor to provide a ROM. This may seem to be an acceptable timeframe for receipt of such a document, however, after analyzing what the LOGCAP process calls for, it is doubtful that such a short time frame allows the contractor to provide a succinct document outlining the costs in a meaningful way. The process provides for a SOW generated by a new requirement through either a new effort or a change to an existing one to be provided by the LSU to Directorate, LOGCAP. Then Directorate, LOGCAP reviews the SOW to ensure it meets the requirements of the contract, and then forwards it to the Procuring Contracting Officer, who in turns conducts a second review. Once this second review is complete, it is then sent to the contractor for the preparation of a ROM. It can be reasonably assumed that the contractor does not have the advantage of the entire 4 to 5 days to prepare the ROM as outlined in the data as presented in Chapter III. In the end, the ROM document provided by the contractor in such a time frame would be a high level estimate failing to outline the changes in cost in an effective manner. This in turn causes some issues in the next time measurement point, ROM Receipt to ROM Acceptance.

2.   ROM Receipt to ROM Acceptance

The data presented in Chapter III outlines a discernable drop of four days in the time to obtain acceptance of the ROM. Once a ROM is received, it is transmitted to Directorate, LOGAP and the LSU. During this stage, a review is coordinated with the supported unit. However, a number of issues hampered the ability of the LSU to conduct a review of the ROMs in the December 02 through February 03 timeframe.

During OEF/OIF in Southwest Asia, a number of roles were added to LSU duties. LSU members undertook a wide variety of roles, which required their dedication and hampered their involvement in their required pre-award activities. In an interview with CPT Frankie Asencio, he confirmed that "We were never to be the sole overseers of a site. We had no authority to do quality control". [5] This presented the LSU with its first hurdle to completing the ROM reviews. This hurdle was the time consuming activity of post-award administration. As outlined in Chapters II and III, DCMA is the responsible organization for post award administration of LOGCAP efforts. Cost monitoring, quality control and contractor surveillance as outlined in FAR Part 42 [12]. DCMA's Administrative Contracting Officers are the only government personnel who were in theater who had the authority to direct the contractor on performance. These duties routinely fell to the LSU who conducted numerous on site inspections and follow-up queries with supported units through out theater. Senior members of the LSU were also required to brief Combined Forces Land Component Command (CFLCC) on post award issues and were then commanded to correct the situation for which they had no authority. These duties should have been directed to DCMA. In his After Action Report, MAJ Karl Schelly outlined how these additional duties were affecting LSU performance by stating:

> Whether it ultimately supports the soldier or not, being late with LOGCAP
> work due to playing middle-man for services, supply, transportation, etc
> (for example, trying to track down a Forward Supply Station Point for a
> forward operating base) is faltering in our mission. [13]

These actions cost the LSU critical time throughout the entire December 02 through May 03 timeframe and prevented the LSU from leveraging their time to prepare for new requirements as they came forward. Performing these activities took critical time away from conducting the necessary reviews of the ROMs.

A second significant issue in preventing the ability to properly evaluate the ROMs was the lack of training/skill in two areas. The first was the creation of the IGCE. The LSU was not trained and had little knowledge in the area of generating an IGCE. This was compounded by the fact that the Supported units did not have expertise in IGCEs as well. The Directorate, LOGCAP failed to have a cost/price subject matter expert deployed as part of the team. Thus, the IGCE was generally a "fly by the seat of your pants" effort in order to satisfy the need, generally missing the mark. LT Mason identified the issues with IGCE development during a personal interview, "The areas of concentration should focus on… more guidance on the development of an IGCE." [14] AMC PAM 700-30 calls for the creation of an IGCE as a collaborative effort between the supported unit and the Directorate, LOGCAP, but how can an IGCE be developed if a cost/price analyst is not deployed as part of the LSU and the LSU members do not have the required training in how to develop the document? GAO Report 04-854 described the issue further

> In addition, many service personnel with oversight responsibilities for the contracts have not received the necessary training to accomplish their missions. As a result, their ability to perform all their duties, such as preparing the independent government cost estimates used to judge the reasonableness of the contractor's cost proposals, was limited. [8]

The LSU was severely handicapped in the preparation and use of IGCEs when it came to examining the proposed costs associated with contractor ROMs. This was compounded by additional training deficiencies. The additional issue dealt with the lack of training the LSU had in reviewing and understanding the ROMs themselves. The members of the LSU did not understand how the ROMs were created, how the hours and material charges were developed, and how the information related back to the effort to be performed. Again, the LSU was devoid of the required cost/price subject matter experts, and like the IGCE issue, the supported units themselves did not have the tools to adequately evaluate the ROMs.

The third issue was tied directly to the previous time measurement of SOW Generation to ROM Receipt. Compounding the lack of training on the creation of IGCEs and the ability to understand and evaluate a ROM was the material defects in the ROMs

as a result of the short turnaround times of 5 days. The LSU did not have the skills to adequately evaluate correctly prepared ROMs, let alone poorly constructed ones. This led to additional delays in the evaluation process as numerous questions for clarification were raised.

The deficiencies in the expansion of the role of the LSU and the lack of training which translated into the inability to prepare adequate IGCEs and review ROMs pushed the overall ROM evaluation step to 13 days from December 02 to February 03. While the issues of roles or properly prepared ROMs were never corrected during the researcher's time in theater nor was a cost/price subject matter expert provided, the LSU was able to reduce the 13 days down to eight in the March 03 to May 03 timeframe.

This reduction occurred due to the creation of and training on a ROM Evaluation Guide. The ROM Evaluation Guide broke the ROM down into its component parts of labor and material and traced these costs back to the submission of the SOW. Two training sessions were conducted on the ROM Evaluation Guide. The first session outlined how labor was quoted in the ROM and the second dealt with material. The training sessions enabled the LSU to better understand the ROM and all its parts. This component breakdown understanding of the ROM allowed the LSU to coordinate the ROM evaluation with the supported unit in a more timely fashion. Members of numerous supported units were also provided with this guide to share with their units to further educate those who may choose to use LOGCAP in theater. With a stagnant time frame associated with the creation of the ROM and a four-day decrease in the time it took to evaluate the ROM, leadership looked for further cuts in the final step, ROM Acceptance to the issuance of the Notice to Proceed.

3. ROM Acceptance to NTP Issuance

The final step in the process is to obtain a NTP. This enables the contractor to proceed with supporting the Warfighter. From December 02 through February 03, on average it took nearly seven days to obtain a NTP. In obtaining the NTP, the time measurement was affected by two primary issues. The first issue was ensuring the supported unit had all the required approvals from the higher command. The second issue

is the time lag between Southwest Asia and the States for the review of the applicable documentation to include the SOWs and IGCEs.

During the initial stages of OEF/OIF in Southwest Asia, there was much confusion in obtaining approval for adding efforts to the LOGCAP contract. A combination of supported units requesting LOGCAP to prepare SOWs was coupled with supported units coming to LOGCAP without their higher commands knowledge. This would result in the creation of a SOW or change to existing requirement that would move through the LOGCAP process to include a ROM Acceptance with the LSU then realizing that the supported unit did not have approval to move forward. This would result in the effort remaining idle until the approval was received. As a result of this issue, the process was amended to ensure approval was received prior to moving forward with the generation of the SOW. The aforementioned Supported Unit Guide was developed primarily to outline the requirements to generate a SOW, but it also served a secondary purpose. This purpose was to ensure their higher command approved of the effort before a ROM was even requested. This change in process was outlined in Chapter III, Section D, paragraph 1, Process and Procedure Changes. The new requirement for approval was incorporated as part of the Supported Unit's Guide and the end result was a finished package that included a requirement checklist generated SOW as well as approval. Once the supported unit accepted the ROM, the LSU was confident in moving forward for the request for NTP. This streamlined the process in theater; however, the time lag between Southwest Asia and the States still existed in the review and approval of documentation.

After receipt of all the required documentation, the LSU would submit the request for a NTP through Directorate, LOGCAP to the Procuring Contracting Officer (PCO). Directorate, LOGCAP and the PCO would review the documentation to ensure it was satisfactory; however, the reviews would be linear in nature which added a time strain to the process. This was compounded by the significant time difference between the two offices. Thus a request for NTP would, at minimum, consume 2-3 days of review between both offices. Also adding time is the path the NTP would take. It would not come directly from the PCO to the LSU; it would again pass through Directorate, LOGCAP, again adding time to the overall process. In order to address this situation, the

LSU recommended sending the request for NTP to Directorate, LOGCAP and the PCO concurrently, so the reviews would occur simultaneously. Directorate, LOGCAP was uncooperative in this aspect, asserting that the LSU maintain minimal contact with the PCO. The LSU, however, did in fact begin communicating directly with the PCO to trim the timelines as necessary. The PCO also began copying all parties on the issuance of the NTP, allowing the LSU to coordinate activities in theater.

The addition of obtaining supported unit approval upfront as part of the documentation required to kick off the LOGCAP process as well as forcing the communication issue between the LSU, Directorate, LOGCAP and the PCO began to have an affect. The time it took to gain the issuance of a NTP was 6 days in the December 02 through February 03 time frame. As result of the above implementation efforts, the time frame decreased to 3.6 days from March 03 to May 03. For the entire time period of December 02 through May 03, the time it took to receive a NTP now stood at 5.5 days.

D.   CHAPTER SUMMARY

In this chapter, the researcher analyzed the data presented in Chapter III. A number of benefits were realized by the proactive nature of the LSU. The numbers of changes to existing efforts were greatly diminished, as was the timeline to initiate efforts required by Supported units. These achievements can be directly traced to the innovative thinking of the LSU in the creation of a number of guides and templates to aid the process as well as the reinvention of the processes themselves. The training conducted also greatly benefited the LSU, giving them the tools necessary to succeed. However, the analysis also displayed room for greater improvement if additional process improvements and lines of communications were opened. There are three areas, which should be addressed to leverage the innovation undertaken by the LSU in the spring of 2003.

The first area of concern centered on the role and makeup of the LSU during their deployment. The differences between what is the anticipated role as outlined in AMC PAM 700 – 30 was very different from role experienced in theater. The makeup also needs to be adjusted to ensure all functional areas are addressed. A second concern deals

with training. While the LSU did an admirable job of training themselves, the analysis clearly shows the LSU desperately needs training prior to their deployment to ensure they can contribute immediately. The lack of training contributed to the massive amount of changes to existing efforts as well as increasing the timelines from SOW Generation to Issuance of the NTP. The last concern is to further outline process improvements. The researcher has demonstrated how process changes positively affected the LSU. These improvements need to be further capitalized.

In the next chapter, the researcher will outline the conclusions based on the above analysis and provide recommendations for further improvements.

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V.   CONCLUSIONS AND RECOMMENDATIONS

A.   INTRODUCTION

This final chapter will address three items. The first item will be the answering of the primary as well as subsidiary questions. The second item will outline the conclusions drawn from the research and lastly, recommendations will be made on how to improve the Logistics Support Unit.

B.   ANSWERS TO RESEARCH QUESTIONS

This thesis addressed the following subsidiary research questions as identified in Chapter I. Each question is addressed briefly below. The primary thesis question will be answered by the subsidiary question as well as the conclusions and recommendations throughout Chapter V.

1.   What is the Genesis of LOGCAP and What is Its Mission in Contingency Operations?

In 1985, Army Regulation 700-137 established the need for civil augmentation of the U.S. Army and outlined the policies and methods to employ the Logistics Civil Augmentation Program (LOGCAP). The need for civil augmentation of the U.S. Army stemmed from the increasing use of contractors in support of Army contingencies. The genesis of LOCAP was to provide the means to "preplan for the use of contractor support in contingencies or crises and take advantage of existing civilian resources in the United States and overseas to augment active and reserve forces." [9]

LOGCAP's mission, as outlined in Chapter I, is comprised of four goals as outlined in AR 700-137. These goals are to resolve the combat support and combat service support unit shortfalls represented in operations plans (OPLANS) and in the Army program, consider conversion of existing support units based upon availability of contract support in wartime, provide rapid contracting capability for contingencies not covered by global OPLANS, and provide for contract augmentation in continental United States (CONUS) during mobilization. [1] From the LOGCAP mission as well as lessons

learned throughout its early years and as outlined in GAO Report HSIAD-97-63, the Logistics Support Unit (LSU) was born.

The LOGCAP LSU mission is to aid the supported units on the ground during any contingency mission in which support services from the LOGCAP Contractor are required. The LSU acts as the interface between the supported unit and the contractor. Interface duties include writing Statements of Work, calculating Independent Government Cost Estimates and networking operational information between all members of TEAM LOGCAP. The forward deployed LSU is the tip of the spear for LOGCAP in any contingency operation.

2. How has LOGCAP Improved Itself Prior to OEF/OIF?

Directorate, LOGCAP failed to adequately improve the LSU prior to OEF/OIF. One of the main issues discovered in this thesis is the failure of LOGCAP to adhere to the issues highlighted in GAO Report NSIAD-97-63. This document outlined a number of areas that Directorate, LOGCAP was deficient in, in relation to the efforts in Bosnia. There were two primary areas of contention. The first area dealt with training. The Directorate, LOGCAP had failed to ensure the LSU was properly trained in the areas of contract management, cost estimate development and tracking, and requirements generation. GAO Report NSIAD-97-63 specifically states as outlined in Chapter IV that in response to the inadequate training that "AMC plans to deploy a fully trained group of experts during the initial phase of an operation to provide technical and contractual support". [9] However, as this thesis bares evidence, this did not occur.

The second area of contention was the role of LOGCAP in support of the Army. As indicated in GAO Report NSIAD-97-63, "U.S. Army, Europe official's inexperience and lack of understanding of the contract, the contractor's capabilities, and program management created problems during the deployment". [9] LOGCAP failed to improve the Army's knowledge on the role of the LSU during a deployment. This was evident in the early actions of the LSU as role confusion caused duplication of efforts and increased contracting timelines.

In defense of LOGCAP, they did establish the LSU as a result of Report NSIAD-97-63 to meet the needs of deployments. The personnel deployed as part of the LSU were

highly dedicated individuals deployed to a harsh environment. However, LOGCAP failed to adequately address it's shortcomings between 1997 and the deployments involved in OEF/OIF.

3. Who Constituted the LOGCAP Forward Deployed Cell?

The LSU is comprised of a number of commissioned officers commanded by an O-6 Colonel. The team studied during this researcher's deployment included one Lieutenant, ten Captains, four Majors, and three Lieutenant Colonels. The LSU Commander, a Colonel, remained in the United States during operations. The LSU members are primarily reservists in nature being called only during situations in which numerous members are required. During peacetime, there are four Active Guard Reservists (AGRs), which are on duty full time to respond to training and planning activities.

4. What Was the State Of LOGCAP's Forward Deployed Cell in Southwest Asia at the Beginning of OEF?

At the beginning of OEF the LSU consisted of one Lieutenant Colonel, one civilian program analyst, and three Majors. Its initial included a small handful of laptops and two desk areas spread amongst the facilities provided at Camp Arifjan.

5. What Types of Training Did the LOGCAP Forward Deployed Cell Receive Prior to Deployment? What Types of Training Was Received While Deployed?

The training provided prior to the deployment of the LSU consisted of limited Contracting Officer's Representative training as well as a two day seminar weekend prior to their deployment. The LSU received multiple training sessions while deployed in theater in an attempt to educate them on various aspects of the mission and roles. These training sessions covered the ability to generate Statements of Work, the evaluation of Rough Orders of Magnitudes, and contractor's estimates. Training also included Independent Government Cost Estimate generation and training on LSU responsibilities.

6. What Were LOGCAP's Processes and Procedures and How Well did They Support Mission Objectives?

The processes and procedures are outlined in Chapters II and III. These processes and procedures identified and translated a requirement into a contract requirement, which could then be awarded to the LOGCAP contractor. These processes and procedures allowed the LOGCAP contractor to provide the required services to the Army as part of OEF/OIF. However, Chapters III and IV outlined a number of deficiencies in the LOGCAP processes and procedures. There were two primary inconsistencies as outlined below.

The first inconsistency with the LOGCAP process in OEF/OIF were the roles the LSU was anticipating prior to their deployment versus the actual the roles performed on the ground in Southwest Asia. The anticipated role was that of planning, aiding the requiring unit in meeting their needs and facilitating the exchange of information between the requiring unit and Directorate, LOGCAP located stateside. This role morphed into planning and post award administratoion. The LSU now had responsibility not only for planning duties, but were responsible for contractor surveillance, for which they had no training or expectation. As the LSU concentrated more on post award issues, they had less time to concentrate on their primary duties.

A second inconsistency dealt with Statement of Work generation. AMC PAM 700-30 clearly calls for the generation of the Statement of Work by the supported unit. However, during OEF/OIF, the LSU was routinely tasked with the creation of Statements of Work for varying supported units. This generation of SOWs by the LSU with minimal input from supported units led to numerous changes. This additional administrative work had a detrimental impact on the LSU's primary role as planner and facilitator of supported unit requirements.

The expanded role and absence of supported unit involvement in developing the Statement of Work caused increased workload and timelines. These two issues were addressed with changes to the processes and procedures as well as via additional training.

7. **How Can LOGCAP Leverage Off the Experiences of OEF/OIF to Enhance Performance During Future Deployments?**

LOGCAP can leverage off the experiences in OEF/OIF by adopting not only the recommendations contained within in this document, but also by adopting the recommendations outlined in GAO Report 04-854.

C. CONCLUSIONS

This chapter contains specific conclusions based upon the researcher's effort to outline the current issues within LOGCAP. The following three conclusions touch upon the LSU role(s) and makeup, the training the LSU received and the requirements generation process.

Conclusion #1. Based upon the research outlined in the preceding chapters, the first conclusion drawn by the author centers on the role confusion created during the deployment of the LSU to Southwest Asia. The first role issue dealt with who was responsible for creating the SOW and IGCE. As outlined previously, it has been demonstrated that the LSU Member is responsible for aiding the supported unit in developing the SOW based upon their needs. However, throughout the LSU deployment, the members were responsible for generating the SOW, often missing necessary requirements or adding requirements that were not needed. AMC PAM 700-30 clearly outlines that is the customer's role to "develop a comprehensive and supportable SOW" [4] This confusion on who has responsibility for initial SOW generation created a large volume of changes to existing efforts in the spring of 2003.

A second role issue concerned that of post award administration. Throughout this thesis, it has been demonstrated that the LSU member often undertook post award administration of various efforts. These post award efforts are the realm of DCMA. While this role confusion did not contribute directly to the large number of changes or the extended timelines, it did pull valuable resources from planning efforts, which diminished the ability of the LSU to respond to supported unit needs.

The last primary role confusion dealt with the creation of the IGCEs. AMC PAM 700-30 specifically calls for the creation of the IGCE by Directorate, LOGCAP. However, Directorate, LOGCAP did not deploy a cost/price analyst to develop the IGCEs in theater and, as such, the role fell to the LSU member. The LSU member had neither experience in nor training on how to develop an IGCE. The LSU stumbled through the creation of the IGCE. This led to inaccurate or irrelevant IGCEs, which created an inability to effectively evaluate ROMs in a timely manner. Ineffective reviews of ROMs by the LSU in coordination with the supported units increased the time to evaluate a ROM to 13 days. The ineffective nature of the IGCEs was twofold; it increased timelines as he Government was unable to compare an ineffective IGCE to the ROM and did not allow for a meaningful evaluation of the costs.

The role confusion issue was compounded by the lack of training provided to the LSU. As the role of the LSU was expanded from their anticipated role, they were stretched thin. This combined with inadequate training for areas associated with their anticipated role extended timelines and increased the administrative effort of making changes and initiating new efforts. Efforts were undertaken to minimize role confusion, however, LOGCAP must refine what the LSU role on the ground is uniformly for all sites.

Conclusion #2. The author's second conclusion centers on the training received by the LSU prior to and after deployment. In interviewing members of the LSU it became clear that very little training was provided prior to their deployment. Their training focused on the requirements of a Contracting Officer's Representative. During the initial phases of OEF/OIF in Southwest Asia it was apparent; the LSU members did not have the necessary training. The LSU members were deficient in basic contracting fundamentals. This translated into SOWs, which were written poorly, inadequate IGCEs as well as ROM evaluations that were below par.

As a result of the lack of training, the LSU was inundated with multiple SOW changes due to poor wording and missing requirements. As a LSU member struggled through writing a SOW based upon the limited information provided by the supported

unit, they did not have the knowledge to draw upon that a typical contracting professional would have. The LSU member was not trained on using the basic contract SOW as a guide nor was the LSU member aware of the incorporation of the necessary reporting requirements to aid in post award administration. This is combined with lack of proper planning led to the 43 changes identified in Chapter III.

The second training deficiency involved the creation of IGCEs and the evaluation of ROMs. As outlined in the first conclusion, Directorate, LOGCAP has the responsibility for providing the IGCE. However, a cost/price analyst did not deploy from Directorate, LOGCAP, thus the duty fell to the LSU. The lack of training on the creation of IGCEs led to the development of IGCEs that failed to accurately outline expected costs. This was compounded by the lack of training on how to evaluate ROMs. The LSU members had zero experience with cost/price analysis yet were tasked with ROM evaluation. This lack of training on both the creation of the IGCE and the evaluation of the ROM led to extended timelines as identified in conclusion one.

During the spring of 2003, a number of training classes were conducted to help bring the LSU members up to speed in their ability to evaluate ROMs. The LSU members responded positively to the training and enhanced their ROM evaluating skills. The information was also passed to supported units. This was the primary reason for the reduction in the time to evaluate the ROMs.

Overall, the training provided to the LSU was deficient in every aspect. They were woefully unprepared to complete their mission and the drastic number of changes and extended timelines represented such. However, after receiving "on the job" training during their deployment, the LSU improved their efficiency and effectiveness. This clearly demonstrates that had this training been provided prior to deployment, the LSU would have been able to complete their mission with more efficiency and effectiveness.

Conclusion #3. The previous two conclusions outlined how role confusion and lack of training increased the number of SOW changes as well as the timeline to complete the overall process. This conclusion will outline the deficiencies in the overall process from SOW completion to award.

The first portion of the overall process is SOW finalization through ROM receipt. The LOGCAP process which includes forwarding the SOW and IGCE from the LSU through Directorate, LOGCAP, then to the PCO and from there onto the contractor is a time consuming process. The time measured is roughly 4.5 days. Considering the time involved with passing through each point it is inconceivable to believe the ROM provided by the contractor can be relevant in the cost it outlines. This lack of consistent and relevant ROMs can affect the time it takes to review the ROM, increasing the ROM Acceptance phase.

The second phase, the ROM Acceptance phase, is addressed in conclusions one and two outlining the deficiencies in training and the role confusion experienced. The deficiencies labeled are the causes for the extended timelines associated with this phase. After the ROM is accepted, it is passed for issuance of an NTP.

The ROM Acceptance to NTP Issuance phase was hamstrung by two negative affects. The first dealt with the supported unit failing to gain their higher level's approval prior to coming to LOGCAP. The second issue concerns the lengthy process outlined in the SOW Finalization to ROM Receipt Phase. This process is duplicated for the issuance of the NTP, requiring the same number of checks. Due to the efforts of requiring supported unit approval before hand, the time to receive a NTP was reduced to 5.5 days, however by including both Directorate, LOGCAP and the PCO with the ROM Acceptance and the request for NTP, the timeline can be at least maintained and more than likely lowered.

D.   **RECOMMENDATIONS**

Three recommendations are provided herein as a result of the research and analysis presented in this study. The recommendations concern the role LSU member, the training requirements and the development of a deployment package.

Recommendation #1. LOGCAP should ensure the roles, as identified in AMC PAM 700-30, are adhered so the LSU can concentrate their efforts on the planning aspect of LOGCAP.

Throughout the spring of 2003 the members of the LSU were tasked with a wide array of duties, most well beyond their intended role. These roles were not within the realm of the roles as outlined in AMC PAM 700-30, nor were they within the realm of the roles as understood the by LSU Members themselves. In order to ensure the LSU Members and supported units in the field have a clear understanding of their roles, a more detailed breakout of these roles is required. AMC PAM 700-30 is not detailed enough in its presentation of the roles of the LSU. LOGCAP, the LSU, the PCO and DCMA should team to create a detailed document outlining each organization's role. These roles should then be captured in the LSU member's Guide that was developed in theater. The roles should be outlined by organization, function and required training to meet those roles.

Recommendation #2. LOGCAP should create a detailed training plan for each LSU member.

Throughout this thesis a recurring theme occurred. This theme was training. It was clear and evident that the members of the LSU did not have the necessary knowledge and skills to effectively complete the mission. The LSU was able to ensure the Warfighter was supported, but had they been appropriately trained, the support could have been timelier with less of an administrative burden. In order to ensure future deployments are more effective in their use of time and resources, a dedicated training plan should be developed. The training plan should address the role of the LSU member and the lessons learned of OEF/OIF. The training should consist of basic contracting fundamentals, IGCE development, ROM evaluation, and a course on the specifics of their role. The training plan should also address the following deployment package.

Training can be completed through a combination of Defense Acquisition University (DAU) courses and case studies. LOGCAP should include the following DAU courses in the training plan; CON 101 Basics of Contracting; CON 104 Principles of Contract Pricing; and CON 237 Contingency Contracting. The case studies should be mock ups of situations which could be expected in the field. These case studies would give the LSU some structured experience to explore how alternatives would affect mission outcomes.

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Recommendation #3.LOGCAP should develop a deployment package for the LSU Member, providing the documentation, templates and guides necessary to successfully complete their mission

In coordination with the dedicated training plan, LOGCAP should prepare and make available a comprehensive package for each LSU member prior to their deployment. During the LSU deployment during the spring of 2003, it was evident that the LSU members did not have the tools to complete the mission. Each site had its own SOW format and what LOGCAP could provide was misunderstood. This was combined with the inability to build IGCEs or evaluate ROMs. Now while the training provided was useful to the members on the ground in Southwest Asia, in order to capture the knowledge gained, the templates developed must be refined. The Requirement Checklist and SOW Change Matrix must be coordinated with the PCOs to ensure all applicable requirements of the basic contract SOW are incorporated to include all reporting requirements. The IGCE development guide must be coordinated with Directorate, LOGCAP cost/price analysts and preferably DCAA to ensure the best available document can be present to the LSU prior to deployment. The ROM Evaluation guide should also be coordinated with both the PCO and DCAA to ensure the latest labor categories and rates are available. Lastly, a LSU Members Guide should be formalized with Directorate, LOGCAP to ensure the LSU completely understands their role in accordance with the first recommendation.

E.   THESIS CONCLUSION

This thesis focused specifically on the LSU and as such the researcher will tailor the answer to the primary thesis question to their actions, processes, procedures and future. First and foremost, LOGCAP needs to adequately train the LSU prior to deployment. The conclusions outlined above demonstrate the deficiencies in the role of the LSU on the ground, the lack of training provided to the LSU prior to their deployment and the overall process. The question is can LOGCAP improve its processes and procedures to affect positive change? The answer is yes, if the recommendations above are adopted and further research is conducted in the outlined areas. By teaming with

sister organizations, LOGCAP can do a better job of outlining the roles of the LSU and informing U.S. Military of those roles so confusion is minimized. The minimization of role confusion will free LSU resources so they may engage in meaningful planning while assisting supported unit's in actions that are part of their core competency. This minimization will also decrease the timelines for placing efforts on contract.

The second improvement LOGCAP can undertake is training. Throughout this thesis, it was apparent that the lack of training was a primary cause of the volume of changes as well as lengthy timelines. LOGCAP can improve it's process if serious consideration is given providing meaningful and relevant training to the LSU. The LSU is a highly motivated, skilled and dedicated team, but not giving them the tools and knowledge seriously handicaps their ability to complete their mission. This training must be coordinated with a documents package that allows the LSU to be fully armed when deploying. Lastly, the overall LOGCAP Team needs to be more integrated. The geographic separation creates time and communication barriers. A more integrated team encompassing all fields to include contracting and cost/price analysis is required to effectively allow the use of LOGCAP.

LOGCAP is a useful tool allowing the U.S. Military to leverage civil expertise in a number of areas. This expertise is critical to mission success as the U.S. Military is downsized. In order to maximize the effectiveness of LOGCAP, the LSU roles must be more definitively established, training programs must meet the needs of the LSU and their roles. Meeting these needs will allow LOGCAP, specifically the LSU, to become a more efficient and effective organization.

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