

LOGCAP: CAN BATTLEFIELD PRIVATIZATION AND OUTSOURCING CREATE TACTICAL SYNERGY?

**A MONOGRAPH
BY
Major Michael F. Stollenwerk
Armor**

19990804 067

**School of Advanced Military Studies
United States Army Command and General Staff
College
Fort Leavenworth, Kansas**

First Term AY 98-99

Approved for Public Release Distribution is Unlimited

DTIC QUALITY INSPECTED 2

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)

2. REPORT DATE
17 December 1998

3. REPORT TYPE AND DATES COVERED
Monograph

4. TITLE AND SUBTITLE *LOGCAP:*
Can Battlefield Privatization and Outsourcing Create
Tactical Synergy

5. FUNDING NUMBERS

6. AUTHOR(S)
Michael F. Stollenwerk

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
School of Advanced Military Studies
Command and General Staff College
Fort Leavenworth, Kansas 66027

8. PERFORMING ORGANIZATION
REPORT NUMBER

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)
Command and General Staff College
Fort Leavenworth, Kansas 66027

10. SPONSORING / MONITORING
AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION / AVAILABILITY STATEMENT

APPROVED FOR PUBLIC RELEASE.
DISTRIBUTION UNLIMITED.

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)
SEE ATTACHED

14. SUBJECT TERMS

Privatization, Outsourcing, LOGCAP, Tactical Synergy, Core
Competency, Battlefield Contracting.

15. NUMBER OF PAGES

63

16. PRICE CODE

17. SECURITY CLASSIFICATION
OF REPORT
UNCLASSIFIED

18. SECURITY CLASSIFICATION OF THIS
PAGE
UNCLASSIFIED

19. SECURITY CLASSIFICATION
OF ABSTRACT
UNCLASSIFIED

20. LIMITATION OF ABSTRACT
UNLIMITED

SCHOOL OF ADVANCED MILITARY STUDIES

MONOGRAPH APPROVAL

Major Michael F. Stollenwerk

Title of Monograph: *LOGCAP: Can Battlefield Privatization and Outsourcing Create
Tactical Synergy?*

Approved by:



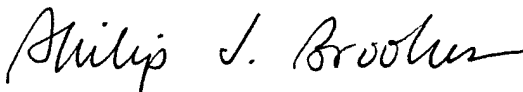
Robert H. Berlin, Ph.D.

Monograph Director



LTC Robin P. Swan, MMAS

Director, School of Advanced
Military Studies



Philip J. Brookes, Ph.D.

Director, Graduate Degree
Program

Accepted this 16th Day of December 1998

Abstract

LOGCAP: Can Battlefield Privatization and Outsourcing Create Tactical Synergy?

by Major Michael F. Stollenwerk, USA, 63 pages.

Commercial firms have operated on the battlefield in support of combatants since antiquity. This monograph examines the efficacy of current US Army doctrine and practice for contingency contracting. The Army's contingency contracting program is called the Logistics Civil Augmentation Program (LOGCAP). The primary research question is: Does the Logistics Civil Augmentation Program (LOGCAP) effectively leverage the private commercial sector at the tactical level of war? This Monograph concludes that in order to achieve tactical synergies, the Army should transform LOGCAP into a strategic outsourcing relationship.

Battlefield outsourcing in the US Army began with the War of Independence. This tradition accelerated in the 20th century, especially during the Vietnam conflict. The US Army today relies on system contractors to maintain and support increasing numbers of end items of equipment on the battlefield. Since 1992, contingency contractors have been alerted and deployed on contingency missions in Somalia, Rwanda, Haiti, Italy, and Bosnia to provide a broad range of combat support and combat service support to US and allied forces.

The LOGCAP concept attracted Congressional interest in 1996 when cost over-runs in Bosnia under Operation Joint Endeavor exceeded \$111 million. The Government Accounting Office (GAO) criticized the program for lacking doctrine and guidance. Recent Army efforts to improve LOGCAP doctrine are mixed. These efforts lack a basis in organizational theory, are generally mechanistic, and partly disingenuous.

Contemporary competitive business practices involve the identification of core competencies that deserve management's undivided attention. Non-core functions are outsourced not just to economize, but to gain the synergy of managerial focus. Strategic outsourcing goes even further by trying to innovate across core and non-core functions between two separate but partnered organizations.

Army doctrine does not discuss synergies because the doctrine is not rooted in any organizational theory of outsourcing. The Army does not generally articulate a vision of outsourcing beyond a mechanistic view of filling holes in force structure, and thus is less likely to achieve tactical synergy with LOGCAP.

This monograph proposes four initiatives to continue the evolution of LOGCAP into a true public-private sector partnership that can create and harness tactical synergies. The four initiatives are:

1. Garner and signal senior leader commitment.
2. Focus on core competency identification.
3. Develop a strategic relationship between the Army and the LOGCAP contractor.
4. Create incentives for agents in the relationship to focus on tactical synergies.

The Nineteen recommendations offered to implement these initiatives may require significant legal and cultural shifts, but they are similar to the techniques used in the private sector today to meet the challenges of globalized competition.

Table of Contents

	<u>Page</u>
Chapter 1 -- Introduction	5
Chapter 2 -- Historical Perspectives on Battlefield Outsourcing	10
Chapter 3 -- LOGCAP's Rebirth	17
Chapter 4 -- Core Competency and the Theory of Outsourcing	24
Chapter 5 -- LOGCAP Today	28
Chapter 6 -- Harnessing LOGCAP Synergies	37
Chapter 7 -- Recommendations and Conclusions	41
Glossary	48
Endnotes	50
Bibliography	56

Chapter 1: Introduction

“...the employment of LOGCAP without doctrine and guidance...[is like] giving the Army a new weapon system without instructions on how to use it.”

-United States General Accounting Office¹

The Department of Defense (DOD) is exploring expanded and accelerated privatization and outsourcing of commercial activities on its bases and across its civilian operating agencies. Many military officers and contemporary students of US military affairs are familiar with contemporary cost saving programs such as the Base Realignment and Closure Commission (BRAC) process, as well as A-76 programs (a systematic comparison of in-house and contracted costs of commercial services in accordance with OMB circular A-76). Much less familiar is the ongoing outsourcing and privatization of battlefield functions formerly performed by active and reserve component military units.

Most contemporary military writers view such battlefield contracting as an effective military necessity due to inadequacies of force structure or Host Nation Support (HNS).

Major Camille Nichols writes in a Naval War College paper that

Current fiscal, political, and force structure policies limit the availability of military logistics assets for the JTFC's [sic] mission. This shortage of critical assets can be overcome by using the civilian contractor support provided in the Logistics Civil Augmentation program (LOGCAP).²

Colonel Kenneth Clow states in his US Army War College thesis that

...the actual shortfall in combat support and combat service support is probably larger than current rules allow to be counted. LOGCAP [the Logistics Civil Augmentation Program] therefore, may have an even greater role to play.³

Colonel David Russell, also writing as a US Army War College student, says that

LOGCAP is another tool available to the warfighting commander to fill requirements that can not be supported by available forces or wartime host nation support.⁴

What binds these writers, as well as current and draft versions of Army doctrine, is a general absence of reference to any organizational theory.

Commercial firms have been on the battlefield since antiquity. Mercenary armies once dominated warfare in Europe, and contractors have filled vital roles for the US armed forces since the War of Independence when the "...contract system, contracting complete rations, remained the method of feeding the Army from the end of the revolution to the end of the War of 1812..."⁵ The post cold war drawdown has left the total Army unable to organically support itself in combat. In a recently declassified study of a simulated conventional global conflict scenario, the US Army's Concepts Analysis Agency (CAA) found a 60% shortfall by unit in logistical capability.⁶ Additionally, in recent regional contingency operations, policy makers and military planners have tried to minimize activation of reserve component units for contingency missions such as Bosnia and Haiti. A response to these planning conundrums has been to seek help from the commercial sector in supporting military operations.

The Logistics Civil Augmentation Program (LOGCAP) is an Army program⁷ for integrating the commercial sector into the planning and execution of tactical military operations. LOGCAP is an umbrella contingency contracting program that can be executed in addition to or in lieu of Host Nation Support (HNS) and "system contracting" for support of major end items of equipment. Although officially a last resort (see Figure 5-3), LOGCAP has proved instrumental in supporting all recent contingency missions. The total cost for LOGCAP contracts covering tactical support for US operations in

Somalia (Operation Restore Hope), Rwanda (Operation Support Hope), SW Asia (Operation Vigilant Warrior), Italy (Operation Deny Flight) and Bosnia (Operation Joint Endeavor) from 1992-1995 was \$674.2 million, and this does not include similar programs run separately by the other military services.⁸ The total expenditure in the Balkans alone through FY 98 approaches \$800 million.⁹ See Figure 1-1 below.

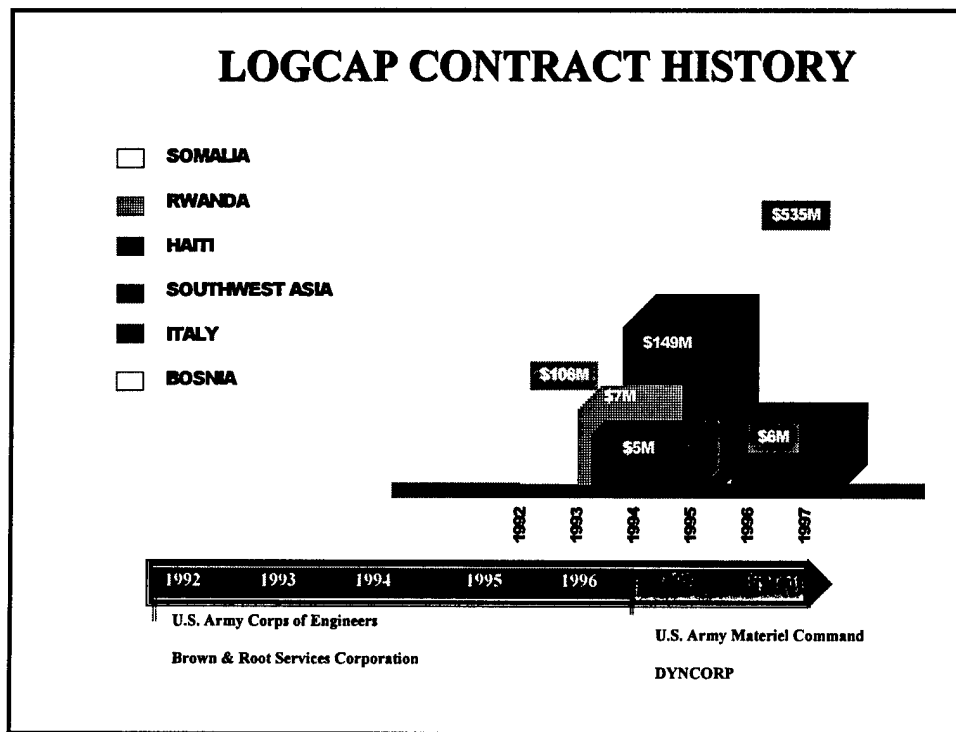


Figure 1-1¹⁰

LOGCAP is an essential part of tactical military operations today. After action reports from recent contingency missions such as Bosnia and Haiti laud such firms as AT&T and Brown & Root as indispensable, yet a Joint Universal Lessons Learned (JULLS) report shows that the CENTCOM joint staff has identified a systematic failure to provide on-call funding for initial LOGCAP mobilization costs, thus hampering tactical readiness.¹¹ Some recent critics of LOGCAP such as MIT's Center for National Security Studies'

Sanford Weiner believe that many combat service support functions that are contracted to private firms are really core government functions that should stay "in house" for legal and other reasons.¹² Many uniformed military security specialists agree - US Army Lieutenant Colonels Blair Ross and Terrance Spoon warn of the operational risks of battlefield outsourcing.¹³ In sharp contrast with these critics are others such as Lieutenant Colonel (Ret.) Paul Taibl of Business Executives for National Security (BENS) who advocates outsourcing as many military battlefield functions as possible, leaving perhaps only what he calls "two degrees of separation" between the enemy and America's powerful and efficient commercial sector.¹⁴

LOGCAP is under scrutiny both within and from outside the Department of Defense (DOD). At the request of Congress, the Government Accounting Office (GAO) has reviewed the LOGCAP program in recent contingency operations. The GAO found that LOGCAP contractors provided effective support for military units, however, "...the employment of LOGCAP without doctrine and guidance...[is like] giving the Army a new weapon system without instructions on how to use it."¹⁵ The GAO identified areas for improvement such as doctrine and guidance, cost reporting, and contract monitoring; the study also questioned why each service was funding separate LOGCAP programs, even in the same operational theater.

LOGCAP encompasses a new way of doing business for the Army, and its personnel. Critical to this effort is organizational learning with respect to support of contingency operations. By benchmarking how private and other public institutions carry out similar programs, we can gain insight on how to better synergize LOGCAP operations with the planning and execution of tactical operations.

This monograph's purpose is try to answer the question: "Does the Logistics Civil Augmentation Program (LOGCAP) effectively leverage the private commercial sector at the tactical level of war?" The effort will review the historical evolution of battlefield outsourcing, discuss the management theory behind core competencies and outsourcing, describe contemporary doctrine and execution of LOGCAP today, and finally, compare theory to reality in order to draw conclusions and make recommendations to improve and create battlefield synergies. The methodology specifically seeks to find:

- The degree to which LOGCAP systematically identifies "non-core" military functions for outsourcing. To measure this degree, the monograph will analyze the effectiveness of discernible planning procedures for identifying what tactical military functions to outsource under LOGCAP, and under what tactical circumstances.
- The degree to which commanders and staffs leverage this outsourcing to improve performance at the tactical level of war (or peace). To measure this degree, the monograph will analyze the effectiveness of discernible doctrine and procedures (or even initiatives in the field) to create tactical synergies in the field among uniformed warfighters and their non-uniformed for-profit supporting organizations.

Analysis of these two aspects of LOGCAP allows for benchmarking of US Army doctrine against the practices of other organizations in the private and public sector (including military). While the GAO has pointed out the need for improvements in LOGCAP, this monograph will offer specific recommendations for such improvement that is oriented on maximizing military effectiveness at the tactical level of war throughout the spectrum of conflict.

Chapter 2: Historical Perspective on Battlefield Outsourcing

[In regards to civilian contractors in operation desert Shield/Desert Storm]...there was no central cognizance of who was in theater, enroute, or who had left. ...mobilization and deployment...was accomplished largely in an ad hoc manner.”
-Rand Corporation Study¹⁶

“It has been and continues to be necessary to rely upon the private sector for support...”¹⁷
-Lieutenant General Pagonis, Gulf War ARCENT J4

Private civilian firms have been operating as, or in support of, combatant forces for centuries. Medieval European city-states employed private armies to defend their interests. While armies of the nation-states of Europe gradually shifted ownership of combatant units to the sovereign or the state itself, private firms continued to be used to introduce and integrate technology and innovation onto the battlefield. Sweden’s Gustaphus Adolphus employed technologically superior private companies of field artillery with his maneuver army, and harnessed this relationship to produce innovation in combined arms warfare at the battle of Brietenfeld.¹⁸ Napoleon’s efforts to reduce his dependence on fixed depots (and the accompanying requirements to garrison them) hinged upon the creation of “a corps of logisticians who located and procured supplies from civilians along his axis of advance.”¹⁹ The objective was to free up manpower and other resources to the ranks of the fighting forces, a concept not lost on Union Commanders in the US Civil War.

Civilians and civilian contractors filled major battlefield roles for US forces in almost all of the nation’s armed conflicts. During the nation’s Indian Wars, “...steamboats made a greater profit from transporting soldiers than from their regular trade.”²⁰ The Mexican

campaign involved the use of civilian transportation firms and even contract drivers for horse drawn carts. The industrial breadth and complexity of war in the twentieth century expanded the role of contractors through both World Wars²¹ and especially the Korean conflict.²² Cold War era weapons development continued to push technological and managerial frontiers, leading to contractors performing research and development, testing, and eventually cradle-to-grave life cycle maintenance/logistics support.²³ However it was the Vietnam conflict that transformed the role of battlefield contracting.

The Vietnamese theater environment presented military planners many unique challenges. By 1965, US forces were streaming to Vietnam to prosecute conventional operations against the North Vietnamese Army, as well as unconventional operations against the Viet Cong. The lines of communication to the United States were over 7,500 miles long. Airports and seaports of debarkation were completely inadequate for deploying a modern Army into theater. Internal transportation networks were highly underdeveloped, and the commercial sector of the South Vietnamese economy could not supply industrial age goods and services so readily found in the European theater, and even South Korea. US ships waited almost two months just to unload equipment, incurring demurrage costs of \$3,000 - \$7,000 per ship per day (in 1965 dollars);²⁴ but these were not the only planning challenges.

President Johnson's decision not to mobilize the reserve component exacerbated theater wide problems. Even at this time, most combat support and combat service support forces were in the service reserves or the National Guard. Military planners were further constrained from raiding support units from the active components due to NATO mission requirements in Europe, the uneasy armistice in Korea, and other periodic cold

war exigencies such as Cuba (interestingly enough, the Kennedy administration also refused to mobilize reserve component support units while preparing for a major war in Cuba during the 1962 missile crisis).²⁵ Historian Dave Palmer described the summer and fall of 1965 as

...dreadful months of sheer bedlam for construction planners and operators...There were neither equipment or men enough to do the work as fast as it was needed...Combat troops helped with unloading and lent a hand anywhere else they could. Engineers shuttled back and forth in a fire brigade role.²⁶

Tactical operations in Vietnam could only begin in earnest with the help of the commercial sector. Military forces lacked critical Army engineer and Navy Seabee units, construction and transportation assets, and port opening/handling capabilities. Furthermore, the theater was initially allocated insufficient units for medical, maintenance, and supply services, and what units had arrived did not have the infrastructure to perform their missions adequately. "In near desperation, the Army turned to RMK (Raymond-Morrison-Knudsen), a civilian construction firm..." with two years of experience in Vietnam.²⁷ RMK doubled its workforce *three* times in two years and worked (along with many other contractors) closely with military units and task forces of all sorts to quickly develop the theater and support military operations in the field with engineering, construction, transportation, and supply services.²⁸

The post-Vietnam military drawdown and reorganization encouraged the continued use of contractors in combat operations. By the late 1970s, fully 75% of the Army's combat support, and especially combat service support belonged to the reserve component.²⁹ Military planners recognized the new realities by increasing the planning

for, and reliance upon HNS to fill force structure shortfalls in Europe and Korea.

However, even US industrial allies in these well developed theaters could not fill all the shortfalls, so planners envisioned additional deployments of US contractors in time of war. A further lingering factor in encouraging the use of outsourcing on the battlefield was tension between the executive branch and the legislative branch.

Toward the end of the Vietnam conflict, Congress asserted itself in issues regarding the control and use of the armed forces by the President. The 1973 War Powers Act sought to make the President get approval prior to committing US forces to combat. The 1975 Defense Authorization Act directed the executive to use *cost* as the determining factor to replace military personnel positions with civil service civilians, who were managed under cumbersome civil service rules, and who, by DOD practice, cannot be compelled to deploy, and are allowed to un-volunteer from deployments even if they previously volunteered to deploy.³⁰ Congress also began to routinely place US force caps on theaters as large as Europe and Korea, and as small as El Salvador. These force caps encouraged military planners to leverage HNS and contracted support in these theaters because they could forward deploy more combat forces than reliance on uniformed combat support and combat service support would otherwise allow under the force caps.

Strategic factors in the late 1970s and early 1980s focused attention on the need to develop doctrine and procedures to plan and manage the increasing role of contractors on the battlefield. Continued tension in Korea, as well as modernization of WARSAW PACT forces encouraged military planners to continually update deployment plans regularly, highlighting force structure shortfalls and reliance on HNS. The 1973 Arab oil embargo, the 1979 Soviet invasion of Afghanistan, and tensions between Iran and Iraq

after the fall of the Shah all focused political attention on the Middle East and Southwest Asia. In this potential theater, unlike Europe and Korea, US forces would not enjoy forward basing, pre-positioned equipment and war stocks, uniformly developed infrastructure, nor a robust commercial structure to sustain HNS; furthermore, unlike Vietnam, the US might have to go into the theater without a regional ally. The Army logistical community sought to clarify doctrine for such contingency operation contracting.

The 1985 publication of Army Regulation 700-137 (Logistics Civil Augmentation Program) marks the beginning of the an effort to codify the new reality of contractors on the battlefield. The regulation had a strong OPLAN orientation, but attempted to remove the burden of contracting from the local commanders and CINCs, calling for the Army Service Component Commands (ASCCs) of each regional unified command to individually manage contingency contracts for support, supplies, and services required to execute their war time missions. Of all major commands (MACOMs), 3d US Army (ARCENT) was initially the most proactive LOGCAP planner focusing on CENTCOM contingencies in South West Asia.³¹ In 1989, 3d Army authorized the US Army Corps of Engineers Transatlantic Division to sign its largest LOGCAP contract with Pirini corporation to plan and be prepared to execute petroleum distribution and other services in South West Asia. 3d Army and CENTCOM allowed this contract to expire in 1990, thus LOGCAP was not tested in Operations Desert Shield/Desert Storm. 3d Army justifications for allowing LOGCAP arrangements to lapse included legal considerations within the Army Corps of Engineers transatlantic Division, "...high cost for limited application, and dependence upon US forces to preposition and transport materials."³²

Contractors deployed to Operation Desert Shield/Desert Storm under conditions of adhococracy. As a Rand study put it:

Contractor civilian employees were asked to deploy by their employers in response to requests from government contracting officers. The Army requested that contractor employees process through Army centers, but not all complied with this request. Contractors used commercial rather than government transportation into theater; and so there was little the Army could do to enforce this policy. Contracts were negotiated directly by a variety of organizations rather than through some central CONUS or theater contracting activity. Thus, there was no central cognizance of who was in theater, enroute, or who had left. Additional coordinating complications arose because the in-country Commander-in-Chief (CINC) staff believed that it should have central control of all contractors deployed to support Operation Desert Shield/Desert Storm.³³

The trend toward reliance "...on civilian contractors at the tactical/operational levels rather than in some rear, fixed facility location" continued in the Persian Gulf conflict.³⁴

In addition to large scale Presidential mobilization of the reserve components in all armed services, the voluntary deployment of over 2,000 DOD civilians, and the use where possible of HNS, over 3,000 contractor personnel deployed to Operation Desert Shield/Desert Storm. These contractors functioned increasingly as integral part of tactical military operations, with several contractors deploying forward with combat units into Iraq and Kuwait in apparent contravention to established CENTCOM policy.³⁵

Operations Desert Storm/Desert Shield validated the Army's reliance on battlefield contractors, but failed to test the new contingency contracting doctrine. CENTCOM and 3d US Army had allowed its LOGCAP contract to lapse, and these commands were to resist using LOGCAP later again in Somalia. Lieutenant General Pagonis reflected on

his role as the 3d Army J4 (Chief Logistician):

Our initial contracting negotiations were particularly challenging. Quick analyses of the situation by military leaders...led to the conclusion that our limited-and-precious transport space should be reserved for combat troops, and for those supplies, such as weapons and ammunition that could not be procured in theater. Everything else was our problem, to be found and contracted for. The sheer magnitude of our needs...was sometimes staggering.³⁶

LOGCAP would have greatly reduced the managerial complexity of Operations Desert Shield/Desert Storm.

Within a few months after the cease fire in Iraq, the Army took steps to centralize administration of LOGCAP, and execute it under an umbrella concept. In 1992 the Army Deputy Chief of Staff for Logistics (DCSLOG) directed the Army Corps of Engineers Transatlantic Division to award a single global LOGCAP contract, eliminating the requirement for CINCs and ASCCs to manage the program separately in each theater. Furthermore, this was to be a umbrella contingency contract under a single firm to provide a host of services at the very start of any military deployment. In addition to lessons learned from the Gulf War, senior Army logisticians were focused on preparing for the increasing likelihood of operations other than war in the new world order.³⁷

Chapter 3: LOGCAP's Rebirth

**“In Bosnia I have three MACOMs: DISCOM, Signal,
and Brown & Root.”³⁸**

-BG Pat Oneal (ADC(S), 1AD), Winter of 1996

Brown and Root's 3 August 1992 LOGCAP contract was a revolutionary approach to US war-time logistics. For the first time in its history, the Army had chosen a commercial partner to plan and execute contingency logistics in advance of any conflict or reserve component mobilization decision by the National Command Authority (NCA). Furthermore, this commercial partner was expected to deploy *faster* than most of its active duty forces. The depth and breadth of the relationship exceeded anything tried before. The Department of the Army funded a \$4 million up front fee in exchange for peacetime planning services. Supported CINCs were expected to integrate the LOGCAP contractor into peacetime contingency planning and exercise scenarios; however, in order for a CINC to execute the contingency contract itself, the CINC's ASCC was responsible for funding. Highlights of the contractor responsibilities included:

- Developing world wide management, and 13 country specific plans based upon data and planning guidance from regional CINCs.
- Participate in exercises.
- Execute contingency support plans upon alert notification.
- Upon alert, self-deploy advance parties within 72 hours and establish the first of a total of five base camps (camps are “turn-key” operations complete with billeting, showers, meals, laundry, utilities, sanitation, maintenance, and other support) for a total of 20,000 soldiers within 16 days; the other four camps must be ready in 31 days.
- Provide construction and operational support for one Seaport of Debarkation (SPOD), two Airports of

Debarkation (APODs), four forward support areas, and one rear support area.

- On order, expand theater support to service 50,000 troops.
- Conduct port reception, onward movement, and other activities as needed, including the provision of a contingency work force.

The new LOGCAP contract was not a typical government contract; it was an experiment in relationship contracting where both parties must have faith in each other. Interestingly, 3d US Army (ASCC for CENTCOM) was still reticent to support LOGCAP and did not actively pursue it for contingency planning.³⁹ This reluctance to employ LOGCAP would soon threaten to hinder US military contingency operations in the Horn of Africa.

The LOGCAP concept was severely tested by Operation Restore Hope in Somalia. By contract, Brown & Root was to complete country plans by April, 1993, and all planning completed by August, 1993. On December 2, 1992, fully ten months ahead of the deadline for global contingency planning completion, and even before President Bush had announced deployment of US forces, DOD alerted Brown & Root to prepare a support plan for 30,000 troops in Somalia, a country not even on the LOGCAP country list. Somalia was a failed state - a civil war torn country in total collapse. The NCA desired to minimize the total uniformed footprint of this operation and also did not wish to mobilize significant reserve component forces; furthermore, HNS was not even an option. Despite Brown & Root's extensive experience in Africa and South West Asia, its operating companies were hard pressed in dealing with the near total lack of infrastructure simultaneously with security problems. All of these environmental factors added to the complexity of executing a new and unprecedented business relationship

while working for a Joint Task Force subordinate to a CINC whose ASCC was reluctant to work with LOGCAP anyway.

Funding problems hampered LOGCAP operations during Operation Restore Hope. Despite contractor estimates that the cost of supporting 20,000 troops for six months would exceed \$100 million, MACOMs understood that support costs must come “out of hide.”⁴⁰ The JTF tasked Marine Corps units to seize and secure sea and airports of debarkation to enable Army forces to follow and begin humanitarian relief operations. Naval Engineering Command (NAVFAC) asked the Army to mobilize LOGCAP contractor support for the Marine effort, and also provided \$18 million to fund a very limited mobilization of Brown & Root.

Even as Army units began to flow into theater, for over a month ARCENT balked at funding the LOGCAP contractor for continued and expanded support based upon legal and administrative reasons. This funding uncertainty caused the JTF to begin to explore alternative support arrangements including asking for reserve component mobilization late in the operation. Brown & Root claims to have even financed part of the support mission on its own (relating to emergency provision of critical drinking water for deployed forces) while waiting for ARCENT to sort out the funding.⁴¹ ARCENT ultimately funded LOGCAP in the amount of \$62.8 million for US forces, but UN opposition to use of Brown & Root (after departure of US forces) was so adamant that Brown & Root began to demobilize. The UN finally agreed to continue the contract due to lack of workable alternatives.⁴²

LOGCAP execution in OPERATION Restore Hope highlighted funding, administrative, and other problems, but the successful deployment of a contingency

contractor who was responsive to tactical commanders caught the attention of military planners and policy makers coping with the realities of potential contingency missions on the horizon. LOGCAP became the program of choice for the support of variety of contingency missions over the next five years.

In 1994, OPERATION Uphold Democracy in Haiti showcased the use of LOGCAP to quickly relieve military support units (and provided support not available from *any* military units in the total force structure such as sewage treatment and disposal). In 1995, the Army activated LOGCAP to facilitate support of OPERATION Vigilant Warrior in Southwest Asia, and also a very small humanitarian medical mission to Eritrea. These LOGCAP deployments provided opportunities for both the contractor and the Army to refine the concept and execution of LOGCAP; overall, CINCs and MACOMs seemed more adept and comfortable at the LOGCAP concept. The real test though for LOGCAP would be found in pending military missions in the Balkans.

In 1995, US forces entered the Balkan conflict with its NATO allies. OPERATION Joint Endeavor interposed US heavy forces between warring factions in Bosnia in order to facilitate the Dayton Accords agreement. By 1996, US military aviation units supported this effort from Italy in OPERATION Deny Flight. Prior to the Dayton Accords, US Balkan theater campaign planning was severely hampered by NCA desires not to signal to America's European allies that the US would or even could in fact support their desires for US intervention in the conflict.⁴³ However, the LOGCAP contingency contractor already had a country plan ready for Balkan operations in accordance with its base fixed fee contract.⁴⁴

The Balkan theater environment encouraged the wide spread use of LOGCAP. HNS

was not available. The NCA (through the CJCS) set a force cap of 25,000 troops, despite EUCOM a planning requirement of 38,500 troops to execute and support the mission to provide a 1,200 mile buffer zone between warring factions.⁴⁵ The geographic dispersion of troops across Bosnia, Italy, Croatia, and Hungary for peace enforcement complicated logistical requirements in general, and created additional force protection concerns. The NCA authorized the call-up of 4,300 reservists, but these forces would arrive late in the flow of forces, and still counted under the 25,000 soldier force cap.⁴⁶ A priority concern of ground commanders was force protection and quality bed down capability in the harsh winter Balkan climate, so the mission for base camp construction went to Brown & Root.⁴⁷

Brown & Root's scope of work in the campaign exceeded any prior LOGCAP operation. The contractor was initially tasked with the construction and operation of twelve base camps across three countries, sea and airport operations (including container handling support), non-tactical supply and maintenance, services (food, water, laundry, showers, and sanitation), and transportation of personnel, cargo, and mail. Bosnia support operations demanded that "... all parties had to be flexible in executing the mission under very demanding and sometimes chaotic circumstances, particularly in the early stages of the deployment."⁴⁸ The number of base camps was increased to thirty-three in response to the tactical difficulty in moving and supporting forces in the separation zone over extremely poor road networks. At one point, Brown & Root employed approximately 6,766 personnel in theater, and this figure did not include subcontractor personnel.⁴⁹ The responsiveness of the LOGCAP contractor further allowed commanders to focus *early* in the operation on quality of life issues, particularly

structural hardening (buildings replacing tent stands) and other improvements in the base camps. Such responsiveness was not free however, and within one year, Brown & Root billing exceeded the pre-campaign planning estimate by \$111.3 million.⁵⁰

Operation Joint Endeavor was a large scale test of LOGCAP. Tactical commanders worked directly with the LOGCAP contractor and displayed a level of trust and comfort in the arrangement. The 1st Armored Division's (1AD) assistant division commander for support (ADC(S)) in Bosnia stated that "In Bosnia I have three MACOMs: DISCOM, Signal, and Brown & Root."⁵¹ US soldiers were well supported in a difficult theater and under very complex operational circumstances. For example, service such as food and laundry were provided to soldiers at a higher standard than any Army unit could have provided.⁵² However, the sheer scale of the program, cost over-runs, and other issues prompted Congress to request a review of LOGCAP.⁵³ Some military planners even referred to the Balkan LOGCAP contractor as "Brown & Loot."⁵⁴

The 1997 Government Accounting Office report to Congress criticized DOD contingency contracting efforts in many key areas, including doctrine and guidance, cost reporting, and contract monitoring.⁵⁵ The report specifically singled out military planners in Europe as unfamiliar with employment and execution of LOGCAP. The study further urged the DOD to implement specific LOGCAP changes to incorporate lessons learned from the Balkan experience, and also to study centralizing contingency contracting under one single service. Importantly, the GAO report articulated and verified the rationale for LOGCAP in this contingency operation based upon military planning realities such as troop ceilings, non-availability of reserve component forces (as well as the complete lack of some capabilities what-so-ever in the total force structure), quality of life issues, and to

maintain the flexibility to respond to other global contingencies with existing active and reserve force structure. LOGCAP had passed the test.

In the six years since the missed opportunity to use LOGCAP in Operations Desert Storm/Desert Shield, the Army deliberately set out to institutionalize LOGCAP. The Army centralized the program as a global umbrella contract in 1992. Combatant commanders used LOGCAP in Somalia, Rwanda, Haiti, Italy, and Bosnia, expending hundreds of millions of dollars for battlefield support of contingency operations. Despite strong performance by the contractor, evidence of organizational learning, and increasing tactical acceptance of LOGCAP, funding uncertainties complicated contingency planning and operational effectiveness in Somalia and the Balkans. Furthermore, military planners and operators did not consistently demonstrate an understanding of how to manage this critical program.

Chapter 4: Core Competency and the Theory of Outsourcing

“Organizations are learning that by forming strategic outsourcing relationships, they can work together to more than just run and maintain their technology: They are able to use it as a competitive weapon.”⁵⁶

-George T. Shaheen, Managing Partner, Anderson Consulting

A tenet of contemporary business management is that no one organization can be the best, or even good, at everything. Each value adding activity and process in an organization carries with it varying degrees of economies of scale, scope, and learning. To the extent that these activities or processes in an organization relate to or interact with each other in some way determines the potential to harness these economies. Certain of these activities and processes may be then defined as “core” to an organization’s competitiveness. Competitive organizations focus effort on identifying, building, and leveraging these core competencies by outsourcing non-core functions to world class partners.

The identification of core competencies is the art of figuring out what are the fundamental unique value adding functions that an organization performs. Three tests have been offered by prominent University of Michigan management professor C. K. Prahalad and London Business School lecturer Gary Hamel to identify core competencies in commercial business:

“First, a core competence provides potential access to a wide variety of markets...Second, a core competence should make a significant contribution to the perceived customer benefit of the end product...Finally, a core competence should be difficult for competitors to imitate...Few companies are likely to build world leadership in more than five or six fundamental competencies.”⁵⁷

The process of core competency identification is valuable journey for commercial firms, as well as public sector institutions such as the armed forces.

Organizations that have clearly defined their core competencies should focus resources on improving, maintaining, and extracting the most value from them. Recent management science evidence indicates that many organizations have neglected the development of their core competencies because management never understood what they were in the first place. Harvard's Michael Porter criticizes diversified corporations for failing to create value by "sharing activities across value chains among business units."⁵⁸ Other researchers have found that companies often have "...no firm basis for distinguishing core parts from commodities...[and] even though their traditional competencies may have eroded, companies hate to give them up to their suppliers."⁵⁹ Whatever the reason for the neglect, management theorists and practitioners believe that organizations can achieve greater success by discovering or re-discovering and then nurturing their core competencies.

Every non-core function is a target for outsourcing to the competitive commercial sector. Efficiency gains from this process should result as the organization obtains supplies or services at lower cost, and eliminates costly layers of internal overhead and fixed costs. An organizational synergy from outsourcing is that the quality and choices of the supplies or services often rises as well. Finally, one of the most important outcomes of outsourcing is the reduction of the managerial complexity that allows focus on core competencies to be lost in the first place. Michael Porters writes:

"But it is the sheer complexity of the management task that has ultimately defeated even the best...managers. As the size of the company grows...managers need to find more and more deals just to find growth.

Supervising dozens or even hundreds of disparate units and under chain-letter pressures to add more, management begins to make mistakes. At the same time, the inevitable costs of being part of a diversified company take their toll and unit performances slide while the whole company's ROI turns downward. Eventually, a new management team is installed that initiates disinvestments and pares down the company to its core businesses.⁶⁰

Government institutions do not face the same private sector discipline of capital markets for shareholder value, and their bureaucracies may carry out non-core functions indefinitely unless there is a crisis that forces policy makers hands. Such a reform producing crisis for an Army might be found in a catastrophic military defeat like the Prussians suffered at Jena in 1806.

Strategic outsourcing is a strategy to make the outsourcing process into a value adding relationship. Instead of viewing outsourcing as just a cost cutting measure, firms seek outsourcing partners who are willing to enter a long term value-building relationship. The idea is to unbundle the corporation and start

...building alliances and partnerships and creating the networked virtual organizations of tomorrow. Organizations are learning that by forming strategic outsourcing relationships, they can work together to more than just run and maintain their technology: They are able to use it as a competitive weapon.⁶¹

Strategic outsourcing involves significant trust and faith between separate organizations; business analysts often categorize these relationships as marriages and leaps of faith. The analogy applies equally to the public sector.

Core competencies and the theory of outsourcing offer organizations a set of tools from which to assess their organizational strategy. Since no firm or government department can do everything well internally, management needs to carefully synthesize what and why the organization does what it does. This process of identification of

internal core competencies is the first step toward reorganization of priorities around support of these core competencies, and the outsourcing of non-core functions to achieve efficiency gains. Outsourcing synergies can also include gains from quality improvements, the reduction of managerial complexity within the firm, and finally, process innovation leveraged from strategic outsourcing relationships. This set of tools has yet to be fully applied to LOGCAP.

Chapter 5: LOGCAP Today

[In regards to TRADOC's assertion that LOGCAP does not replace force structure], "We knew that was fatuous when we wrote it."

- Joe Fortner, TRADOC LOGCAP Action Officer⁶²

"Watch what we do, not what we say."

-Aide to President Nixon

The evolution of LOGCAP doctrine and execution continues to move the Army incrementally towards a more effective and better-understood integration of commercial firms on the battlefield. The Army moved proponentcy for LOGCAP contracting to Army Materiel Command (AMC) in FY 97 and also began a revision of LOGCAP regulations and field manuals. These moves were a response to GAO criticisms, as well as an internal effort to reinforce LOGCAP as a vital component of Army theater support doctrine.⁶³ AMC awarded the current LOGCAP contract to Dyncorp of Fort Worth, TX in 1997, however USAREUR continues to employ Brown & Root in support of Balkan operations, and ARCENT maintains contingency logistics contracts with ITT for South West Asia. Each military service also continues to maintain its own versions of LOGCAP, and also continues to increasingly rely on systems contractors for support of sophisticated military end items of equipment.⁶⁴

The 1997 Dyncorp LOGCAP contract expanded the planning and execution role for the LOGCAP contractor. The contractor is paid a fixed fee of \$4 million for global contingency planning responsibilities and exercise participation, and must be prepared to fully support 25,000 troops within 30 days of a notice to proceed; on order, the contractor must be prepared to support 50,000 troops within 180 days (see Figure 5-1 below).

LOGCAP PLANNING TEMPLATE

LOGCAP Worldwide Generic Plans:

- Within 15 days of notice to proceed (NTP):

Receives/Supports 1500 troops into AO

- Within 30 days of NTP:

Supports 25,000 troops up to 180 days 1

Rear and 7 Forward SPT Areas (RSA/FSA)

- E/P to SPT up to 50K troops after 180 days

Figure 5-1⁶⁵

The menu of support services that must be offered to the contingency commander are found at Figure 5-2, but this list is not exclusive of other possible non-combat tasks that military commanders may require. If alerted for operations, the LOGCAP contractor is reimbursed for costs, and is further paid an award fee based upon a subjective evaluation of their performance. This award fee motivates the LOGCAP contractor to be prepared for a contingency deployment, and to do *well* once deployed; the fixed fee global planning and exercise payment of \$4 million is “peanuts” – what the contractor is after is the “option value of the contract.”⁶⁶

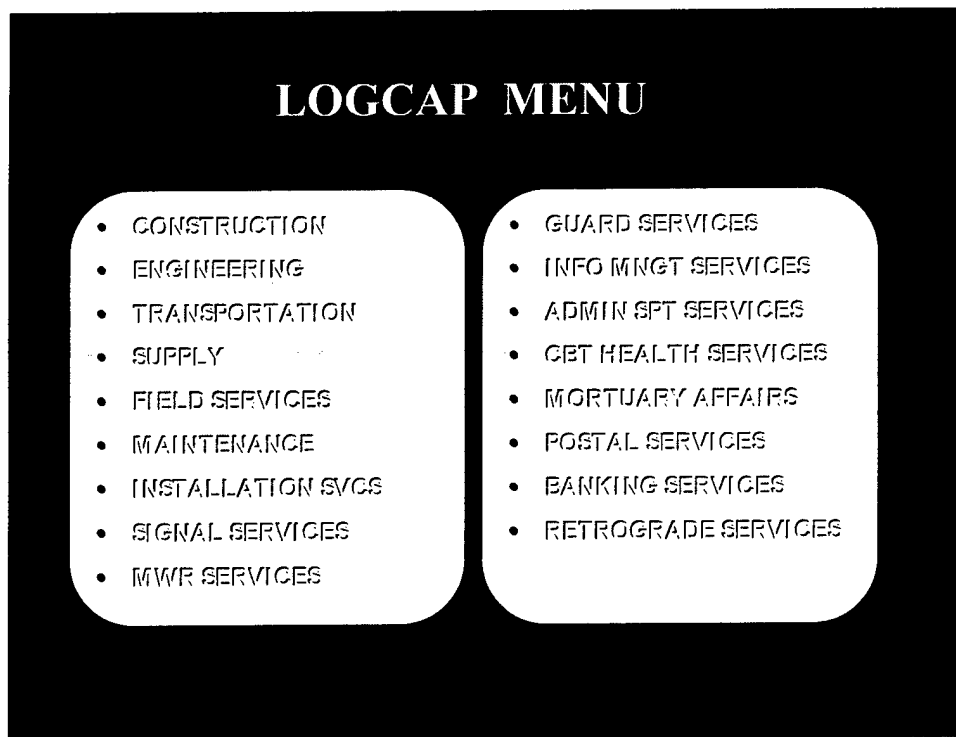


Figure 5-2⁶⁷

The Army's effort to revise LOGCAP doctrine lacks clarity and coordinated vision. The Army promised the GAO to complete these revisions during FY 98, yet only AMC has issued new field publications (LOGCAP Battle Book), and AMC Pam 700-30 (LOGCAP)). FM 100-10-X (Contracting Support on the Battlefield) is still in draft format, as is AR 715-XX (Army Contracting on the Battlefield). The Army's new draft of its capstone warfighting manual, FM 100-5 (Operations), does not even mention contingency contracting, and misspells LOGCAP as "LOCPAC" in its Glossary.⁶⁸ Figure 5-3 (below) is taken from FM 100-10-X (Contracting Support on the Battlefield), a manual that takes a very mechanistic "last resort" view of outsourcing battlefield support.

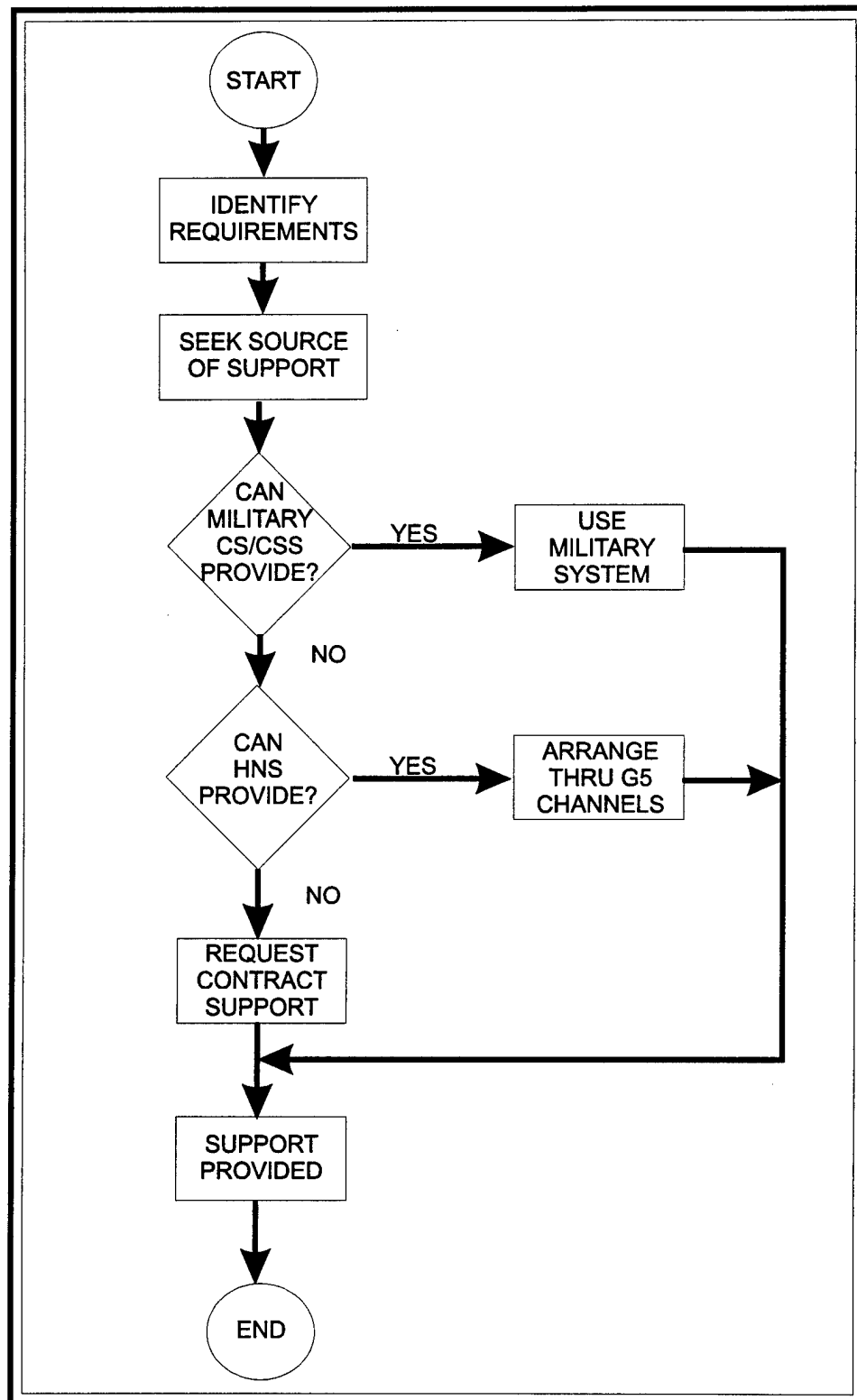


Figure 5-3⁶⁹

This view is supported by TRADOC's White Paper on battlefield contracting that states

that

Several basic principles govern contracted support for Army operations. They are: (1). Contractors do not replace force structure...Contractors will not routinely be counted on to provide support prior to C+30 in an environment where the commander has determined the associated risk to be unacceptable...[and] commanders must be aware that within a given operation use of contractors may decrease flexibility.⁷⁰

Even one of the authors of this White Paper admitted that [In reference to the notion that contractors do not replace force structure], “We knew that was fatuous when we wrote it.”⁷¹ It seems that even the doctrine writers themselves did not believe what they were writing. This indicates that LOGCAP doctrine lacked both honesty, as well as a theoretical underpinning.

AMC’s current publications on LOGCAP contrast with the doctrinal guidance still in development by the rest of the Army.⁷² AMC PAM 700-30 (Logistics Civil Augmentation Program (LOGCAP)) clearly articulates tactical roles and mission for LOGCAP where

“The LOGCAP concept is to pre-plan for the use of global corporate resources to support contingency operations worldwide by augmenting Combat Support/Combat Service Support (CS/CSS) force structure capabilities.”⁷³

AMC’s LOGCAP Battle Book outlines an operational planning and execution framework for LOGCAP that emphasizes flexibility and responsiveness. Figure 6-3 (below) highlights three courses of action (COAs) for employing LOGCAP; US contingency forces recently employed COAs 2 and 3 in Somalia and Haiti respectively, while TRADOC contradictorily espouses their *own* fourth COA where contractors must follow the main body as the operational norm.⁷⁴

3 LOGCAP COURSES OF ACTION

- 1.** Early entry, receive TF
Main Body
- 2.** Deploy with Main Body
- 3.** Relief of TF Units

Figure 5-4⁷⁵

Figure's 5-5 and 5-6 (below) depict AMC's vision of LOGCAP contractor task organization and an integrated concept of support for contingency theater logistics.

Current doctrinal sources do not reference *any* theory of commercial outsourcing as the basis of LOGCAP doctrine, or tactics, techniques, and procedures (TTP). The draft version of FM 100-5 does use the term “core functions” defined as sense, attack, shield, control, sustain, and move; however, there is no further development of these functions as core competencies in the context of organizational theory.⁷⁶ AMC PAM 700-30 (Logistics Civil Augmentation Program (LOGCAP)) states that a goal of LOGCAP is to “Leverage civilian corporate resources as logistics services support and engineering/construction support multipliers.”⁷⁷ This leverage notion is *not* accompanied by guidance, philosophy, or thought on what to leverage or not leverage from the commercial sector.

The Army appears reluctant to articulate what it already appears to be doing - outsourcing non-core warfighting functions to the private sector. This is reminiscent of President Nixon’s White Aide H.R. Haldeman’s oft quoted dictum: “Watch what we do, not what we say.” Vicky Wise, AMC’s director of Business Policy, believes that the reason that the Army does not articulate its commercial outsourcing model more clearly is due to bureaucratic intransigence at creating doctrine that justifies reduction or shifts in force structure, as well as cultural bias by Army officers against espousing the privatization of battlefield functions.⁷⁸ SARDA’s (Assistant Secretary of the Army for research and Development) Lieutenant Colonel Scott Risser (FM 100-10-X Action Officer) summed up the reason for unclear outsourcing doctrine even more succinctly: “The business model would make most officers’ eyes glaze over.”⁷⁹ The problem with all of this is that outsourcing is about much more than just filling holes in force structures

and gaining access to other organizations' skills - it is about leveraging synergies created by the outsourcing itself.

Army doctrine does not discuss synergies because the doctrine is not rooted in any organizational theory of outsourcing. Contemporary competitive business practices involve the identification of core competencies that deserve management's undivided attention. Non-core functions are outsourced not just to economize, but to gain the synergy of managerial focus. Strategic outsourcing goes even further by trying to innovate across core and non-core functions between two separate but partnered organizations. The Army generally fails to articulate a vision of outsourcing beyond a mechanistic view of filling holes in force structure, and thus is unlikely to achieve tactical synergy with LOGCAP.

Chapter 6: Harnessing LOGCAP Synergies

“Amateurs talk about strategy; professionals talk about logistics.”

-General Omar Bradley

When organizations outsource activities or functions to other organizations, they generally seek to obtain access to technology, resources, expertise, and economies of scale, scope, and learning. While such outsourcing may result in one time or incremental efficiencies and improved quality or customer satisfaction, the dynamic aspect of this outsourcing relationship may never be truly harnessed to produce new innovation. The competitive challenges of globalization have encouraged commercial firms to seek more from outsourcing relationships. Management expert Peter Drucker states that “...the trend toward outsourcing has very little to do with economizing and a great deal to do with quality.”⁸⁰ As Anderson Consulting’s George Shaheen has observed,

Over the last several years, companies have approached outsourcing as simply a cost-cutting measure. However, many organizations are discovering that the real power and promise of outsourcing can be realized when it is also viewed as a strategic undertaking...For many of these organizations - and perhaps yours as well - strategic outsourcing is a direction that holds tremendous promise - and tremendous power.⁸¹

The Army can achieve tactical synergies by approaching LOGCAP as such a “strategic” undertaking.⁸²

A doctrinal discussion and debate of tactical core competencies is necessary to animate the “strategic” nature of contingency outsourcing under LOGCAP. The Army must define for itself what battlefield functions that it alone must usually or always perform, and which activities can be outsourced to competent commercial partners. More importantly, the exact end product of this process is less important than the journey itself

which can help shift organizational and cultural focus toward the harnessing potential synergies of battlefield outsourcing. The original authors of the theory of core competence, C.K. Prahalad and Gary Hamel, conclude in a *Harvard Business Review* article by declaring that:

Core competencies are the well spring of new business development. They should constitute the focus for strategy at the corporate level...Only if the company is conceived as a hierarchy of core competencies, core products, and market-focused business units will it be **fit to fight** [emphasis added].⁸³

Should the Army's goal for LOGCAP be any different? Figure 6-1 below depicts the dimensions of core functionality and commercial competitiveness that should be the focal point of doctrinal discussion.

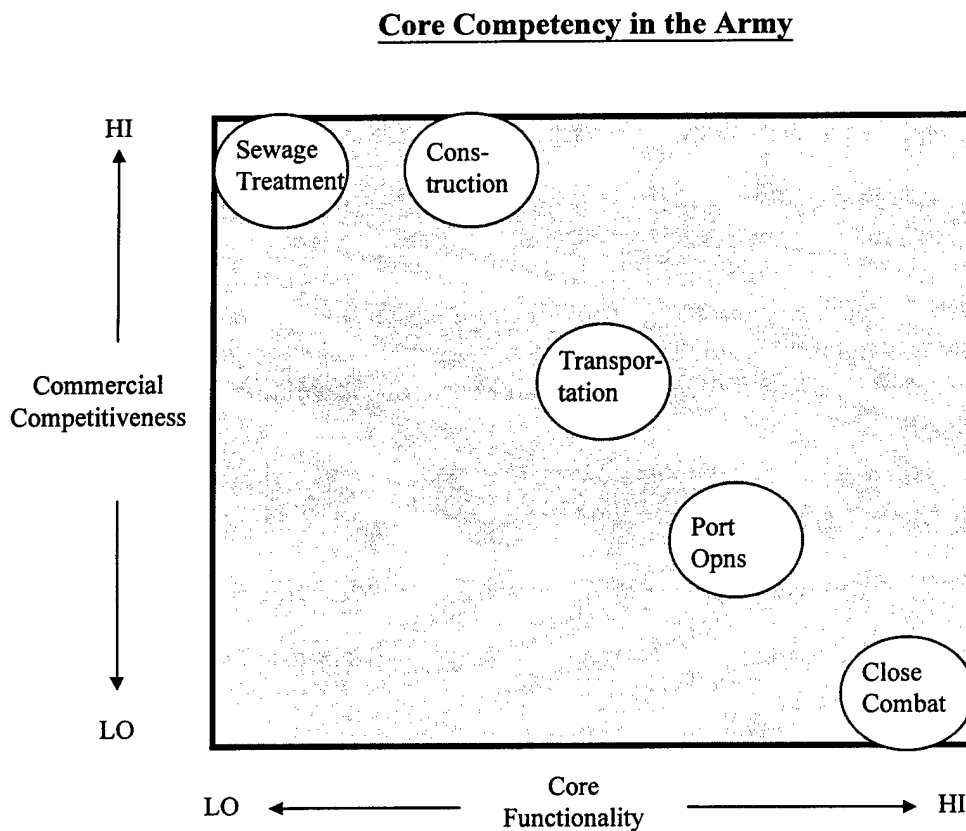


Figure 6-1

Cultivation of outsourcing relationships is essential if the goal is to make the union

more than the sum of the parts. Anderson Consulting Managing Partner for Business

Process Management Colin Goodall advises that:

If you are going to have alliances working around your core, those supplier organizations need to become part of your business. They must be part of the decision making process and share in the risks and the rewards so they can make the tradeoffs necessary for the good of the core.⁸⁴

Warren Company Managing Partner Robert Lynch warns that organizational inertia and resistance must be overcome by

changing the relationship between the company and its outsourcing partners - in doing away with the traditional 'non-trusting, cost based, squeeze-the-living-daylights-out-of-the-other-guy' mindset...⁸⁵

Relationship contracting in the context of LOGCAP means that the Army must learn to overcome cultural and legal barriers to harness the innovation that can occur with a world class commercial battlefield partner. AMC's LOGCAP Battle Book author J. R. Mott already describes the LOGCAP contracting relationship in practice as a "leap of faith."⁸⁶ Army doctrine, organizational incentives, and operating norms are needed to create the circumstances for true relationship contracting.

Once the LOGCAP outsourcing partnership is established, the goal of creating synergies should be relentlessly pursued by providing incentives for the agents in both organizations to seek and achieve tactical innovation. Synergies often arise through the discovery and elimination of non-value adding work. Management researcher Ravi Venkatesan writes that "Companies often make parts [internal sourcing of nuts, bolts, carburetors, etc.] out of a sense of corporate responsibility - namely, a desire to preserve jobs."⁸⁷ Synergies are also likely to arise when the partners take great care to understand

the underlying nature of each others' work processes, and make a collaborative effort to innovate. Finally, the by-product of a truly trusting outsourcing relationship is that the leadership of each organization (in this case, the Army and the LOGCAP contractor) *feels* free to focus managerial attention and expertise on their core competencies. Achieving these synergies may not be the natural tendency of the agents in each organization, thus requiring significant attention to create the incentives for such behavior.

Harnessing synergies of strategic outsourcing in the Army requires four initiatives. First, a commitment by senior leadership to accept the unbundling of their organization.⁸⁸ Second, the initiation of a doctrinal discussion and debate over core competencies. Third, a new approach to LOGCAP as an endeavor in relationship building between the Army, combatant commanders, and the LOGCAP contractor. Finally, the LOGCAP partnership should institute specific incentives to encourage agents to pursue tactical innovation. Each of these initiatives is inter-linked with the other, however there are multiple approaches that can be taken toward implementing each one.

Chapter 7: Recommendations and Conclusions

“Figure out how to do things so you can get the maximum effect and the least bloodshed.”

-Sun Tzu (The Art of War), circa fourth century B.C.⁸⁹

The effort to achieve tactical synergy in the context of LOGCAP may be difficult, but well worth the effort. This effort will require specific steps to carry out the four initiatives needed to build a strategic outsourcing partnership for contingency operations. The recommendations below serve as a starting point for developing these steps. The goal is not necessarily to outsource *more* battlefield functions, but rather to harness the innovative power of outsourcing. Figure 7-1 below attempt to capture this perspective graphically.

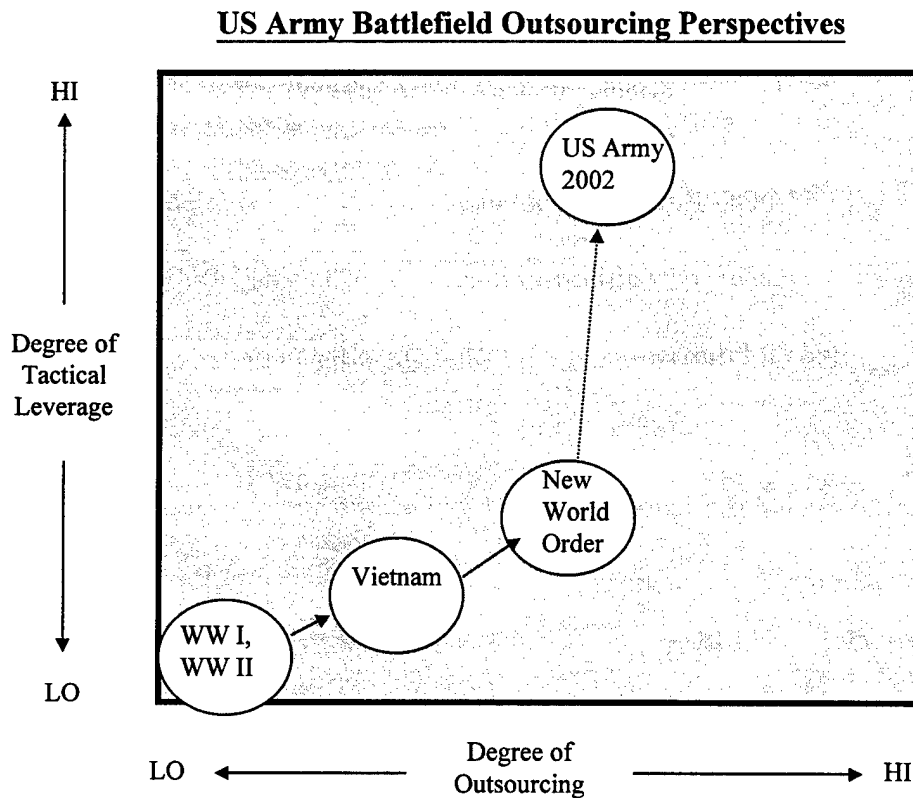


Figure 7-1

Commitment to LOGCAP as a strategic outsourcing relationship should be demonstrated by the Army leadership by:

1. Committing in the next version of FM 100-5 to the unbundling of the Army and seeking tactical synergies based upon the theory of core competency.
2. Appointing a General Officer to serve as an agent of change to effect the organizational transformation needed to achieve tactical synergy under LOGCAP.

The precedence for these steps were recently set by MG David Ohle's tasking to develop and carry out a radical change to officer personnel management called OPMS XXI (Officer Professional Management System 21) and the writing of the new officer personnel manual (DA Pam 600-3). The effort was not popular and still faces resistance.⁹⁰

The effort to animate a doctrinal discussion of Army core competencies should include:

1. The base-line discussion assumption that, as former Air Force Vice Chief of Staff LTG (Ret.) McInerney often says, "the military should not do in-house what is available in the yellow pages."⁹¹
2. An inclusive effort with the reserve component (Army National Guard and Army Reserve) that makes it clear that LOGCAP *does* replace force structure in both the active and reserve components.
3. Use of business models and historical case studies in the Army education system.

The collective result of the focus on Army core competencies can be more than a list of key activities - it also can be a step toward sharpening leader focus on core war fighting functions.

The creation of a LOGCAP relationship built on trust and shared commitment could

be encouraged by:

1. Credible suspension of existing governmental contracting norms through:
 - a. Congressional relief of LOGCAP from all federal contracting law.
 - b. Presidential suspension of federal contracting regulations for LOGCAP.
2. Careful selection of a world class LOGCAP contractor based upon relationship potential.
3. The formal exchange of corporate and military officers between the organizations.
4. An additional contractor award fee category in the area of tactical innovation.
5. Credible increases in the visibility, transparency, scale, scope, and option value of the LOGCAP relationship by SECDEF, Presidential, and Congressional action as necessary to:
 - a. Unify DOD contingency contracting for all services under the one Army LOGCAP contract.
 - b. Curtail (but not eliminate) the ability of combatant commanders to carry out their own contracting with competitors of the LOGCAP contractor.
 - c. Exercise the LOGCAP contract extensively by:
 - (1) Alerting them routinely inside CONUS under the Federal Emergency Management Agency (FEMA) for disaster relief.
 - (2) Actively negotiating for the use of the US LOGCAP contractor in UN operations.
 - d. Creation of a "rolling" LOGCAP contingency budget authority in the amount of at least \$100 million to eliminate the recurring planning impediments for the use of LOGCAP in a crisis.

While some of these steps may seem radical, they seek to remove the latent impediments to creating a focused equal partnership.

There are many ways to create incentives for the agents of these two organizations to pursue tactical synergy. Some of the key incentives might include:

1. Clear evaluation criteria for both military and contractor personnel that reward support of LOGCAP partnering efforts.

2. Monetary incentives for both military (both uniformed and civilian) and contractor personnel that reward support of LOGCAP partnering efforts.
3. Requirement that contractor management be substantially compensated with stock and stock options.

In addition to these seventeen recommendations to directly implement the four initiatives to transform LOGCAP into a strategic outsourcing relationship, an initiative is needed to educate the military planning community (not just logisticians) in regards to LOGCAP and the practice of Operational Art. Proposals might include:

1. Inclusion of LOGCAP case studies and exercise play into the Command and General Staff College and School of Advanced Military Studies.
2. Joint and inter-agency workshops on LOGCAP sponsored by the US Army War College.

A major point to this educational effort is that the potential of the LOGCAP outsourcing relationship goes beyond economies and even synergies - the potential in planning is that it offers many options to the tactical and operational artist, especially with regard to deployment on Stability and Support Operations (SASO).

Figure 7-2 below depicts the spectrum of recent contingency operations:

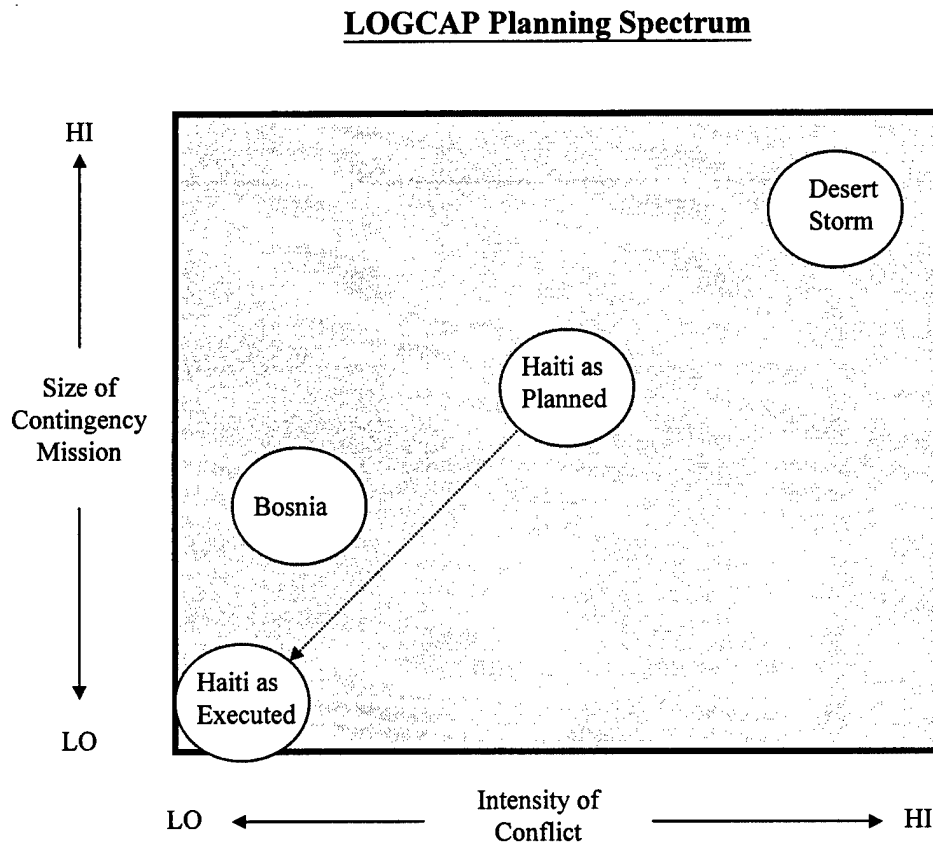


Figure 7-2

Strategic outsourcing has been an effective management weapon to achieve innovation and competitiveness, and the Army could seek to use this weapon to create tactical synergy. The preceding nineteen recommendations are offered as specific means to facilitate the four initiatives needed to build LOGCAP into an outsourcing partnership focused on tactical innovation. Although the Army does not face the daily pressures to compete in a globalized market place, such private sector techniques should be of interest to the military professional seeking to achieve competitive tactical excellence.

The US experience in the twentieth century has been an ever increasing reliance on commercial firms in the theater of combat. Since Operation Desert Storm, the US Army

has formalized contingency contracting under a program called LOGCAP, and used this program to support six major contingencies, and other very minor contingencies.

LOGCAP bears resemblance to the contemporary commercial practice of strategic outsourcing of non-core functions. However, LOGCAP doctrine and practice falls short of the theoretical objective of strategic outsourcing: The creation of organizational partnership to achieve and harness *both* economies *and* synergies.

This monograph proposes four initiatives to continue the evolution of LOGCAP into a true public-private sector partnership that can create and harness tactical synergies. The four initiatives are:

1. Garner and signal senior leader commitment.
2. Focus on core competency identification.
3. Develop a strategic relationship between the Army and the LOGCAP contractor.
4. Create incentives for agents in the relationship to focus on tactical synergies.

While some of the nineteen recommendations made to implement these initiatives require significant legal and cultural shifts, they are similar to the techniques used in the private sector today to meet the challenges of globalized competition.

The quest for tactical innovation is of utmost professional interest for military professionals and policy makers alike. SASO missions across the spectrum of conflict pose tactical challenges unforeseen only a decade ago. LOGCAP can be more than an economical way to meet these challenges - it can be an engine of tactical innovation. In this light, it should be clear that understanding contingency contracting is not just for logisticians and contracting officers.

The Army needs to awaken to the organizational source of competitiveness (and

managerial methods) of many contemporary global corporations. More often than not, this competitiveness is the result of a resolute focus on its core competencies and the outsourcing of non-core functions. Such outsourcing makes firms stronger, and in a position to select a world class partner for a strategic outsourcing relationship. These relationships can achieve synergies in current operations and innovations for the future that could never have been achieved before the corporation was unbundled. The Army should strive for no less a sense of urgency in focusing on its war fighting core competencies and finding the best strategic partners to achieve tactical synergies. This effort should not be left just to logisticians or Army agencies like AMC - it calls for the active and engaged participation by combat arms leaders and military planners.

Glossary

ADC(S) - Assistant Division Commander for Support

AMC - US Army Materiel Command

APOD - Airport of Debarkation

ARCENT - US Army Central Command

ASCC - US Army Service Component Commander

AUSA - Association of the US Army

BENS - Business Executives for National Security

BRAC - Base Closure and Realignment Commission

CAA - US Army Concepts and Analysis Agency

CECOM - US Army Communications and Electronics Command

CINC - Commander in Chief

CJCS - Chairman of the US Joint Chiefs of Staff

CJTF - Joint Task Force Commander

COA - Course of Action

DA - Department of the Army

DCSLOG - US Army Deputy Chief of Staff for Logistics

DOD - US Department of Defense

FEMA - Federal Emergency Management Agency

FM - Field Manual

GAO - Government Accounting Office

HNS - Host Nation Support

INSS - Institute for National Security Studies

JTF - Joint Task Force

JULLS - Joint Universal Lessons Learned

LOGCAP - US Army Logistics Civil Augmentation Program

MACOMs - Major Commands

MIT - Massachusetts Institute of Technology

MPRI - Military Resource Professionals Inc.

NAVFAC - Naval Engineering Command

NCA - National Command Authority

OMB - Office of Management and Budget

OPMS XXI - US Army Officer Personnel Management System 21

PAM - Pamphlet

RMK - Raymond-Morrison-Knudson Corporation

SAMS - US Army School of Advanced Military Studies

SARDA - Secretary of the Army for Research and Development

SASO - Stability and Support Operations

SECDEF - Secretary of Defense

SPOD - Seaport of Debarkation

TRADOC - US Army Training and Doctrine Command

TTP - Tactics, Techniques, and Procedures

UN - United Nations

US - United States

USAEUR - US Army Europe

Endnotes

¹ United States General Accounting Office, *Contingency Operations: Opportunities to Improve the Logistics Civil Augmentation Program (GAO/NSIAD-97-63)* (Washington, DC: Government Accounting Office, February 11, 1997), 17.

² Camille M. Nichols, *The Logistics Civil Augmentation Program - A Diamond in the Rough for Operations Other than War* (Newport, Rhode Island: US Naval War College, June 16, 1995), abstract page (un-numbered).

³ Kenneth H. Clow, and William J. Flavin, *The Logistics Civil Augmentation Program: Status Report* (Carlisle Barracks, PA: US Army War College, February 22, 1993), 23.

⁴ David W. Russel, *Understanding the Application of the Army's Logistics Civil Augmentation Program (LOGCAP)* (Carlisle Barracks, PA: US Army War College, April 1997), iii.

⁵ James A. Huston, *The Sinews of War: Army Logistics (1775-1953)* (Washington, DC: Office of the Chief of Military History, United States Army, 1966), 100.

⁶ John D. Brosnan, and Daniel R. Noonan, *Estimation of Workloads for Logistics Civil Augmentation Program (EWL)* (Bethesda, MD: Army Concepts Analysis Agency (CAA), September, 1985), 3-1.

⁷ The Navy and Air Force equivalent to LOGCAP is NAVCAP and AFCAP respectively, however these programs are generally much smaller in scope for two reasons. First, the other services rely less on their reserve components for combat support and combat service support. Second, Title 10 of US Code directs the Army as a service to provide substantial support for all armed services in a military theater of conflict. A partial list includes: Inland Logistics Support (US Marine Corps only), Inland Class I Support, Supply Support of Peacekeeping Forces (UN only), Operation of Common User Ocean Terminals, Intermodal Container Management, transportation Engineering for Highway Movements, Common User Land Transportation In-Theater, Log Applications of Automated Marking and Symbols, Military Customs inspections, Military Troop Construction (US Air Force overseas only), Airdrop Equipment and Systems, Power Generation Equipment and Systems, Land Base Water Resources, Overland POL support, Military Postal Service, DOD Enemy POW and Detainee Program, Blood Support (US Air Force only), Military Veterinary Support, Medical Battlefield Evacuation, Mortuary Services/Graves Registration, Single Manager for Conventional Munitions, Chemical Munitions, and Disposal of Waste Explosives & Munitions (see Fastabend, p. 82 for a detailed review of Army Title 10 responsibilities).

⁸ United States General Accounting Office, *Contingency Operations: Opportunities to Improve the Logistics Civil Augmentation Program (GAO/NSIAD-97-63)* (Washington, DC: Government Accounting Office, February 11, 1997), 7.

⁹ Vicky Wise (Director of Business and Doctrine, PMLOGCAP, Army Materiel Command) (Washington, DC: Interview, November 5, 1998).

¹⁰ Army Materiel Command, *LOGCAP Battle Book* (Alexandria, VA: Army Materiel Command, December 6, 1997), 2.

¹¹ USCENTCOM, *Logistics Civil Augmentation Program (LOGCAP) Funding,*"

JULLS Number 52339-99981 (Macdill Air Force Base, FL: March 1996, 1, 28. See also USCENTCOM, "Limited Field Service Support Capability in SWA," JULLS Number 12042-59500, August, 1990), 1, 7.

¹² Sanford Wiener, (Cambridge, MA: Conference Remarks, Defense Outsourcing and Privatization Conference, Massachusetts Institute of Technology, September 24, 1997).

¹³ Blair A. Ross and Terrance J. Spoon, Potential Combat Risks from Outsourcing of Selected Sustainment Functions, US Army War College, Carlisle Barracks, PA, 1998), pp. v-vi.

¹⁴ Taibl, Paul, Director of Economic Analysis, Business Executives for National Security (BENS), Washington, DC, Interview, July, 1997.

¹⁵ United States General Accounting Office, *Contingency Operations: Opportunities to Improve the Logistics Civil Augmentation Program*, GAO/NSIAD-97-63 (Washington, DC: Government Accounting Office, February, 1997), 17 & 11.

¹⁶ Bondanella, Keating, Spencer, Horgan, and Cesar, *Army Civilians and Contractor Employees in Contingency Operations: Developing a Shared Vision Between Planners, Leaders, and Participants (DRAFT Rand Study DRR-857-A)* (Santa Monica, CA: Rand Corporation, October 1994), 3 & 12.

¹⁷ Gus Pagonis, "Observations on the Gulf War," *Army Logistician* (Washington, DC: Department of the Army, January-February, 1989), 10.

¹⁸ Lynn Montrose, *War Through the Ages* (New York, NY: Harper Brothers Publishers, 1960), 273-276.

¹⁹ Kenneth H. Clow, and William J. Flavin, *The Logistics Civil Augmentation Program: Status Report* (Carlisle Barracks, PA: US Army War College, February 22, 1993), 3.

²⁰ Charles R. Shrader, *United States Army Logistics (1775-1992) (Volume 1)* (Washington, DC: US Army, Center of Military History, 1997), 134.

²¹ Kenneth H. Clow, and William J. Flavin, *The Logistics Civil Augmentation Program: Status Report* (Carlisle Barracks, PA: US Army War College, February 22, 1993), 3.

²² Charles R. Shrader, *United States Army Logistics (1775-1992) (Volume 1)* (Washington, DC: US Army, Center of Military History, 1997), 587.

²³ Bondanella, Keating, Spencer, Horgan, and Cesar, *Army Civilians and Contractor Employees in Contingency Operations: Developing a Shared Vision Between Planners, Leaders, and Participants (DRAFT Rand Study DRR-857-A)* (Santa Monica, CA: Rand Corporation, October 1994), 4.

²⁴ Charles R. Shrader, *United States Army Logistics (1775-1992) (Volume 1)* (Washington, DC: US Army, Center of Military History, 1997), 674.

²⁵ Johnathon M. House, "Joint Operational Problems in the Cuban Missile Crisis," *Military Review* (Fort Leavenworth, KS: US Army Command and General Staff College, Spring, 1991), p.10.

²⁶ Dave R. Palmer, *Summons of the Trumpet* (New York, NY: Presidio Press, 1978), 113.

²⁷ Kenneth H. Clow, and William J. Flavin, *The Logistics Civil Augmentation*

Program: Status Report (Carlisle Barracks, PA: US Army War College, February 22, 1993), 4.

²⁸ David W. Russel, *Understanding the Application of the Army's Logistics Civil Augmentation Program (LOGCAP)* (Carlisle Barracks, PA: US Army War College, April, 1997), 3.

²⁹ Ibid, 1.

³⁰ Bondanella, Keating, Spencer, Horgan, and Cesar, *Army Civilians and Contractor Employees in Contingency Operations: Developing a Shared Vision Between Planners, Leaders, and Participants (DRAFT Rand Study DRR-857-A)* (Santa Monica, CA: Rand Corporation, October 1994), 47.

³¹ Kenneth H. Clow, and William J. Flavin, *The Logistics Civil Augmentation Program: Status Report* (Carlisle Barracks, PA: US Army War College, February 22, 1993), 7.

³² Ibid.

³³ Bondanella, Keating, Spencer, Horgan, and Cesar, *Army Civilians and Contractor Employees in Contingency Operations: Developing a Shared Vision Between Planners, Leaders, and Participants (DRAFT Rand Study DRR-857-A)* (Santa Monica, CA: Rand Corporation, October 1994), 12.

³⁴ Ibid, p. xi.

³⁵ Ibid, p. 76.

³⁶ Gus Pagonis, *Moving Mountains* (Boston, MA: Harvard Business School Press, 1992), 107-108.

³⁷ Camille, M. Nichols, *The Logistics Civil Augmentation Program - A Diamond in the Rough for Operations Other than War* (Newport, RI: June 16, 1995), 5.

³⁸ John Halliday (Rand Logistics Researcher), (Santa Monica, CA: Interview, November 2, 1998).

³⁹ Kenneth H. Clow, and William J. Flavin, *The Logistics Civil Augmentation Program: Status Report* (Carlisle Barracks, PA: US Army War College, February 22, 1993), 10.

⁴⁰ Ibid, 14.

⁴¹ Fred Markee (Contingency Contracting Specialist, Brown and Root Corporation), (Washington, DC: Interview, November 12, 1998).

⁴² Camille, M. Nichols, *The Logistics Civil Augmentation Program - A Diamond in the Rough for Operations Other than War* (Newport, RI: June 16, 1995), 8.

⁴³ Peter J. Schifferle (Director of Exercises, School for Advanced Military Studies (SAMS), (Santiago, Chile: Interview, October, 1998).

⁴⁴ Peter J. Schifferle (Director of Exercises, School for Advanced Military Studies (SAMS), (Fort Leavenworth, KS: Interview, November 23, 1998). Lieutenant Colonel Schifferle also identified a political operational dilemma - the ongoing budget crises back in Washington. USAREUR had spent almost all of its fiscal year training funds on ramp up training for Bosnia, and little or no "seed money" was available for LOGCAP ramp up. LTC Schifferle felt that this money issue clouded operational planning and hampered the efficiency of the LOGCAP support operations and contributed to cost over-runs.

⁴⁵ David W. Russel, *Understanding the Application of the Army's Logistics Civil*

Augmentation Program (LOGCAP) (Carlisle Barracks, PA: US Army War College, April, 1997), 12.

⁴⁶ United States General Accounting Office, *Contingency Operations: Opportunities to Improve the Logistics Civil Augmentation Program, GAO/NSIAD-97-63* (Washington, DC: Government Accounting Office, February, 1997), 8.

⁴⁷ Ibid, 13-14.

⁴⁸ Linsay, McLaughlin, and Bruneau, *Force Provider Deploys to Bosnia* (Fort Lee, VA: Army Logistics Management College, May, 1997), 3.

⁴⁹ David W. Russel, *Understanding the Application of the Army's Logistics Civil Augmentation Program (LOGCAP) (Carlisle Barracks, PA: US Army War College, April, 1997), 14.*

⁵⁰ United States General Accounting Office, *Contingency Operations: Opportunities to Improve the Logistics Civil Augmentation Program, GAO/NSIAD-97-63* (Washington, DC: Government Accounting Office, February, 1997), 10.

⁵¹ John Dumond (Rand Logistics Researcher), (Santa Monica, CA: Interview, November 6, 1998).

⁵² United States General Accounting Office, *Contingency Operations: Opportunities to Improve the Logistics Civil Augmentation Program, GAO/NSIAD-97-63* (Washington, DC: Government Accounting Office, February, 1997), 9.

⁵³ Ibid, 1.

⁵⁴ Rick Eden (Rand Logistics Researcher), (Santa Monica, CA: Interview, November 6, 1998.)

⁵⁵ United States General Accounting Office, *Contingency Operations: Opportunities to Improve the Logistics Civil Augmentation Program, GAO/NSIAD-97-63* (Washington, DC: Government Accounting Office, February, 1997), 17.

⁵⁶ George T. Shaheen, *Managing Partner's Message: The Power and Promise of Strategic Outsourcing* (New York, NY: Anderson Consulting Company, 1997), 1.

⁵⁷ Prahalad and Hamel, "The Core Competence of the Corporation," *Harvard Business Review* (Boston, MA: Harvard Business School Publishing Company, May-June, 1990), 83-84.

⁵⁸ Michael E. Porter, "From Competitive Advantage to Corporate Strategy," *Harvard Business Review* (Boston, MA: Harvard Business School Publishing Company, May-June, 1987), 55.

⁵⁹ Ravi Venkatesan, "Strategic Sourcing: To Make or Not to Make," *Harvard Business Review* (Boston, MA: Harvard Business School Publishing Company, November-December, 1992), 101-102.

⁶⁰ Michael E. Porter, "From Competitive Advantage to Corporate Strategy," *Harvard Business Review* (Boston, MA: Harvard Business School Publishing Company, May-June, 1987), 52.

⁶¹ George T. Shaheen, *Managing Partner's Message: The Power and Promise of Strategic Outsourcing* (New York, NY: Anderson Consulting Company, 1997), 1 & 2.

⁶² Joe Fortner (TRADOC LOGCAP Action Officer, Doctrine Branch, Combat Service Support, CASCOM) (Fort Lee, VA: Interview, November 5, 1998).

⁶³ Vicky Wise (Director of Business and Doctrine, PMLOGCAP, Army Materiel

Command) (Washington, DC: Interview, 5 November 1998).

⁶⁴ United States General Accounting Office, *Contingency Operations: Opportunities to Improve the Logistics Civil Augmentation Program*, GAO/NSIAD-97-63 (Washington, DC: Government Accounting Office, February, 1997), 1.

⁶⁵ Army Materiel Command, *LOGCAP Battle Book* Alexandria, VA: US Army Materiel Command, December 6, 1997), 7.

⁶⁶ Eby, Dan, LOGCAP Program Manager, Fort Worth, TX, Interview, November 9, 1998.

⁶⁷ Army Materiel Command, *LOGCAP Battle Book* Alexandria, VA: US Army Materiel Command, December 6, 1997), 8.

⁶⁸ Department of the Army, *FM 100-5 (Operations) - Final Revised Draft* (Washington, DC: Department of the Army, June 19, 1998), Glossary-2.

⁶⁹ Department of the Army, *FM 100-10-X (Contracting Support on the Battlefield) - FINAL DRAFT* (Washington, DC: Department of the Army, September, 1998) 4-4.

⁷⁰ US Army Training and Doctrine Command (TRADOC), *White Paper: Contractors on the Battlefield* (Fort Monroe, VA: US Army Training and Doctrine Command, February 19, 1998), 1, 2, & 5.

⁷¹ Joe Fortner (TRADOC LOGCAP Action Officer, Doctrine Branch, Combat Service Support, CASCOM) (Fort Lee, VA: Interview, November 5, 1998).

⁷² Perhaps one explanation for the clarity in AMC publications is that they were written by an MPRI contractor who is also a SAMS alumnus. MPRI is a strategic partner of DYNACORP, the current LOGCAP contractor.

⁷³ Army Materiel Command, *AMC Pam 700-30 (LOGCAP: ...a Flexible Alternative for Supporting the Force)* (Alexandria, VA: US Army Materiel Command, December 6, 1997), 5.

⁷⁴ US Army Training and Doctrine Command (TRADOC), *White Paper: Contractors on the Battlefield* (Fort Monroe, VA: US Army Training and Doctrine Command, February 19, 1998), 2.

⁷⁵ Army Materiel Command, *LOGCAP Battle Book* Alexandria, VA: US Army Materiel Command, December 6, 1997), 7.

⁷⁶ Department of the Army, *FM 100-5 (Operations) - Final Revised Draft* (Washington, DC: Department of the Army, June 19, 1998), 2-10.

⁷⁷ Army Materiel Command, *AMC Pam 700-30 (LOGCAP: ...a Flexible Alternative for Supporting the Force)* (Alexandria, VA: US Army Materiel Command, December 6, 1997), 3.

⁷⁸ Vicky Wise (Director of Business and Doctrine, PMLOGCAP, Army Materiel Command) (Washington, DC: Interview, November 5, 1998).

⁷⁹ Scott Risser (FM100-10-X Action Officer, SARDA), (Washington, DC: Interview, November 5, 1998).

⁸⁰ Peter F. Drucker, Peter F., *Managing in a Great Time of Change*, (New York, NY: Truman Talley Books/Dutton, 1995), 3.

⁸¹ George T. Shaheen, *Managing Partner's Message: The Power and Promise of Strategic Outsourcing* (New York, NY: Anderson Consulting Company, 1997), 1.

⁸² Note the use of the word strategic in an organizational theory sense rather than a

traditional military sense ala FM 100-5 (Operations).

⁸³ Prahalad and Hamel, "The Core Competence of the Corporation," *Harvard Business Review* (Boston, MA: Harvard Business School Publishing Company, May-June, 1990), 91.

⁸⁴ George T. Shaheen, *Managing Partner's Message: The Power and Promise of Strategic Outsourcing* (New York, NY: Anderson Consulting Company, 1997), 16.

⁸⁵ Ibid, 5.

⁸⁶ J.R. Mott (LOGCAP Battle Book Contractor (MPRI) for Army Materiel Command), Washington, DC, Interview, November 5, 1998).

⁸⁷ Ravi Venkatesan, "Strategic Sourcing: To Make or Not to Make," *Harvard Business Review* (Boston, MA: Harvard Business School Publishing Company, November-December, 1992), 99.

⁸⁸ George T. Shaheen, *Managing Partner's Message: The Power and Promise of Strategic Outsourcing* (New York, NY: Anderson Consulting Company, 1997), 6.

⁸⁹ Army Materiel Command, *LOGCAP Battle Book* Alexandria, VA: US Army Materiel Command, December 6, 1997), 17.

⁹⁰ David Ohle, (West Point, NY: Lecture to Faculty on OPMS XXI, Fall, 1998).

⁹¹ Tom McInerney (President, Business Executives for National Security), (Washington, DC: Interview, Summer, 1997).

Bibliography

- Army Management Staff College. "Logistics Support Element & the Logistics Civil Augmentation Program," *Officer Advanced Course POI*. Fort Lee, VA: Army Management Staff College, 1998.
- Army Materiel Command. *AMC Pam 700-30 (LOGCAP: ...a Flexible Alternative for Supporting the Force)*. Alexandria, VA: Army Materiel Command, 6 December 1997.
- Army Materiel Command. *LOGCAP Battle Book*, Alexandria, VA: Army Materiel Command, 6 December 1997.
- Army Materiel Command. *LOGCAP Trifold*. Alexandria, VA: Army Materiel Command, 1998.
- Barge, Shep. *Base Camp Construction and Operation*. Fort Leavenworth, KS: Center for Army Lessons Learned, 24 August, 1998.
- Bondanella, Keating, Spencer, Horgan, and Cesar. *Army Civilians and Contractor Employees in Contingency Operations: Developing a Shared Vision Between Planners, Leaders, and Participants (DRAFT Rand Study DRR-857-A)*. Santa Monica, CA: Rand Corporation, October 1994.
- Britt, O'Connell, Palmer, and Stadler. *The Dawn of Modern Warfare*. West Point, NY: Department of History, US Military Academy, 1974.
- Brealey and Meyers. *Principles of Corporate Finance*, 5th Edition. New York, NY: McGraw Hill Companies, Inc., 1996.
- Brosnan, John D., and Noonan, Daniel R. *Southwest Asia Logistics Civil Augmentation Program Estimate (SWALE) - 1987-1991*, Bethesda, MD: US Army Concepts Analysis Agency (CAA), September, 1985.
- Brosnan, John D., and Noonan, Daniel R. *Estimation of Workloads for Logistics Civil Augmentation Program (EWL)*. Bethesda, MD: US Army Concepts Analysis Agency (CAA), September, 1985.
- Brown and Root Press Release. *Brown and Root Awarded Army Sustainment Contract*. Dallas, TX: Brown and Root Corporation, 2 June, 1997.
- Brown, Eryn. "The Push to Streamline Supply Chains," *Fortune*. New York, NY: Time, Inc., March 3, 1997

-
- Brull, Steven. "Matsushita Chief Rethinks the Winning Formula," *International Herald Tribune*. New York, NY: November 8, 1993
- Clow, Kenneth H., and Flavin, William J. *The Logistics Civil Augmentation Program: Status Report*. Carlisle Barracks, PA: US Army War College, 22 February, 1993.
- Cusamano, Michael A. "Manufacturing Innovation: Lessons from the Japanese Auto Industry," *Sloan Management Review*. Cambridge, MA: MIT Sloan School of Management, Fall, 1988.
- Daniels and Radebough. *International Business (8th Edition)*. New York, NY: Addison Wesley Longman Inc. 1998.
- Department of the Army. *AR 700-137 (Logistics Civil Augmentation Program (LOGCAP))*. Washington, DC: Department of the Army, 16 December, 1985.
- Department of the Army. *FM 63-11 (Logistics Support Element Tactics, Techniques, and Procedures)*. Washington, DC: Department of the Army 8 October, 1996.
- Department of the Army. *FM 100-5 (Operations) - Final Revised Draft*. Washington, DC: Department of the Army, 19 June, 1998.
- Department of the Army. *FM 100-10-X (Contracting Support on the Battlefield) - Final Draft*, September, 1998.
- Department of the Army. *FM 100-16 (Army Operational Support)*. Washington, DC: Department of the Army, May, 1995.
- Department of Defense. "Improving the Combat Edge Through Outsourcing," *Defense Issues, Volume 11, Number 30*. Washington, DC: Department of Defense, March, 1996.
- Davis, Robert L. "Army Engineers: It's Time to Speak with One Voice," *Engineer Magazine*. Washington, DC: Department of the Army, 1998.
- Department of Defense. *Defense Link News Release*. Washington, DC: Department of Defense, May 15, 1997.
- Drucker, Peter F., *Managing in a Great Time of Change*. New York, NY: Truman Talley Books/Dutton, 1995.
- Eby, Dan (Dyncorp LOGCAP Program Manager). Fort Worth, TX: Interview, 9 November, 1998.

-
- Eden, Rick, (Rand Logistics Researcher). Santa Monica, CA: Rand Corporation, Interview, November 6, 1998.
- Fastabend, David. "An Appraisal of The Brigade Based New Army," *Parameters*, Carlisle Barracks, PA: US Army War College, Autumn 1997.
- Fortner, Joe (TRADOC LOGCAP Action Officer). Fort Lee, VA: Doctrine Branch, Combat Service Support, CASCOM, Interview, 5 November, 1998.
- Gordon, Rob. *A-76/Commercial Activities*. Washington, DC: US Air Force Center for Quality and Management Innovation, June, 1997.
- Halliday, John (Rand Logistics Researcher). Santa Monica, CA: Rand Corporation, Interview, 6 November, 1998.
- Hammer and Champy. *Reengineering the Corporation*. New York, NY: HarperCollins Publishers Inc, 1994.
- House, Johnathon M. "Joint Operational Problems in the Cuban Missile Crisis," *Military Review*. Fort Leavenworth, KS: US Army Command and General Staff College, Spring, 1991.
- Hussey, Michael. *AAP - Outsourcing and Potential for Multiple Contracts*. Fort Lee, VA: Department of Defense Ask-A-Professor-Program, December, 1997.
- Huston, James A. *The Sinews of War: Army Logistics (1775-1953)*. Washington, DC: Department of the Army (Office of the Chief of Military History), 1966.
- James Madison University. *JMU News Release: JMU Signs Defense Contract to Expand Global Demining*. Harrisonburg, VA: James Madison University, August 24, 1998.
- Jones, John R.. "Thriving on Base Camps," *Engineer Professional Bulletin*. Washington, DC: Department of the Army, April, 1997.
- Kaminsky, Paul G. *Defense Efficiencies and Outsourcing*. Arlington, VA: Privatization and Outsourcing Symposium, Speech, April 24, 1997.
- Kelly, Mike. *Deploying a Contingency Support Team*. Fort Lee, VA: Army Logistics Management College, 1998.
- Klemens, Darren, and Slaven, Kelly. "Task Force Castle: Joint Engineer Operations in Haiti," *Engineer Professional Bulletin*, April, 1995.

-
- Kolar, Nicholas J., "LOGCAP: Providing Vital Services to Soldiers," *Engineer Professional Bulletin*. Washington, DC: Department of the Army, March, 1997.
- Kretchik, Baumann, and Fishel. *Invasion, Intervention, "Intervasion:" A Concise History of the U.S. Army in Operation Uphold Democracy*. Fort Leavenworth, KS: U.S. Army Command and General Staff College Press, 1998.
- Linsay, McLaughlin, and Bruneau. *Force Provider Deploys to Bosnia*. Fort Lee, VA: Army Logistics Management College, May, 1997.
- Lomelin, Anthony L. *Determining Staffing Levels for Contingency Contract Administration Support*. Wright-Patterson Air Force Base, OH: Air Force Institute of Technology, September, 1997.
- Lowry, Vern. "Lessons learned: Joint Engineer Operations," *Engineer Magazine*. Washington, DC: Department of the Army, 1997.
- Lowe, Charles M. *Army Contingency Contracting*. Fort Lee, VA: Army Procurement Research Office, November, 1985.
- Lund, Berg, and Replogle. Project Air Force Analysis of the Air War in the Gulf: An Assessment of Strategic Airlift Operational Efficiency, Santa Monica, CA: Rand Corporation, Santa Monica, CA, 1993.
- Markee, Fred (Brown & Root Contingency Contracting Specialist). Washington, DC: Brown and Root Corporation, Interview, November 12, 1998.
- Martin, Justin and Davis, Joyce E. "Are you as good as You Think You Are?" *Fortune*, New York, NY: Time Inc., September 30, 1996.
- McAllister, Torrie. *Civilian Contractors are Force Multipliers in Bosnia*. Heidelberg, Germany: US Army Corps of Engineers, Transatlantic Program Center (Europe), January 31, 1996.
- McInerney, Tom (President, Business Executives for National Security). Washington, DC: Business Executives for National Security, Interview, Summer, 1997.
- Merkwan, John. *Contracting for the Army in the Field*. Washington, DC: US Army Contracting Support Agency, 1997.
- Montrose, Lynn. *War Through the Ages*. New York, NY: Harper Brothers Publishers, 1960.
- Mott, J.R. (LOGCAP Battle Book Contractor, MPRI). Washington, DC, US Army

Materiel Command, Interview, November 5, 1998.

Nichols, Camille M. *The Logistics Civil Augmentation Program - A Diamond in the Rough for Operations Other than War*. Newport, RI: US Naval War College, June 16, 1995.

Pagonis, Gus. *Moving Mountains*. Boston, MA: Harvard Business School Press, 1992.

Pagonis, Gus. "Observations on the Gulf War," *Army Logistician*. Washington, DC: Department of the Army, January-February, 1989.

Palmer, Bruce. *America's Military Role in Vietnam*, New York, NY: Simon and Schuster, 1984.

Palmer, Dave R.. *Summons of the Trumpet*. New York, NY: Presidio Press, 1978.

Panafrican News Agency. *Zimbabwean Demining Firm Wins 3-Million-Dollar Contract*. Dakar, Senegal: Panafrican News Agency, June 9, 1997.

Porter, Michael E. "From Competitive Advantage to Corporate Strategy," *Harvard Business Review*. Boston, MA: Harvard Business School Publishing Company, May-June, 1987.

Porter, Michael E. *The Competitive Advantage of Nations*. New York, NY: The Free Press, 1990.

Porteous, Holly. "Contractors May Fill Wartime Combat Support Role, Say Analysts," *Inside the Pentagon*. Washington, DC: Department of Defense, July 24, 1997.

Prahalad and Hamel. "The Core Competence of the Corporation," *Harvard Business Review*. Boston, MA: Harvard Business School Publishing Company, May-June, 1990.

Rand Research Brief. *DOD Outsourcing: How Civil Service Employees Fare*. Santa Monica, CA: Rand Corporation, 1997.

Risser, Scott (FM100-10-X Action Officer). Washington, DC: SARDA, Interview, November 5, 1998.

Rosenbloom and Cusamano. "Technological Pioneering and Competitive Advantage: The Birth of the VCR Industry," *California Management Review*. Santa Monica, CA: University of California, Summer, 1987.

Ross, Blair A., and Spoon, Terrance J. *Potential Combat Risks from Outsourcing of*

-
- Selected Sustainment Functions*. Carlisle Barracks, PA: US Army War College, 1998.
- Russel, David W. *Understanding the Application of the Army's Logistics Civil Augmentation Program (LOGCAP)*. Carlisle barracks, PA: US Army War College, April 1997.
- Shaheen, George T. *Managing Partner's Message: The Power and Promise of Strategic Outsourcing*. New York, NY: Anderson Consulting Company, 1997.
- Schifferle, Peter J. (Director of Exercises, School of Advanced Military Studies (SAMS), Fort Leavenworth, KS). Santiago, Chile: Interview, October, 1998.
- Schifferle, Peter J. (Director of Exercises, School of Advanced Military Studies (SAMS), Fort Leavenworth, KS). Fort Leavenworth, KS: Interview, November 23, 1998..
- Senge, Peter M. *The Fifth Discipline*. New York, NY: Doubleday, 1994.
- Shrader, Charles R. *United States Army Logistics (1775-1992), Volumes 1-3*. Washington, DC: US Army, Center of Military History, 1997.
- Siegle, Stan. *Privatization and Outsourcing*. Washington, DC: Aerospace Industries Association, 1996.
- Sumser, Raymond J., and Hemingway, Charles, W. "The Emerging Importance of Civilian and Contractor Employees to Army Operations," *AUSA Landpower Essay Number 95-4*. Washington, DC: Association of the US Army, June, 1995.
- Taibl, Paul (Director of Economic Analysis, Business Executives for National Security (BENS)). Washington, DC: Interview, July, 1997.
- Thurston, Richard. *Operation Joint Endeavor Interview with MAJ Ronald J. Hansen (G3 Plans, V Corps)*. Heidelberg, Germany: US Army, 90th Military History Detachment, February 6, 1996.
- Thurston, Richard. *Operation Joint Endeavor Interview with LTC Peter Schifferle (G3 Plans Chief, V Corps)*, Heidelberg, Germany: US Army, 90th Military History Detachment, February 16, 1996.
- Tiedman, Bob. *Point Paper: Logistics Civilian Augmentation Program(LOGCAP)*. Washington, DC: US Army, CECOM Acquisition Center, February 28, 1997.

-
- United States General Accounting Office. *Defense Outsourcing: Challenges Facing DOD as it Attempts to Save Billions in Infrastructure Costs (Testimony, 03/12/97, GAO/T-NSIAD-97-110)*. Washington, DC: United States General Accounting Office, 3 March, 1997.
- United States General Accounting Office. *Contingency Operations: Opportunities to Improve the Logistics Civil Augmentation Program (GAO/NSIAD-97-63)*. Washington, DC: United States General Accounting Office, 11 February, 1997.
- USAREUR. *USAREUR Headquarters After Action Report: Operation Joint Endeavor (Volume 1)*. Heidelberg, Germany: US Army Europe, May, 1997.
- US Army Command and Staff College. *Appendix 5 (Logistics Civil Augmentation Program (LOGCAP) to Course POI M410-6)*. Fort Leavenworth, KS: US Army Command and General Staff College, Fall, 1998.
- US Army Command and Staff College. *Operational and Strategic Logistics," Course POI, M410-6*. Fort Leavenworth, KS: US Army Command and General Staff College, Fall, 1998.
- US Army Materiel Command. *AMC Contractor Deployment Guide for Contracting Officers, AMC-P 715-18*. Washington, DC: US Army Materiel Command, 8 July, 1996.
- US Army Peacekeeping Institute. *Contingency Contracting Presentation*. Carlisle, PA: US Army War College, 1998.
- US Army Training and Doctrine Command (TRADOC). *White Paper: Contractors on the Battlefield*. Fort Monroe, VA: Department of the Army, Training and Doctrine Command, February 19, 1998.
- USCENTCOM. "Logistics Civil Augmentation Program (LOGCAP) Funding," *JULLS Number 52339-99981*. Washington, DC: Department of Defense, March 28, 1996.
- USCENTCOM. "Limited Field Service Support Capability in SWA," *JULLS Number 12042-59500*. Washington, DC: Department of Defense, August 7, 1990.
- Wentz, Larry. *Lessons From Bosnia: The IFOR Experience*. Washington, DC: Institute for National Security Studies (INSS), January, 1998.
- The White House. *A National Security Strategy for a New Century*. Washington, DC: The White House, October, 1998.

Williamson, Darrel A. *Contracted Logistics in Bosnia*. Fort Lee, VA: US Army Logistics Management College, June, 1998.

Wise, Vicky (Director of Business and Doctrine, PMLOGCAP, AMC). Washington, DC: Interview, November 5, 1998.

Woods, Michele L. *The Logistic Civil Augmentation Program and the Operational Commander*. Newport, RI: US Naval War College, February 13, 1998.