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CENTRALIZED SUPPLY CHAIN MANAGEMENT:
COMMAND AND CONTROL OF SUSTAINMENT

by

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Contents

	<i>Page</i>
DISCLAIMER	II
ABSTRACT	IV
INTRODUCTION	1
BACKGROUND	2
CENTRALIZED INTERMEDIATE REPAIR FACILITY	9
LOGISTICS SUPPORT CENTERS	11
ORGANIC DEPOT OPERATIONS	12
REQUIREMENT COMPUTING	14
BUY AND REPAIR BUDGETING	15
TRANSPORTATION COMMAND	17
CSC2 SHORTFALLS	18
CONCLUSION	21
RECOMMENDATION	22

Abstract

This paper explores why the AF should consolidate the operational function of supply support, why it is needed, and what to do about it. Consolidation will provide a stable infrastructure when conflicts go from peace time to war time operations. The AF must create a supply chain management enterprise that makes operations more efficient, more effective, and reduce costs while providing sustained levels of weapon system availability.

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CENTRALIZED SUPPLY CHAIN MANAGEMENT: COMMAND AND CONTROL OF SUSTAINMENT

One worthwhile task carried to a successful conclusion is better than a hundred half-finished tasks.

- B.L. Forbes

Introduction

Currently, the United States (U.S.) is facing a world that changes more rapidly than any other time in history. For the military, the Cold War is over and with that end the major protagonist that shaped the military planning for the last 50 years is gone. This has created a military dilemma where no viable single enemy to plan for exists. How then does the military stretch limited funding that result during a “peace dividend” mindset that has historically come during these threat periods? Because no identifiable threat, a nation state, exists the military personnel numbers have been reduced as well funding of defense programs and budgets, but involvement in military operations other than warfare are still required. These humanitarian efforts and small contingencies actually task our forces more than a major theater war would.¹

Additional constraints on the Air Force’s ability to deploy, sustain forces and equipment anywhere in the world when called upon are aging aircraft, diminishing manufacturing sources, and obsolescence’s. Since 1991, the Air Force’s mission capable rate (weapon system readiness rate) has steadily declined from 83.4 percent to 72.9

¹ Air Mobility Command. AMC Strategic Plan 2000. Scott AFB, IL: HQ AMC, 2000.

percent.² In general, this decline is attributed to organic sustainment which involves supply and maintenance. However, there are many other reasons for this downfall: lack of funding, fuzzy command and control lines, and a lack of technology improvement.

This thesis will address the feasibility of a single Logistics Operations Center (LOC) to include, the location of centralized management supply functions. The premise of this statement is that through economies of scope, global fleet-wide management support of a single point weapon system can be improved through a centralized system of support at the execution-level. The purpose of this research is to determine if centralizing fleet-wide support through supply sustainment level execution provides the appropriate emphasis on fleet-wide spares support.

Background

The beginning of the regional supply squadrons (RSS) dates back to the build up of U.S. forces in support of Operation Desert Shield. This centralized activity, RSS, was necessary to overcome re-supply sustainment issues. Deployed units relied heavily on their war readiness spares kit, which was the predecessor to today's readiness spares package. To replenish a kit took approximately two additional weeks since the deployed unit would mail the re-supply requirement back to the home station supply squadron.³ Once received, home station would download the transactions into the Standard Base Supply System (SBSS). This additional time was unacceptable for the wartime operations.

² Brig Gen Robert E. Mansfield, Jr, "Spares Campaign Support," Air Force Journal of Logistics, Vol. XXVI, no. 3: 6.

³ Debbie Alexander et al., "Supply Chain Command and Control, Air Force Journal of Logistics, Vol. XXVI, no. 3: 15.

To improve spares replenishment the Air Force (AF) created a centralized organization that was able to receive, consolidate, and pass requirements from deployed units to the appropriate source of supply for requirement fulfillment. The organization performing this activity was called the Air Force Contingency Supply Support Activity (AFCSSA). AFCSSA proved its worth by reducing order and ship time by 10 to 14 days and eliminating inefficiencies that were created by deployed units linking to home station for supply support.⁴ Furthermore, this centralization reduced the deployment footprint of 450 personnel to 150 personnel located at Langley AFB.⁵

The success of this organization was unprecedented within the supply community; therefore, it was implemented at the Major Commands (MAJCOM) to provide centralized support for all bases within their respective region. Centralizing the supply command and control (C2) functions, also known as supply back shops, such as stock fund management, computer operations, equipment management, stock control and weapons system spares support provided the manpower savings resulting from the decrease in spares management. This concept only regionalized resource management and supply C2 functions while the physical handling of property, customer service, and supply liaisons were retained at the bases. The supply career field realized a reduction of 570 manpower positions for an annual savings of \$25M.⁶

While AFCSSA was being created the onset of spares and repair parts problems also began in the early 1990's due to inventory reduction programs. Right sizing inventories became necessary to match the end of the Cold War. In right sizing

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

inventories, limited direction was provided to determine what mix of spares to dispose of while providing a short time frame to accomplish this reduction. Air Staff direction to reduce stock levels and not replace them was accomplished quickly, but more importantly the updated spares computations treated all weapon systems equally. Further complicating matters was the reduction of materiel managers due to force reductions after Desert Storm.

Today, the AF faces the same challenges presented to them in the early 1990's. The newly released Program Budget Decision 720, AF Transformation Flight Plan, proposes the AF realign resources so it can transform into a more lethal, more agile, streamlined force which will increase emphasis on the war fighter.⁷ The flight plan states that centralizing and regionalizing workloads is necessary to continue gaining enterprise-wide organizational efficiencies.

The purpose of this paper is to analyze that regionalization of supply C2 should not stop at Mobility Air Forces (MAF) and Combat Air Forces (CAF), but be centralized at a single organization. The justification to centralize the Major Command RSS's to CAF and MAF Logistics Support Center (LSC) will be used to justify a single Logistics Operations Center (LOC), too. A LOC, a single organization, will have the authority to maximize aircraft fleet visibility and availability from a global fleet-wide supply chain common operating picture as it relates to sustainment, spares execution. Thus, the LOC will be able to improve aircraft availability through effective spares and airlift allocation. Additionally, this organization would have the C2 authority to ensure the most urgent fleet requirement is satisfied first. At this time the C2 authority is not mature, but is in its

⁷ Program Budget Decision, *PBD 720: Air Force Transformation Flight Plan*, December 2005, pg 2.

infancy in various Air Force transformational programs. Finally, linking supply chain management to weapon system goals is an enterprise approach. Enterprise management allows the Air Force to transition from a tactical, reactive system to a proactive enabler. Under this systems approach, the objective is to create performance improvements and cost savings necessary to meet current and future war fighter needs. Continued streamlining of the RSSs to a single, more agile organization will better support the expeditionary Air Force.

The research will examine only the effects of centralizing the management of RSSs at a single location. A literature review of transformational supply chain processes will further explore previous work in this area as well as an explanation of supply chain management concepts vital to the understanding of the thesis. This thesis only evaluates the potential savings that may result in such a decision, a single organization providing global fleet-wide C2 of organic sustainment.

No reduction of manpower or process changes will be evaluated but assumed based off the historical facts from previous consolidations of the same functions. Furthermore, this paper will not discuss political ramifications of organizational culture change as perceived by the career field.

The days of the United States planning to fight an enemy in a specific location are over; as are the days of large inventories sustaining the fleets. Currently, the U.S. Air Force supports numerous contingencies, many of which are short notice, using a smaller force and a smaller support structure with fewer funds. The range of missions include: peacekeeping, humanitarian, operations other than war, and major combat operations. Due to these range of missions we can no longer plan for a specific operation in a

particular region; therefore, the unpredictability of operations and locations strains our support structure.

To overcome these current and future challenges the AF created an air and space expeditionary force (AEF) concept. The AEF concept has two primary goals. “The first goal is to improve the ability to deploy quickly from the continental United States (CONUS) in response to a crisis, commence operations immediately upon arrival, and sustain those operations as needed.”⁸ And, the second goal “is to reorganize to improve readiness, better balance deployment assignments among units, and reduce uncertainty associated with meeting deployment requirements.”⁹ The need for agile combat support is required to meet the AEF goal of quick deployments to any crisis from the CONUS while sustaining operations indefinitely. The challenge is how to best sustain an AEF with compressed time lines for a deployment given current processes and equipment. Keep in mind these processes and heavy equipment was built to support a major theater of war, in place, not expeditionary forces.

What is agile combat support? Agile combat support, as defined by AF doctrine, is:

...the foundation of global engagement and the linchpin that ties together Air Force distinctive capabilities. It includes the actions taken to create, sustain, and protect aerospace personnel, assets, and capabilities throughout the spectrum of peacetime and wartime military options. Further, it supports the unique contributions of aerospace power: speed, flexibility, and global reach.¹⁰

⁸ Mahyar A. Amouzegar et al., “Shaping Air Force Logistics for the 21st Century, Combat Support, August 2003, 8.

⁹ Ibid.

¹⁰ Air Force Doctrine Document 1, Air Force Basic Doctrine, 1 Sep 97.

This definition clearly differentiates the execution of actual combat from combat support. ACS is an enabler of combat capability. Today, agile combat supports those processes that prepare our forces quickly and sustains them with the right resources to execute combat activities. Keep in mind that agile combat support is not to support deployment operations only, but all operations to provide greater flexibility.

RAND and the AF Logistics Management Agency have researched agile combat support extensively. Together they have categorized it into five distinct elements. These elements are forward operating locations (FOL), forward support locations (FSL), CONUS support locations (CSL), theater distribution system, and combat support C2 (CSC2). These elements can be configured to meet the demands of any contingency as long as a transportation network and CSC2 is present. The presence of these last two elements allows the support function to prioritize the support requirement and distribute resources to the appropriate operations following strategic guidance. Our current logistics processes are challenged to support expeditionary requirements due to compressed time lines and heavy equipment that was designed to be used in place, not deployed frequently.

FOLs are sites in the theater where tactical forces operate. FOLs provide different levels of combat support resources to deployed units.¹¹ Units under high threats usually have equipment prepositioned so they can deploy and begin operations rapidly. Examples of FOLs are mobility readiness spares packages (MRSP) or prepositioned packages.

¹¹ Mahyar A. Amouzegar et al., "Shaping Air Force Logistics for the 21st Century, Combat Support, August 2003, 10.

FSLs are sites near the theater of operations which store heavy combat support resources such as equipment, munitions, war reserve material or a consolidated intermediate repair facility (CIRF) maintenance.¹² Like a CIRF, FSLs are dependent on geographic location, threat level, peace time and war time requirements, and the costs associated with using the facilities.

CONUS support locations are support facilities located in the U.S. They consist of the military depots and contractor facilities that augment depot support. CSLs are heavily relied upon for support due to the repair capabilities which have been moved from base units to include other various activities.¹³

A Theater Distribution System is a network system that connects the FOLs, FSLs, CONUS units, and deployed units with each other.¹⁴ The theater distribution system is the most critical piece of the system. Its importance is due to the linkage provided by FOLs and FSLs to support the AEFs.

Combat Support C2, as defined by joint doctrine, is the exercise of authority and direction, by a properly designated commander over assigned and attached forces in the accomplishment of the mission.¹⁵ C2 requires the integration of systems, procedures, organizational structures, personnel, equipment, information, and communications designed to enable a commander to exercise C2 across a range of operations.¹⁶ In other words, support must be integrated with operations to achieve the planned operational effect. The current combat support architecture was built to support a major theater of

¹² Ibid.

¹³ Ibid.

¹⁴ Ibid.

war, but is being transformed into a CSC2 enterprise system capable of supporting expeditionary forces.

Current combat support is effective but limited to individual theaters. Because resource responsibilities cross services and combatant commander chain of commands for resources are primarily confined to individual theaters and are managed by theater-based organizations, like MAJCOM RSSs. Examples of this management included theater-based munitions, war reserve materiel, and intra-theater distribution resources. Though this type of management has been proven effective the ability to relocate and allocate resources to other areas of responsibility needs to be managed from an enterprise perspective. Creating a supply chain enterprise will not only be more effective but more efficient than today's activities. For example, the creation of centralized intermediate repair facilities (CIRF) was created to manage and allocate scarce maintenance resources centrally and globally.

Centralized Intermediate Repair Facility

The concept of a CIRF is not a new concept to the USAF. In fact, various forms of the CIRF concept have been used in the USAF since the Korean War.¹⁷ The purpose of today's CIRF is to provide a common operating picture and bring total asset visibility (TAV) to decisions makers.¹⁸ Specifically, the CIRF provides TAV of items in repair or repaired to improve support to the warfighter to execute operational plans. The CIRFs

¹⁵ Joint Pub 1-02, DoD Dictionary of Military and Associated Terms, 12 Apr 01.

¹⁶ Air Force Doctrine Document 1, Air Force Basic Doctrine, November 2003.

¹⁷ Amanda Geller, et al, Supporting Air and Space Expeditionary Forces: Analysis of Maintenance Forward Support Location Operations, MR-1778-AF, RAND, Santa Monica, California, 2003.

¹⁸ Amanda Geller et al, "C2 in the CIRF Test: A Proof of Concept," Combat Support, August 2003, 183.

C2 function monitors the repair capability of all units to ascertain how the repair and spares should be allocated. These assessments are to be used by decision makers to guide the prioritization goals for weapons systems availability and resource allocation.

The decision authority for the CIRF test, the USAFE Regional Supply Squadron, monitored resources in the European Command (EUCOM) and Central Command (CENTCOM) theaters. The RSS “combines the supply C2 responsibilities of mission capability management, stock control, stock fund management, information system management, operational assessment and analysis, and reachback support procedures with the transportation C2 responsibilities of shipment tracing and tracking, source selection, traffic management research, movement arrangements, shipment expediting, customs issues and channel requirements.”¹⁹ The USAFE RSS was able to integrate supply chain management functions with the maintainers at the CIRF providing “combatant commanders with operational materiel distribution C2 and regional weapon system support”²⁰ while providing a common operating picture of the CIRFs needs.

As the decision authority, the USAFE RSS, not only monitored resources in EUCOM and CENTCOM but they were able distribute parts through out both theaters. Even though the USAFE RSS was familiar with EUCOM parts issue they were not familiar with all the CENTCOM issues for parts distribution. Therefore, they encountered numerous difficulties in resource allocation. To over come this lack of clearly defined decision making process and lead command relationships the USAFE RSS coordinated with the CIRFs, MAJOCMs, and units about personnel, parts, transportation, equipment and funding.

¹⁹ Amanda Geller et al, “C2 in the CIRF Test: A Proof of Concept,” Combat Support, August 2003, 189.

²⁰ Ibid.

This test provided the AF a chance to study the implementation of a CIRF coupled with a C2 decision making organization, USAFE RSS. The six month test proved that integrating the repair facility with a decision making organization proved effective by meeting support requirements to achieve operational effects, communicate support assessments quickly, monitor resources in theaters and allocate globally, and adjust to operational needs while maintaining support performance. However, there are some areas that required attention. To enable future operations requires CIRF and RSS operations and organizations to be standardized in roles and responsibilities, maintain information requirements in the common operating picture, and maintain this information will further improve C2. Though the RSSs are being transformed into the MAF and CAF LSCs the LSCs can continue the level of sustainment and C2 support to the CIRFs.

Logistics Support Centers

The Base Realignment and Closure 2005 established the following goals: transform the current and future force and its support systems to meet new threats, eliminate excess physical capacity, and maximize both warfighting capability and efficiency.²¹ In doing so DoD wants to organize the current force into optimally sized operational units. The AF is embracing the transformation opportunity to standardize AF materiel management C2 to further bring supply chain management into the 21st Century providing expeditionary support. The Base Realignment and Closure recommendation is to align RSS manpower from three MAJCOM locations and base-level manpower from three installations into two LSC. The manpower savings associated with the inactivation

²¹ BRAC 2005

of the RSSs is 51 personnel²². These two LSCs are to support the CAF and MAF. These two LSCs are to continue the RSSs combat support C2 role on a larger scale.

This consolidation is to provide a seamless transition from peace to war for those aircraft and weapon systems Airman are using to support the CAF and MAF forces. This will provide the Airman (war fighter) with a single point contact of their spares needs whether at home station or deployed. Furthermore, this consolidation provides the AF the opportunity to maximize aircraft fleet visibility and availability and to improve spares allocation. It is interesting to note that the standup of the LSCs is not due to the manpower savings but improving health of the fleets, efficiencies and processes.

These new support centers are the next step in the AF logistics transformation process that offers significant improvements. However, the LSCs are not a single AF voice that will be able to articulate the distribution of selected critical spares for operational units. The AF has no one single organization that provides an integrated approach that links all elements of the spares supply chain. In other words, no one organization controls the process from the base level through the transportation system to AFMCs Air Logistics Center (ALC). The ALCs (organic depot operations) have visibility of worldwide requirements, but only on those requirements they are responsible for to buy and repair.

Organic Depot Operations

Most people are familiar with AFMC and that they support the AF war fighter very successfully. AFMC manufactures and repairs military aircraft and weapon

²² Ronald M. Yakkell, "PACAF RSS Consolidation Briefing", (Hickam AFB, Hawaii: HQ PACAF, 2006)

systems. AFMC has established a service for providing its customers with maintenance, upgrades, and spare parts.

Organic depot operations business is big business! Air Force Materiel Commands (AFMC) depot maintenance activity group (DMAG) and supply maintenance activity group (SMAG) business areas have budget lines \$5 billion and \$6.6 billion respectively. While these amounts may seem small independently they place AFMC in the Fortune 500 list, right behind Occidental Petroleum which is 186 out of 500. The total dollar amount does not represent the amount spent for repair of AF weapon systems since a large portion is paid to contractors for repair, too. Keep in mind, the government workforce is required to perform 50 percent of the work by law. Title USC 10 states:

Not more than 50 percent of the funds made available in a fiscal year to a military department or defense Agency for depot-level maintenance and repair workload may be used to contract for the performance by non-Federal Government personnel of such workload for the military department or the Defense Agency.²³

To gain perspective of this big business consider the following quote, “funding for logistics related activities takes up one-third of the Department of Defense budget; and nearly one-half the Departments total manpower”.²⁴ Air Force Materiel Command (AFMC) is responsible for the requirement, of organized, trained, and equipped forces, of equipping forces for the combatant commanders. In doing so, they are to sustain these forces in the theater during peacetime and wartime operations. They are a surge protection during war time which historically drives depot operations.

²³ Title 10, Sec. 2466, “Limitations on the performance of depot-level maintenance of materiel,” paragraph (a). 1997.

²⁴ “A Diverse Enterprise” AFMC Leading Edge, Volume 40, May 1998, 5.

AFMC is the backbone of the ALC infrastructure ensuring parts support and a myriad of other services are available in times of peace to war and conflict. Since ALCs are directly responsible for sustaining field operations they drive mission capable rates through the range of military operations. In researching this topic the internet provided numerous studies to improve depot operations. Unfortunately, none of these studies evaluated AFMC as a system; instead, they focus on a single weapon system, a single process, and/or single initiative. And, over the years these studies resulted in many modifications to depot operations. A Logistics Spectrum article noted that,

A series of reform initiatives has altered DoD logistics management environment radically since 1992. Reform focused initially on the acquisition community with significant changes to the DoD 5000-series system acquisition guidance. This was followed by changes to change to Public Law with passage in the 1994 of the Federal Acquisition Streamlining Act. These changes that began with the “front end” of the logistics life cycle are affecting the entire DoD materiel management system.²⁵

Most of these modifications have focused on single weapon system management by reducing cycle times and response times most of which were accomplished via acquisition reform. These acquisition improvements have been made in the front end of the logistics system, but affect the entire Department of Defense materiel management system. More importantly, there has been an absence of any directive that dictates basic rules of sustainment, sustainment reform, or sustainment management during the acquisition reform initiatives.

²⁵ John Cummings, “Acquisition Reform Update,” *Logistics Spectrum*, May/June 1997, 24.

Requirement Computing

At the strategic level AFMC is the AFs advocate for requirements determination, visibility, and funding. The command is responsible for computing the entire requirement, allocating and reallocating cost authority, centralized buy and repair, distribution and redistribution, and weapon system prioritization. At this time the full requirement is computed but the remaining responsibilities are accomplished at each individual air logistics center based on the weapon system requirement.

To compute the full requirement AFMC uses the Spares Requirements Review Board to develop Program Objective Memorandum inputs. These inputs are based on the total estimated requirement by weapon system. This estimate is determined at the item level and rolled up to a weapon system requirement. Once the requirement is approved through the budget process the level of cost authority is provided to AFMC. Each ALC is fiscally responsible to manage their share of SMAG funds to achieve maximum support for weapon systems. The ALCs determine the funding requirement through the buy and repair budgeting processes.

Buy and Repair Budgeting

Item Managers (IMs) are responsible for computing weapon system secondary item (spares) inventory requirements. These spares are managed by the wholesale system through the use of budget codes. Budget codes separate secondary items into separate buckets for weapon system support, specifically: procurement and replenishment (a.k.a buy and repair). These assets, reparables, account for over 90 percent of the AF inventory.

IMs determine these computations through a system known as the Recoverable Consumption Items Requirements System (D041). This system determines the quantity of spares required to achieve a pre-determined weapon systems mission capability percentages; however, this percentage is usually fiscally constrained. This funding is made possible through the Air Force Working Capital Fund, a revolving fund granted by Congress in a budget cycle. Obligation authority to purchase spares inventory is accomplished through the SMAG while repair of spares inventory is done through the DMAG.

Customers buy these parts from the ALC through the revolving fund with appropriated Operations and Maintenance (O&M) funds. These customer funds replenish the SMAG budget providing the capability to pay for repairs (DMAG) or replacing (SMAG) unserviceable and/or condemned items when required. A customers cost is determined by the parts acquisition costs or repair costs and shipping charges to include inventory carrying costs.

The AF has identified the need to reduce O&ST for many years and has implemented dramatic programs to achieve this end. If the transportation leg (O&ST) can be reduced lower than current levels the computation model (D041) would reduce the spares requirement, lower overall weapon system sustainment costs, and free O&M funds for other AF needs. Aligning the requirements portion of the supply chain to the distribution network provides visibility of the entire supply chain from planning to execution. And, see how their reallocation impacts overall weapon systems availability.

Since the logistics footprint and forward basing has been reduced significantly AFMC uses reach back vice a classic inventory sustainment system. They are able to be

more reliant on reach back due to the transition to a distribution network. This distribution network is made possible by Transportation Command (TRANSCOM), the distribution process owner.

Transportation Command

Traditionally, supply policies drive the use of TRANSCOM's scarce mobility assets. These policies are based on the classic trade-off between inventory costs versus transportation costs. The movement of supplies through the transportation pipeline is more cost effective than maintaining overstocked inventories. Using premium transportation (air) to move personnel and supplies is expensive; however, it is more economical than investing in the inventory required for mission accomplishment. Also, DoDs "shift from forward based forces capable of fighting in place to significantly downsized CONUS-based forces with emphasis on power projection and joint force deployments" dramatically impacts mobility forces.²⁶ These policies significantly impact TRANSCOM since they are sized to support one major theater of war, which is not true today.

Though TRANSCOM is able to tailor its force structure to meet various contingencies, they lack synergy among theater transportation movement control and traffic management organizations. A primary reason for this lack of synergy is information exchange and interoperability. Organizations rely on stove piped legacy systems to achieve in-transit visibility. These systems lack flexibility and dynamic data-integration capabilities; they are not robust enough for today's operations. In-transit

²⁶ Gen Walter Kross. "The Joint Force Commander and Global Mobility." Joint Forces Quarterly Spring 1998, 57.

visibility is an integral and invaluable element of defense logistics and an essential element of a war fighting capability.

ITV is a valuable tool that aides in workload planning while reducing supply reorders, which is caused by a lack of visibility. When the war fighter is unable to locate their supplies within the transportation system (due to the lack of visibility), they will routinely re-order the much needed item. The result - reordering creates an additional transportation requirement, depletes precious stock, and strains the system. To reemphasis, when the second requisition (which is not required) is in the transportation pipeline, it impedes that pipeline causing a backlog of cargo at ports and depletes precious costly inventory. However, visibility of real-time materiel movement failures allows for real-time corrective action to support the war fighter. The transportation component bridges the gap between AFMC and operational requirements generated by the warfighter.

Combat Support C2

For combat support to be effective requires it to be aligned closely with operations, both in planning and execution; bridging the gap between strategic planning and tactical execution through operational art. Successful operations will not achieve the desired effects and capability without appropriate combat support. Operational planning and combat support organizations rarely, if ever, plan activities together. In fact, they are separate and independent activities. Operational plans are developed with little consultation with combat support organizations as to the effect the operation will influence current sustainment efforts. Combat support organizations, like AFMC, are tasked to support any an all operations by generating the appropriate resources to a

specific plan. This serial approach negatively impacts current and future operations. The combat support community should attempt to provide a parallel approach as to the impact operational plans have on the sustainment community.

Logisticians, via a centralized CSC2 organization, should be trained to integrate operational planning and the impact the plans will have on sustainment efforts using an enterprise approach. Enabling the combat support community will allow them to quickly estimate the requirements of the expeditionary forces and the options of support required to achieve the operational effects. The feasibility of the operational and support plans can then be determined. Once determined the organization, the LOC, can facilitate execution of re-supply planning and monitor performance. Also, they can determine the impact of allocating scarce resources to different combatant commanders.

Another shortfall logisticians have in providing impacts of operational plans on sustainment activities is a lack of capability assessments. This missing capability is the result of a lack of up-to-date reliable combat support information. Particularly the current process does not include procedures and activities to allocate scarce resources with competing demands. The parallel capability to assess readiness quickly, on a global perspective, to move resources from one theater to another is not present. Nor, does the capability to determine the effect gained by moving a resource from one theater to another theater of war.

The need for a standing combat support C2 function is driven by today's AEF structure. This organization will be able to respond to threats globally by allocating scarce resources from one theater to another theater; making best use of available resources. It will be a single set of decision makers with a clear chain of command and

communications with well defined responsibilities that can better facilitate combat support planning and execution of processes.

These CSC2 shortfalls can be overcome by further consolidation of core supply back shop functions to AFMC. Currently, AF managed items requirements are determined by AFMC. AFMC is responsible for buy and repair, receiving warehousing, and shipping AF managed spares owned by the ALCs. Since resource allocation decisions are based on competing demands for resources within various theaters AFMC could prioritize repair and buy functions to better support the theaters. Plus, they have the authority to determine the most efficient allocation of the dollars to buy and/or repair spare parts. Their allocation can be based on the operational effect and the entire weapon system globally.

One of the justifications to creating the LSCs is they can continuously support the war fighters deployment and employment of AEF packages. They are able to reduce the issues associated with transitioning from one contingency to another, but they can not reshape the reach back support process to meet the needs of future contingency. AFMC can provide the consistent framework of support for decision making throughout all phases of operations. Each resource influences operational capability some way, thus they must be prioritized and allocated in conjunction with other requirements by managing the entire supply chain, an enterprise.

Additionally, the LOC would have the capability to compare the actual execution to the plan, which would be key to identify constraints for timely resolution. They could overcome the constraints through resource allocation, this capability, would improve fleet and supply support to higher priorities. This feedback loop would allow the LOC to

adjust future buy, repair and budgeting. Thus, end-to-end spares visibility would be an enabler for supply chain management.

Conclusion

For the AF's continued success to command the air requires a transformation of the AF agile combat support and C2 to be effects-based. Creating an ACS C2 enterprise that is fully integrated with operational capabilities enhances our warfighting capability. A single ACS C2 organization is the linchpin to integrating operations and functions so that these support capabilities become force multipliers for worldwide operations. This necessity is the result of continued increasing requirements while decreasing funding occurs. Furthermore, institutionalizing and standardizing the process allows lessons learned to be lessons implemented. The lessons learned that are successfully tested can be implemented into doctrine.

In the past, organizations were created with responsibilities being assigned at the beginning of the conflict. The management of resources and the allocation and assessments to tasks and responsibilities were predicated on that specific conflict. Also, this created organization would monitor and prioritize resources based on that specific theater. Having global threats places new demands on combat support. Therefore, a global infrastructure support system which is centralized will aid in tying planning to execution of expeditionary support.

The sustainment infrastructure was built to support a major theater war and has not been overhauled for many years. Since the AF spends billions in support of organic operations the AF needs to improve the operations to prepare and continue support for operations or national emergencies. This LOC CSC2 organization will be able to operate

in both peace time and war time environments while being able to transition from a daily to a higher intensity conflict. The AF support function will then train as it intends to fight. And, the AF will be able transition it tactical buy and repair of spares to a proactive force multiplier to improve weapon system availability to meet current and future warfighter needs during any contingency.

To provide uninterrupted sustainment support AFMC is an integration function of all combat spares resources that facilitates the incorporation of relevant data. By integrating these resources the LOC needs to clearly define their C2 roles and responsibilities across the sustainment enterprise to support the combatant commander. The LOC needs to create oversight of the logistics system so it is responsive to the combat forces. The oversight will start in the Continental U.S. and extend to the forward operational areas providing supplies and services when and where they are needed.²⁷ This is a critical step that is required to allow combatant commanders to effectively execute their mission.

Recommendation

Many believe logistics is about moving and storing parts; however, it is more than that. Logistics is about a complete system of support from developing the requirement to distributing the items to the warfighter while considering all logistics trade-offs. A LOC will be able to provide the supply chain enterprise real-time situational awareness at the operational level through information collection and analysis, and be a resource to address and resolve warfighter logistics issues in support of global warfighting efforts.

²⁷ Doctrine for Logistics Support of Joint Operations, Joint Pub 4-0, 6 April 2000.

Since AFMC's customers are scattered across the globe, they provide a parts support system that successfully meets the needs of the war fighter. In the past, parts support was handled by a traditional customer/supplier relationship and planning was done by each unit independently. Service was achieved through maintaining high inventory levels, expenses were high and there were too many people involved in the process; inefficiency was the norm.

If the AF allowed AFMC to initiate a supply chain management framework of a series of globally responsible planners at the operational level they could better handle the forecasting, planning, and producing of parts to better serve the warfighter. Doing so allows a parts order be seen from cradle-to-grave by a single LOC organization. Through the use of this new enterprise system would allow the AF to maintain active coordination interfaces with contractors and TRANSCOM as well as with the warfighter between combatant commands. This would allow AF to cut costs while increasing the weapon system availability achieved with fewer personnel.

Managing the supply chain is a critical element of logistics and is necessary to continue the support of expeditionary air forces. Centralizing into a single LOC will allow radical improvements within sustainment and operational activities; thus, allowing AFMC, via the LOC, to fully step into its role of providing improved support to the warfighter. This transformation into a smaller, more agile force will eliminate redundancies within the MAF and CAF while “possibly fielding a more capable force of military, civilians, and contractors while freeing up resources for recapitalization.”²⁸ This

²⁸ Program Budget Decision, *PBD 720: Air Force Transformation Flight Plan*, December 2005, pg 3.

organizational restructuring which results in a more streamlined structure will enhance the AF's ability to employ air and space power in support of the combatant commanders.