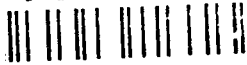


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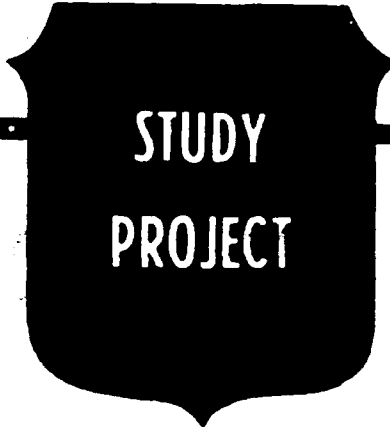
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LOGISTICS COMMAND AND CONTROL (LOG C2)
WHAT IT IS, IS NOT AND SHOULD BE

BY

Lieutenant Colonel Richard W. Hall
United States Army

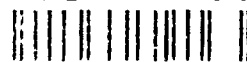
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LOGISTICS COMMAND AND CONTROL (LOG C2)
WHAT IT IS, IS NOT AND SHOULD BE

AN INDIVIDUAL STUDY PROJECT

by

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In 1986 the Combined Arms Support Command was directed to review the functional area of Logistics Command and Control or LOG C2 by the Army Vice Chief of Staff. The intent was to ascertain if the Corps LOG C2 structure required changes in order to adequately sustain Airland Battle Doctrine. An interim operational concept was produced in 1989 which reorganized the previously functionally aligned battalions of the COSCOM into multifunctional Corps Support Battalions and Groups. However since the logistics community could not come to full agreement on the issue, action was further delayed and studied. The eruption of Operation Desert Shield in August 1990 caught the logistics community in limbo and the Army went to war with the new LOG C2 structure in its heart and mind but not fully implemented. This paper examines the birth and evolution of the concept and provides a pragmatic view of what was envisioned and what was to be gained. LOG C2 performance is evaluated as a result of personal and collective experiences in the Gulf War and finally the author recommends some changes and compromises that may be in order and indicates that expectations may need alteration.

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INTRODUCTION

The advent of Airland Battle (ALB) Doctrine in the early 1980s had significant impact on the Army logistics community. We were slow on the uptake and equally delinquent with output. Such is the nature of logistics in some cases, but in this one, we were caught in the midst of change when the ultimate testing ground sprang up in August 1990.

Change refers to the implementation of a concept called Logistics Command and Control or LOG C2. This paper presupposes a fairly thorough knowledge of the concept, but a brief synopsis will help.

LOG C2 is a concept that reorganizes the Corps Support Command (COSCOM) from functional to multifunctional subordinate elements. The functional Transportation Brigade and Ordnance Group were rendered obsolete in favor of larger and more capable multifunctional Corps Support Groups (CSGs) and Corps Support Battalions (CSBs). Employment doctrine envisions a forward CSG in direct support of each committed division and its associated Corps Combat Support Slice.

This paper will offer support for the concept and indicate that it has at last been validated as a result of the Gulf War. At the same time it will offer constructive criticism of our actions before and during the war. Lastly a pragmatic review of key areas is undertaken where the concept may not offer the advantages foreseen, and where we should compromise.

CONCEPT BIRTH AND EVOLUTION

In November 1986, General Maxwell R. Thurman, Army Vice Chief of Staff, tasked the Combined Arms Support Command (CASCOM), previously known as the Army Logistics Center, to undertake a comprehensive review of LOG C2 and its doctrinal underpinnings. CASCOM based the concept on the already successful forward and Main Support Battalions of the Army of Excellence divisions.¹ Figure 1 depicts the old and new organizations.

At this point begins a sad commentary on our stifling bureaucracy. Almost three years later on 25 August 1989, a concept approval briefing was conducted for the Army Chief of Staff and the Army Staff principles. From those briefings a LOG C2 concept task force was formed to work out unresolved issues which surfaced despite the almost obvious benefits of the concept.² Consensus could not be reached for a variety of reasons. In light of the lack of agreement, the Deputy Chief of Staff, Operations (DCSOPS) requested that Training and Doctrine Command (TRADOC) conduct still further review and analysis and to:

- * Answer the Reserve Component dilemma of turbulence, training, readiness, peacetime C2, and CAPSTONE alignment.
- * Solicit further comment.
- * Review the concept of supporting only contingency operations with LOG C2 for now.

CONVERSION TO LOG C2

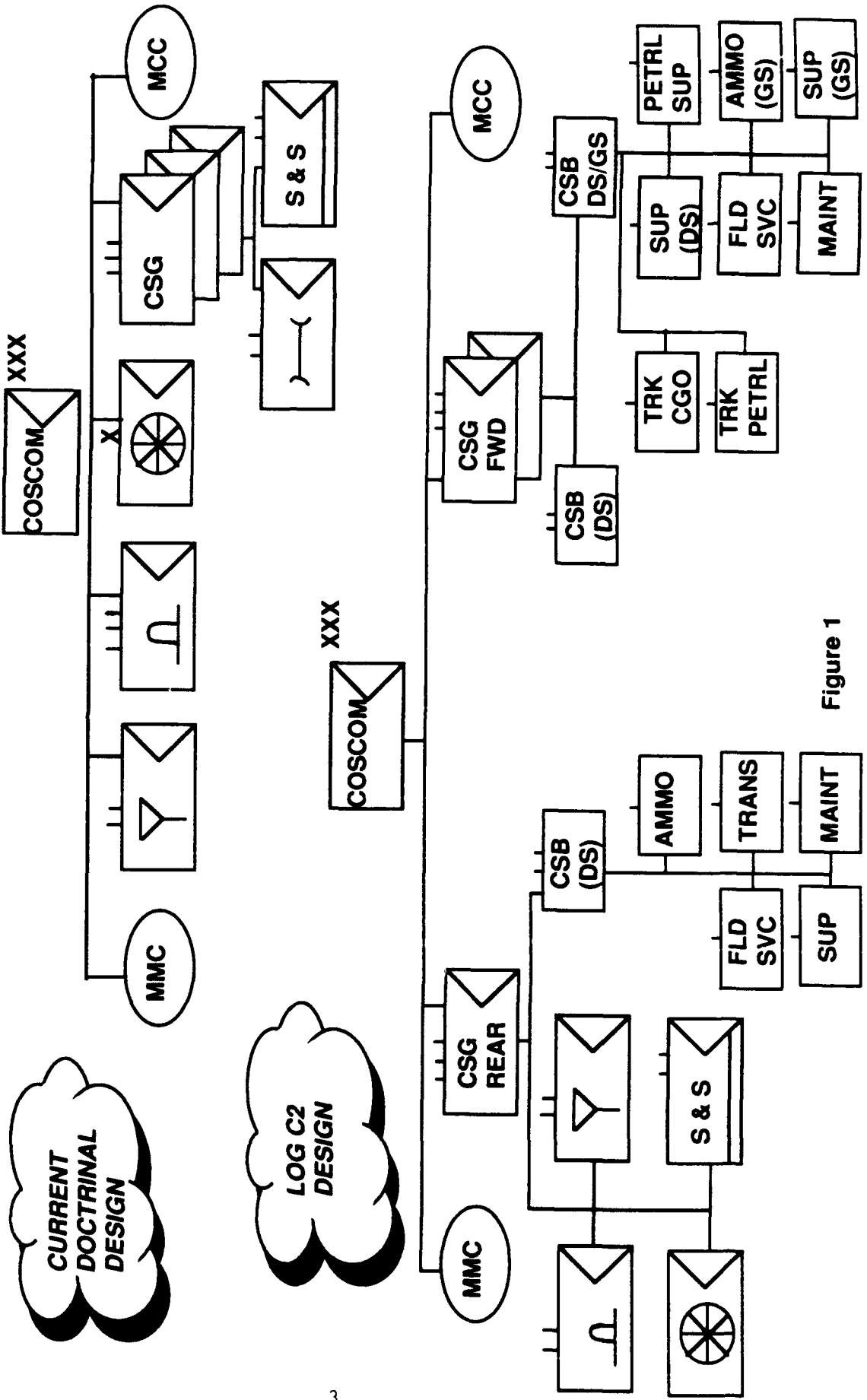


Figure 1

- * Consider the implications of doctrine, training, turbulence, validation, resources and organizational design.
- * Submit a test and evaluation plan for field validation of LOG C2 in contingency operations to include a field exercise sufficient to provide a comprehensive and stressful test.
- * Coordinate active and reserve component participation.
- * Conduct a UIC level of detail analysis of impact including resources, training, peacetime C2, CAPSTONE, retention/assessment and turbulence.

Finally, DCSOPS proposed their own validation milestones that ran from 18 December 1989 through 3d quarter of fiscal year 1993.³

While our doctrine, force development, and resource players did their maddening but necessary work, the field commands were moving out on their own and appeared to be heading in the right direction.⁴

REORGANIZATION - FACTS AND FEARS

The preponderance of credit for early multifunctional testing and operations has to go to 1st COSCOM at Fort Bragg, N.C. Because contingency operations are often characterized by smaller than Corps level forces requiring smaller support packages, the 1st COSCOM reorganized the 46th Support Group and two subordinate battalions into fully multifunctional commands.⁵ This was made possible by the relative abundance of resident

Combat service Support (CSS) units and by cross-leveling staff expertise. That effort represented physical reorganization supported by abundant resources but without official staffing authorization. By all available facts and assertions the effort was successful and proved its worth several times over.⁶

However, the dearth of active duty units (Company through Group) available at one installation to reorganize did not exist elsewhere.

The 13th COSCOM at Fort Hood, TX, reorganized on paper. The number of reserve component (RC) elements in their wartime task organization and the disparate stationing of active component (AC) units in the CAPSTONE trace were the prime reasons the effort stopped there. The 43rd Support Group at Fort Carson, CO, is the only active duty major subordinate command CAPSTONE to the 13th COSCOM. The other two Support Groups, the Transportation Brigade and Ordnance Group, are reserve components. In total, about 60% of the 13th COSCOM is reserve component. There were insufficient Company level CSS assets at Fort Hood to fully reorganize the four CSS battalions stationed there. Partial reorganization could have been accomplished but would have put two battalions out of business that were still required in wartime. But give the 13th COSCOM credit for doing the best they could. The LOG C2 concept was practiced by both active and reserve component units from REFORGER 87 to LOGEX to Corps exercises.⁷ The real obstacle was peacetime stationing and the heavy reliance on reserve component structure.

Another example from the 2d COSCOM in VII Corps gives a different picture. The 71st Maintenance Battalion was reorganized multifunctionally by 1988. With three maintenance companies, a Supply and Service Company and no staff augmentation, its true multifunctional organization could be questioned. War plans called for and exercises brought forward, ammunition and transport assets that truly met multifunctional requirements for the 2d Armored Cavalry Regiment (ACR) and 1st Armored Division. But it was still an ad hoc organization which LOG C2 was designed to eliminate.⁸

Our Reserve Component brothers have an even larger problem. The crux of the matter is outlined very clearly and forcefully by an Army Reserve Brigade Commander. Any need for LOG C2 in the COSCOM is maligned primarily from the transportation and ammunition perspective. The points made on the effect of LOG C2 on Reserve Components (RC) are valid however and deserve attention and answers. Three issues cause concern for the Reserve Components.

First there is concern about the sheer numbers of RC Groups and Battalions subject to reorganization. There were, at that time, 21 Groups and 57 battalions.⁹ The argument about the enormity of the retraining task is supported by citing the transformation of a Civil Affairs Group into a Corps Transportation Brigade. It took seven to eight years before the unit felt confident and demonstrated competence in transportation management. In fact "the Brigade went to a Logistics-over-the-

Shore exercise in Fort Eustis, kicking and screaming because of a fear of failure." The conclusion is that it will take as much as nine years to gain competency in reorganized units.¹⁰

Second, the difficulty that RC units face with peacetime chains of command that differ not only from their CAPSTONE alignment but very often in the kind of unit is highlighted. As an example, a maintenance battalion may consist of a signal company and an engineer company while being subordinate to a medical brigade. The problem is further complicated by the fact that the battalion may be CAPSTONE to another RC unit in a different region or to an AC headquarters stationed overseas. The company level downtrace is subject to all the same possibilities.¹¹

Lastly, the author decries that elimination of the stovepipe commands for ammunition and transportation is exactly the opposite of what we need for focusing combat power. The premier CSS commodities are transportation and ammunition and must be centrally managed to be able to focus their influence and contribute quickly to the execution of the operational plan.

All this shows just how disparate the views and capabilities of various commands were from 1987 through 1990.

Some Reserve Components had real reservations about not only the advisability of LOG C2 but their ability to execute if the decision was made to implement.

Other reserve component elements willingly and enthusiastically accepted the challenge and achieved at least a

modicum of success, all on an ad hoc basis.¹²

Active Components were talking out of both sides of their mouths while elatedly declaring not only successful reorganization but successful operations to boot.¹³

EARLY TESTING

It has been said repeatedly that we demonstrated and validated LOG C2 many times over.¹⁴ An examination of one of those demonstrations for what it was and was not will provide some clarity.

Major portions of the III Corps deployed on a truly unique REFORGER exercise in 1987. Unprecedented in size and scope, the deployment and support effort were truly significant. The 13th COSCOM deployed about 5,000 active and reserve component soldiers for the exercise and organized generally along multifunctional lines. The transportation brigade played albeit in a diminished role, and ammunition units ran a separate CPX.¹⁵ There are two divergent views on what the venture into multifunctional logistics operations proved. One is that the concept was sound, workable and a better way of sustaining combat power. Rave reviews went out from all points citing the simplified coordination and command schemes, mobility, and habitual relationship aspects as the brightest successes.¹⁶ Conversely, others held that the concept was fraught with virtually insurmountable problems and argued that the needless diffusion of transportation capability was counter-productive. The abundance

of transportation units, the inability of the Corps Movements Control Center (MCC) and Support Groups to agree on procedure, and no ammunition play resulted in an exercise that tested little and proved nothing.¹⁷

Personal experience as the Corps Materiel Management Center (MMC) plans officer for REFORGER 87 agrees in part, with both assessments. What was done on REFORGER that year was to break almost every sacred paradigm of logistics doctrine and of REFORGER as the Army knew it. Parochial cages were rattled and enormous lessons were learned about what it would take to make LOG C2 work. The stress placed on logistics systems by deploying into the NATO Northern Army Group sector where virtually no U.S. support base existed was unprecedented. It provided a credible test of the COSCOM's ability to program support and to distribute it to the right place and time. While no one went hungry or ran out of fuel, it was due more to an abundance of supplies and services than to planning and distribution expertise. It was proven that integrating the logistics scheme, to include maneuver, into the Corps maneuver plan was a tough challenge and essential if a Corps on the run was to be properly sustained. The better part of a CSG was displaced in order to provide continuous support as the combat force maneuvered to attack. That alone was a formidable task even with a relatively austere structure and the benefit of abundant transportation and highly developed lines of communication. But no Ammunition Supply Point (ASP) was moved, an exercise that would not really be undertaken

until over three years later. So the mobility of a CSG was tested, but in a highly artificial environment and we felt only part of that self induced strain. The good news was that it was tried and accomplished. The logisticians learned that synchronization of transportation was the key to success and that the current transportation management system was inadequate for the LOG C2 task.

Without faulting the system so much as the parochialism and self-interest of both supporting and supported players further lessons were learned. The personnel of the Movements Control Center (MCC) were skeptical about the dispersion of transport assets, afraid of taking the blame for weak performance, and fearful that their primacy in the transportation system would be usurped by the CSG. The MMC personnel were fearful of allowing back-up supplies to be put under the control of a CSG who would not account for them properly. Clearly, Transportation Brigade personnel were fearful of being cut out of not just this operation but those of the future as well. The CSG understood its mission quite clearly and set out to accomplish it at all costs. All costs included subrogating the transportation and supply management systems to the extent they were unrecognizable.

A CSG which operates in such a way is to be both cheered and jeered. Cheers are in order when commanders understand and focus unwaveringly on their mission. Similarly, accepting the reality of having to find and implement alternate means to sustain supported forces is worthy of high praise in almost every

circumstance. The jeers are in order not for commandship issues so much as systems issues. Current systems were not designed for adaptation to LOG C2 and proved unresponsive enough that commanders sometimes compromised them for good reason. But, any commander who is put in the position of resorting to undermining the management systems in logistics doctrine whether responsive or not, very often puts the whole sustainment plan at risk.

Had these human foibles, institutional biases, and systems weaknesses been coupled with a full Corps, all its working parts and a war, they would have brought the house down around our ears. Lessons were learned and work continued to refine the LOG C2 concept and the attendant procedural changes necessary to make it work. Meanwhile, the Army continued to do it without the benefit of multifunctional headquarters TOE's thereby continuing to operate by the seat of their pants. Supporting/supported relationships were changed as requirements and opportunities presented themselves. In short, logisticians were in most circumstances still working with ad hoc organizations. The doctrine and procedures progressed and slowly became institutionalized. While commanders in the field were doing the best they could, the Army's institutional bureaucracy failed to produce anything that would legitimize accepted operating methods.

DESIGN VS REALITY

At this point, a review of some of the things LOG C2 was intended to provide is in order. A comparison of the realities of a peacetime, primarily CONUS based Army with a logistics structure that is 70% Reserve Component is in order. Colonel William J. Grundy wrote urging immediate implementation of LOG C2 in his Army War College Military Studies Project in 1990.¹⁸ I will use some of his arguments to make mine.

Habitual Relationships. It is said that the old COSCOM organization and doctrine prevented the formation of habitual relationships between supporting and supported units. A Division or non-divisional Combat Support Battalion often had to coordinate with five or six different units to obtain support for all types of commodities.¹⁹ It is virtually inarguable that the single point of contact issue is a compelling feature of LOG C2. One RC commander called it a selling point for our combat arms senior leaders who have little logistics experience. Taken from the supporters perspective, the likelihood of a CSB commander knowing too little of transportation matters is too great and risks too much. Similarly, though the proposed CSB and CSG organizations call for sufficient staff expertise in all areas, we cannot depend on that alone to satisfy the need for management. Therefore, even though we plan to properly staff the battalion, it will not happen which negates any habitual relationship benefit that might accrue.²⁰

Most arguments on the habitual relationship issue have

focused on the value added from the supported commander aspect.²¹ An equally important perspective is the establishment of standing relationships within the COSCOM. LOG C2 is designed to foster just such relationships. The reality of AC/RC mix, facilities, peacetime missions and politics impose significant barriers.

The hard reality is that logisticians exist to generate and sustain combat power, not to make things easier for the supported commander necessarily. Some argue that we are only reorganizing to get them off our backs. In a way, the assertion is correct. If better more responsive support will create combat power, then the Army should get on with it. Getting the combat commander off the logistician's back, is only a lucrative side benefit.

Focused vs Diffused Effort This issue has probably been the most divisive among logisticians since the inception of LOG C2. Personal experience in listening to and arguing both sides of the issue for six years should serve to help understand the argument. The prime issues are ammunition and transportation though bulk petroleum figures in as well. The old stovepipe transportation and ammunition systems are said to have worked and at least have never failed.²² The fact is that they were never tested on the modern battlefield. Sufficient experience in the field has been accumulated, and visionary thinking done to see the need for something better. Some argue that LOG C2 achieves diffusion and not focus as purported. An article by General Crosbie Saint urging concentration and centralized control of Corps Artillery

firepower makes the point. If concentration of fires is good then so is concentration of transport and ammunition command and control.²³ However, Saint merely argues that the ability to concentrate fires must be retained, not that the units be physically retained under single control.²⁴ The transportation and ammunition argument follows the same logic. LOG C2 calls for placing transportation and ammunition companies in direct support of a division and corps units in the sector under the command of a CSB/CSG. Detractors of the concept argue that in so doing the visibility and control necessary to focus power will be lost. That is correct if LOG C2 is so inflexible, once in place, that missions and organizations cannot be changed for good reason. The management roles and systems of the Corps Materiel Management Center (MMC), Movements Control Center (MCC) and COSCOM staff do not change under LOG C2. One position states that only confusion results and clarity and simplicity disappear.²⁵ That is correct but only if the only purpose is to make things easier for the supporter. It is incorrect however if the purpose is to create and sustain combat power.

Dedicated Support LOG C2 by design achieves dedicated support to divisions and the Corps units in sector. That is a lofty and desirable end indeed. But an examination of what really happens shows that what a CSG can do for supported forces may be somewhat different from what is expected.

A selling point of LOG C2 is that the CSG can provide back-

up maintenance support for a Division.²⁶ The reality is that there are so few nondivisional maintenance companies in the current force structure that have tracked vehicle and engineer equipment parts and capabilities, that backing up divisions in that arena is but a myth. The preponderance of our maintenance companies in the reserve components, likewise have little or no such capability and will likely deploy with no significant repair parts stockage. CSG's can provide wheeled vehicle maintenance if the deployed units, whether AC or RC, have the right kind of repair parts and experience. Communications systems have been and will be in a constant state of change for years to come. This creates the likelihood that multiple radio systems will require support. The maintenance company in reality is limited at least initially to what it has been supporting. Support for tactical electric power and ancillary ground equipment is available but a lack of support for artillery fire control, radar, signal intelligence and electronic warfare and multiple launch rocket system components will probably exist.

"We relied on DSUs that were not fully capable or equipped to repair our systems. In most cases, the DSUs had never supported a field artillery brigade. They lacked the major assemblies, maintenance personnel, authorized stockage lists (ASLs), bench stocks and organizational repair parts to support an artillery brigade. The DSUs tried to provide adequate support, but it takes time to develop a meaningful support relationship.

"Some brigades changed direct support maintenance units five times while in Saudi Arabia."²⁷

That quote just about says it all. The author is speaking

of Corps Artillery support particularly but the exact same story is true for non-divisional engineer and aviation units (ground equipment) all across the theater. Obviously we have more work to do.

It is envisioned that a CSG will have one or more Supply and Service (S&S) Companies assigned that were designed to support a number of soldiers with all classes of supply except ammunition, major items, medical items, and repair parts. The S&S Company provides laundry, bath, baking, water purification and mortuary services as well. The fact is that if the S&S company provides any support at all to a division, maximum capacity is overwhelmed immediately and no support is then available for non-divisional units in zone.

"However, from my perspective, support to nondivisional units was inadequate because CSGs focused on and aligned with divisional units. Transportation, personnel, equipment and command emphasis also contributed to the CSG's inability to provide quality supply support forward to nondivisional units."²⁸

The point is that CSS commanders must learn to look in more than one direction. They must be all things to all people and see that everyone is properly supported. The quick answer is to allocate more Supply and Service capability to the CSG/CSB, but that may be too expensive in terms of force structure. A more workable solution revolves around being realistic about what a division really needs to fight. They need petroleum, ammunition, and transportation. These are indisputably the most critical sustainment assets to the warfighter. It is intended that capability for all three will be included in the CSG but how

those units are organized and employed can play a critical role.

DESERT LOGISTICS

Habitual Relationships: As mentioned earlier, the logistics community was caught in transition when the Persian Gulf crisis erupted. Personal experience with some specific battalion level pre-deployment task organizations and how the same units were organized after arrival in theater serves to illustrate the issue.

The four functional CSS battalions (Supply and Service, DS Maintenance, Transportation, and GS Maintenance) of 13th COSCOM were reorganized and deployed in September-October 1990. The S&S battalion was deployed with two of the original six assigned companies though all deployed eventually. The battalion was filled out as a CSB from other battalions in the COSCOM or by companies joining from elsewhere upon arrival. The DS maintenance battalion deployed as a CSB with one of four originally assigned companies and picked up one other maintenance company, three transportation companies and a field service company all previously unseen and unknown. The transportation battalion had been training in the multifunctional role as a CSB for several years as had the S&S and DS maintenance battalions. During the war, the battalion lost all previously assigned transportation assets and was assigned as an echelons above corps unit (EAC) with a new slate of previously unknown truck companies.

The General Support (GS) Maintenance Battalion had trained

for and had plans to deploy as an EAC maintenance battalion for other contingencies. When deployed, the battalion was reorganized as a multifunctional CSB with seven previously unknown subordinate companies. The original GS companies all deployed as well and were assigned to EAC battalions.

The S&S Battalion deployed in support of an Armored Cavalry Regiment under a CSG. It had never trained with either unit. The DS and GS Maintenance Battalions became part of an AC Support Group that was originally CAPSTONE to but not located with the 13th COSCOM and not manned as a CSG. Only one of the two battalions had trained for a multifunctional role and neither had trained with the group to which they were assigned.

Another example is the non-divisional maintenance battalion from Fort Riley, KS. The unit was intended for European Theater deployment as an EAC Maintenance Battalion. The partially multifunctional peacetime task organization was splintered and the battalion was assigned with five multifunctional companies to an RC Support Group that had been destined for EAC employment as well. That new CSG supported a heavy division in theater.²⁹

The organization of CSGs and CSBs in the war ran almost entirely consistent with LOG C2 concepts. In spite of that fact, a number of battalions and groups deployed with completely new task organizations and even new unpracticed missions.

Additional examples will further illustrate the point. With the exception of those units that deployed from Fort Bragg as original members of the 1st COSCOM, and some units of the 2d COSCOM from Europe, there appears to be little rhyme or reason to

how COSCOM organizations evolved. The 2d COSCOM was assigned a previously unassociated RC group and reorganized battalions. The 16th CSG from 3d COSCOM in Germany was re-assigned to the 2d COSCOM. The group and the battalions in it were subsequently reorganized. The 7th CSG, organic to 2d COSCOM, had each of its battalions reorganized as well.

Criticism of the herculean effort and spectacular success is not intended. However, the question of why full advantage was not taken of what reorganization and training had been done remains. All the decisions taken were probably the best that could be made consistent with requirements and the result speaks for itself. The point is that physical reorganization under LOG C2 before the war had little to do with success. More ad hoc organizations were born at every level than ever before. In short, habitual relationships were formed on the run and were still evolving when the war ended.

Generally, habitual relationships between divisions and CSG headquarters that existed before deployment were maintained. There were cases however, where new relationships had to be formed and significant turmoil existed within CSGs and CSBs. While most of those reorganizations occurred for good reason, they also indicate that regardless of how CSS units are organized in peacetime, significant changes may be required upon deployment. Habitual relationships within CSS units may not ever form until an operation is set in motion.

Focused Vs Diffused Effort: As previously stated, a prime

concern with LOG C2 is the diffusion of transportation assets. Personal experience gives some credence to those fears. During the six months the CSG was operating, there were probably less than 20 common user transportation commitments made by the assigned companies (2 heavy truck, 1 light-medium and 1 medium-truck). Virtually every mission pulled was either in support of the division or internal to the group. None of those was committed through the Corps MCC. An exception was when the heavy truck companies were detached to move VII Corps units for about three weeks. Obviously, providing transportation assets to the supported division is what is intended, assuming the missions are supportive of the Corps plan and not just the division. In fact, the age-old trap of allowing trucks to be used as mobile ammunition storage magazines was alive and well.³⁰ The transportation task accomplished throughout the theater was monumental. Virtually every commander believes it was done by sheer muscle and luck rather than by the application of our existing system as it was designed. The reason for that was an extreme lack of confidence in the transport allocation system and the predilection of all concerned to keep control and possession of assigned capability close at hand.

Dedicated Support: A review of personal experience during the war as a CSB commander, will serve to illustrate the strengths and weaknesses of the LOG C2 doctrine on this arena.

There was one Field Service Company in the group along with a Supply and Service Company. With both in full operation, they

could not even meet the expectations of the supported divisions. Since field services were not an issue during the ground war itself, efforts proved most fruitful before and after. For the most part, the supported division was in theater reserve and controlled by the Army Component Commander and the Group was not integrated into any COSCOM sustainment scheme. Because of that fact there was no continuing relationship with non-divisional troops and had the liberty of concentrating on the division. Few, if any, others had that luxury. Even though focus was achieved in the services arena, substantial capability was largely ineffectual.

All divisions have a general supply unit that provides Class I, II, IV, VI and VII items by requisitioning through the Corps MMC for direct delivery from the rear support group or theater. Repair parts are handled the same way but through a different company. The one Supply and Service (S&S) company in the group played no significant role in supporting the division for that reason. However, if the need did exist, there was and is insufficient capability in any class of supply to be effective. Once again, because of the lack of association with non-divisional units, the S&S company's capability was wasted supporting no one except the CSG elements.

The inability of CSG maintenance units to support a division with any expectation of success was discussed earlier. Personal experience again illustrates the point. There were three non-divisional maintenance companies in the group. Two had no tracked vehicle capability at all. The third had deployed from

Fort Knox, KY, where it had supported the 194th Armored Brigade and therefore had considerable capability that the division could use. What happened was an almost total rejection of maintenance support when offered. A request by the division for the issue of parts on hand so repairs could be effected internally was made and fulfilled, however.

That leaves the true combat power generators - petroleum, transportation, and ammunition. The assets available in the group were in both battalions. One had two heavy transportation companies and a light-medium truck company. The other had a medium truck company, an ammunition company, a petroleum transport company and a petroleum supply company. As the ground war became eminent, further task organization was required because of the concentration of petroleum and ammunition capability in one battalion. Two ad hoc organizations were formed to accomplish ammunition and petroleum supply and transport functions. One task force had the petroleum supply and transport companies while the other had the ammunition and medium truck companies. Both were augmented with Division Support Command (DISCOM) assets. Since the task forces reported directly to the Division Tactical Operations Center (DTAC), both the CSG and DISCOM were cut out of the decision making loop. Additionally, at the last minute, the group was issued 45 Czechoslovakian fuel tankers to provide extra support. The field service company was stripped of personnel to form a new petroleum transport company which was held under group control to provide general support. The DISCOM provided every other class of supply

during the combat operation and required nothing of the CSG except heavy equipment transport as they redeployed out of Iraq.

The only assets organic to the CSG that the division really needed to fight were fuel and ammunition. The ad hoc task forces were formed because the Division Commander wanted absolute focus on those commodities alone. He believed, and the DISCOM and Group Commanders evidently concurred, that the CSB commanders with six and seven companies assigned would not be able to give that focus. A different task organization within the existing CSG could have prevented that perception.

CURRENT ACTIONS

The Implementation Plan. Since Log C2, even with all the warts identified, worked in the Persian Gulf, the Army Staff has finally achieved full consensus on the issue and the decision has been made to implement.³¹ The associated time-line starts with XVIII Corps in FY 92 and proceeds through V Corps, Korea, III Corps, and I Corps in that order. The transition is to be complete in 1995.

CSB and CSG LOG OPS Staffing. There are new authorization documents out that convert functional CSS battalions and groups to CSB and CSG configurations. Figures 2 and 3 outline the manning levels of the proposed Logistics Operations Sections (LOG OPS) of CSBs and CSGs.

CORPS SUPPORT BATTALION

SPT OPS SEC

SPT OPS OFF MAJ 03A
OPS NCO MSG 76Z5K
TYPIST SPC 71L10

S & S BR

S & S OFF CPT 92A QM
AMMO OFF CPT 91D OD
POL SUP NCO MSG 77F50
OPS NCO MSG 55Z50
POL SUP NCO SFC 77F40
MAT CONT SUPV SFC 76P40
MAT CONT SUPV SFC 76P40
LDY/BATH NCO SFC 57E40
CLERK TYPIST SPC 71L10

TRANS BR

MOTOR/RAIL TRANS OFF CPT 88D TC
OPS NCO MSG 88Z50
MOVEMENT SUPV SSG 88M30

MAINT BR

MAINT OFF CPT 91A OD
OPS NCO MSG 63Z50
MECH MAINT NCO SFC 63H40
MECH MAINT NCO SFC 63H40
EQUIP REP PTS SPEC SGT 76C20

Figure 2

CORPS SUPPORT GROUP

SPT OPS SEC

SPT OPS OFF LTC 63A
 MAINT MGT OFF MAJ 91B OD
 CHIEF SUPPLY SUPV SGM 76Z5K
 CLERK TYPIST SPC 71L10

S & S BR

AMMO OFF MAJ 91D OD
 SUPPLY MGT OFF MAJ 92B QM
 AMMO OFF CPT 91D OD
 CONTRACT OFF CPT 97A
 SUPPLY MGT OFF CPT 92B QM
 SUPPLY/SVC OFF CPT 92A QM
 POL SUP OFF CPT 92F QM
 SUPPLY SYS TECH W4 920
 OPS NCO MSG 76Z5K
 AMMO SENIOR INSP SFC 55B40
 AMMO SUPPLY SGT SFC 55B40
 MAT MGT SUPV SFC 76P40
 MAT STOR SUPV SFC 76V40
 POL SUPPLY SUPV SFC 77F40
 PROCUREMENT NCO SFC 76P40
 SUBS SUP SUPV SFC 76X40
 WATER TRMT SUPV SFC 77W40
 GRAVES REG NCO SSG 57F30
 LAUNDRY NCO SSG 57E30
 PROCUREMENT NCO SSG 76P30
 CLERK TYPIST SPC 71L10

TRANS BR

TRANS OFF MAJ 88B TC
 MOTOR/RAIL TRANS OFF CPT 88D TC
 STAFF MOVEMENTS NCO SFC 88M40
 MOVEMENT SPEC SGT 88M20
 MOVEMENT SPEC SPC 88M10

SYSTEMS SPT BR

LOGISTICS OFF CPT 92B QM
 DP TECH W2 251A
 SENIOR ANALYST SFC 74F40
 SOFTWARE ANALYST SSG 74F30
 SOFTWARE SPEC SPC 74F10

MAINT BR

MAINT MGT OFF MAJ 91B OD
 ACFT MAINT OFF CPT 15D AV
 ARMT/CBT VEH MAINT OFF CPT 91B OD
 MAINT OPS NCO MSG 63Z5K
 ARM MAINT NCO SFC 45Z40
 COMM ELECT NCO SFC 29W40
 CONST EQ MAINT NCO SFC 62B40
 MECH MAINT SGT SFC 63H40
 CLERK TYPIST SPC 71L10

HNS BR

HN SPT COORD MAJ 03A
 MAINT OFF CPT 91B OD
 SUPPLY MGT OFF CPT 92D QM
 TRANS OFF CPT 88B TC
 OPS NCO MSG 88Z50
 CLERK TYPIST SPC 71L10

Figure 3

A CSB will get authorization for a total of 20 personnel including 5 officers with which to run a seven company battalion. The CSG, on the other hand, is authorized 50 slots including 21 officers with which to run a two to four battalion group. Practical experience shows that a lower level staff - outnumbered by 2.5 to 1, may spend the majority of available time responding to the questions and requirements of the higher staff.

The assertion that we may fail to meet staffing requirements and leave critical voids is a valid concern as well. The issue is tied to how CSBs and CSGs are organized and employed in peacetime and to downsizing. There is a plan to restructure (by redesignation and inactivations) consistent with LOG C2 by Corps level packages including the CAPSTONE RC slice. The danger lies in the effectiveness of the reorganization. It is virtually inevitable that AC battalions will have a significant RC force structure which leaves gaping holes in some units for peacetime operation. The question then becomes whether we will fill the Group and Battalion LOG OPS staff requirement when the respective functional company is in the RC. Why have a transportation staff section in a battalion with no truck companies?

CONCLUSIONS

The Implementation Plan. One is tempted to question the lengthy time line for conversion of units to the new configuration. The realities of downsizing, restationing, facilities and training, however, quickly indicate that it probably cannot be done any more quickly.³²

CSB & CSG LOG OPS Staffing. It is not likely that the Army can afford to waste manpower by filling a position authorized but not required because of peacetime organization. If so, then the only alternative is wartime staff augmentation which smacks of what has been done over the last few years.

The Group staff should conduct the majority of future operations planning, If so, the need for such a heavy concentration of experts should be seriously questioned. Similarly, Battalion staffs conduct day to day operations, collect and forward data and coordinate directly with supported units which requires significantly more manpower.

Habitual Relationships. The Gulf War experience indicates that we may never achieve the optimum state for Corps forces in and immediately behind divisions. With combat support forces continually moving to support a current situation it would seem that habitual relationships will never have time to emerge as desired.

Focusing Support: LOG C2 is infinitely better at bringing support forward than the old organization but it falls short for two reasons. First, the CSG often tends to concentrate more attention and effort on the Division than is necessary. This short changes Corps elements in the area. It is easy to focus support on one DISCOM. But it is hard to focus on Corps units from multiple combat support brigades when they are forever moving from one Division sector to another. Having only one CSG

to find for all types of support can be easy enough and seems to solve the problem. The problem, however, is time. It takes considerable time to actually obtain supplies from a CSS unit if they are not on hand. Bear in mind that what is on hand may be earmarked for other customers and irreplaceable in the required time. Second, (although another subject altogether) our existing automated supply, maintenance and ammunition systems are too slow, provide no real-time visibility over Corps stocks and are inadequately supported with communications systems. The ability to quickly locate and move materiel to meet the needs of highly mobile combat support forces does not exist.

Dedicated Support: All a division really needs from a forward CSG is ammunition, petroleum and water where it is a factor. Organizing a CSB with all the assets to perform the complete CSG mission results in turning attention away from both the Division and Corps troops at what may be critical times for both.

RECOMMENDATIONS

The discussions and conclusions in this paper will hopefully reinforce the fact that LOG C2 is indeed a sound concept that is above all, the right thing at the right time. Having indicated that it is imperfect is not intended as a slap at the creators of the concept but rather to assist in orderly, efficient and productive evolution. If our leadership can see fit to giving some thought to the following recommendations, it will have achieved its purpose.

To that end we should:

- Review the staffing of CSB and CSG Log Ops sections by asking:
 - * Can and will we fill authorized positions if the associated functional unit is not assigned in peacetime?
 - * Is the relative strength of each staff consistent with the requirements of planning and operating?
- Pursue the formation of habitual relationships where possible but recognize that the mobility and agility of some types of units will naturally undermine and preclude such relationships. Therefore reconsider the formation of CSBs designed to stay with a combat support brigade as a CSG stays with a division.
- Consider further refinement of the forward CSG to focus support on the division by:
 - * The formation of CSBs that contain only petroleum and ammunition storage and distribution capability.
 - * Organizing the other CSBs in the group to provide fully multifunctional area support.
- Assign personnel from CAPSTONE headquarters elements in the AC to subordinate RC units to assist in the transition effort and enhance training opportunities and effectiveness.

- Assign RC units subordinate to an AC headquarters to that headquarters in peacetime for all aspects of command to include training and resource management.
- Recognize the practical imperfections in LOG C2 in the shrinking peacetime Army but pursue reorganization to the limit of feasibility in light of the full spectrum of resource constraint.
- Focus on institutionalizing LOG C2 doctrine and training because of the likelihood that reorganization may prove to be unworkable in all cases.

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