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CAN THE ARMY SUPPORT THE LIGHT DIVISION?

AN INDIVIDUAL STUDY PROJECT

by

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CAN THE ARMY SUPPORT THE LIGHT DIVISION?

CHAPTER I

INTRODUCTION

Against the backdrop of the US commitment to NATO, the actual nature of conflict since World War II has been of low- to mid-intensity. In many pre or early conflict situations a ground combat force presence constitutes an effective deterrence. However, heavy forces are difficult to deploy, quickly, to most contingency areas and in many cases a light force arriving in a timely manner can be more effective than a heavy force arriving later. This emerging strategic reality, coupled with the realization of constrained resources, forced the Army leadership to develop flexible conventional forces to prevent the escalation of minor crises and low intensity conflicts into direct US-Soviet military confrontations.

BACKGROUND

In February 1980, a Chief of Staff of the Army (CSA) White Paper was published that expressed concerns regarding the threat to US security in the 1980s. The CSA saw a diverse threat that ran across the entire spectrum of conflict ranging from terrorism to insurgency to highly intense conventional warfare. At that time General Meyer felt the Army was faced with a challenge that expanded beyond our traditional NATO role. He stated:

"The most demanding challenge confronting the US military in the decade of the 1980s is to develop and demonstrate the capability to successfully meet threats to vital interests, outside Europe, without compromising the decisive theater in Central Europe."¹

With the Vietnam conflict over, the Army began to assess its structure and realized that its light divisions had not been modernized since the beginning of that war. It was also recognized that while the scope of the threat in Europe did not diminish, the number of other worldwide contingencies to which the US must respond had increased. In October 1979, The Army Training and Doctrine Command directed a study be conducted aimed at rounding out the Army capabilities for 1986 and beyond, by reorganizing and upgrading its light divisions in order to meet the demands upon the Army to respond to contingencies in any part of the world. The study had three objectives:²

- Develop new and innovative operational concepts for light divisions to discharge contingency plans worldwide and to reinforce deployed forces in an established theater of operations.

- Reorganize and upgrade the Army's light divisions to take advantage of new concepts and of advanced materiel systems under development, combining high strategic mobility with combat power and sustainability.

- Plan the transition to the new divisions.

The study addressed three types of light divisions:

- The Airborne Division**
- The Air Assault Division**
- The ground mobile light division (referred to as "ID 86" which ultimately evolved into today's light infantry division).**

The Army Leadership was concerned that the Army needed to better balance its mix of force structure with the problems of limited strategic lift and loss of flexibility from prepositioning sets of unit equipment in Europe. It became clear that the capability to project combat power worldwide needed improvement. With only limited improvements in lift capability to be achieved in the future, the Army looked to lighten its forces. While the Army's NATO mission was always foremost, it began to address forces required for Non-NATO contingencies, in earnest.

During the 1960s and 1970s, the Soviet Union exploited regional rivalries and instability in the Third World. Through its surrogates it generated political foment and expanded the threat to the United States and its allies. By establishing basing facilities in Cuba, Vietnam, Angola and South Yemen, the threat of Soviet geostrategic leverage became more apparent. The Soviets further demonstrated a willingness to commit its forces, directly, and threaten our national interests in Southwest Asia (SWA). At the same time the Iranian Revolution destroyed the belief that

the United States could depend on a strong regional ally to maintain stability and deter Soviet aggression.

This 1979-1980 period saw a heightening strategic interest in the Persian Gulf and the Middle East and a revision of US National Strategy (The Carter Doctrine). At that time, the Army had very little in the way of rapidly deployable forces available to meet the threat in Southwest Asia. This provided additional emphasis for the need/role of the light division in the Army force structure.

ENDNOTES

1. GEN Edward C. Meyer, White Paper 1980: Molding the Army of the 1980s, p. 1.

2. U.S. Department of the Army, Training and Doctrine Command, Combat Developments Study Directive: Light Divisions for the Next Decade (LD86), p. 2.

CHAPTER II

IMPLEMENTATION (CONCEPT TO REALITY)

In April 1984 the Chief of Staff of the Army, General John A. Wickham, Jr., took steps to add newly structured light infantry divisions (LID) to the Army's force structure. His 1984 CSA White Paper further addressed the need for the LID:

"Army leadership is convinced, based on careful examination of studies which postulate the kind of world in which we will be living and the nature of conflict we can expect to face, that an important need exists for highly trained, rapidly deployable light forces. The British action in the Falkland Islands, Israeli operations in Lebanon, and our recent success in Grenada confirm that credible forces do not always have to be heavy forces. Accordingly, we have committed ourselves to creating a new light infantry division structure beginning with the 7th Infantry Division at Fort Ord." ¹

General Wickham felt that the LID would allow the Army to play a more significant role in future US National Strategy. A light division could rapidly reinforce NATO or be available for worldwide contingencies. A light force could rapidly deploy to a crisis area and defuse a conflict quickly. The act of deploying as a ground combat force--a Division--demonstrates US resolve and presents a deterrence. The existence of such a capability, coupled with the national will to employ a force, provides such a deterrence. This is particularly true in a low to mid intensity environment where the LID has the greatest application.

To improve the Army's capability to meet security demands within the dynamic and potentially volatile international environment, the CSA directed the formation and fielding of five LIDs. ²

DESIGN GUIDANCE

In August 1983, CSA directed TRADOC to prepare a 10K-soldier LID design that required minimal support in undeveloped theaters and was affordable within resource restraints. The key design criteria were: ³

- The LID must possess high strategic mobility and combat potency within austere parameters.

- The LID must be designed for low intensity, but have a "plug-in" capability for mid- and high-intensity scenarios.

- The LID is to be transportable with 500 sorties (C-141B) and will be about 10K aggregate strength, of which half must be infantry.

- The LID must have utility in the NATO.

- Every avenue for minimizing personnel requirements and deployability profile will be explored. Efforts should be innovative in their approach.

- The LID will normally operate as part of a corps or joint task force.

- The LID will have utility in a broad spectrum of conflicts, and must be organized to provide the interface necessary for the rapid and efficient integration of augmentation forces.

- Workload and allocation factors will be reduced to the minimum essential for operations. Accepted MARC levels would not be binding if further savings could be made while still maintaining combat effectiveness.

DESIGN CONSTRAINTS

After an initial design review, the Combined Arms Center developed constraints within which the basic organizations were required to:⁴

- Ensure commonality of equipment, supplies, ammunition, and organizational structures.

- Optimize designs for low- to mid-intensity conflict, but retain usefulness in NATO.

- Reduce noncombat soldiers to a minimum.

- Make organic those functions and assets that are always needed.

- Pool those functions and assets that are only occasionally required at corps or echelons above corps.

- Eliminate unneeded links in the chains of command, supply and administration.

- Minimize support requirements.

- Identify augmentation units required to facilitate rapid integration of forces.

- Maximize the use of additional duties, dual training, and multiple mission individuals and units.

- Minimize the types of materiel required in the division.

- Units need not be self-sustaining.

- Ensure compatibility of the support system with division's foot mobility.

- Increase the leader-to-led ratio.

The LID is composed primarily of foot-mobile fighters. Its brigades and battalions are organized, equipped, and trained to conduct combat operations against light enemy forces on any type terrain and under all environmental conditions. If properly task-organized and augmented, the LID can attack and defend against heavy forces in close terrain only. The LID is a tactical force with strategic responsiveness, lightness, and flexibility. Tactical mobility is constrained by limited organic vehicles and

aircraft. The LID is vulnerable to heavy artillery attack, NBC attacks, air attack when local air superiority has not been attained, attack by heavy forces on open terrain, and destruction if corps CSS assistance is not provided. A detailed analysis of METT-T is necessary to ensure that the division is properly augmented for its particular area of employment.⁵

Creation of the LID has generated much criticism from both within and outside the Army. To meet General Wickham's goal of five LIDs, three existing divisions were converted and two new ones activated. Creating these new units, without an increase in endstrength, impacted on the rest of the Army. This generated heated debate regarding the LID's application on a world-wide (strategic) basis, its role in the various spectrum of conflict and its employment by the "warfighting" CINCs. A great deal of concern has been expressed about the LID's CSS structure, the innovative support concepts developed to meet the design constraints and particularly the ability of the corps to provide the required augmentation.

ENDNOTES

1. GEN John A. Wickham, Jr., White Paper 1984: Light Infantry Divisions, p. 1.

2. U. S. Department of the Army, Independent Evaluation Report for Certification of the Light Infantry Division Vol. I, p. 1 (hereafter referred to as "LID Certification").

3. Ibid.

4. Ibid., p. 2.

5. Ibid., p. 4.

CHAPTER III

STRATEGIC ROLE OF THE LID

How does the Light Division fit into US Military Strategy? The Joint Chiefs of Staff have stated that, "The basic military strategy of the United States is to deter war."¹ This policy has been consistent over the years and has been the basis for our nuclear deterrent strategy as well as for our forward deployed forces. This Military Strategy directly supports US National Strategy. President Reagan stated that a major objective of national security is to maintain national security by deterring aggression against the US and our allies. In an address to the nation on 23 March 1983, President Reagan stated, "The defense policy of the United States is based on a simple premise: The United States does not start fights. We will never be an aggressor. We maintain our strength in order to deter and defend against aggression--to preserve freedom and peace. Deterrence means simply this: Making sure any adversary who thinks about attacking the United States or our allies or our vital interests concludes that the risks to him outweigh any potential gains. Once he understands that, he won't attack."²

THE SPECTRUM OF CONFLICT

In more recent years the spectrum of conflict has been expanded and a wide range of challenges identified. To meet these challenges, during times of limited resources, the Army has to maintain a multi-functional, flexible, conventional force structure. US military strategy recognizes the global threat posed by the Soviet Union, its surrogates, and other nations

whose aims are contrary to the interests of the United States. Our nation remains threatened across the spectrum of conflict; we must be prepared for a very intense, but improbable, global conflict with the Soviet Bloc (high intensity conventional conflict) while at the same time improving our capabilities to contend with small-scale, though far more likely (low to mid intensity) conflicts.³ This means that the lower the intensity of conflict the more likely US involvement will be.

The LID and its ability for rapid force projection is clearly a part of our current military strategy. Much of what one reads and hears today, however, gives one the impression that planners are basing strategy on the LID's rapid deployment capability instead of using strategy to develop force structure. The LIDs were created to address an imbalance in the Army force structure and still play a role in Europe. In 1984-85 when the LIDs were activated (or converted from "H-series TOE" Infantry Divisions) most attention was paid to how to fight the Division in a low intensity and counter guerrilla role. The 1986 certification of the LID proved the structure was sound and, with proper augmentation, can be effective in a mid to high intensity conflict. Today much of the study and thought regarding the LID is oriented toward the use of LIDs with heavy forces, in NATO. If it is a fact that NATO is our highest priority mission, the US Army should have no CONUS based forces without a specific application to Europe--this is not a negotiable premise under today's national strategic priorities.

ENDNOTES

1. Office of the Joint Chiefs of Staff, United States Military Posture Fiscal Year 1989, p. 1.

2. President Ronald Reagan, National Security of the United States, p.3.

3. Office of the Joint Chiefs of Staff, United States Military Posture Fiscal Year 1989, p. 56.

CHAPTER IV

OPERATIONAL EMPLOYMENT OF THE LID

At this point it is important to further define the role of light infantry. Light infantry, as opposed to regular infantry, is specifically designed for rapid deployment, operation in extremely rugged and restricted terrain and at night. Light infantry can free heavy forces for other missions and is very effective in a rear area operation role against other light or guerilla forces. Understanding this, it is easy to envision an application for light forces in Europe.

Heavy mechanized forces are designed to fight a similar Warsaw Pact adversary. They excel at highly mobile anti-armor operations in the open areas of Germany. These divisions, however, are not an optimum design for operations in urban areas or in dense forests and cannot function effectively in mountains. This restrictive environment is where light infantry does its best work. The ability of light forces to use this terrain and transmit a low battlefield signature makes them almost invisible to an enemy.

The light division rounds out and balances the deterrence of our conventional forces. In certain contingencies light infantry might comprise the chief component of the force. This would be true in response to a Southwest Asia or Central America contingency or in NATO where it would be a valuable addition. In each case the rapid response and deployment of light divisions would be a sign of US resolve and intentions.¹

The crucial question is whether the new divisions better prepare the Army to meet the full range of threats that it may face in the 1990s? The fundamental need was to fashion a division for low-intensity conflict without degrading its worth to any corps to which it might be committed when faced with a greater threat environment.

OPERATIONAL CONCEPT

To further define the operational concept for employment of light infantry it is necessary to look at the light division mission throughout the various spectrum of conflict. The LID mission is to rapidly deploy as a Light Infantry Combined Arms Force, defeat enemy forces in a low intensity conflict, and when properly augmented, fight and win in a mid to high intensity conflict.² As stated previously, rapid deployment is the number one priority of the LID.

- Operations in a low-intensity environment are expected to be a no-notice type contingency to a third world nation (immature theater). This commitment of US forces, usually as part of a JTF, supports the national strategy. While a conflict may be ongoing, this would represent the first introduction of US combat forces (beyond military assistance teams and SOF). The division, utilized under this operational concept, is specifically configured to deploy rapidly to achieve strategic and operational surprise. While the division has no forced entry capability, it is capable of securing and defending a lodgment area needed for follow on support forces.

- Operations in a mid to high intensity environment could see a LID as a later deploying force to a forward deployed corps. It may be assigned to a corps or held in reserve. However, the highest payoff would be realized when a LID is deployed during prehostilities. At that point a direct swap-out of a light for a heavy division could be achieved. Any corps which receives a light division before hostilities could integrate the division into its defensive plan, utilizing restrictive terrain and urban areas, while placing a full heavy division in reserve. This is not as easily done once the battle is underway.³

OPERATIONAL CONSIDERATIONS

Operational considerations for the employment of a light division in peacetime contingency operations should be further addressed:

- Rapid insertion of ground combat forces has a significant impact on a crisis situation.

- The light division is primarily a deterrent force capable of defeating a low intensity threat. It is best suited to perform noncombatant evacuation (NEO), demonstrations, show of force, raid and strike operations.

- The light division does not possess the force structure to operate as three separate brigades. To be effective, it must be employed as a complete division. This synchronized, combined arms team can create operational opportunities in a theater.

- Employment of the light division should take advantage of its offensive orientation, its ability to operate at night and in restrictive terrain, and to adapt quickly to various modes of transport available to the force.

The ability to deploy a "credible" force quickly is an essential form of deterrence and as such is part of today's military strategy. Before the creation of the modern light infantry division, the US lacked the ability to respond quickly. Even a conventional infantry division took over two weeks to deploy by air. While the Army had an airborne division that could jump in and fight as regular infantry and an air assault division that could be flown around a battlefield, these were not light and required substantial strategic lift assets. Even under a lightened Army of Excellence (AOE) design these divisions are relatively heavy and once deployed lack the foxhole strength of the light division.⁴

Type of <u>Division</u>	No. C141B <u>Sorties</u>	Per Cent Foxhole <u>Strength</u>
Light Inf	510	32%
Airborne	600	23%
Air Assault	976	19%
Motorized	1,173	10%

The light division was created as a balance between the strategic imperatives and resource constraints. It possesses increased infantry fighting (foxhole) strength, a significant reduction in required support

structure and an overall decrease in size. The light division has expanded the range of options available to the National Command Authority (NCA). Its rapid deployment to the critical point can defuse a crisis, precluding the need for a larger, more costly, force. The division's light strategic lift requirement permits quick insertion and extraction and fills a void in meeting US strategic requirements. This refinement of force structure is long overdue and restores a proper balance to the US Army's ability to meet its worldwide commitment in support of national strategy.

ENDNOTES

1. GEN William E. De Puy, "The Light Infantry. Indispensable Element of a Balanced Force," Army, June 1985, p. 37.
2. MG William H. Harrison, Operational Employment of Light Divisions, Memorandum, 6 July 1987.
3. COL Huba Wass de Czege, Light Infantry in Europe Study Fact Finding Trip (17-26 April 1988), Memorandum for Record, 27 April 1988.
4. U.S. Department of the Army, 7th Infantry Division (Light) Capabilities Book, pp. 1-5.

CHAPTER V

LOGISTICS CONCEPTS AND CSS STRUCTURE

Over time, the standard AIM infantry division created an expansive CSS structure that provided a "stand alone" capability for the infantry division. The division required resupply, limited corps support and little-to-no augmentation. It is in the area of CSS that the greatest changes were to be realized in the LID structure. As the light division evolved, a major organizational goal was to achieve maximum "foxhole strength" (50% infantry) and be highly deployable (500 C-141B sorties). The CSS structure of the division was limited to approximately 1,250 personnel. Meeting these stringent criteria entailed a degree of risk. Innovative CSS systems were developed to enhance deployability while maintaining sustainability.

Some CSS limitations consciously built into the LID structure are: ¹

- An external source (corps support or a corps slice) of backup logistics support is required within 48 hours (after closure) to sustain the division.
- The division cannot rely solely on host nation support in a contingency area of operations.
- If the division is deployed in a contingency area, not as part of a larger force, it must be deployed with a "division slice" of essential corps CSS elements to provide a self-sustaining capability for limited periods of time.

While CSS for the light division is designed to maximize the number of weapon systems fully operable on the battlefield, the operational concept for the LID states: "However, in any of the missions envisioned for the light division, external CSS is required. This support ranges from a backup corps slice deployed as part of the division task force during contingency operations to full backup support by an established corps during forward deployed operations." ²

The division emphasizes the use of airlift for deployment and airlift or airdrop for resupply. Only essential CSS functions are performed by the division's organic assets. Supply inventories and transportation are intensively managed by the Division Support Command (DISCOM) elements to make maximum use of unit distribution. Whenever possible, throughput of supplies for external sources is made to the unit or brigade support area to reduce handling. ³

CSS STRUCTURE

Combat Service Support organizations have been specifically designed to support the LID. The most important features are the use of dedicated forward area support teams (FASTS), decentralization of supply and maintenance management and use of the tactical Army CSS computer system. The LID DISCOM is functionally organized with a headquarters and three battalions (Medical, Maintenance, and Supply and Transportation). To support the division the DISCOM assigns a FAST to each light infantry brigade. The FAST consists of forward companies from

the DISCOM's functional battalions which fall under the operational control of the forward area support coordinating officer (FASCO). The remainder of the division (those elements not operating in a brigade area) receives support from the headquarters elements of the DISCOM functional battalions.

MAINTENANCE SUPPORT

The most radical departure from existing doctrine is in the unique maintenance concept for the light division. The system is built around a replace versus repair concept designed to reduce the number of maintenance personnel required to support LID requirements. Limited Intermediate Direct Support Maintenance (IDSM) is available in the brigade support area with most maintenance capability located in the division support area (DSA).

This system uses replacement versus repair centered around a division "owned" Operational Readiness Float (ORF), Line Replacement Units (LRU) and quick change assemblies. The expanded ORF for the LID is stocked and maintained at the corps level and requires transportation assets for deployment and rapid delivery to the supported division. The most important characteristic of this maintenance system is the shift back of workload (passback) to corps-level units. While all divisions receive backup maintenance support, the LID requires specifically identified augmentation.

The function of IDSM is to repair major equipment for return to the user and selected components and modules to support an exchange system (DX). In a LID, the DX system is replaced by the expanded use of ORF. There is no component repair at divisional level. Divisional IDSM elements provide dedicated support to brigades and battalions while nondivisional IDSM units provide support on an area basis. In the LID, corps augmentation supports the high level of maintenance passback.

Conventional, missile and aircraft maintenance within the division is performed by the DISCOM maintenance battalion and the aviation maintenance company. To reduce the size of the maintenance battalion there was a selective elimination of repair functions. This concept reduced the number of personnel required as well as tools, test equipment, vehicles and repair parts. To further lighten the workload, COMSEC, Fire Control, Generators <5KW and missiles are not repaired in the division. Basic changes were made in the priorities for the maintenance system. The maintenance priorities are: 4

PRIORITY

- | | |
|-----|--|
| I | Discard the item when the action is supported by readiness data. |
| II | Replace the item through an ORF exchange. |
| III | Replace components, if this can be done quickly. |
| IV | Repair within the division. |

TRANSPORTATION

The primary transportation asset organic to the LID is a small motor transport company (TMT) found in the DISCOM's supply and transport battalion. This company has 33 5-ton cargo trucks (w/o trailers) and eight semi-trailers and tractors as common user transportation assets. The TMT company provides a pool of cargo vehicles to support division operations and the capability for transport of reserve supplies and limited unit distribution of supplies. The mission of the company is: ⁵

- Provide transportation for personnel, supplies, equipment to support divisional personnel and logistics operations.

- Provide supplemental ground transportation to supported units.

- Provide support to units to meet surge/emergency requirements for movement of ammunition and water.

The TMT company has a limited number of drivers and is designed to conduct single-shift operations. This limited ground transportation capability (210 S/Ts cargo or 690 troops) precludes the division from resupplying on a unit basis without extensive corps augmentation. The LID CSS concept requires maximum throughput of supplies to the brigade support area (BSA), either by ground or air transport. Corps assets are required to assist the division in the evacuation of unserviceable equipment.

SUPPLY AND SERVICES

Supply concepts for the LID emphasize throughput from corps to the using brigade, where possible, and eliminates the division materiel management center (DMMC). All field services to the LID are provided either through augmentation to the DISCOM or from corps units. Field services include laundry, bath, clothing exchange, bakery, graves registration and aerial delivery.

The critical supply functions in the LID are to provide ammunition, fuel and repair parts to sustain the combat capability of the division. With the austere CSS structure of the division, resupply must be provided as far forward as tactically feasible. The unit distribution method is essential to making the system work but is beyond the organic capability of the DISCOM (on a sustained basis). Division requisitioning is processed by its direct support units who forward, to the corps, requirements they cannot satisfy.

SUPPLY MANAGEMENT AND PROPERTY ACCOUNTABILITY

From a logistics management perspective, the most significant change has been the elimination of the division material management center. The DMMC was eliminated by decentralizing key functions. Maintenance and stock control of Class IX are delegated to the maintenance battalion and aircraft maintenance company while other classes of supply (less ammunition and medical items) are managed by the DISCOM's S&T battalion. While the Tactical Army Combat Service Support Computer

System (TACCS) has automated these systems, many of the less time sensitive have been moved to corps level.

Property accountability was originally decentralized with each brigade-sized unit supported by an organic property accountability section (property book team) using a TACCS computer. While this decentralized system had many desirable aspects, it was felt the division could be supported with fewer teams and, based on the LID certification exercise, action is underway to create a consolidated division property accountability section in the S&T battalion. ⁶

SUPPLY SUPPORT FOR CONTINGENCY OPERATIONS

Contingency operations of a LID entails the deployment of the division and its support units to an unimproved (immature theater) area by air. As opposed to a reinforcing role to a mature theater, the LID must deploy with the CSS augmentation elements required to conduct operations. This type of operation will be conducted in three phases: ⁷

- Phase I Deployment. The force carries its unit basic load (UBL) and additional materiel to support operations until a secure area can be established or resupply assured.

- Phase II Lodgment. The FAST and elements from the DISCOM enter the area of operations (AO). Resupply into the theater is by air and distribution is accomplished by a combination of supply point distribution

and aerial resupply utilizing the division's organic aircraft or airdrop from the corps.

- Phase III Expansion of the Logistics Base. The remainder of the DISCOM closes into the AO including corps augmentation and those corps elements required to conduct GS and backup DS supply to the LID. It is during Phase III operations that the supply support is implemented on a sustaining basis.

To understand the inter-relationships and the working of the supply system in support of the LID it is necessary to address the most essential classes of supply: Class I (subsistence), Class III (fuel), and Class V (ammunition).

Class I (Subsistence)

Class I resupply during the initial part of a contingency operation (up to ten days) will normally be combat rations (Meal Ready to Eat). By Phase III the combat field feeding system (CFFS) will be implemented and the T-ration (Tray Pack) will also be used. Class I is provided based on personnel strength reports and is preplanned. The Class I manager in the S&T battalion will determine the type rations required by the division based on strength reports, reserve requirements, and operational requirements and submits a consolidated ration request to the COSCOM MMC or to the supporting corps S&S unit. This request is normally submitted 24 to 72 hours prior to delivery and identifies the number and location of the deliveries (usually to each BSA and the DSA).⁸ Rations will be pushed

forward daily to the Class I supply points in the brigade and division support areas by the supporting corps units for pickup by the feeding unit. B-Ration and A-Ration enhancements will be issued whenever tactical conditions or ration availability factors permit. Extensive use of A-Ration supplements will require corps (or EAC) augmentation as the LID has no ration breakdown personnel.

Class III (Bulk Petroleum)

As in the case of Class I, petroleum management is the responsibility of the S&T battalion. Bulk petroleum will be pushed forward to the division Class III points from corps units daily based on POL status reports. Ground fuels will be throughput to the S&T battalion units in the brigade and division support areas while jet fuel will be delivered directly to the combat aviation brigade. The division can store in excess of two days supply in organic storage tanks and vehicles.

The LID's organic fuel servicing vehicles are designed to move fuel forward to consuming units and has no bulk fuel transporters. Any bulk resupply of fuel to the division must come from corps elements or, when possible, host nation support or local contract.

Class V (Ammunition)

The LID operates an ammunition transfer point (ATP) in each brigade area. There is no ATP in the division support area. When the division is deployed alone, and not as part of a corps, the ATPs initially

operate at the airhead or port to receive and distribute ammunition in the same manner as an ammunition supply point (ASP). As soon as tactically feasible the corps must establish an ASP in the division rear area freeing the ATPs to move with each brigade. Corps transportation is used to move palletized ammunition to the brigade areas where the trailers will be "spotted" for subsequent off-loading. During low-intensity operations, 100 percent of the brigade's Class V will be delivered to the ATP. If consumption increased (mid-intensity) the ATP will normally handle only high-usage ammunition and all other will be issued at the corps ASP. Units in the DSA continue to draw from the corps ASP. As with other commodities, the LID is highly dependent on corps transportation for ammunition resupply. In an emergency, the TMT company of the DISCOM S&T battalion may provide limited unit distribution of Class V. ⁹

MEDICAL SUPPORT

The LID was originally designed to provide medical support on an area basis. Subsequently, the modular medical support concept (MMSC) was implemented. This concept standardizes the medical units in the DISCOM's medical battalion (three forward medical companies and a HQ and support company). This standardization provides greater medical capability, mobility and command and control. With similarity and redundancy in structure the MMSC is designed to be able to reinforce or reconstitute modules to units or areas requiring support. The MMSC is based upon five basic medical support modules: ¹⁰

- The Combat Medic
- The Area Support Squad
- The Ambulance Squad
- The Patient Holding Squad
- The Treatment Squad

Each company has the capability to stabilize, hold and return patients to duty. Each has a holding capacity of twenty personnel on cots.

As with other CSS elements in the LID, the medical companies are required to sustain health service support for at least 48 hours without corps support. However, the medical battalion has no organic surgical capability and, if host nation support is not available and casualties are expected, this type corps support must deploy with the LID. Surgical squads are found at corps level and allocated as needed. If casualties are not expected during the initial phases of a contingency operation, then a surgical capability can be part of a follow-on CSS element. METT-T will normally dictate the requirement.

The ambulance squads of the medical battalion, and ambulances organic to units of the LID, provide battlefield casualty evacuation. The primary means of medical evacuation are the 32 HUMMWV ambulances in the medical battalion. In low-intensity conflict, the road nets may not support timely evacuation or may be denied and aeromedical evacuation

must be used. The LID has no organic aeromedical assets. Again, if casualties are anticipated during the early phases of an operation, corps air evacuation assets may be required or the UH-60s of the LID must be used for casualty evacuation.

ENDNOTES

1. U.S. Department of the Army, Operational Concept for the Infantry Division (Light), p. H-1 (hereafter referred to as "Operational Concept").
2. Ibid., p. H-2.
3. Ibid., p. H-3.
4. U.S. Department of the Army, Light Infantry Division CSS Concepts, p. 16 (hereafter referred to as "LID CSS Concepts").
5. Ibid., p. 12.
6. LID Certification , p. 146.
7. U.S. Department of the Army, Field Circular 63-2-1, pp. 4-7 - 4-8 (hereafter referred to as "FC 63-2-1").
8. Ibid., p. 4-10.
9. Ibid., p. 4-17.
10. LID Certification, p. 114.

CHAPTER VI

CORPS AUGMENTATION

A design objective of the LID was to optimize for low- to mid-intensity conflicts, but retain usefulness in NATO. Also, the design provided, as organic elements, those personnel and that equipment which will always be needed, and to place occasionally needed assets at echelons above division (EAD). Per FC 71-101, CSS units lack redundancy and are designed to provide only minimum-essential support. The LID can operate for 48 hours without external support, but external CSS is required beyond that point.

A LID also normally operates as part of a larger force (a corps or JTF) which provides GS and backup DS for supply, transportation, field services, backup IDS maintenance and health services. The division cannot rely solely on the host nation or a previously established support base during contingency operations. Only essential functions are performed by the division's organic CSS assets. For example, conventional ground and aviation maintenance was structured to provide approximately 55 percent of the capability required for the LID.¹

The basic LID structure is capable of accepting and employing EAD support elements. Because of its austere structure, the LID will request and receive several types of EAD CSS elements. Relationships of these EAD support elements to the LID will be either operational control, attached or direct support. Corps support to the LID will vary from short, specific

missions to those of extended duration. There are two categories of CSS augmentation which can be used to support the LID.²

- Those required for CSS sustainment after 48 hours (e.g., POL, transportation and ammunition units).

- Those required to handle the passback logistics workload.

The first category is scenario dependent and will be task organized to the LID based on a specific operation. These units will come with their own organic logistics support or be supported by corps CSS units, as the DISCOM is not designed to support non-divisional units.

The second category is required for the LID in any type deployment. These units may operate under corps control or be placed under the operational control or attached to the division.³

The following organizations identified as corps augmentation (plugs) in FC 63-2-1 are considered essential for successful combat service support to the LID:

IDSMS Company	Provides IDSMS and repair parts support.
Missile Maintenance Team	Augment LID missile support capability.
AVIM Support Team	Augment LID AVIM support capability.

Corps Aircraft Maintenance Company	Provides AVIM workload passed back to corps and backup support.
Operational Readiness Float (ORF) Repair Team	Performs unit maintenance on ORF items.
IDL Maintenance Support Team	Repairs power generation, quartermaster, COMSEC, radio, canvas, fire control, and artillery equipment.
Supply Support Detachment	Provides ADP processing and materiel management functions. Operates DS4 system for the LID.
Graves Registration Team	Operated GRREG collection and evacuation point. Processes up to 450 remains per month.
Surgical Squads	To be sent forward when critically injured cannot be evacuated in 4 hours.
Air Ambulance Detachment	To clear seriously injured patients from the forward area and provide rapid transportation of critical medical supplies, equipment and personnel.
Ground Ambulance Squads	To evacuate patients out of the division to corps hospital/afld.

**Corps Water Supply
Detachment**

**Required to provide water
purification, storage, and distribution
for operations in an arid or tropical
region.**

By design, the LID has no forced entry capability and must have a secure airhead. EAD elements must deploy with a LID to provide arrival airfield control group (AACG) support. Also, while not purely used for CSS, medium-lift helicopter capability is often the key to successful support to the LID. This capability greatly enhances emergency ammunition resupply and battlefield mobility. These corps assets, normally tasked on a mission basis, provide the division the capability to move augmenting heavy weapons systems, increased amounts of POL and can evacuate a large number of casualties.

There are numerous other echelon above corps elements that should be considered for support of LID operations. Some of these functions could be performed by the division, initially, and then provided by follow-on corps CSS elements. Others are mission/scenario dependent or could be provided by host nation infrastructure. The following functions, as identified during the LID certification exercise, may be provided as direct support, or as augmentation to, a light division task force: ⁴

- | | |
|-------------------------------|----------------------|
| - Purchasing and Contracting | - Linguists |
| - HNS Coordination | - Well-Drilling |
| - Explosive Ordnance Disposal | - Highway Regulating |

- Salvage
- Laundry
- Bakery
- Veterinary
- Medical Logistics Elements
- Postal Support Units
- Smoke-Decontamination
- Movement Control Teams
- Terminal Transfer Units
- Cargo Documentation Teams
- Finance Support Elements
- Personnel Replacement
- Petroleum Laboratory

Some augmentation is required full time to ensure adequate CSS is available to the LID while other may be required based on the tactical scenario, consumption rates, climatic conditions and the area of operations. The basic structure of the LID is capable of accepting and employing EAD elements until corps command and control can be established (if required).

ENDNOTES

1. LID Certification, p. 129.
2. FC 63-2-1, p. A-1.
3. FC 63-31, p. 7-1.
4. LID Certification, p. 131.

CHAPTER VII

CORPS CSS COMMAND AND CONTROL

The U.S. Army Logistics Center, as an agent for HQ TRADOC, has initiated action to redesign the corps support group (CSG) to function as the single source of logistics support (less medical) to employed divisions (one per committed division). A forward CSG is made up of multifunctional corps support battalions (CSB). The CSG will employ a battalion in the division rear area to support corps elements and provide back up direct support to the division. It is the CSG, operating separately from the COSCOM, that would provide the initial corps slice of CSS to support a LID during a contingency force operation.

CORPS SUPPORT BATTALION - FORWARD CORPS SUPPORT GROUP

Per FM 54-30, the forward CSG's forward CSB may be task organized to support a contingency mission or a divisional task force. This battalion supports corps elements operating in the division area and provides DS supply, IDSM, transportation, and service support to a committed division. The forward CSBs would normally employ in the DSA and behind the division rear boundary. In the case of a light division contingency operation, a CSB might be employed at or near the lodgement airfield. The number of CSBs employed will be based on CSS requirements, the tactical situation and the number of company-sized elements required to provide the necessary support. ¹

The forward CSBs have no fixed organization. They will be task organized based on the support requirements, distance, terrain, and the

configuration of the units they are supporting. For example a forward CSG has three distinct CSBs: 2

<u>CSB</u>	<u>CSB</u>	<u>CSB (DSA)</u>
- Ammo Co. GS	- Petrl Supply Co.	- DS Supply Co.
- Med Trk Co. X3	- Med Trk Co. (Petrl)	- Field Svc Co.
- DS Supply Co.	- Water Supply Co.	- DS Ammo Co.
- IDSM Co.	- DS Supply Co.	- Lt/Med Trk Co.
	- IDSM Co. X2	- IDSM Co.

One battalion is oriented toward liquid logistics (POL and water), one toward ammunition support and the battalion in the division area provides DS and augmentation to the committed division.

The forward CSG is the division's single point of contact for corps support. Through its CSBs it controls the flow of resupply as well as back up maintenance and field services. The CSG would establish a petroleum and ammunition distribution system and maximize transportation capability.

CORPS SUPPORT BATTALION - REAR CORPS SUPPORT GROUP

These battalions will provide area support in the corps rear and, like the forward CSB, will be task organized. They support "tenant" units such as the corps HQ, medical units, and combat support units. A rear CSB would also be used to support a division in reserve much the way a forward CSB supports a committed division.

CORPS SUPPORT GROUP IN SUPPORT OF CONTINGENCY OPERATIONS

The CSG should be task organized prior to deployment and phase its employment based on the needs of the supported combat units. The lead elements of the CSG could include: 3

- CSB HQ for command and control of initial CSS elements/units.
- HNS coordinating branch to support initial operations.
- Materiel management team to interface between the supported division and the corps MMC.
- Movement control team and arrival airfield control group to coordinate the receipt and movement of initial resupply.
- Transportation companies. Trucks would normally be part of a follow-on force to support resupply operations. If HNS is not available, truck elements will be phased into the area ahead of supplies. The requirement for throughput to the LID makes adequate transportation a key element of support. If the local road net cannot support ground transport, additional aircraft will be required or direct aerial resupply effected.
- Conventional ammunition company to establish the initial corps ASP.

- Petroleum platoon(s) to receive, store and issue initial bulk POL resupply or to coordinate with HNS assets or commercial sources.

- Water teams to produce, store and distribute potable water if HNS is not available or if in an arid environment.

- Veterinary capability to inspect/approve locally procured subsistence items.

- Explosive ordnance disposal teams.

- Graves registration team to coordinate the return of remains and provide back up GRREG support to combat units.

- IDSM teams and maintenance teams to support peculiar corps equipment (e.g., heavy engineer equipment, COMELEC, and water craft).

The initial CSG elements must be organized and equipped to handle a rear area threat.

Initially, the CSG will be able to operate independent of the corps MMC and function in a decentralized mode. Pre-deployment coordination with the supported division is essential in insuring system interoperability and connectivity.

Support to a rapid deployment light division in an unimproved theater would best be accomplished by a tailored CSB. The LID would deploy, by air, with its corps plugs. The division or JTF commander would establish the flow of CSS units based on METT-T and known HNS arrangements (and potential). Chapter VI outlines the potential corps CSS augmentation required. Some of these units might be aligned with a CSB in peacetime and initially attached to a LID for a specific mission.

Corps assets, such as an AACG team, would deploy immediately after the establishment of a secure airfield to coordinate the reception of the remainder of the LID. These early arriving units would operate under the command and control of the LID DISCOM. In some instances corps transportation and ammunition units might be deployed with the division's logistics tail, as would a materiel management team. These support elements would stay under the operational control of the DISCOM and function as augmentation forces. This relationship would continue through Phase I (Deployment) and Phase II (Lodgment) of the operation. If the mission continued to Phase III (Expansion of the logistic base and force buildup), the HQ of the CSB and its remaining support units would be deployed. At this point command and control of the corps CSS "plugs" would revert to the CSB and, based on mission, would function in a DS or augmentation role. If the task force is primarily a light division or the LID commander is also the ARFOR commander, the CSB might fall under the LID for command and control. If the task force were part of a corps, JTF or larger force, the CSG HQ would be deployed and assume control of CSS operations until arrival of the COSCOM HQ.

ENDNOTES

1. FM 54-30, p. 4-2.
2. Ibid., p. 4-7.
3. Ibid., p. 1-26.

CHAPTER VIII

CONCLUSIONS AND RECOMMENDATIONS

It has been four years since the U.S. Army activated its first "fighter-heavy" light infantry division at Fort Ord, California. To verify the operational concept and design structure of the LID, the Army executed a detailed test plan. Upon completion of the "certification" plan, it was concluded that the LID's design and operational concept were basically sound, with some modifications. (It should be noted that of 91 major questions, regarding the LID, 40 involved the combat service support structure.) In May 1987, after completion of the "certification" process, the CSA approved some design changes but limited the division's personnel strength and the critical "sortie count." The results of that CSA decision called for no greater than 10,778 soldiers and 516 C141B sorties. ¹

The light division is now "on the roles" of the U.S. Army and is included in many CINC's war plans. On 1 October 1986 the Seventh Infantry Division (Light) joined the Army's rapid deployment force and subsequently participated in several no-notice force deployments to out of CONUS locations. As thinking has evolved regarding the application and utility of the LID so has thought about its logistics support capability and sustainability.

CONCLUSIONS

When the LID was structured a "degree of risk" was accepted to meet the design constraints. These limitations and vulnerabilities are most notably found in the CSS area. Two broad but most critical restraints are:

- Constrained tactical mobility due to limited number of organic vehicles and aircraft.
- Dependence on corps CSS after 48 hours.

As the LID has matured and high technology, automated logistics systems and equipment based on logistics unit productivity studies (LUPS) is fielded, the viability of the LID logistics structure is realized. However, there remain some specific shortcomings that have a negative impact on the effectiveness of the division's limited logistics capability and the Army's ability to support the Light Division. While some of these affect all type divisions, some are peculiar to the LID and its contingency force role and must be met with innovative, real-time "fixes."

The LID has no means of transmitting logistics/requisition data to the national/wholesale system. The current system, using the LID's TACCS/SARSS System, must be processed through intermediate level (DS4) supply management found at corps (Supply Support Detachment). Also, the division does not have a communications system capable of transmitting a request directly to the wholesale source of supply. Direct requisitioning is the key to supporting an expeditionary force. The intermediate levels of

supply management must be initially bypassed. A direct requisitioning concept is dependent on telecommunications software that can link the division's TACCS to the Defense Automated Address System (DAAS).

By design, the LID does not possess the force structure to operate as three separate brigades. This is particularly true in the area of CSS. It takes over one-half the DISCOM to support a separate brigade task force. This aspect of the concept seems to have been overlooked as more and more thinking leans toward the use of a light infantry brigade TF as an initial contingency force and brigade size elements to operate with heavy forces in the mid-to-high end of the intensity spectrum. Also, peacetime training, in the reality of a restrained resource environment, precludes division-sized exercises (except command post exercises). This trend is forcing a shifting in doctrinal thought. If separate brigade operations are to become the norm, then an attendant rethinking of logistics doctrine and the support structure is required. If the inherent deficiencies of the LID (firepower, tactical mobility, organic sustainability) were to be offset by increased organic assets then the strategic mobility would decrease. This decrease in mobility would extend the LID's closure time to a theater. This trade-off (Earlier vs Heavier) must be addressed with the logistics impact considered. ²

The predominant element of risk built into the logistics structure is the dependence on corps CSS "after 48 hours." The corps support requirements have been quantified but no action taken to specifically align corps CSS units with supported LIDs. Much of the corps CSS structure is found in the reserve components who cannot meet the deployment criterion of a LID. The capability of newly designed non-divisional CSS "plug" units

has never been fully tested in the manner of the LID "certification." Also, some of the specific corps elements have only been activated "on paper" and are not available to support a contingency. While there is adequate corps CSS in the active force structure to support a single LID deployment, they are all purpose forces who are required to support any contingency corps mission.

Under some tactical scenarios, i.e., secure airfield, secure highway infrastructure and operations of limited distance, the LID can sustain itself beyond 48 hours, with limited resupply. It is essential to enhance the internal CSS capability of the LID to extend that period without increasing the deployment profile.

RECOMMENDATIONS

The concept of functional battalions in the LID DISCOM and decentralized supply management are sound and should be retained. These two basic concepts are what allows the LID DISCOM to provide essential levels of support within a greatly restricted end strength. The whole idea of light division logistics depends on doing more with less. Functional battalions provide the commander with the ability to weight the support effort and call upon expertise and assets that lay in the battalion HQ and rear elements. There is an ongoing argument that all division support structures should be standardized throughout the Army with an MSB and FSBs. Design and operational employment of the LID, in itself, is different as are the airborne and air assault divisions. The FAST concept has proven its value,

provides continuity of operations and is in keeping with the original precepts of the light division.

Efforts should continue to lighten equipment for the LID. Soldier load must be considered and efforts made to maximize high technology to reduce equipment weight and increase capability. Standard equipment is not always applicable for use in a LID. POL pumps and storage equipment that work well in a heavy division exceed the storage and distribution requirements for the LID. The new diesel powered 350 gpm petroleum pump is an excellent unit but it is far too heavy and bulky for use in the LID. All existing equipment may not be suitable for use in light divisions.

To offset the LID's constrained tactical mobility there are several recommended actions:

- Increase the driver-to-truck ratio in the DISCOM's motor transport company to 1.3:1 (the standard factor for tactical truck units). Originally structured at a 1:1 ratio, five additional drivers were added after the "certification" FTX. The division's paucity of transport dictates greater than one-shift truck operations.

- Place 33 one and one-half ton trailers in contingency stocks earmarked for each LID. Upon deployment of the LID, the trailers would be pulled from storage and shipped to the arrival airfield (after the closure of the division). This would provide an immediate 50 percent increase in the DISCOM's cargo haul capability without any increase in personnel or division deployment profile. They would be used by the 33 five-ton cargo

trucks in the TMT Co. and would be needed early on, before the closure of corps transportation units and when the LID is providing its own ammunition resupply.

- Provide 3,000-gallon Semitrailer-Mounted Fabric Tanks (SMFTs) for bulk petroleum and water distribution. These collapsible bags can be mounted on the division's 30-foot semitrailers and provide initial bulk petroleum distribution from the lodgement airfield or HNS sources, as required. The 5,000-gallon petroleum tankers found in corps units are not C141 deployable and would not be reasonably expected to arrive with initial corps CSS elements.

Properly identifying, aligning and training the initial corps CSS units required by a LID in a contingency force operation is a most critical requirement. A light division with a rapid deployment, world-wide, contingency mission requires specific corps CSS augmentation during the initial phases of employment.

To best accomplish this, a specially tailored corps support battalion should be activated and aligned with its supported light division. Elements for this battalion would come from existing companies and detachments in the CONUS base (FOSCOM units). To maximize the viability of this concept several specifics must be accommodated.

- The CSB must be made up from the active component and co-located with its supported LID. The CSB would utilize the same deployment airfield and would initially be under the command of the LID

commander. If METT-T dictates that elements of the CSB flow "early," they could be interspersed with the division airflow. This permits the LID commander to readily tailor his initial support package. The CSB would also provide the AACG team required to receive the division.

- The CSB must train with its supported LID on a regular basis as well as provide CSS in garrison. The maintenance units would stock appropriate repair parts and maintain the LID's ORF. The CSB will be identified, trained and equipped as a rapid deployment force unit and will not be "piecemealed" to support other missions beyond the scope of its LID support.

- The CSB units should have the same family of equipment as the LID. This creates a commonality of tools, test equipment and repair parts which greatly enhances supportability and interoperability.

- The CSB should enjoy the same DAMPL priority and have the same force activity designator (FAD) as the division it supports.

The general structure of a CSB designed to support a light division is:

Corps Support Battalion (LID)

Battalion HQ

*AACG Team

*Movement Control Team

IDS Co.

- * Missile Maint Team
- * ORF Repair Team
- * IDL Maint Spt Team ^a
- * AVIM Support Team

Supply & Service Co. ^b

- * GRREG Team
- * Conventional Ammo Platoon
- * EOD Det
- * Supply Spt Det ^c
- * Aerial Delivery Det

Light/Medium Trk Co.

Medium Trk Platoon ^d

Medical Co. ^e

- * Surgical Squads
- * Grnd Ambul Section
- * Aeromedical Evac Det ^f

- * Attached

- NOTES:
- a - Repairs power generation, QM, COMSEC, radio & fire control equipment.
 - b - Includes organic POL, GRREG, water, CEB, bakery, and general supply capability.
 - c - Can be deleted if the DAS³/DS⁴ of the basic Co. is compatible with the TACCS of the LID.
 - d - In addition to basic Co. Used to support initial ammunition transfer point operations.
 - e - Cadre only, all elements to be attached upon notice of deployment.
 - f - UH-60 equipped for compatibility with LID AVIM maint.

These units/elements have application in a peacetime training environment and in day-to-day garrison operations. All can be found in the active force structure and many are located on the same installation as the light divisions. It would create little turbulence to organize and align the CSB with its division. This act... guarantees that the initial corps CSS would be available for a no-notice deployment and trained to support a LID. By taking this step it is safe to say "the Army can support the light division."

ENDNOTES

1. U.S. General Accounting Office. Force Structure - Army Needs to Further Test the Light Infantry Division (GAO/NSIAD-88-115), p. 15.

2. Combined Arms Combat Development Activity message, Light Infantry Division (LID) Assessment, p. 2, section 2.

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