

AD-A263 919



DTIC
ELECTE
MAY 12 1993

D

C

2

The views expressed in this paper are those of the author and do not necessarily reflect the views of the Department of Defense or any of its agencies. This document may not be released for open publication until it has been cleared by the appropriate military service or government agency.

STUDY PROJECT

FIGHTING THE CLOSE FIGHT WITH FIRES-- AN OPERATIONAL ANALYSIS OF THE BRIGADE FIRE SUPPORT PARADIGM

BY

LIEUTENANT COLONEL HENRY W. STRATMAN
United States Army

DISTRIBUTION STATEMENT A:

Approved for public release.
Distribution is unlimited.

USAWC CLASS OF 1993



U.S. ARMY WAR COLLEGE, CARLISLE BARRACKS, PA 17013-5050

93 5 11 25 1

93-10399



REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION / AVAILABILITY OF REPORT Approved for public release; distribution is unlimited.		
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S)			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION U.S. ARMY WAR COLLEGE		6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION		
6c. ADDRESS (City, State, and ZIP Code) ROOT HALL, BUILDING 122 CARLISLE BARRACKS, PA 17013-5050			7b. ADDRESS (City, State, and ZIP Code)		
8a. NAME OF FUNDING / SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		
8c. ADDRESS (City, State, and ZIP Code)			10. SOURCE OF FUNDING NUMBERS		
		PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) FIGHTING THE CLOSE FIGHT WITH FIRES--AN OPERATIONAL ANALYSIS OF THE BRIGADE FIRE SUPPORT PARADIGM					
12. PERSONAL AUTHOR(S) LTC Henry W. Stratman					
13a. TYPE OF REPORT STUDY PROJECT		13b. TIME COVERED FROM _____ TO _____		14. DATE OF REPORT (Year, Month, Day) 93/04/01	
15. PAGE COUNT 40					
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP			
19. ABSTRACT (Continue on reverse if necessary and identify by block number) This study debates the close fire support system's doctrine, organization and materiel shortcomings which inhibit the operational effectiveness of fire and maneuver synchronization. It reveals major disconnects between professed and resourced fire support capability, and argues that doctrine, tactics, techniques and procedural fixes alone won't solve the most demanding fire support synchronization deficiency--the trigger of timely, and accurate fires. The study focuses on "how to fight" the close fight with fires, and recommends changes to the brigade fire support paradigm which increase effectiveness of fire support and simplify synchronization of fire and maneuver.					
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED		
22a. NAME OF RESPONSIBLE INDIVIDUAL Colonel Duane E. Williams, Project Adviser			22b. TELEPHONE (Include Area Code) (717) 245-3845		22c. OFFICE SYMBOL AWCAA

USAWC MILITARY STUDIES PROGRAM PAPER

The views expressed in this paper are those of the author and do not necessarily reflect the views of the Department of Defense or any of its agencies. This document may not be released for open publication until it has been cleared by the appropriate military service or government agency.

FIGHTING THE CLOSE FIGHT WITH FIRES--AN OPERATIONAL
ANALYSIS OF THE BRIGADE FIRE SUPPORT PARADIGM

AN INDIVIDUAL STUDY PROJECT

by

Lieutenant Colonel Henry W. Stratman
United States Army

Colonel Duane E. Williams
Project Adviser

**DISTRIBUTION STATEMENT A: Approved for public
release; distribution is unlimited.**

U.S. Army War College
Carlisle Barracks, Pennsylvania 17013

Accession For	
NTIS CRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

DTIC QUALITY INSPECTED 1

ABSTRACT

AUTHOR: Henry W. Stratman, LTC. FA, US Army

TITLE: Fighting the Close Fight with Fires--An Operational Analysis of the Brigade Fire Support Paradigm

FORMAT: Individual Study Project

DATE: 1 April 1993, Pages 40, CLASSIFICATION: Unclassified

NARRATIVE: This study debates the close fire support system's doctrine, organization and materiel shortcomings which inhibit the operational effectiveness of fire and maneuver synchronization. It reveals major disconnects between professed and resourced fire support capability, and argues that doctrine, tactics, techniques and procedural fixes alone won't solve the most demanding fire support synchronization deficiency--the trigger of timely, and accurate fires. The study focuses on "how to fight" the close fight with fires, and recommends changes to the brigade fire support paradigm which increase effectiveness of fire support and simplify synchronization of fire and maneuver.

" Fighting with Fires"



***... past
... present
... future***

FIGHTING THE CLOSE FIGHT WITH FIRES: AN OPERATIONAL ANALYSIS OF THE BRIGADE FIRE SUPPORT PARADIGM

INTRODUCTION

Synchronized combat power, the mark of success in combat and at the Combat Training Centers (CTCs), continues to elude many competent combined arms commanders. Despite the development of doctrinally sound tactics, techniques, and procedures for integration of the seven Battlefield Operating Systems (BOSs), and extensive training regimens, the "coveted goal" of effectively synchronized fire and maneuver is seldom demonstrated on the demanding CTC battlefields.

The crux of this multi-faceted, combined arms dilemma centers around the requirement to integrate and synchronize all available weapon systems, achieving massed combat power (direct and indirect fires), at the right time on the highest payoff targets. Of all the high-payoff target sets, the decisive attack of maneuvering enemy armored forces, throughout the depth of the battlefield, presents the combined arms commanders with the most demanding fire and maneuver synchronization challenges.

Nowhere is this challenge more pronounced than in the Fire Support Mission Area, which brings the lion's share of combat power to the fight, and when properly synchronized with maneuver, ensures a decisive victory. It is the author's contention that the brigade fire support paradigm hinders close fire support synchronization because it does not provide reconnaissance forces with enough highly capable observers, nor commanders with a robust fire control structure with which to confidently and aggressively employ fire support assets.

PURPOSE STATEMENT

This study debates the "close fire support system's" doctrine, organization, and materiel shortcomings which inhibit the operational effectiveness of fire and maneuver units alike. It reveals major disconnects between professed fire support capability--doctrine, tactics, techniques and procedures (DTTP), and resourced capability--the means to execute. The author argues that DTTP and training fixes alone will not close-the-gap between fire support synchronization theory and demonstrated performance at CTCs, and eventually, during combat. Numerous Combat Observation and Lasing Teams (COLTs), integrated with scouts and linked directly to highly robust fire support elements (FSE), are also required to execute (trigger) the commander's intent for fire support.

Until the "eyes and control " shortfalls are corrected, the overarching goal of the Fighting with Fires Initiative to "... enable combined arms commanders to fight fire support systems with the same skill and vigor with which they employ direct fire systems,"¹ will remain a goal that is seldom achieved by task force and brigade commanders.

SYNCHRONIZATION--A SHARED RESPONSIBILITY

ENDS-WAYS-MEANS

U. S. Army Field Manual 100-5, Operations defines synchronization as:

"... the arrangement of battlefield activities in time, space and purpose to produce maximum relative combat power at the decisive point." 2

Commanders use variants of the decide-detect-deliver methodology to integrate the seven BOSs to achieve synergism and focused combat power. Doctrinally, it is combined arms commander's responsibility to "think operating systems," and direct maneuver and fires with a total force perspective to achieve synchronization. Commanders must not only understand the capabilities and limitations of the BOSs, but how to maximize each systems contribution based upon Mission, Enemy, Terrain, Troops available, and Time (METT-T) factors.

Fire support operations are likewise multi-faceted and diverse, relative to the level of war in question--strategic, operational, or tactical. The traditional Field Artillery roles of close support, counterfire, and interdiction are also mutually supporting and interrelated, and collectively define the domain commonly referred to as "fire support". The ends, ways, and means of fire support synchronization (figure 1) also vary as the level of war and operational continuum change. For example, counterfire and interdiction programs are waged at the operational level, to disrupt the enemy's combat power generation capability creating more favorable correlation of forces for the close fight. To facilitate debate and depth of coverage, the focus of this study is limited to the heavy brigade's close fire support synchronization dilemma.

ENDS -- WAYS -- MEANS

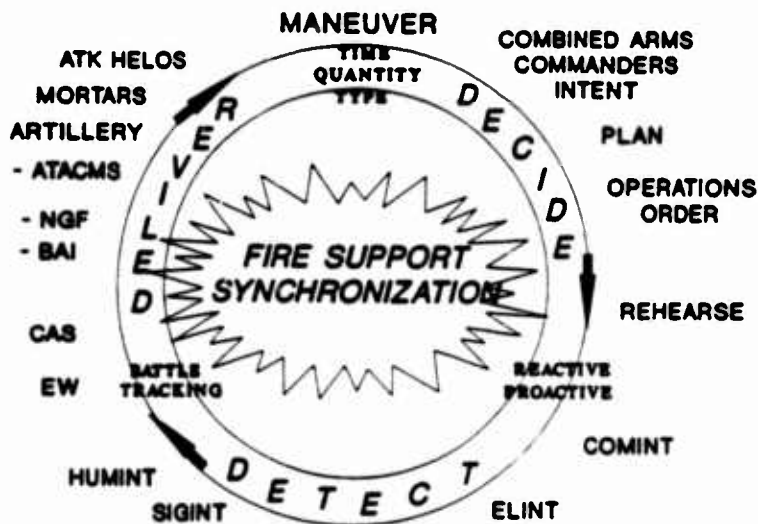


FIGURE 1: Multi-faceted fire support synchronization process

Commanders skillful orchestration of the "ends, ways, and means" of the decide-detect-deliver process during both planning and execution phases of operations, is the ultimate prerequisite for success.

FIRE SUPPORT'S ROLE

Although the combined arms commander is "overall responsible" for synchronizing his combat power, all combat and combat support arms play crucial, supportive roles. Each branch must ensure their doctrine, organization, training, and materiel support the combined arms commander's diverse warfighting requirements. Desert Storm and CTC fire support after-action reviews acknowledge that:

"...existing doctrine, tactics, techniques and procedures (DTTP) for clearing indirect fires were insufficient to meet the needs of AirLand Battle operations." 3

Many FSCOORDs contend that organizational and materiel shortcomings of the brigade fire support structure also limit operational effectiveness. During Operation Desert Storm, "absolute positive control" of all indirect fires by brigade commanders or FSCOORDs was the norm, primarily due to a lack of confidence in the clearance of fire system demonstrated during training exercises at CTCs. Few FSCOORDs were surprised that the "silence is consent" fire control method was discarded, and more stringent and time consuming measures implemented to decrease the risk of fratricide.

CLEARANCE OF INDIRECT FIRES

Fort Sill's Clearance of Indirect Fire White Paper does an excellent job of defining the complexities of the problem, but "falls short" on providing the means (the missing piece of the synchronization puzzle) to responsively and safely focus firepower. The White Paper fails to recognize the dynamic nature of a fluid battlefield with an uncooperative enemy, and places too much reliance on planning, and coordination techniques to compensate for fire support execution deficiencies caused by inadequate resourcing of the gunnery team's eyes. Changes in organization and functions (ways, and means) of the heavy brigade's fire support system are required to "bridge the gap" between capability and consistent, reliable performance.

THE FIRE SUPPORT SYNCHRONIZATION ISSUE

THE PROBLEM

"Over...Short, Left...Right, Early...Late" spottings too frequently characterize fire support's performance norms at the CTCs. According to BG Carter, CG of the National Training Center (NTC):

"The issue at the NTC is not field artillery, it's fire support--the full integration of maneuver with fires. ...Field Artillery is exceptionally good at sending rounds downrange and hitting the right point on the ground. The piece we don't do well is put rounds on a specific target at exactly the right time and event in the battle. That's fire support, not field artillery." 4

This issue continues to exist even though extensive efforts have been made by both maneuver and fire supporters to solve what is basically a "timing problem"--the attack of a moving enemy force at long-range, with indirect fires.

BACKGROUND

During the past decade, the Artillery's quest to improve fire support execution for the close fight primarily focused on training enhancements (i.e. DTTPs for combined arms staffs, Intel Preparation of the Battlefield, fire planning and rehearsal processes), and materiel solutions (i.e. FIST-V, Bradley FSV and more digital C2 devices). Collectively, these initiatives provided significant improvements in operational effectiveness, but they didn't solve the complex clearance of fires and synchronization problems. Having exhausted almost every possible training solution, it is time to consider doctrinal and organizational fixes, many of which are supported by extensive analysis and field experience.

ANALYTICAL UNDERPINNINGS

Close Support Study Group (CSSG) II (1979), CSSG III (1984), and CSSG IV (1989) identified and refined the requirement for a fire support observation capability with scout platoons. The studies argued that to accurately locate targets, trigger first round fire-for-effect fires, and

employ laser munitions effectively, a high technology obser-
vation capability (referred to as COLTs) was required.⁵ CSSG
IV also recommended the elimination of the Infantry's dis-
mounted platoon forward observers as force structure
billpayers because of their limited contribution to the
battle. According to an operational analysis performed by
Emerson Electric in support of the study:

"...Platoon observers had little or no impact on
simulated battle outcomes." 6

Although CTC reports consistently substantiated the
above finding, the Infantry School steadfastly defended their
Vietnam Era belief that FOs were required to call for and
adjust mortar and artillery fires--a combat essential task
of all infantrymen (officer and enlisted). In addition to
the Infantry's recalcitrance, fiscal constraints, laser
optic vulnerabilities, and "fire and forget" smart munitions
developments impeded implementation of CSSG IV's high
technology observer recommendations. These factors coupled
with "institutional resistance to change" and time-honored
biases, even when proven ineffective, inhibit progress today.
For example, in response to 1st Armored Division's recent
proposal to field HMMWV based COLTs, the Chief of Warfighter
Division, USAFAS declared that:

"...a task force commander could task organize to
support disparate scout missions using his robust
infantry company FIST assets. ...A scout can trigger
fires as well as an FO or COLT. ...If the rehearsal
identifies that the scout force is not adequate,...it
should be augmented with enough personnel and equipment
to trigger fires." 7

Assertions, such as, robust infantry FIST; scouts can trigger fires as well as FOs or COLTs; and the capability to augment the scout force with personnel and equipment are not supported by CTC experiences, nor common sense. Changing this 1980's, defensive mindset is critical to exploiting fire support's combat potential. Although an ideal tactical situation can be assumed where-in the above assertions are valid, they are the exception, not the rule. This longstanding failure to gain consensus on the operational utility of COLTs has thwarted force realignment initiatives, and frustrates fighting with fires today. Rationale for this position is presented throughout this paper.

TOP-DOWN FIRE PLANNING

CSSG IV also established the doctrinal basis for "Top-down" fire planning, based upon the assumption that COLTs would be fielded to execute the fire plans. FM 6-20-40, Tactics, Techniques, and Procedures for Fire Support for Brigade Operations (Heavy), doctrinally recognizes the COLT capability and utility. Unfortunately, due to budgetary and force structure constraints, competing deep and counterfire requirements, parochialism, personalities and power brokering, and emphasis on technological solutions, CSSG IV's close support recommendations were never fully implemented.

Direct support artillery battalion TO&Es eventually reflected authorization for six COLTs per brigade, but fielding was contingent upon availability of both M981 FIST vehicles (a M113 family vehicle) and force structure spaces. Force Design constraints, laser obscurant vulnerabilities, smart munitions popularity, and the M981 vehicle's mobility and survivability concerns, collectively, formed the basis for limiting fielding to as few as one system per heavy brigade--hardly the effective fire controller/trigger puller envisioned by CSSG IV members, or the doctrinal capability reflected in FM 6-20-40.

Top-down fire planning and the "COLT capability", although fielded at only a token level, was inculcated in maneuver and fire support doctrine and institutionalized in training norms across all branches. COLTs conceptually became an integral component of the fire support equation (especially in computer wargames), and high performance expectations were set as if the full capability existed. Unfortunately, this critical link in the fire and maneuver synchronization chain (the eyes) remained poorly resourced.

REDEFINING THE COLT'S ROLE

In retrospect, the Artillery community's fixation with the Copperhead munition's hard, point-target kill capability and laser technology in general, obscured an equally viable

operational capability of COLTs--combat observation. The COLT's ability to overwatch a target area of interest (TAI) and trigger accurate, massed fire strikes is perhaps more in keeping with what the Artillery does best--deliver timely and accurate, massed "area fires". It is ironic, that the limitations of the Ground/Vehicle Laser Locator and Designator (GVLLD), a tool used by fire supporter to improve targeting effectiveness, actually impeded fielding of the coveted synchronization capability resident in the COLT organization.

It is time to redefine the COLT's organizational and operational concept, and field this most cost effective synchronization capability. The remainder of this study is devoted to defining the COLTs operational environment, employment concepts, and related modifications to the brigade fire support paradigm which enhance fire control and synchronization.

FIRE SUPPORT'S DOCTRINE--ORGANIZATION DILEMMA

THE DOCTRINAL DILEMMA

A microscopic review of the fire support system's dilemma highlights the significant impact of not fully fielding the COLT capability. Although doctrine calls for the attack of moving forces in-depth with fires (CAS, artillery, mortars),

the observer assets (COLTs) required to execute the timing function are not available at TF/Bde levels for commitment to Target Areas of Interests (TAIs) without shifting FIST assets from the companies, or reliance on maneuver forces.

DOCTRINE - ORGANIZATION DISCONNECT

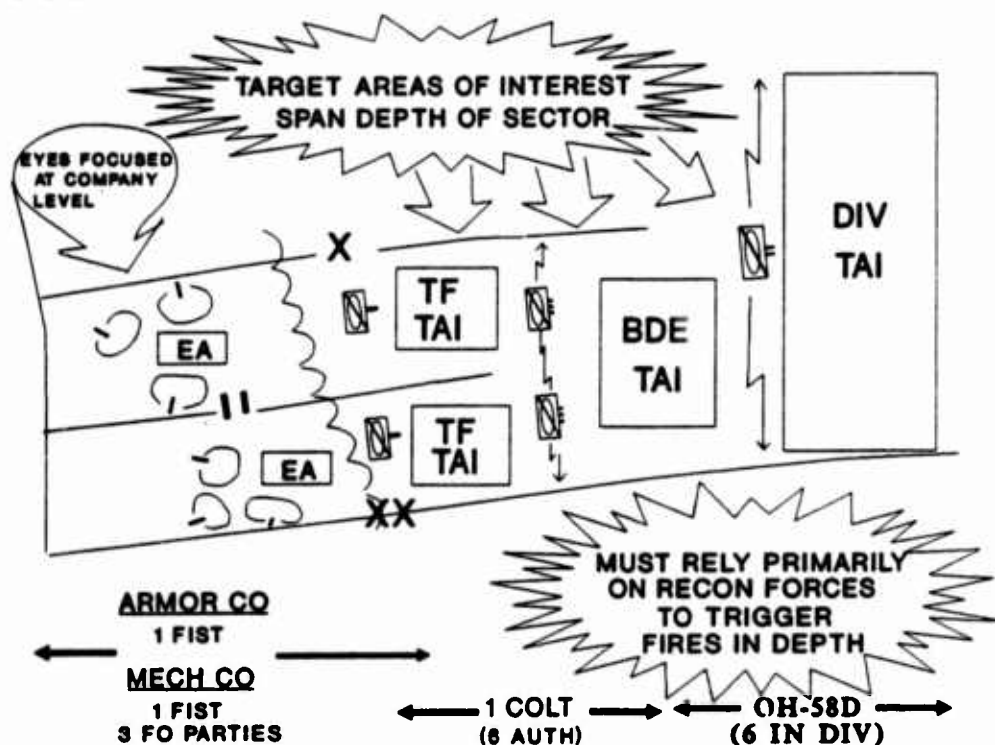


Figure 2: Observer capability--target engagement dichotomy

As illustrated by Figure 2, not only are there too few observer assets, they are focused on the least effective part of the battlefield for indirect fires--company level. This doctrinal requirement--organization disconnect precludes the full integration of observation and reconnaissance plans, limits operational flexibility, and provides insufficient command and control robustness for clearance and execution of fires in depth.

With the exception of one COLT, all the fire support eyes (FOs, FISTs) are organic to, and normally employed at, company level where direct fire dominates the engagements. Indirect fires are most effective when brought to bear throughout the depth of the brigade's area of influence. At task force and brigade levels, resourcing of observation plans with trained eyes (triggers and back-ups) becomes a "rob Peter to pay Paul" exercise in futility. What few observer assets are available at company level (1 FIST) are woefully inadequate to also fulfill the TF/Bde requirements. Without organic TF/Bde COLT assets to trigger fires, reconnaissance or maneuver forces by default, perform the fire support function as an additional duty.

RECONNAISSANCE OR TARGETING

Scouts are an integral part of the synchronization equation, but their organizational structure, training and employment focus limit their utility as the "eyes of choice" to trigger fires. Therein lies the crux of the fire support execution problem. Because of the inadequate number of fire supporters to trigger fires, commanders must rely on already over-committed scout assets to paint the intelligence picture in sufficient detail to accurately cue the brigade's fires.

Scouts are excellent intelligence collectors and reporters of battlefield activities, but poor forward observers.

Scouts, by design, gather information and then report. To also expect scouts to simultaneously excel at executing fires, a task which frequently embodies conflicting tactical requirements, is unrealistic. Fire support experts must be integrated with and employed in concert with reconnaissance forces to fully realize synchronization of fire and maneuver.

FIST-COLT-SCOUT INTEGRATION

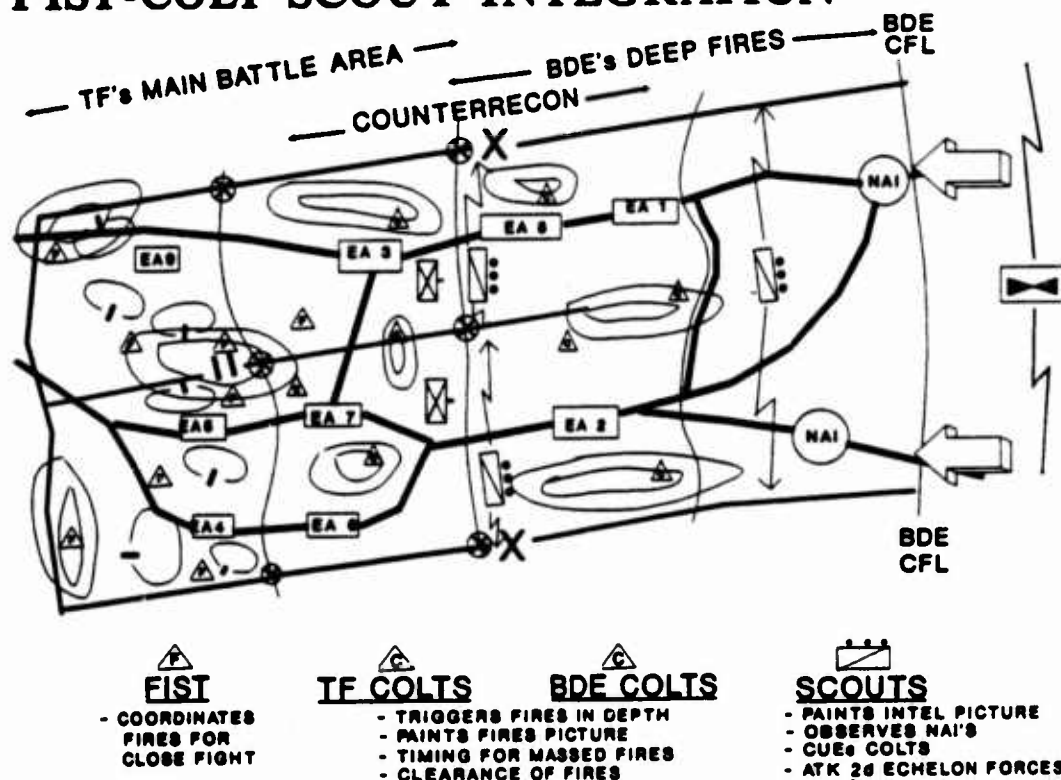


Figure 3: FIST--COLT--Scout--A0 complementary roles

As illustrated by Figure 3 above, a fully equipped COLT team should accompany every scout section to perform the fire support targeting and clearance of fire functions.

Understanding the "complementary--not competing" roles and capability of these two combatants is essential for resolution of many fire and maneuver synchronization problems.

Even the technique of co-locating forward observer parties (available in mechanized infantry battalions only) with scout sections has had very limited success. Too often, the scout's principal reconnaissance mission requirements to find the enemy, his barriers, the best routes to the objective, or to observe a given Named Area of Interest (NAI) takes priority over the indirect fire requirements. Consequently, observers are not positioned to perform their targeting duties, because they must rely on the scout section for communication, mobility and survivability.

In summary, primarily because of artillery force structure limitations, the success or failure of the fire support system is contingent upon how well maneuver forces perform fire support functions as an additional duty. The current fire support structure simply does not provide sufficient numbers of trained eyes to execute the commander's "event driven" fire plans. Until the Artillery aligns doctrine with capability by fully resourcing the "eyes" requirement with COLTs, synchronization and effective "Fighting with Fires" at TF/Bde levels will remain an elusive goal.

THE COMMAND AND CONTROL CHALLENGE

THE FSO--A STAFF PLANNER, FIRE CONTROLLER OR BOTH

As evidenced by the amount of emphasis on planning (67 pages) as opposed to execution (12 pages) in FM 6-20-40, the brigade fire support organization is designed and equipped to primarily perform fire planning functions. But doctrinally, the FSEs are also required to coordinate, clear and control fires, while the TF FSOs accompany their commanders forward on the battlefield. This is a "tall order" even for the best FSE and FSO. In fact, with the current FSE manning and equipment capability, this is an unrealistic expectation.

CONTROLLING THE OPTEMPO

COLTs, when employed in concert with scouts, provide the TF and Bde targeting triad (S-3/S-2/FSO) the capability to not only provide top-down fire planning guidance, but also the means to "integrate and control" execution of the commander's reconnaissance and targeting efforts. Jointly, the S-2 and FSO work the critical communication links between the sources of acquisition (scout/COLT), maneuver commanders, and the artillery unit that will fire the mission. Unlike counterfire missions which rely on FIREFINDER radars for target acquisitions, commanders prosecuting the "close fight" must rely on visual acquisition sources (COLTs and scouts).

THE TASK FORCE FSO'S PLACE OF DUTY

Because the TF FSO is directly clearing and prioritizing fires for 4 FISTs, 3 COLTs, and scouts, and coordinating with the TF commander, brigade FSO and FSCoord, he must operate on and monitor multiple communication nets (voice and digital) to control fires (see Figure 4), while remaining current on tactical operations. Unfortunately, even the best FSOs cannot reliably perform these demanding fire control and clearance duties while traveling with the TF commander--communication limitations alone are prohibitive.

FSE'S CRITICAL FIRE CONTROL HUBS

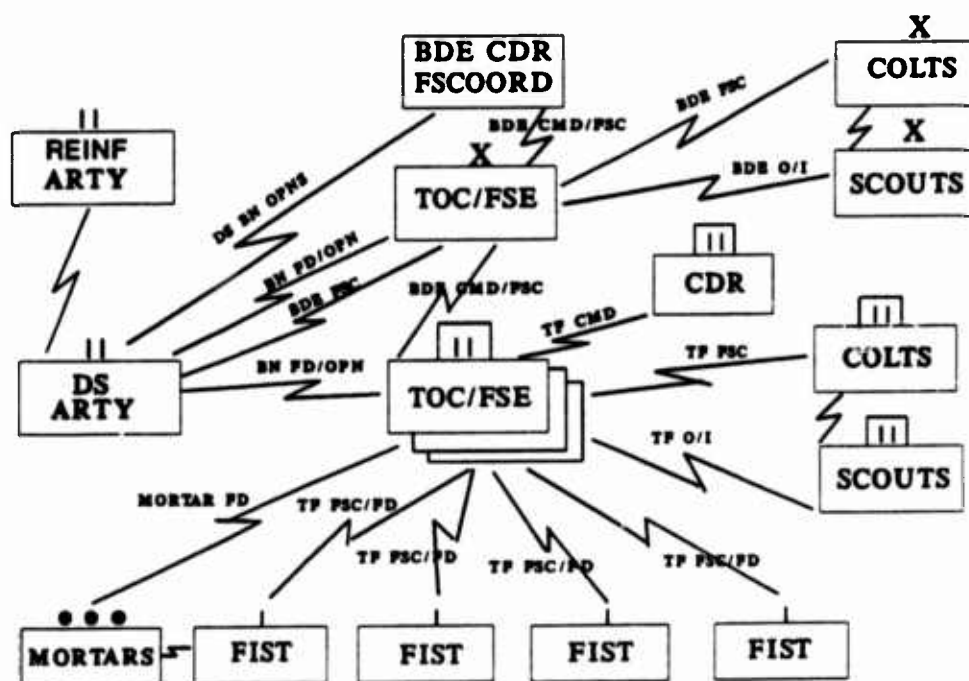


FIGURE 4: TF and BDE FSEs are critical fire control nodes

Generations of artillery and maneuver commanders alike will find this assertion repugnant, and the author risks being labeled a heretic to even suggest separating the TF FSO and commander. However, pending fielding of an armored combat vehicle configured and manned for TF/Bde fire control operations, the FSO and TF commander must function via FM communications instead of physical presence, just like company commanders and other primary staff officers do. The deciding factor in the FSO location debate is the role the FSCoord and Brigade Commander establish for brigade level operations--task forces cannot "roll their own" when it comes to FSO utilization. If the FSOs are to be planners and controllers of fires, they must be positioned where they have the communication links to accomplish both missions.

The integrated employment of scouts and COLTs provides FSOs and commanders the "fire support read" as the battle unfolds. In a target rich environment with limited artillery assets (a DS and Reinf battalion), the challenges facing FSOs and FSCOODs are determining which target to engage, and when to shift priority of fires to best achieve the commander's intent for fires. COLTs, integrated with the reconnaissance effort, provide a real time capability--to see and accurately target the enemy--seldom enjoyed in the past.

Therefore, FSOs and S-2s must rely on the COLTs and scouts to be their "eyes" and collectively perform their battle management functions from the TOC or TAC where they have the means (comms, staff) to coordinate the commander's and FSCoord's attack decisions.

FSCoord's Location

The above FSO location arguments do not necessarily apply to the location of the brigade FSCoord. The FSCoord must be collocated with the brigade commander on the battlefield to "direct" the execution of decisive fires, when and where the brigade commander wishes. The primary difference between FSO and FSCoord duties lies in the authority to command fires. At brigade level, this authority is held by the brigade commander and delegated by him to his FSCoord. The premise that artillery fires and air assets are allocated to task forces is a misnomer. Brigade commanders "fight with fires" by massing and shifting priority of fire support to achieve a decisive impact on the brigade's fight. When the decision windows open during battle, the FSCoord must be present to advise the commander, and to ensure that the artillery is responsive and focused on the right targets.

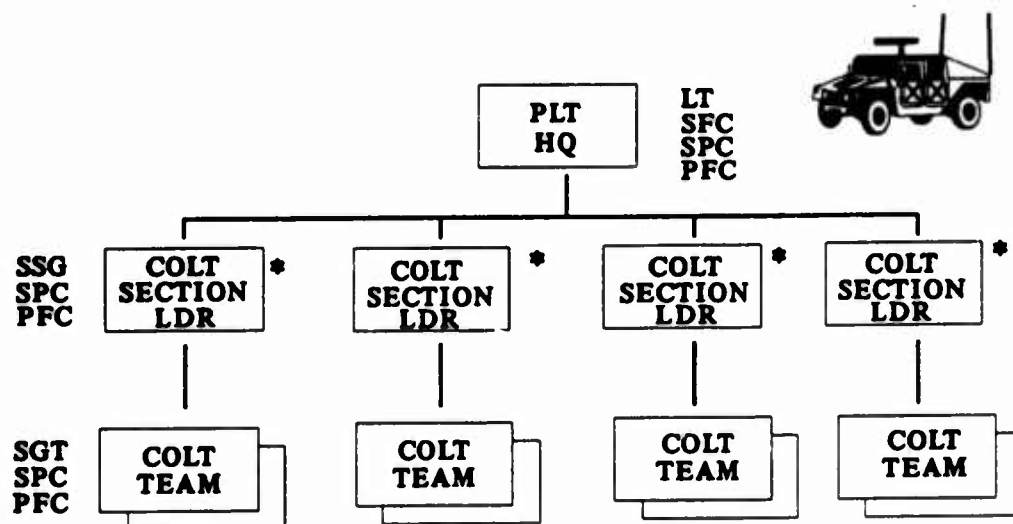
HMMWV COLTS PROOF-OF-PRINCIPLE FIELD TEST

FROM THE FIELD

Recognizing the primary, unresolved cause of the TF/Bde fire support execution deficiencies, 1st Armored Division fielded HMMWV-based COLTs division-wide, validated the concept, and refined tactics, techniques and procedures for employment during three most-demanding Combat Maneuver Training Center (CMTC) rotations. According to Col Shoemaker, Commander, of 1st Armored Division Artillery:

"...we have developed and employed a concept that significantly enhances the brigade's ability to see and kill the enemy in depth by fires, thus shaping his close battle for success. ...the HMMWV COLTs' ability to "maneuver eyes" facilitates the maneuver of fires across the battlefield." 8

HMMWV COLT PLATOON



* FUNCTIONS AS SECTION CHIEF AND PERFORMS COLT DUTIES IN COMBAT.

FIGURE 5: 1st AD's fielded COLT platoon organization

CENTRALIZED COMMAND AND CONTROL OPTION

As previously discussed, COLTs added a "new" command and control dimension to FSE operations at TF and Bde levels. 1st AD's experience indicates that HMMWV COLTs are "...most effective when employed as an integral part of the brigade reconnaissance and surveillance (R & S) plan under centralized brigade control (Figure 6)." ⁹ 1st Armored DivArty proposes creation of a brigade COLT platoon (Figure 5), organized with four sections of 3 COLT teams, assigned to and controlled by the brigade FSE.

CENTRALIZED FIRE SUPPORT ORGANIZATION

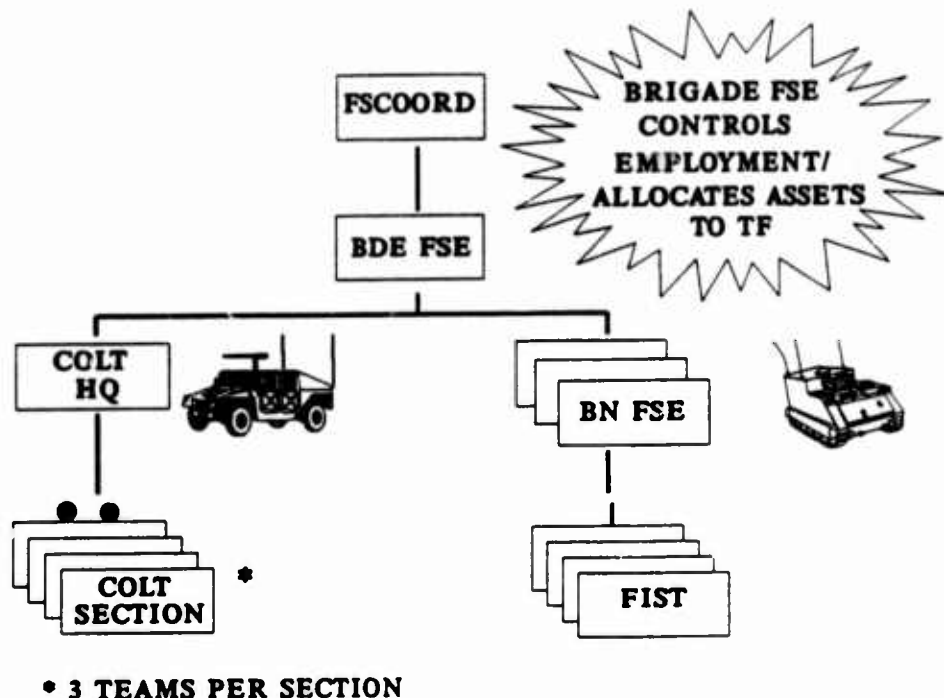


FIGURE 6: 1st AD's centralized COLT/FSE organization

The COLT targeting officer/platoon leader functions much like a Scout platoon leader and a FSO with operational and logistical responsibilities. The centralized organizational structure provides the flexibility to weight the main effort with "eyes" (ie. augment TF efforts), and facilitates the brigade commander's future operations. Figure 7 below illustrates the C2 architecture utilized successfully by 1st Armored Division during recent CMTC rotations.

CENTRALIZED COMMAND AND CONTROL ARCHITECTURE

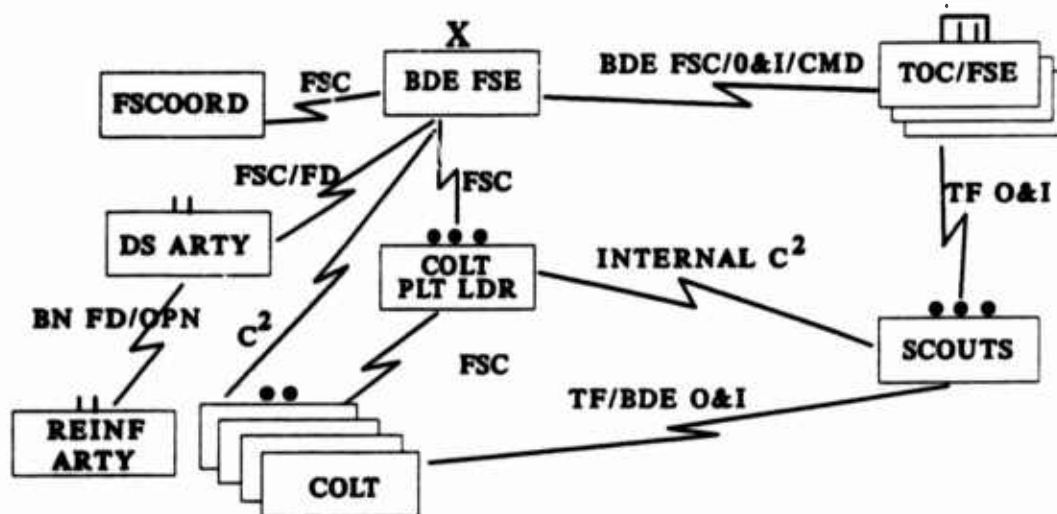


FIGURE 7: Centralized FSE command and control option

DECENTRALIZED COMMAND AND CONTROL OPTION

An equally viable fire control alternative would be to augment each TF and Bde FSE with organic COLT sections (3 teams per section) under the direct control of the TF/Bde FSOs (Figure 8).

DECENTRALIZED FIRE SUPPORT ORGANIZATION

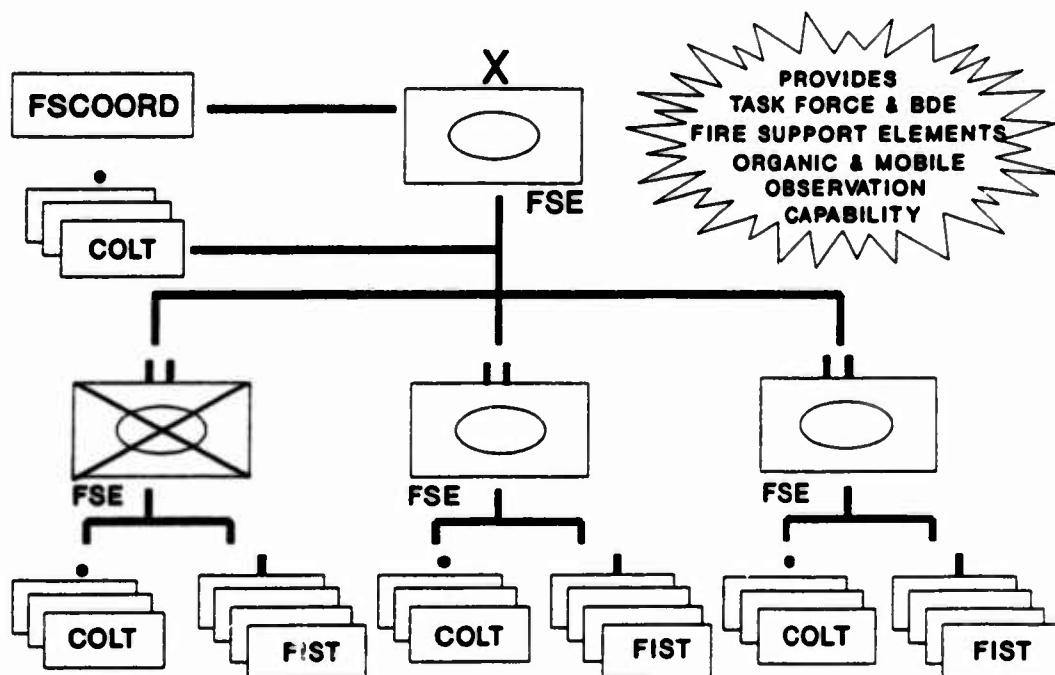


FIGURE 8: Decentralized FSE organization option

This option decentralizes C2 and disperses capability and training requirements almost equally between TFs' and brigade. It also provides the TF FSO a much needed assistant,

a COLT targeting officer, to integrate recon and observation plans and interface with the scout platoon leader. Figure 9 below reflects the operative communication nodes of the decentralized COLT organization. Resourcing the TF targeting officer requirement reflected in FM 6-20-40 is not only essential for efficient COLT employment, but required for fully capable, 24 hour FSE operations. Coordination demands of the fire support system alone justify resourcing this position. Both FSE command and control options significantly improve fire support execution. Command styles, training readiness, and METT-T factors should govern the decision.

DECENTRALIZED COMMMAND AND CONTROL ARCHITECTURE

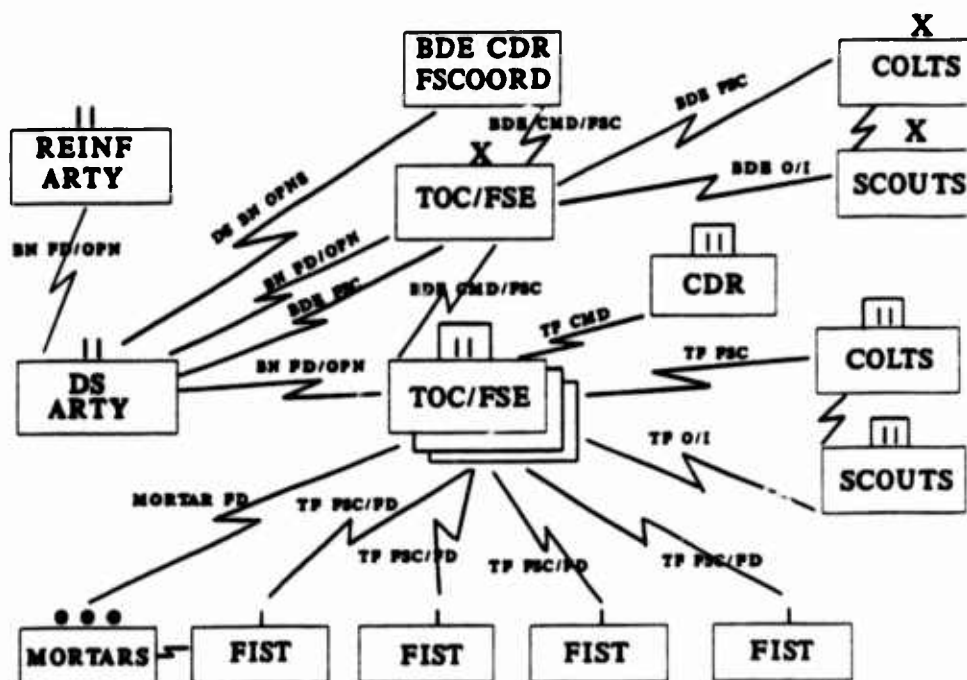


Figure 9: Decentralized brigade FSE C2 architecture

FIXING THE CLOSE FIRE SUPPORT PARADIGM

FINDING THE FORCE STRUCTURE SPACES

Only one, viable near term option exists for resourcing the COLT organization--redistribution of mechanized infantry FO parties across the armor and infantry force. There are enough FO force structure spaces in a mechanized infantry battalion to field eight, three-man COLT teams. Billpayer spaces for the remaining four COLT teams, and the targeting officer billets may be found within the Artillery's mission area. If force structure constraints prohibit implementation, a TOE required 3, but MTO&E authorized 2-man COLT team option would enable fielding of 12 teams with existing forward observer spaces.

MATERIEL

Ideally, the COLT vehicle should have comparable scout vehicle mobility and survivability features to avoid presenting a uniquely identifiable signature. Assuming that the Army Chief of Staff's September 92 decision to place all scouts in HMMWVs survives the test-of-time, the COLT vehicle would also be a HMMWV, equipped with 2 VRC-46 radios, global positioning systems (GPS), and a winch for self-recovery.

Although a strong argument can be made for an armored vehicle, fielding of the COLT capability should not be

delayed pending procurement of an optimum vehicle. The need to train the process, and equally important, re-establish "close fire support" execution credibility, outweighs the potential risks of going to combat in soft-skinned vehicles.

ARMORED COMBAT VEHICLES FOR FSO/FSCoord

An armored combat vehicle for the task force FSO and the brigade FSCoord, are also critical to the success of fire support operations. The Bradley fighting vehicle or M113A3 armored personnel carrier from inactivating units should be provided for these most urgent requirements.

SURVIVABILITY

To enhance survivability, COLTs usually travel under the umbrella protection and sometimes operational control of the scout force, normally trailing the scout section to the assigned TAI. Stealth best describes the COLT's modus-of-operandi. Because the team possess an organic transportation and communication capability, the COLT can occupy the best suited observation point for mission accomplishment. In the defense, dismounted operations are frequently the norm, because survivability and mission requirements often necessitate concealment of the HMMWV on a reverse slope and covert occupation of observation points.

TRAINING

In addition to being proficient in fire support tasks, COLT personnel must be highly skilled in scout navigation and survivability techniques, and fully understand the interaction of task force and brigade reconnaissance and targeting efforts. Considerable individual and collective training is required to effectively employ, command, and control this combat multiplier. 1st AD's fire supporters enthusiastically embraced the HMMWV COLT mission, and quickly mastered the skills that enabled them to contribute to the fight. Recon and surveillance operations also improved dramatically with the integrated employment of the COLT capability--combined arms synergism at it's best.

CONCLUSION

As evidenced by Desert Storm After Action Reviews, CTC reports, CSSG IV analysis, and field input, the close fire support system and traditional employment concepts require modification to better support the combined arms commander's synchronization efforts. Overall, the fire support system is not broken. But doable, and relatively affordable changes in doctrine, organization, and materiel are required to fulfill fire support's multi-faceted synchronization requirements.

The changes recommended by this paper are not radical departures from fire support's evolutionary glide-path. They are doctrinally based and supportive of TRADOC's "Fighting with Fires Initiative" which seeks to improve integration and synchronization of fire and maneuver. In addition to increased emphasis on combined arms commanders training, the Artillery must align the "ends, ways, and means" of the close fight by:

- shifting the fire support "eyes" focus from company to task force and brigade levels;
- integrating targeting (observation), reconnaissance and surveillance efforts by updating the COLT platoon organizational and operational concept--and field COLT platoons Army-wide;
- resourcing the TF targeting officer, and COLT platoon leader positions;
- expanding the TF/Bde FSEs' fire clearance and control capability by providing the means for planning and execution of fires;
- equipping the Bde FSCoord and TF FSOs with an armored combat vehicle.

The Army's fire supporters need these essential "means" to close-the-gap between professed and demonstrated fire support capability. The cost of implementing the proposed fixes pale in comparison to the increased fighting with fires proficiency achieved. Action is required now to ensure that the "final argument of kings", the Field Artillery, retains it's King of Battle stature as the force transitions into the uncertain, and crisis-rich 21st century.

ENDNOTES

1. "Fighting with Fires Initiative", article in the Field Artillery Journal, June 1992 by MG Marty, Commandant of FA Branch, defines the purpose and scope of the initiative, and discusses proposals under consideration by the Fighting with Fires Task Force. The primary objective of the initiative is to improve the integration and synchronization of fire and maneuver.
2. U.S. Army Field Manual 100-5 Operations, May 1986 p.17 and Preliminary Draft of revised Field Manual 100-5 Operations, 21 August 1992, pp.2-9 and 2-10, elaborates on the Army's five basic operational tenets--initiative, agility, depth, synchronization and versatility.
3. "Doctrine, Tactics, Techniques and Procedures (DTTP) for Clearance of Indirect Fire White Paper", June 1992 p.1, identifies doctrinal shortcomings and proposes DTTP fixes for clearance of fire procedures. Paper does an excellent job of defining the problem, but fails to address the underlying causes for the deficiencies, and espouses total reliance on DTTP fixes to avoid fratricide.
4. "Synchronizing Combat Power at the NTC", article in Field Artillery Journal, August 1992 pp.5-9, presents BG Carter's views concerning the synchronization issue, and the role fire support plays in achieving decisive victory at CTCs.
5. "Close Support Study Group III and IV Final Reports, Dec 1984 and June 1989 provide the analytical documentation of the requirement for High Technology Observers (COLTs) to augment company fire support operations and the Task Force's reconnaissance efforts.
6. Emerson Electric Company's unsolicited operational analysis in support of CSSG IV, titled "Resource Trade-offs to Increase Force Effectiveness of Supporting Fires for the Maneuver Company", October 1989; study strongly advocates fielding of the COLT capability using platoon forward observer parties as force structure billpayers. Due to the failure to gain the Infantry Branch's concurrence, the proposal was referred for additional analysis--the status quo remained.
7. Chief, Warfighter Division, Fire Support and Combined Arms Operations Department, USAFAS response to "Field HMMWV Based COLTs NOW! proposal appearing in June 1992 FA Journal exemplifies the establishment's reluctance to change even in the face of overwhelming justification to do so. Avoidance of doing battle with the Infantry Branch appears to take precedence over achieving warfighting capability.

ENDNOTES

8. HMMWV-Based COLTs Concept Validation Memo" from Commander, 1st Armored Division Artillery, 5 January 1993 to MG Marty, CG USAFACFS strongly advocates fielding of HMMWV-Based COLTs Army-wide.

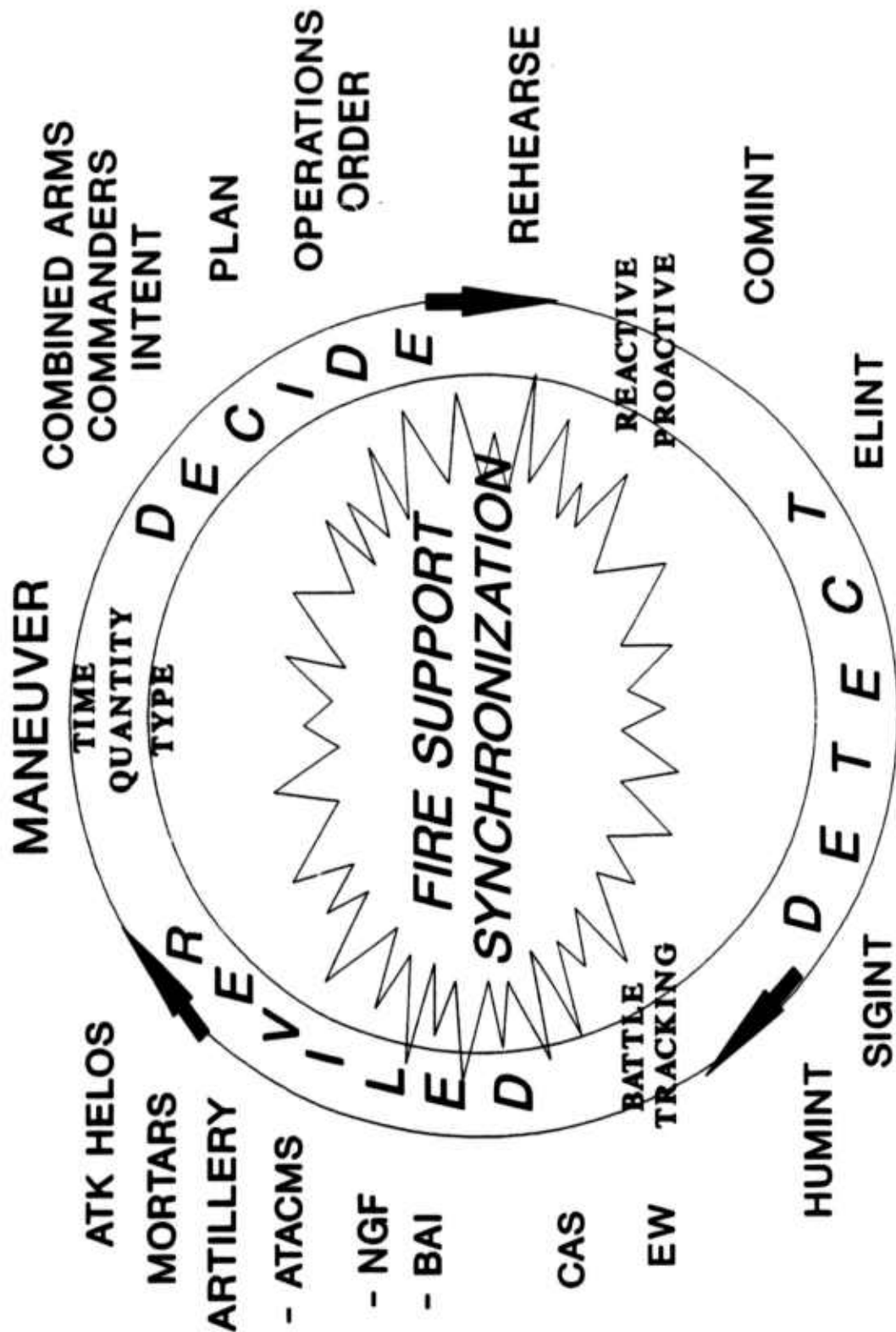
9. Ibid.

BIBLIOGRAPHY

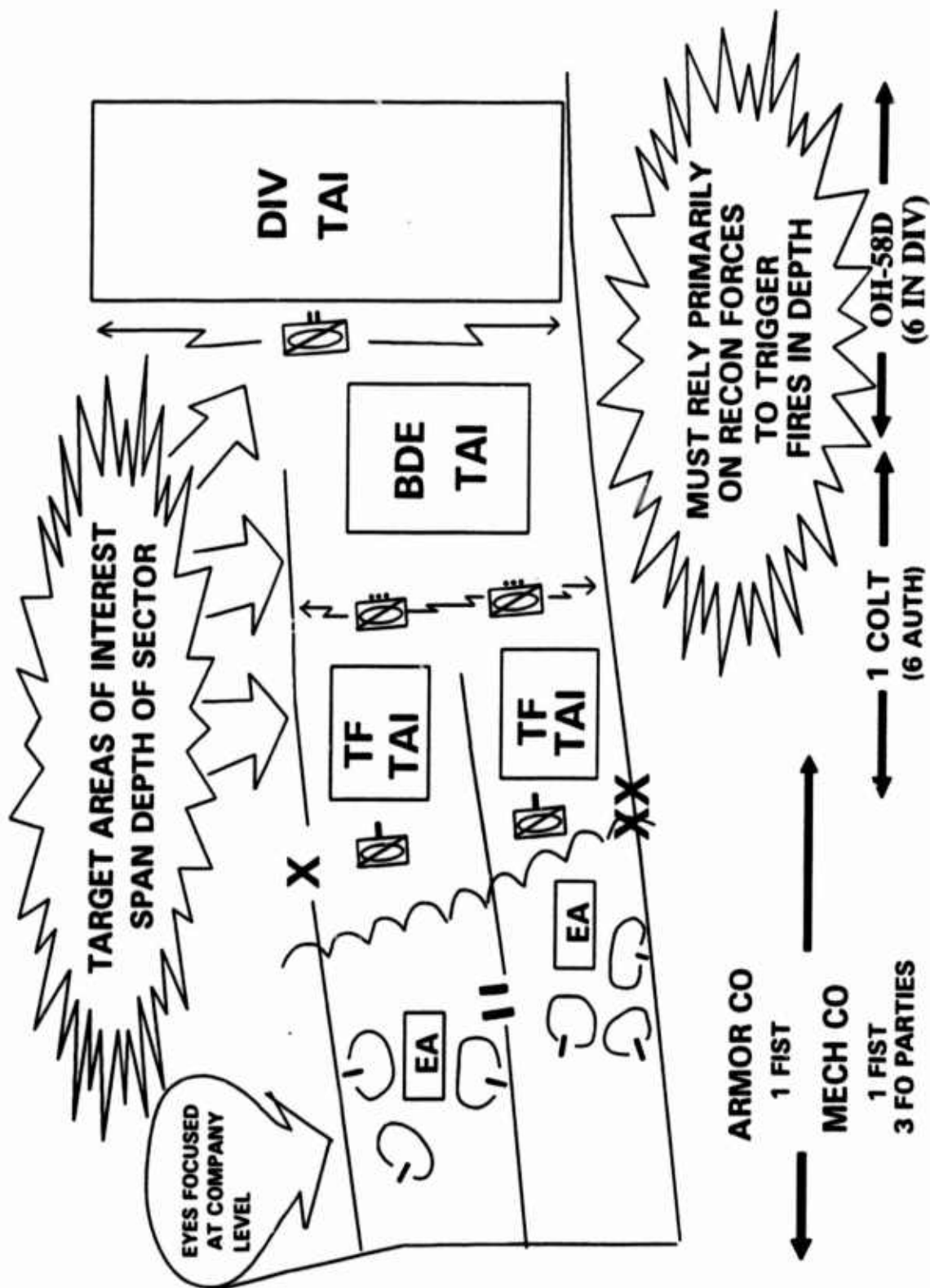
- Biggs, John D. LTC. "Response to--Field HMMWV-Based COLTs Now!", U.S. Army Field Artillery Journal, June 1992.
- Boice, William M. MG. "Fires and Maneuver: The end of Splendid Isolation", Military Review, (pending publication).
- Carter, William G. BG. "Synchronizing Combat Power at the NTC", U.S. Army Field Artillery Journal, October 1992.
- Coffman, Sammy L. LTC. "Fighting with Fires Initiative, The Goal--Synchronized Combat Power", U.S. Army Field Artillery Journal, April 1992.
- Gaines, Boyd D. CPT. "Scouts and Fire Support: A neglected Topic", U.S. Army Field Artillery Journal, June 1992.
- Knight, Kenneth R. LTC. "The Fire Support Dilemma: Location of the Fire Support Coordinator and the Task Force Fire Support Officer", Forward Observer Newsletter, June 1992.
- Marty, Fred F. MG. "Fighting with Fires Initiative", U.S. Army Field Artillery Journal, June 1992.
- Scales, Robert H. Jr. "Firepower in Limited War", National Defense University Press Publication, April 1990.
- Shoemaker, Christopher C. COL. "HMMWV COLT Concept Validation Memo" to MG Marty, 5 January 1993.
- Stratman, Henry W. LTC. "Field HUMMWV-Based COLTs Now", U.S. Army Field Artillery Journal, April 1992.
- U.S. Army Field Artillery School, "Close Support Study Group III Final Report", December 1984; and "Close Support Study Group IV Final Report", June 1989.
- U.S. Army Field Manual 6-20-40, "Fire Support for Brigade Operations (Heavy)", 5 January 1990.
- U.S. Army Field Manual 100-5 "Operations", May 1986.
- U.S. Army Field Manual 100-5 "Operations" Preliminary Draft 21 August 1992.
- White Paper. "Doctrine, Tactics, Techniques and Procedures for Clearance of Indirect Fires", U.S. Army Field Artillery School, June 1992.

APPENDIX A
ILLUSTRATIONS

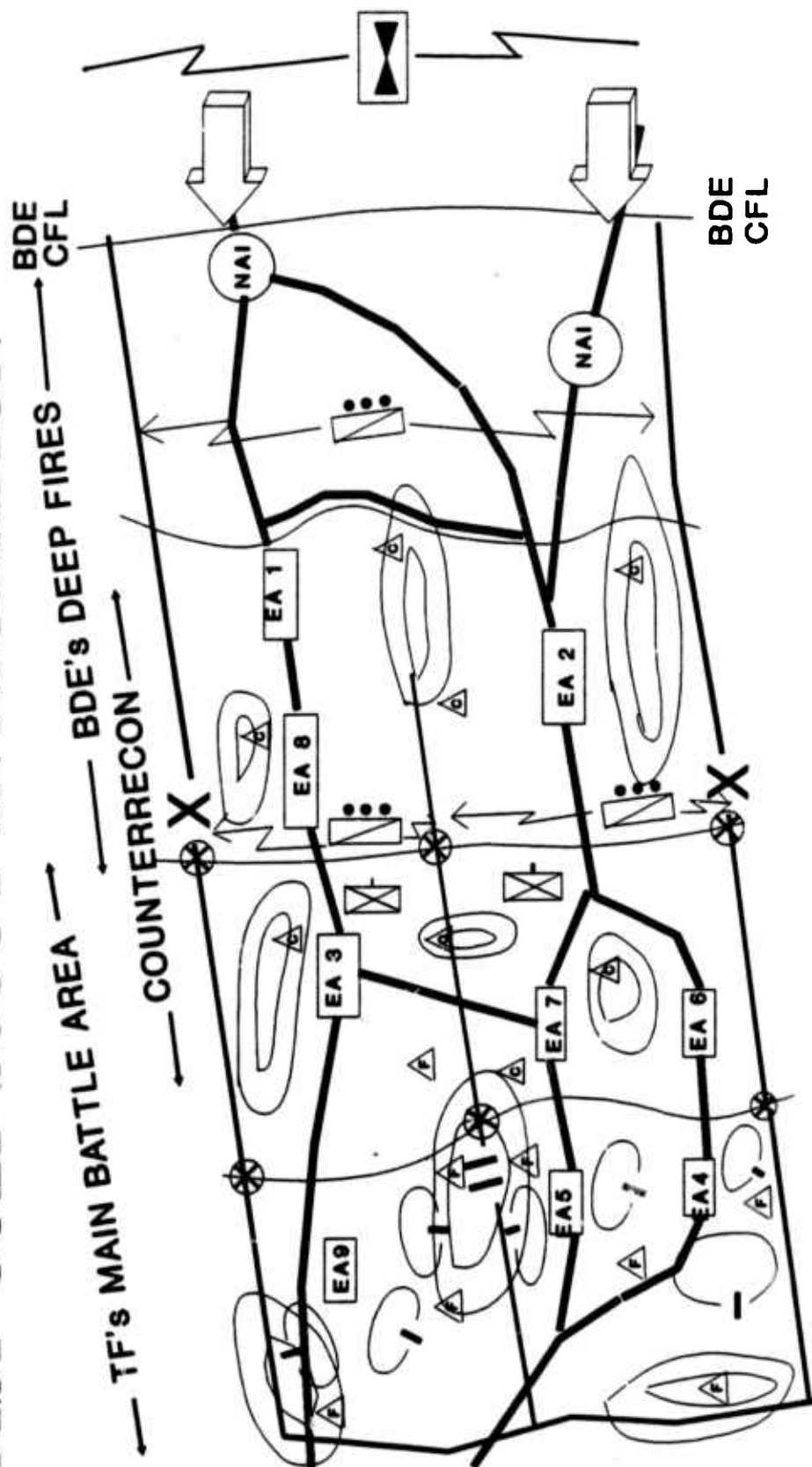
ENDS -- WAYS -- MEANS



DOCTRINE - ORGANIZATION DISCONNECT



FIST-COLT-SCOUT INTEGRATION



FIST

- COORDINATES FIRES FOR CLOSE FIGHT



TF COLTS

- TRIGGERS FIRES IN DEPTH
- PAINTS FIRES PICTURE
- TIMING FOR MASSES FIRES
- CLEARANCE OF FIRES



BDE COLTS

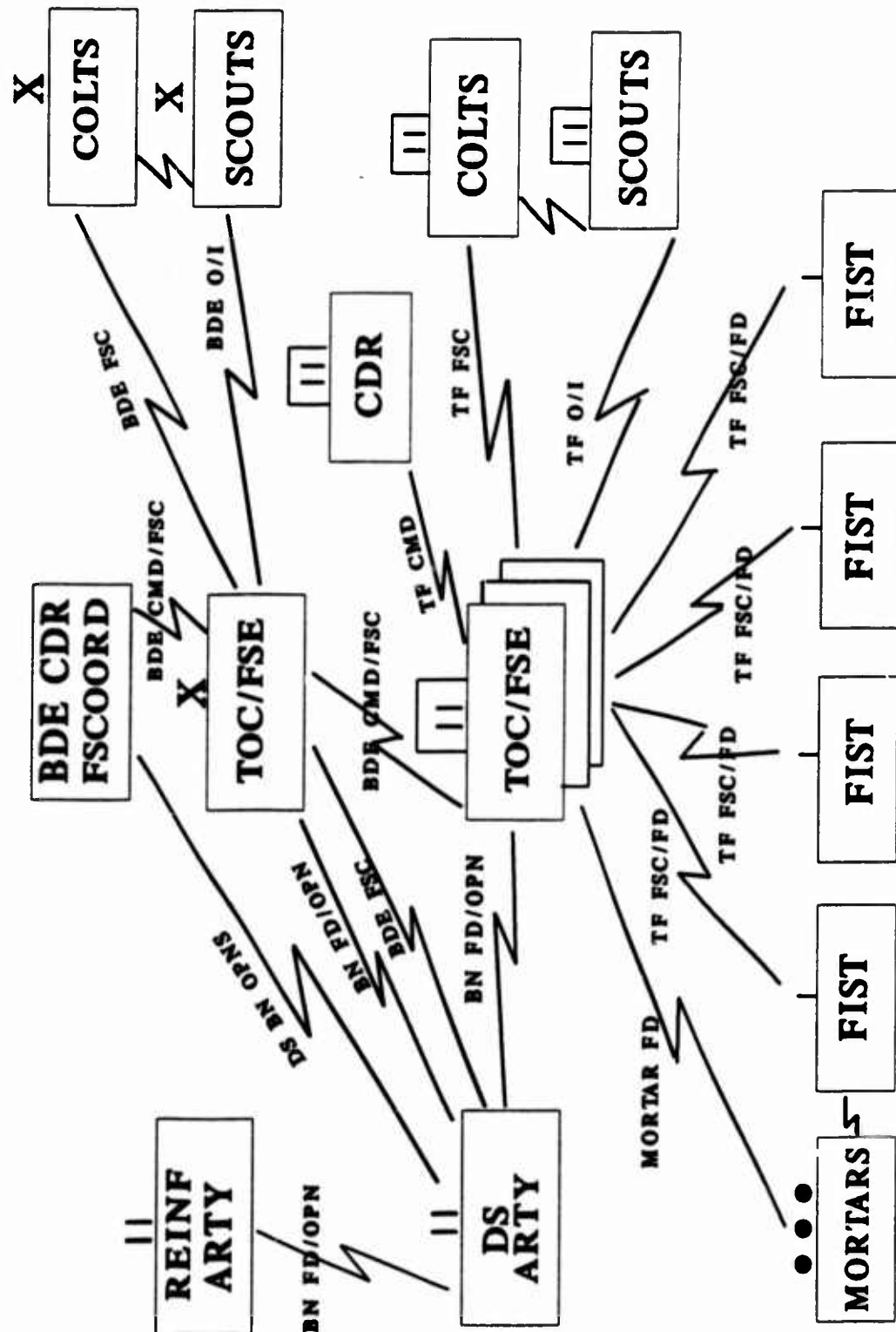
- TRIGGERS FIRES IN DEPTH
- PAINTS FIRES PICTURE
- TIMING FOR MASSES FIRES
- CLEARANCE OF FIRES



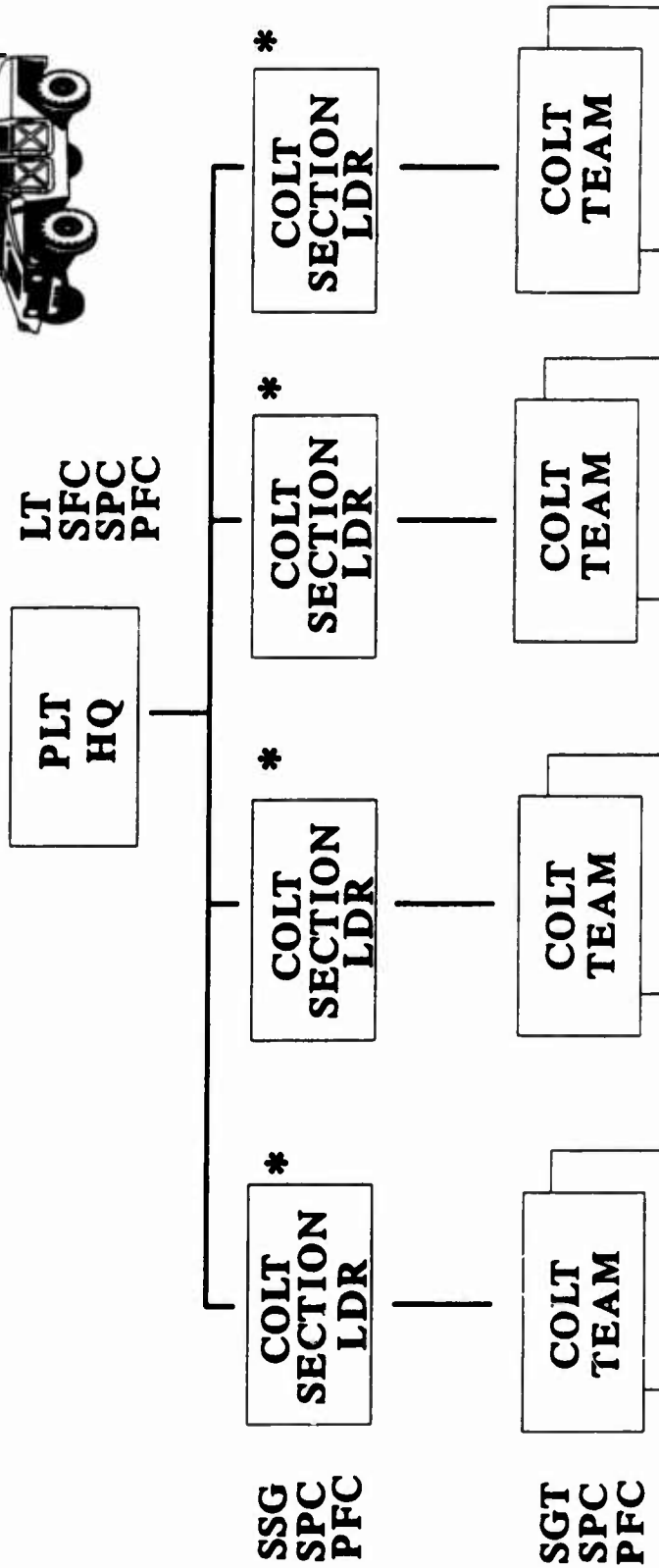
SCOUTS

- PAINTS INTEL PICTURE
- OBSERVES NAI'S
- CUES COLTS
- ATK 2d ECHELON FORCES

FSE CRITICAL FIRE CONTROL HUBS

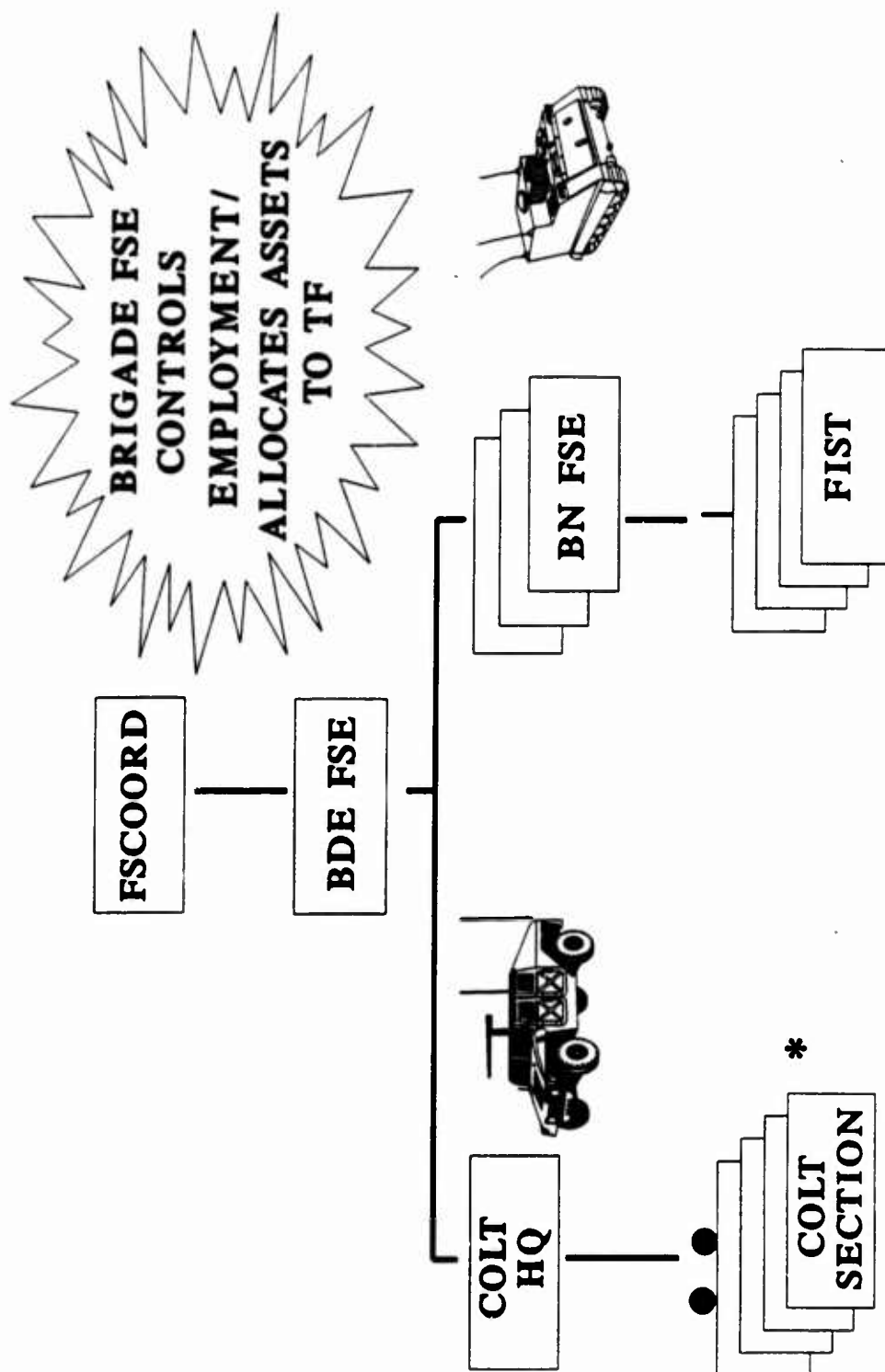


PROPOSED HMMWV COLT PLATOON

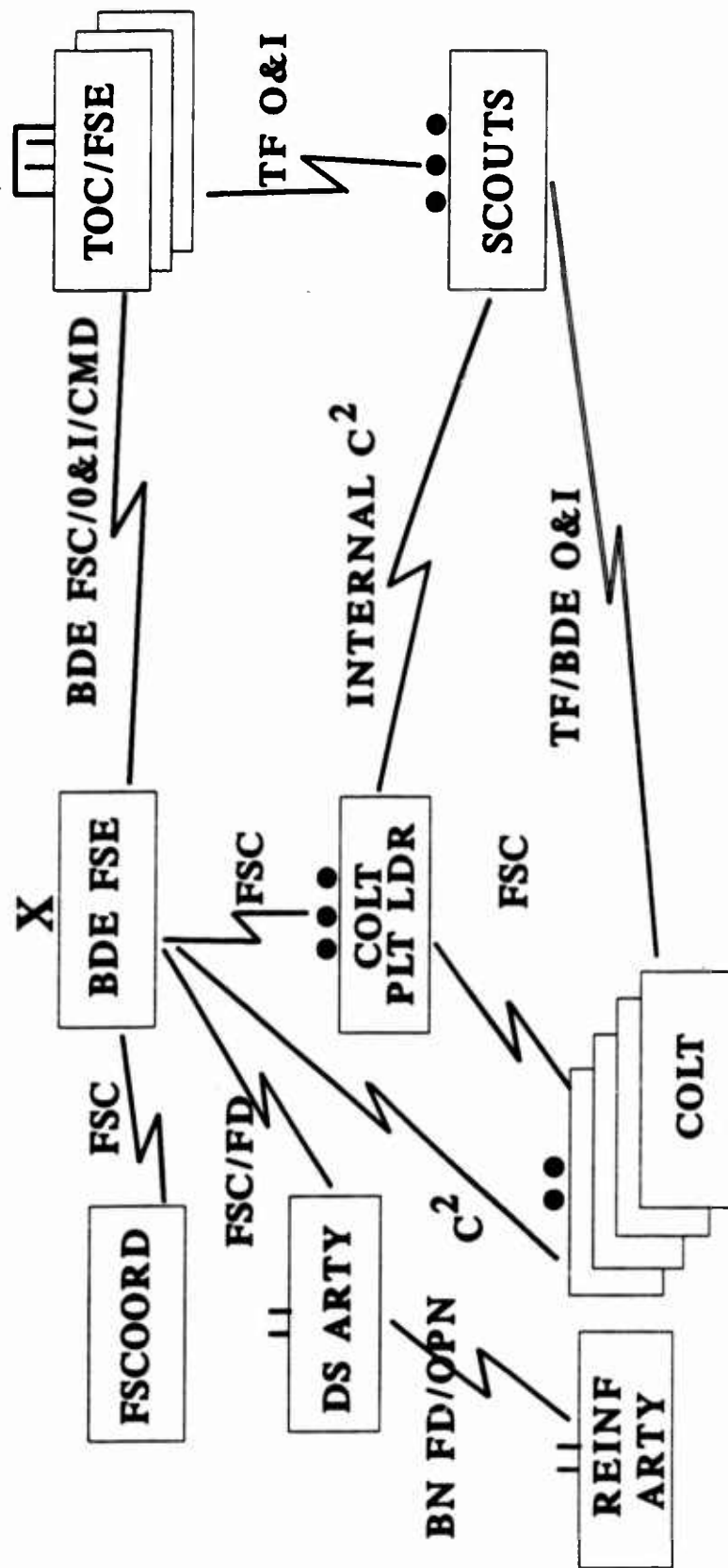


* FUNCTIONS AS SECTION CHIEF AND PERFORMS COLT DUTIES IN COMBAT.

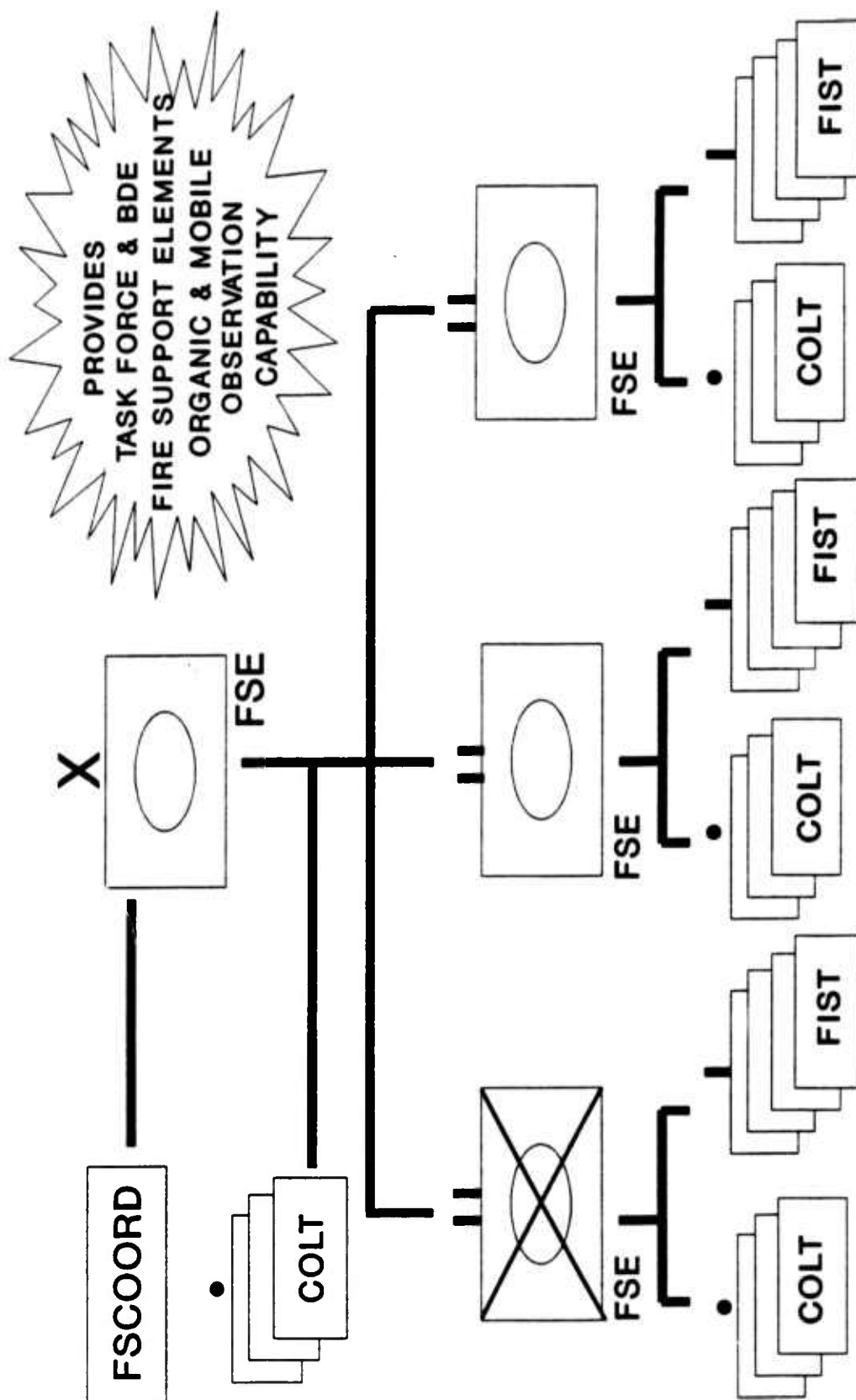
CENTRALIZED FIRE SUPPORT ORGANIZATION



CENTRALIZED COMMAND AND CONTROL ARCHITECTURE



DECENTRALIZED FIRE SUPPORT ORGANIZATION



DECENTRALIZED COMMAND AND CONTROL ARCHITECTURE

