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**THE TASK FORCE TACTICAL
OPERATIONS CENTER: AN ORGANIZATION
FOR SUCCESS**

**A Monograph
by
Major Thomas R. Goedkoop
Armor**



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THIS MONOGRAPH ATTEMPTS TO FILL THE CURRENT DOCTRINAL VOID CONCERNING PRACTICAL SOLUTIONS TO RECURRING TACTICAL OPERATION CENTER (TOC) WEAKNESSES. FIRST, CURRENT TASK FORCE COMMAND AND CONTROL DOCTRINE IS REVIEWED TO FORM A FOUNDATION ON WHICH TO BUILD. NEXT, COMMAND AND CONTROL EXECUTION TASKS THAT A TOC MUST ACCOMPLISH ARE PRESENTED. CURRENT UNIT TABLES OF ORGANIZATION AND EQUIPMENT ARE THEN REVIEWED TO ESTABLISH WHAT ASSETS ARE NORMALLY AVAILABLE TO THE TASK FORCE WITH WHICH TO ESTABLISH A TOC. THEN, RECURRING NATIONAL TRAINING CENTER TASK FORCE TOC FAULTS ARE ADRESSED. FINALLY, THREE TASK FORCE TOC CONFIGURATIONS ARE PRESENTED AND COMPARED. THIS PAPER CONCLUDES THAT ADDITIONAL TACTIC TECHNIQUES, AND PROCEDURES MUST BE INCLUDED IN ARMY DOCTRINAL MANUALS, AND RECOMMENDS AN EFFECTIVE OPERATIONAL CONFIGURATION FOR THE TASK FORCE TOC WHICH CAN ACCOMPLISH ITS COMMAND AND CONTROL TASKS ON THE AIRLAND BATTLEFIELD.					
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The Task Force Tactical Operations Center:
An Organization For Success

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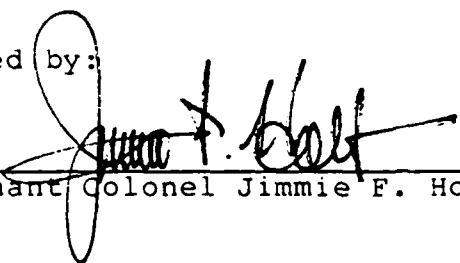
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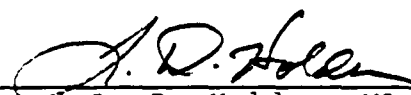
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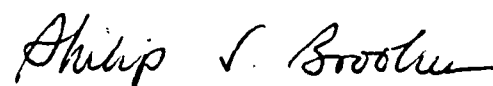
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ABSTRACT

THE TASK FORCE TACTICAL OPERATIONS CENTER: AN ORGANIZATION FOR SUCCESS by Major Thomas R. Goedkoop, USA, 59 pages.

Since its inception, the National Training Center (NTC) has provided extensive information on recurring unit weaknesses. One of these, is the inability of the task force tactical operations center (TOC) to accomplish its command and control functions properly. During the past five years, Field Manual 71-2, The Tank and Mechanized Infantry Battalion Task Force, has undergone constant revision based upon extensive coordination between the Armor and Infantry Schools, the Combined Arms Center, the National Training Center, and units in the field. In spite of this coordination, the resulting approved final draft of this manual, dated January 1988, provides fewer practical solutions to the recurring TOC operation weaknesses than did its predecessors.

This monograph attempts to fill this doctrinal void concerning the functional responsibilities, organization, and operation of a task force tactical operations center.

First, current task force command and control doctrine is reviewed to form a foundation on which to build. Next, command and control execution tasks that a TOC must accomplish are presented. Current unit Tables of Organization and Equipment are then reviewed to establish what assets are normally available to the task force with which to establish a TOC. Then, recurring NTC task force TOC faults are addressed. Finally, three task force TOC configurations are presented and compared.

This paper concludes that additional tactics, techniques, and procedures must be included in Army doctrinal manuals, and recommends an effective operational configuration for the task force TOC which can accomplish its tasks on the AirLand Battlefield.

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CHAPTER I

INTRODUCTION

The United States Army's current capstone doctrinal manual, Field Manual (FM) 100-5 Operations, outlines the way its forces must operate on the modern battlefield. On a non-linear, integrated battlefield of increased tempo, units will operate over vast distances with weapons of increased lethality. Under such conditions, commanders will continue to operate with incomplete information. Clausewitz's dictum that "a great part of the information obtained in war is contradictory, a still greater part is false, and by far the greatest part is uncertain," remains as true today as it was when first written over one hundred and fifty years ago.' Success on the AirLand battlefield depends upon the ability to achieve the rapid and considered concentration of "synchronized pulses of combat power" at decisive points in space and time during the course of battles and campaigns. The ability to accomplish these requirements depends upon an effective command and control system. This maneuver doctrine, combined with the fielding of the Abrams tank and the Bradley fighting vehicle, has placed new demands on the tactical command and control system. Victory will go to units which can capitalize on their relative advantage of agility. As General Starry said, "no element of the AirLand

Battle concept is more essential to the development of an effective war-fighting capability than command and control."

During the past five years, FM 71-2, The Tank and Mechanized Infantry Battalion Task Force, has undergone constant revision based upon close coordination between the Armor and Infantry Schools, the Combined Arms Center, and the National Training Center (NTC), to better describe the tactical employment of the battalion / task force on the AirLand Battlefield. The resulting approved final draft dated January 1988, is superior to the previous editions, but still does not include many of the methods, techniques, and procedures necessary to efficiently command and control the task force on the modern battlefield, especially with respect to the operation of the task force tactical operations center (TOC).

One of the recurring unit observations at the National Training Center (NTC) is the inefficient operation of the task force TOC, resulting in the task forces's inability to marshal its substantial combat power, and operate in accordance with the tenets of the AirLand battle.

The purpose of this monograph is to fill an apparent doctrinal void, and provide the reader with specific recommendations on execution responsibilities as well as ways to organize and operate an effective task force TOC

during operations, which can accomplish its command and control functions on the AirLand Battlefield.

In this monograph, I will first review current Army doctrine to provide a framework for task force command and control including task force command posts and their functions. Then, specific TOC execution command and control tasks as related to the seven operating systems will then be investigated.

I will then review current Tables of Organization and Equipment (TOE) to identify the personnel and equipment, both organic and included in the task force "slice" which habitually supports the task force and operate from the TOC. Next we will look at recurring TOC operation faults and their causes as identified during NTC training rotations. Then, I will take these authorized assets, and organize three task force TOC configurations which accomplish the required command and control functions during the operational phase of combat. Finally, I will compare and contrast each configuration using survivability, mobility, and operational effectiveness as criteria, and recommend a TOC organization which best accomplishes the doctrinal tasks in the conditions dictated by the modern battlefield.

Organizations and equipment used throughout this monograph depict an Armor battalion base organized under the final J-series Table of Organization and Equipment 17376L000.

CHAPTER 2

DOCTRINAL TASK FORCE COMMAND AND CONTROL OVERVIEW

"The command and control system must be faster and more effective than the enemy's system. This allows the commander to receive and process information and to make decisions faster than the enemy. The overriding goal of this system is to implement the commander's will in pursuit of an objective.."

FM 71-2

There is nothing more important to success on the battlefield than effective command and control. Neither the best equipment nor the most skilled soldiers are of much value if lost, uncoordinated, or not properly supported.⁴

Before we look at the specific responsibilities of the task force TOC, a general understanding of the doctrinal command and control system at the battalion level is required.

The precise organization of assets to control units within the battalion will depend on the personnel and equipment the commander has available, as well as the personal preference of the commander.⁵

The task force normally operates the following command and control facilities during tactical operations from which the task force commander, assisted by his staff, directs the battle and sustains the force:

- * Command Group
- * Tactical Command Post
- * Main Command Post
- * Combat Trains Command Post
- * Field Trains Command Post

A generic positioning of these command posts on the battlefield can be seen below.

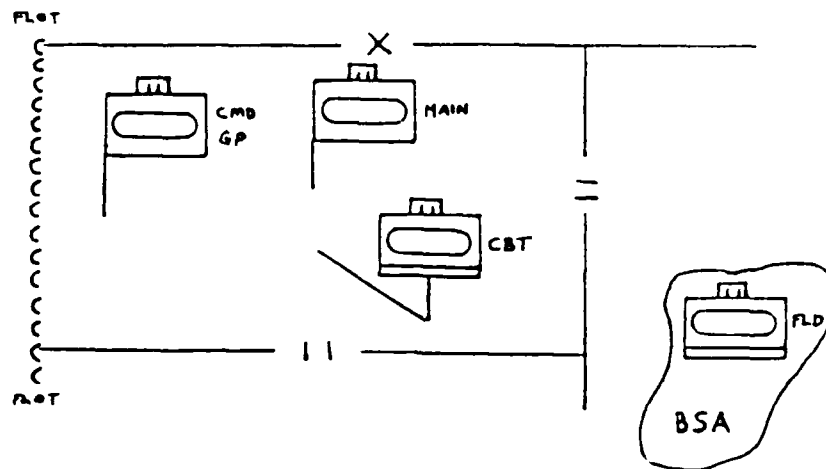


Figure 1. Task Force Command Posts.

Let us now review the general functions, responsibilities and organization of each command post.

COMMAND GROUP. The command group consists of the commander and those he selects to go forward to assist him in controlling maneuver and fires. It normally includes the S-3, fire support and Air Force

representatives, as well as crews of the assigned vehicles. It is not a permanent organization and is normally prescribed by SOP and modified as necessary. There is no requirement for these personnel to collocate; for example, the commander may be in one part of the sector with the main effort, while the S-3 may be in another portion of the battlefield with the secondary effort. The composition, nature, and tasks of the command group are determined by the commander to permit the optimum command and control of his unit during the battle. Command group personnel normally operate from their organic combat vehicles. The fire support representative usually operates from the commander's vehicle."

TACTICAL COMMAND POST. The tactical command post is the forward echelon of command and control on the battlefield that allows the commander to be in proximity to subordinate commanders and directly influence operations. It may be formed during fast moving offensive or retrograde operations to maintain communications and facilitate the movement of the main command post. In such circumstances, the commander may designate one of the main command post vehicles to act as the tactical command post. Some or all of the command group may locate at the tactical command post at various times. '

MAIN COMMAND POST. The task force main command post

is the control, coordination, and communications center for combat operations. The main command post is composed of the S-2 and S-3 sections, the fire support section, representatives from other attached elements, and the tactical command post (when not forward). The organization of the main command post in terms of vehicles and equipment must be as small as possible to allow for rapid displacement, yet large enough to accomplish its command and control functions in support of the commander on a 24 hour-a-day basis.

General functions of the main command post are to monitor and assist in command and control by maintaining contact and coordination with higher and adjacent units, continuously updating the enemy situation, planning operations, analyzing and disseminating tactical information, maintaining situation maps, and requesting and synchronizing additional combat support and combat service support assets for the battle. The main command post normally operates under the supervision of the task force executive officer.¹³

COMBAT TRAINS COMMAND POST. The combat trains command post is the coordination center for combat service support for the task force and the control element of the combat trains, in which it locates. The S-4 is responsible for the operation, security, and movement of the combat trains, assisted by the S-1. The combat trains

command post maintains the combat service support status of the task force. It is often designated as the task force alternate command post. The combat trains command post monitors the task force command net, and the battalion and brigade administrative / logistical (A/L) radio nets, maintains operational and logistical charts and tactical situation maps like the main command post. It normally locates two to four kilometers from the main command post. Land lines normally link the unit maintenance collection point (UMCP) and the battalion aid station to the combat trains command post.

FIELD TRAINS COMMAND POST. This command post coordinates the collection and movement of combat service support assets from the field trains and the forward support battalion, to forward elements of the task force. It controls and coordinates the activities of the task force field trains including operations of the support platoon, elements of the maintenance platoon in the field trains, maneuver company and attached units' supply sections, and the personnel actions center (PAC). The task force field trains are under the control of the Headquarters and Headquarters Company (HHC) Commander whose company command post is the field trains command post. In addition to HHC elements, the remaining elements of the S-1 and S-4 sections are also included in the field trains command post. The task force field trains

normally locate in the brigade support area (BSA), but may be positioned elsewhere if the mission dictates. The field trains command post monitors the task force administrative / logistical radio net, and maintains wire line communications with the forward support battalion command net in the BSA.¹⁰

Now that we have reviewed the doctrinal framework for command and control at the task force level, let's look at the specific command and control tasks accomplished by the Tactical Operations Center during operation execution.

CHAPTER III

DOCTRINAL COMMAND AND CONTROL FUNCTIONS OF THE TOC

"...but there is a price associated with the commander being far forward with the action. He becomes separated from a wealth of information gathered, generated, and received which will be key to the further survival and fighting efficiency of his unit. What mechanism, then exists to perform this function for him? It is his tactical operations center." "

The TOC is the task force nerve center, the "brain" of the task force. ¹² As we saw earlier, the primary functions of the TOC are to synchronize the battle, obtain and disseminate information, prepare plans and orders, and supervise execution. These generalized functions, however, are insufficient by themselves, to ensure effective command and control within the task force.

All activities of the TOC can be divided between two phases of operations; planning and execution. The task force planning process outlined in FM 71-2 , when executed by trained personnel in accordance with a published unit Standing Operating Procedure (SOP), is sufficient to produce adequate plans and orders. We are concerned in this monograph with developing the most effective organization of the TOC during the execution phase of operations. That configuration will be determined by the execution functions which must be

accomplished, the internal coordination requirements, and the environment of the battlefield.

To more easily organize the required execution functions, we will use the seven "battlefield operating systems" currently accepted within the Army. These operating systems must be integrated to support the commander's intent throughout all phases of tactical operations by the TOC. The functioning of each system requires the coordinated effort of all elements of the task force.

MANEUVER. The first operating system I will address is maneuver. It refers to the combat elements of the task force. They provide the means to destroy enemy forces, and seize and hold terrain.¹⁴ The following tasks are performed by the TOC to support the maneuver system:

- RECOMMENDS NEW MANEUVER COURSES OF ACTION TO THE
COMMANDER WHEN THE SITUATION DICTATES
- TRACKS MOVEMENT OF MANEUVER ELEMENTS IN ACCORDANCE
WITH THE TACTICAL PLAN
- ANALYZES UNIT REPORTING TO ENSURE EXECUTION IN
ACCORDANCE WITH THE TACTICAL PLAN; ADJUSTS AS
NECESSARY
- TRACKS MOVEMENT OF ADJACENT, HIGHER, AND REAR UNITS
- INTEGRATES ATTACK HELICOPTERS INTO MANEUVER SCHEME

INTELLIGENCE. The intelligence system allows the

commander to "see the battlefield." It must be continuous, be conducted by all elements of the task force and orchestrated by the S-2, using intelligence preparation of the battlefield. These tasks support the intelligence operating system:

- MAINTAINS ENEMY ORDER OF BATTLE WORKING MAP
- CONTINUES TO ANALYZE / DEVELOP ENEMY SITUATION DURING THE BATTLE
- PROVIDES PERIODIC UPDATE OF ENEMY SITUATION TO COMMANDERS / MANEUVER ELEMENTS
- PASSES INTELLIGENCE TO BRIGADE AND ADJACENT UNITS
- REQUESTS SITUATION REPORTS / BATTLE DAMAGE ASSESSMENTS FROM TASK FORCE ELEMENTS AGGRESSIVELY
- REVISES TEMPLATE AS INFORMATION IS RECEIVED
- CONTINUES NAMED AREA OF INTEREST SURVEILLANCE DURING THE BATTLE; REPOSITIONS COLLECTION ASSETS AS REQUIRED
- PASSES ENEMY UNIT LOCATIONS TO THE FIRE SUPPORT ELEMENT FOR TARGETING
- ADVISES COMMANDER ON DECISION POINTS AS REACHED
- ADJUSTS ENEMY MOVEMENT TIME LINES AS NEEDED
- UPDATES WEATHER AND WIND DIRECTION, ASSISTS S3 AND CHEMICAL OFFICER WITH PLANNING FOR USE OF SMOKE
- ADVISES ON POSSIBILITY OF ENEMY NUCLEAR, BIOLOGICAL, OR CHEMICAL WEAPON USAGE
- MAINTAINS RECORD OF ENEMY LOSSES BY TYPE OF VEHICLE TO ASSIST IN TEMPLATING / ORDER OF BATTLE
- MAINTAINS STATUS OF TASK FORCE COLLECTION ASSETS

- MAINTAINS GROUND SURVEILLANCE RADAR AND REMOTE SENSOR LOCATIONS AND ADJUSTS AS NECESSARY
- MONITORS COUNTER-RECONNAISSANCE BATTLE
- REQUESTS AND INTEGRATES INFORMATION FROM BRIGADE / ADJACENT UNITS
- PROCESSES SHELL, BOMB, MORTAR REPORTS
- OPERATES TASK FORCE OPERATIONS / INTELLIGENCE NET AS REQUIRED
- SCREENS INFORMATION FROM ENEMY PRISONERS OF WAR

FIRE SUPPORT. The mission of the fire support system is to mass firepower to delay, disrupt, or destroy enemy forces in support of the scheme of maneuver. It is more than a target list or a schedule of fires. It is an articulation of how supporting fires are to be employed with the other elements of combat power to accomplish the mission.¹⁵ Fire support is enhanced by the execution of these critical functions:

- MAINTAINS MANEUVER UNIT FRONT-LINE TRACE; PROVIDES TO THE DIRECT SUPPORT ARTILLERY BATTALION AND THE BRIGADE FIRE SUPPORT ELEMENT
- CLEARS INDIRECT FIRES WITHIN THE TASK FORCE SECTOR / ZONE
- REPORTS CHANGES OF PRIORITIES OF FIRE / FINAL PROTECTIVE FIRES TO THE FIELD ARTILLERY BATTALION
- COORDINATES FOR PLACEMENT OF FIELD ARTILLERY SUPPORTING UNITS IN SECTOR / ZONE OF MANEUVER UNIT

- ENSURES THE FIRE SUPPORT PLAN IS EXECUTED AS PER THE
FIRE SUPPORT MATRIX
- UPDATES FIRE PLANS AS NECESSARY - PLANS FOR
CONTINGENCIES, NEW ENEMY LOCATIONS
- ADJUSTS FIRE COORDINATION MEASURES AS REQUIRED
- ENGAGES TARGETS OF OPPORTUNITY AS DIRECTED BY THE
EXECUTIVE OFFICER / S3 AIR
- MAINTAINS COMMUNICATIONS WITH THE MORTAR PLATOON,
FIELD ARTILLERY FIRE DIRECTION CENTER, AND FIRE
SUPPORT TEAMS (FISTs)
- UPDATES FISTs ON THE STATUS OF FIRE SUPPORT
AVAILABILITY
- RELAYS FIST CALLS FOR FIRES TO DIRECT SUPPORT
BATTALION WHEN FIST CANNOT DO SO
- ENSURES MORTARS ARE INTEGRATED INTO THE FIRE SUPPORT
PLAN; RECOMMENDS MORTAR REPOSITIONING AS NECESSARY
- PROVIDES CURRENT ARTILLERY AMMUNITION STATUS TO
MANEUVER UNIT
- PLANS WITH THE ENGINEER / EXECUTES ARTILLERY DELIVERED
FAMILY OF SCATTERABLE MINES (FASCAM)
- COORDINATES CLOSE AIR SUPPORT MISSIONS
- ENSURES AIRSPACE COORDINATION AREAS ARE PUT INTO EFFECT
AND CANCELLED AS NEEDED
- PLANS AND REQUESTS SUPPRESSION OF ENEMY AIR DEFENSE
MISSIONS TO SUPPORT CLOSE AIR SUPPORT / JOINT AIR
ATTACK TEAM STRIKES
- COORDINATES REQUESTS FOR ADDITIONAL FIRE SUPPORT

COMBAT SERVICE SUPPORT. The combat service support system consists of those actions taken to sustain the task force's ability to fight. To be effective, it requires thorough mission specific planning analogous to that required for successful tactical operations.¹⁴ The TOC accomplishes these combat service support functions:

- ENSURES COMBAT TRAINS COMMAND POST TRACKS FRIENDLY
SITUATION / STATUS
- ENSURES UNITS ARE REPORTING LOSSES VIA ADMINISTRATIVE
/ LOGISTICS RADIO NETS
- MAINTAINS STATUS OF CRITICAL SUPPLY / AMMUNITION ITEMS
- MAINTAINS STATUS OF UNIT COMBAT POWER / PERSONNEL
LOSSES
- INFORMS S4 WHEN TO DISPLACE COMBAT TRAINS
- MAINTAINS LOCATION OF KEY LOGISTICAL FACILITIES; FIELD
TRAINS, COMBAT TRAINS, UNIT MAINTENANCE COLLECTION
POINT
- COORDINATES TIME / LOCATION OF UNIT LOGISTICAL PACKAGE
(LOGPAC) ARRIVAL
- DIRECTS PRIORITIES OF MOVEMENT ON TASK FORCE SUPPLY
ROUTES

AIR DEFENSE. The air defense system provides the task force security from enemy close air support aircraft and attack helicopters. Management of the air defense system is improved when the TOC:

- UPDATES AIR DEFENSE WARNINGS / WEAPONS CONTROL STATUS
- DISSEMINATES "RED AIR" EARLY WARNING OVER COMMAND NET
- ANNOUNCES FRIENDLY AIRCRAFT ARRIVAL ON STATION
- EMPLOYS PASSIVE AND ACTIVE AIR DEFENSE MEASURES AS
REQUIRED
- DISSEMINATES "RED" AIR ASSAULT OPERATIONS IN SECTOR
- MONITORS STATUS OF AIR DEFENSE WEAPONS / UNITS;
ADJUSTS COVERAGE AS NECESSARY BASED ON COMBAT LOSSES
OR NEW CONTINGENCIES
- ENSURES AIR DEFENSE ELEMENTS MAINTAIN LOCATION /
SITUATION OF TASK FORCE LEAD ELEMENTS
- ASSISTS COMMUNICATIONS BETWEEN VULCAN / STINGER ASSETS
AND PARENT ORGANIZATIONS

MOBILITY, COUNTERMOBILITY, SURVIVABILITY. This operating system, "has three basic purposes: it preserves the freedom of maneuver of friendly forces; it obstructs the maneuver of the enemy in areas where fire and maneuver can be used to destroy him; and it enhances the survivability of friendly forces." Task Force effectiveness is enhanced when the TOC:

- TRACKS EXECUTION STATUS OF COUNTERMOBILITY / MOBILITY/
SURVIVABILITY PLAN--REPORTS TO BRIGADE
- MONITORS STATUS OF BULLDOZERS, ARMORED COMBAT
EARTHMOVERS, SMALL EMPLACEMENT EXCAVATORS / CLASS III
RESUPPLY
- TRACKS STATUS OF CL IV / V BARRIER STOCKS AND

DISTRIBUTION

- ENSURES TASK FORCE SUPPLY ROUTE REMAINS PASSABLE FOR COMBAT SERVICE SUPPORT ASSETS
- REPORTS OBSTACLES, BREACHES OR GAPS IN ENEMY OBSTACLES TO SUBORDINATE UNITS / BRIGADE
- ANTICIPATES REQUIREMENTS TO SMOKE / SUPPRESS ENEMY WHEN TASK FORCE HITS OBSTACLES
- CONTINUES FASCAM PLANNING DURING OPERATIONS TO DENY FLANKS / SLOW ENEMY MOVEMENT
- UPGRADES MISSION ORIENTED PROTECTIVE POSTURE STATUS AS REQUIRED
- MAINTAINS UNIT RADIOLOGICAL EXPOSURE STATUS
- ANALYZES, PREPARES, AND DISSEMINATES NUCLEAR, BIOLOGICAL AND CHEMICAL REPORTS AS REQUIRED
- ADVISES THE SECOND-IN COMMAND ON UNMASKING PROCEDURES
- COORDINATES FOR DECONTAMINATION SUPPORT AS REQUIRED
- MAINTAINS EFFECTIVE DOWNWIND MESSAGE
- ENSURES TOC LOCATION PROVIDES SURVIVABILITY / CAMOUFLAGE
- MONITORS OPERATIONS SECURITY PROGRAM DURING BATTLE
- ENSURES LOCAL SECURITY / AIR GUARD OF TOC IS MAINTAINED

COMMAND AND CONTROL. The task force command and control system includes planning, coordinating, and executing combat operations. It synchronizes the other operating systems to successfully accomplish the assigned mission. The TCC's command and control functions during mission execution include:

- ISSUES FRAGMENTARY ORDERS
- MAINTAINS RADIO COMMUNICATIONS WITH HIGHER, ADJACENT,
AND SUBORDINATE HEADQUARTERS
- MAINTAINS NET DISCIPLINE AS COMMAND NET CONTROL
STATION
- COMMUNICATES WITH SUBORDINATES THE COMMANDER OR S3
CANNOT REACH; RELAYS AS NECESSARY
- MONITORS CRITICAL COMPANY COMMAND NETS DURING
CONTACT
- INITIATES FREQUENCY CHANGES IF JAMMED; POLICES-UP
STATIONS FROM OLD NET IF NECESSARY
- ACTIVATES "BATTLE NET" IF KEY ELEMENTS WITHIN THE TASK
FORCE LOSE SECURE CAPABILITIES
- MAINTAINS ACCURATE STATUS CHARTS FOR CRITICAL
INFORMATION ITEMS
- MANAGES SYNCHRONIZATION MATRIX IN ACCORDANCE WITH
TACTICAL PLAN
- DISSEMINATES TACTICAL INFORMATION TO SUBORDINATE UNITS
- DISPLACES TOC DURING OPERATIONS TO FACILITATE COMMAND
AND CONTROL
- ENSURES SUBORDINATES CONTINUE TO REPORT DURING THE
CONDUCT OF OPERATIONS
- SECOND-IN COMMAND RESPONDS FOR COMMANDER ON BRIGADE
NET TO ALLOW THE COMMANDER TO FIGHT THE BATTLE
- REQUESTS AND COORDINATES ADDITIONAL COMBAT / COMBAT
SUPPORT ASSETS FROM BRIGADE
- PROVIDES ROUTINE OR REQUESTED SITUATION UPDATES /

REPORTS TO BRIGADE

- LAYS LAND LINE TO COMBAT TRAINS COMMAND POST WHEN POSSIBLE
- MANAGES TERRAIN IN TASK FORCE SECTOR
- INITIATES PLANNING FOR FUTURE OPERATIONS

Although the above functions were organized by operating system, many different staff sections are involved in their execution. It should be apparent that the TOC, in order to be effective, requires constant communication and coordination between staff sections and personnel to accomplish the above tasks. Only TOCs which are organized to facilitate this information exchange will reap the benefits of an enhanced command and control system.

Now that I have discussed the tasks which the TOC must accomplish to support the commander in the execution of his plan, let us see what personnel and equipment is available to accomplish these tasks.

CHAPTER IV

TOC TABLE OF ORGANIZATION AND EQUIPMENT LAYDOWN

"...reductions in headquarters elements could be effected without serious degradation in overall capability. In most instances, redundancy within headquarters or command and control elements were candidates for reduction."

From the eyes of the commander, there are never enough personnel or equipment dedicated to command and control. In this chapter, we will identify the personnel and equipment that are normally available to the commander with which to organize his TOC. Personnel and equipment used forward with the commander during operations will not be addressed in this chapter.

First we will look at those elements organic to the armored or mechanized infantry task force. These are found in the command, S2, and S3 sections of the task force Table of Organization and Equipment (TOE).

The organic personnel listed below, are normally for duty at an armor-based task force TOC.

DESCRIPTION	SECTION	GRADE	MOS	QUANTITY
Executive Officer	Command	MAJ	12B	1
S2	Command	CPT	35D	1
Vehicle Driver	Command	E-3	19K10	2
Tact Intell Off	S2	1LT	35D	1
Intell Sergeant	S2	E-8	19Z50	1
Intell Analyst	S2	E-5	96B20	1
Intell Analyst	S2	E-4	96B10	1
Asst S3 Air	S3	CPT	12B	1
Chemical Officer	S3	1LT	74B	1
Operations Sergeant	S3	E-9	19Z50	1
Master Gunner	S3	E-8	19Z50	1

DESCRIPTION	SECTION	GRADE	MOS	QUANTITY
NBC NCO	S3	E-6	54B30	1
Clerk Typist	S3	E-4	71L10	1
Asst Opns Sergeant	S3	E-7	19K40	1
Operations Asst	S3	E-5	19K20	1
Carrier Driver	S3	E-4	19K10	1
Vehicle Driver	S3	E-3	19K10	2

The vehicles and radios depicted in the following diagram are organic to the Armor battalion, and are provided for the establishment of the task force TOC. They are authorized in the sections as shown.

COMMAND SECTION

S2 SECTION



AN/VRC-92



AN/VRC-92



AN/VRC-92

S3 SECTION



AN/VRC-92



AN/VRC-92



The task force TOC also receives personnel and equipment from various combat support elements which habitually support the task force. The following personnel are normally provided from the direct support artillery and air defense artillery battalions, and the Air Force Tactical Air Control Party (TACP), to support the task

force TOC during tactical operations. 20

<u>DESCRIPTION</u>	<u>SECTION</u>	<u>GRADE</u>	<u>MOS</u>	<u>QUANTITY</u>
Fire Support Off	FSS	CPT	13A	1
Fire Support Sgt	FSS	E-7	13F40	1
Carrier Driver	FSS	E-4	13F10	1
Vehicle Driver	FSS	E-3	13F10	1
Stinger Sec Sgt	ADA	E-6	16P30	1
Vehicle Driver	ADA	E-3	16P10	1
Air Liaison Off	AF	CPT	1445J	1
Tac Air Con Spec	AF	E-6	27570	1
Tac Air Con Spec	AF	E-4	27550	1

The vehicles and radios depicted in the following diagram are provided by supporting units to the task force for utilization at the TOC.

FIRE SUPPORT SECTION



AN/VRC-92
AN/VRC-88



AN/VRC-89



AN/VRC-92

TACTICAL AIR CONTROL PARTY



AN/VRC-90
AN/PRC-66
AN/PRC-104

Later in this monograph, we will utilize these personnel and equipment assets to organize three different

TOC configurations.

Now we will analyze unit TOC performance at the National Training Center (NTC) to identify recurring operational weaknesses.

CHAPTER V

TASK FORCE TOC WEAKNESSES AT THE NTC

"The National Training Center, while not actual combat, represents the most rigorous evaluation of task force operations ever conducted in a peacetime training environment, and those lessons should form an integral part of any investigation..." 21

During the past six years, over 160 task forces have conducted training at the National Training Center. This training has provided countless insights on the functioning of the task force TOC during operations. In this chapter we will review those shortcomings identified during tactical operations.

The first weakness we will discuss is the inability of the TOC to track the flow of the battle, and synchronize the actions of the task force. Chapter III outlined the diverse actions required of the TOC during operations. Most of these fell under the category of synchronization, "the arrangement of battlefield activities in time, space and purpose to produce maximum relative combat power at the decisive point." 22 The synchronization process as performed by the TOC, is dependent upon three factors: (1) the constant input of information; (2) the quality of information processing that occurs within the battle staff; and (3) the dissemination of processed information. 23 Failure in any of these critical tasks will negatively

affect the effectiveness of the task force.

Information input must be provided from all sources - company and specialty platoon spot reports, higher headquarters, and supporting combat support elements. The TOC must be aggressive in demanding this information. If the TOC cannot get the information it needs to develop and update its "picture" of the situation, the synchronization process will suffer.

This information input provides the basis for the second factor in the synchronization process, the information processing that occurs at the TOC. Processing converts raw data and reports into usable information through analysis and coordination. The TOC officer-in-charge, normally the task force executive officer, oversees the information processing and integrates the output of the battle staff into a picture of the overall situation. Often, this also equates to monitoring of the battle, and ensuring that preplanned actions take place.

Dissemination of processed information, the third factor in the synchronization process, includes periodic updates for the commander, and recommended modifications to the operation. The speed with which the commander can make his decisions is dependent on how quickly the TOC can provide him with this processed information.

Many other factors discussed below also impact on the ability of the TOC to be an effective operations synchronizer.

The efforts of the task force executive officer are vital to the operation of the TOC. The second-in-command concept works well. ²⁴ NTC after-action reports have shown that the performance of the TOC is generally unsatisfactory when the executive officer does not operate from it during combat operations. The primary function of the second-in-command (2IC) is his role as an information integrator. He must be able to integrate not only staff information, but also staff functions. To do this properly, he must remain detached from any one particular staff section. The 2IC should be able to move back and forth between each staff section's situation map and status boards, and should not be tied to monitoring a particular radio net. He is normally the only individual in the TOC who has the experience required to develop a broad perspective on the operation. ²⁵

A displacement plan is seldom produced to guide the movement of the TOC in consonance with the tactical plan. ²⁶ When produced, this plan must be based on a war-gaming of the tactical operation to determine when displacement of the TOC must occur. "Ideally, TOCs are stationary at the critical times and in communication with brigade and all supporting and subordinate elements. Prior planning, careful positioning, and short moves during lulls are key. ²⁷ As a result of poor planning in the offense, the TOC often is left behind and loses communication with the lead elements. In the defense or retrograde, the TOC often

gets over-run or destroyed by direct fire weapons. As stated by a former Chief of the Operations Group, NTC:

"The TOC frequently would become stationary for extended periods of time and would displace only after communications were lost. The "jumps" would then be 10 to 15 kilometers to the next location. A task force TOC must retain its mobility and never lose communications.... When it does move, the TOC should make frequent "jumps" of no more than three to five kilometers. Ideally, the TOC should be situated in a secure area no more than five kilometers behind the forward line of own troops (FLOT)."

Displacement of the TOC during operations by echelon is often ad hoc and ineffective, due to a lack of an effective unit SOP, insufficient training at home station, and inadequate personnel and equipment authorizations.

"The organization of the "jump" command post should be clearly defined also. Its composition, need for additional personnel, actions upon arrival at the new location, and equipment must be carefully reviewed and then drilled. How small the "jump" can be, how far are the expected moves, how long will it be operational? These things have to be tested by you, given your situation, equipment, and personnel."

When combined with poor information processing and lack of displacement planning, ineffective movement by echelon can degrade the effectiveness of the TOC exponentially!

Local security and small arms air defense protection of the TOC are often neglected during operations. The TOC is a prime target for enemy attack, and its loss will seriously disrupt the battalion's command and control of the battle. Austere personnel authorizations, combined with the requirement for 24-hour continuous operation, often cause

these areas to be overlooked. TOC personnel must be carefully supervised to ensure all required tasks are accomplished. Poor TOC security can have catastrophic effects for the task force.

"The physical security of TOC's to include control of access is unsatisfactory. Several raids by the OPFOR inflicted heavy damage to the facilities as well as loss of personnel. This caused TOC operations to be severely degraded. The lesson here is that TOC security is a must and must be strictly enforced so that TOC operations can continue without undue interruption. so

If the TOC is destroyed, it will cause the alternate TOC (normally the combat trains command post) to cease its primary duties and assume the duties (in a degraded mode) of the TOC. This has a rippling effect throughout the task force, and the effectiveness of the whole organization will suffer.

An obvious visual signature, due to the large number of vehicles which normally compose the TOC, often causes it to be targeted and subsequently destroyed by high performance aircraft. Camouflage of vehicles and reducing the number of vehicles physically present at the TOC can help reduce this signature and enhance the survivability of the TOC.

The majority of units rotating through the NTC do not practice adequate communications security. The large number of radio nets normally operated at the TOC produce an electronic signature subject to exploitation by Soviet forces. These emitters can be easily located by

direction-finding teams, and then targeted by indirect fires or jammers to degrade their effectiveness. Non-secure nets can be monitored by intercept units to gain valuable tactical information. During NTC rotation 86-7, (21 March - 4 April 1986), radio transmissions from the task force TOC were monitored and analyzed. During ten major missions, an average of 377 separate transmissions were initiated from the TOC. Over 30 minutes of continuous radio transmissions occurred. It is no wonder TOCs are so vulnerable to enemy targeting!

Given these recurring faults identified during operations at the NTC, let us now investigate three of the many possible configurations units may utilize to operate their task force TOC during operation execution.

CHAPTER VI

ORGANIZATION OF THE TOC

"Doctrine provides the fundamental principles that guide actions. Tactics techniques and procedures give the "how" and are distinguished in the level of detail and organizational level of application in many instances." 2.3

In this chapter, we will investigate three different techniques for the organization and operation of the TOC during combat operations. Organization, equipment, personnel staffing, operational procedures and displacement techniques will be discussed. Equipment and personnel to be used are only those authorized by TOE, but placement and radio distribution may be other than was originally anticipated in the base documents.

Common to each of the options to be discussed are the requirements for correct battlefield placement, continuous operations, and local security of the TOC.

The physical positioning of the TOC is critical to its survivability and ability to maintain communications with all elements. It should normally be placed near the center of the task force sector or zone, adjacent to adequate road networks, and away from the major enemy avenue of approach. Despite these considerations, communications requirements however, may dictate the placement of the TOC.

Personnel organization must ensure the TOC is

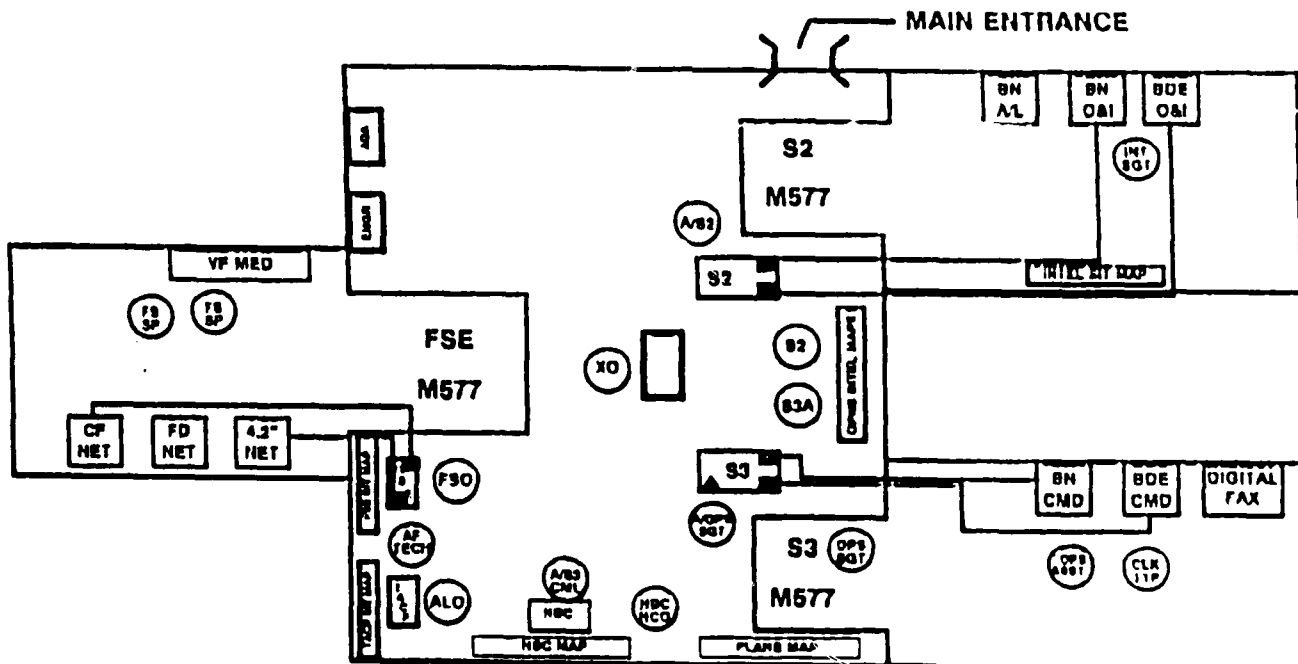
operational 24-hours a day. Shifts must be arranged to facilitate continuous operations. Unlike other headquarters, the austere manning of the task force TOC prohibits "key" personnel from resting during periods of displacement or active combat. This makes the need for continuous operations and effective sleep plans critical during non-battle periods. ³⁴ This must be intensively managed, or the TOC will quickly become inoperative.

Signal, physical, and operational security must be stressed to increase the survivability of the TOC. Short radio transmissions and disciplined nets must be demanded. Low radio power and masked antennae should be utilized when possible to reduce the Threat's ability to direction-find the TOC. Operations codes must be utilized on non-secure nets to enhance operations security. Covered and concealed locations should be chosen for the positioning of the TOC. Unneeded vehicles should be dispersed, and noise and light discipline must be stressed to reduce its visual signature. Local security and reaction forces must be identified, and their actions rehearsed. The use of challenge and passwords must be routine. If possible, the TOC should be positioned in a built-up area. This will reduce its visual and infrared signature, "harden" the command post, provide hasty living accommodations for assigned personnel, and provide more rapid displacement.

Now that we have addressed common TOC requirements, let us look at the first of three TOC configurations, the

"TRADITIONAL" TOC CONFIGURATION

In this operational technique, the S3, S2, and Fire Support Section command post carriers are initially co-located and extensions are erected. The configuration depicted below was developed by the Combined Arms Center (CAC) in cooperation with the Armor and Infantry Schools at the Battlefield Command and Control Laydown, 4 May 1987.



This technique is effective when the TOC is to remain static for long periods of time or during defensive operations when TOC displacement may be less critical.

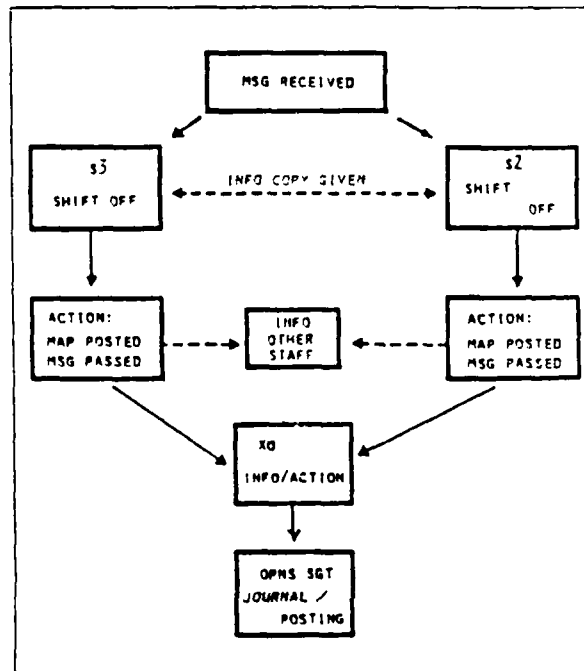
Personnel depicted in the diagram are those CAC believes are essential to be present during critical times of the battle. When compared to those that are provided in TOEs to operate the TOC (listed in Chapter IV), you can readily see that a shortage of senior personnel will occur if straight shifts are established. Senior personnel rotation must be staggered if this organization is to succeed.

Wheeled vehicles which support the TOC are not depicted on this diagram. They are assumed to be in the vicinity of the TOC.

Radio nets to be maintained at the TOC are indicated in the diagram. Air Force radio nets and the battalion administrative / logistical (Admin/Log) net are "remoted" from wheel vehicles into the TOC due to the shortage of radios in the authorized tracked vehicles.

In this configuration, all monitoring of the battle, and coordination takes place in the extension area. Radios are "remoted" to section work areas. The executive officer is positioned in the middle of the TOC so that he may monitor all activities. A common operations / intelligence map is maintained so that the current battalion situation may be easily observed. Because of the large number of personnel operating within the extensions, and the large

space between staff elements, a formalized system of information exchange is required. The diagram depicted below shows an effective technique for accomplishing this requirement.



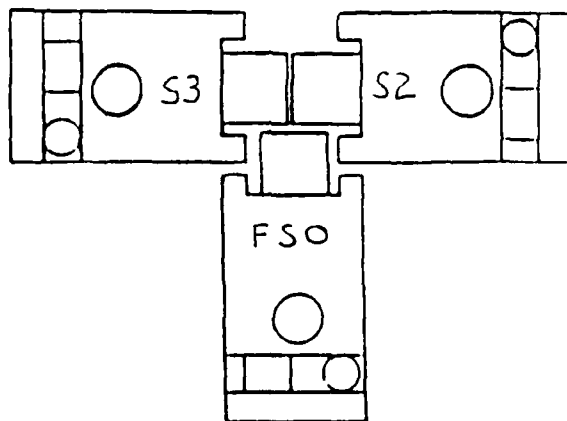
Displacement of the TOC in this configuration is difficult to execute in a timely manner. First, the S2 track, the S3 and Fire Support Section High Mobility Multipurpose Wheeled Vehicles (HMMWV) are march-ordered. A multi-functional element (S3,S2,FSE) dictated by unit SOP is then organized to deploy in these vehicles to the new TOC site. Once set in the new location, communication checks are conducted by the "jump" element and a situational update is provided to them by the TOC. Control of the battle is then passed to the "jump" by the executive officer while the TOC completes its breakdown and moves to link-up with the "jump" element. When all elements have

closed in the new location, the original TOC configuration is assumed, and normal operations are resumed.

"RED" TOC CONFIGURATION

The next TOC configuration I will describe is the "Red" TOC Configuration. It is called this because of the austere operational set-up used. This configuration is assumed at the termination of the planning process once the operations order has been produced and briefed. This technique is effective in fast moving offensive or retrograde operations.

As seen in the diagram below, all three command post vehicles are drawn in tight, ramp-to-ramp. One map board may be emplaced between the S2 and S3 tracks to facilitate tracking of the battle and information exchange. In poor weather, or during night operations, one extension may be erected.



Due to the reduced working space in this configuration, fewer personnel may be employed in the TOC during operations. This will more easily lend itself to the establishment of TOC duty shifts, but key personnel will still require intensive management to ensure adequate sleep is received. A possible two-shift organization is shown below.

	<u>"A" SHIFT</u>	<u>"B" SHIFT</u>
OPNS REPS	A/S3 AIR	A/S3 CHEM
	A/OPNS SGT	OPNS SGT
	CHEM NCO	MASTER GUNNER
	OPNS ASST	CARRIER DRIVER
INTELL REPS	S2	TAC INTELL OFF
	INTELL SGT	SR INTELL ANAL
	INTELL ANAL	
FIRE SPT REPS	FIRE SPT OFF	FIRE SPT SGT
	FIRE SPT SPEC	FIRE SPT SPEC
AIR FORCE REP	AIR LIAISON OFF	TAC AIR CON SPEC
ADA REP	STINGER SEC SGT	

The executive officer (2IC) is not assigned a shift, but would be present at the TOC during operations.

Radio nets used in this configuration are the same as in the traditional TOC configuration. Again, Air Force and Admin/Log nets are "remoted" onto the ramp area from wheeled vehicles.

Monitoring of the battle occurs both inside each track and on the exterior ramp area. Each staff section maintains its required information in work areas inside their tracks, and updates the common operations / intelligence map on the ramp area. The executive officer is free to move between any of these locations as required.

The physical organization of the "Red" TOC is conducive to rapid displacement. As in the "Traditional" TOC, a multi-functional element is organized and displaces in the S2 track and required wheel vehicles to the new TOC location. This will probably require the augmentation of personnel from the off duty shift to ensure expertise at both locations during displacement. The sequence of subsequent events is identical to those described in the "Traditional" TOC.

"SPLIT" TOC CONFIGURATION

The final TOC configuration to be discussed is the "Split" TOC organization. This technique attempts to organize two identical, multi-functional TOC cells (given TOE limitations) which locate separately on the battlefield, and are each capable of controlling the battle at any point in time.

At the conclusion of the orders preparation and briefing process, TOC extensions and other unneeded equipment is stowed, and vehicles are prepared for movement. The TOC is then divided into two components by SOP. Each of these elements then displaces to a different location on the battlefield to control operations. A recommended division of personnel and equipment to form a "Split" TOC is depicted on the following page showing vehicle assignments during displacement.

"A" TEAM

S3 SECTION



S2
ASST OPNS SGT
NBC NCO
CARRIER DRIVER



OPNS SGT
SR INELL ANAL
OPNS ASST
CLERK TYPIST
VEHICLE DRIVER

COMMAND SECTION



EXECUTIVE OFFICER
VEHICLE DRIVER

FIRE SPT SEC



FIRE SPT OFFICER
FIRE SPT SPEC

TAC AIR CON PARTY



AIR LIASON OFF
TAC AIR CON SPEC

STINGER SEC



SECTION SGT
VEHICLE DRIVER

"B" TEAM

S2 SECTION



ASST S3 AIR
TAC INTELL OFF
ASST S3/CHEM
INTELL ANALYST

COMMAND SECTION



MASTER GUNNER
VEH DRIVER

S3 SECTION



INTELL SGT
VEH DRIVER

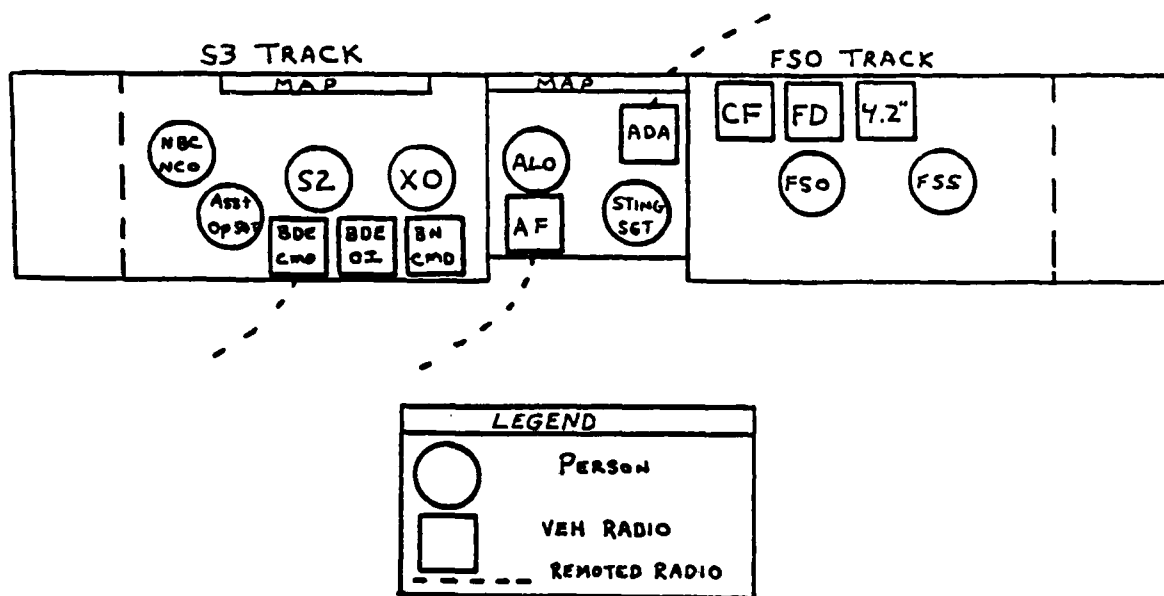
FIRE SPT SEC



FIRE SPT SGT
FIRE SPT SPEC

Upon arrival at their designated operational locations, the two cells deploy as shown below. Radio nets to be monitored, and positioning of personnel during operations are also annotated on the diagram.

"A" TEAM



As shown above, the S3 and FSO tracks are positioned ramp-on-ramp. This allows easier coordination between the executive officer (XO) and fire support officer (FSO) during operations. The Air Liaison Officer (ALO) remotes his radios to the ramp area, and operates from this position. The same is true for the Stinger Section Sergeant who provides interface on the air defense early warning net. An additional map can be placed between the tracks for their use if necessary, but the main operations /

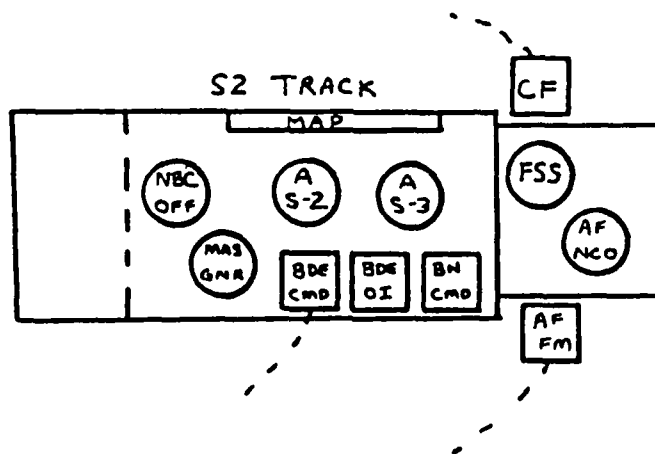
intelligence map is maintained in the S3 track by the XO and S2.

In inclement weather or during night operations, a tarp may be draped between the tracks and secured with Velcro fasteners. No poles are required to support this "extension".

Generators remain mounted to facilitate displacement. OE-254 antennae are left in their vehicle mounts during displacement, however a few sections of poles must be removed.

Wheeled vehicles are placed in covered and / or concealed positions near the tracks; close enough to allow for effective remoting of radios, yet far enough away to reduce the visual signature of the TOC. Personnel from these vehicles may also be utilized for local security and early warning.

"B" TEAM



As you can see by the diagram on the previous page, the "B" Team configuration lacks the robustness of the "A" Team, but can still accomplish the same required tasks. Some effects of the shortage of equipment and senior personnel, can be reduced by a sound wargaming process tied to the displacement plan of the TOC. This will be discussed later. Each team must have the required, plans, orders, report formats, reference materials, and overlays to accomplish the mission. An additional map board will probably be required to facilitate execution by the fire support sergeant and enlisted tactical air control specialist operating on the ramp of the command post vehicle.

As in the "Red" TOC configuration, monitoring and coordination during the battle is conducted inside the tracks and on the ramp area. Effective exchange of information is facilitated by the close positioning of key personnel. The executive officer, although primarily monitoring the task force command net, can hear reports on other key nets, and energize the appropriate staff agencies as required. This configuration requires well trained key personnel since so few are actually involved in the ongoing battle at any time.

Displacement planning is critical to the success of the "Split" TOC. It is desirable for the "A" Team to be in position to assist the commander in command and control of the task force during critical times of the operation.

Based on the intelligence preparation of the battlefield, locations of probable combat and other key activities are identified. Time / distance factors are estimated to generally identify when these will occur. Movement requirements of the TOC are then determined, taking terrain and its effect on communications into account. Specific displacement locations are identified for each of the TOC elements. One element is always stationary and in control during the movement of the other. Upon closure in its new location, radio checks are conducted with key elements. A brief situational / informational update is provided by the TOC element currently in control. When set and ready to assume control of the battle, a net call is made to the task force, and control is passed. The other TOC element is then march-ordered and moves to its next location if required by the progress of the battle. If not, it silently monitors the battle, maintains the status of the task force, and accomplishes any planning or execution tasks directed by the XO. This process is repeated as necessary during the battle.

The "Split" TOC is also a viable technique in defensive scenarios where survivability rather than mobility is a major concern.

CHAPTER VII

COMPARISON OF TOC CONFIGURATIONS

"Foremost among the elements of combat power which will decide this victory is skillful, effective leadership. At the task force level this leadership must be supported by a command and control system which is reliable, secure, fast, and durable." 1-10

Three techniques for the organization and operation of the task force TOC have been proposed. Now let us compare each of these configurations using the criteria of survivability, mobility, and operational effectiveness. No single TOC configuration is ideal in all tactical situations. Likewise, no configuration will maximize all of the operational criterion. The most effective configuration is the one which will most closely meet each of the ideal criterion in most tactical situations. This will determine which configuration accomplishes its mission more efficiently.

Before we compare these configurations, however, it is necessary to define each of the criteria to promote a common understanding of terms.

Survivability refers to the TOCs ability to minimize its electronic, infrared, and visual signatures from the enemy's ability to detect and then target it with direct and indirect fires or electronic warfare assets; in addition, if attacked, the ability to continue to operate

after the attack. Survivability also requires local security, small arms air defense, and early warning of enemy activity.

Mobility as it is used in this paper, refers to the ability of the TOC to quickly displace and keep pace with the tempo of task force operations. Sub-elements of this concept include time required to march-order, ease of movement of the element as a whole to the new location, and the preparation time required upon arrival at the new location to assume its command and control functions.

Operational effectiveness is an easy term to define, but difficult to quantify. In our usage, this term means the effectiveness of the TOC to accomplish the tasks outlined in Chapter III. Impacting on this is the physical layout of the TOC, the ability of the executive officer to supervise staff activities, arrangements for continuous operations, and the training required to execute the myriad of TOC tasks in a timely manner.

SURVIVABILITY

Survivability is the most critical of our three criteria. Having the most mobile or operationally effective TOC is meaningless if it has been destroyed.

The "Split" TOC is the most survivable of the three configurations presented. Its smaller size makes enemy observation more difficult. With fewer vehicles present, it is more likely that enough covered and / or concealed positions will be found for all vehicles. Since no

extensions are used, more personnel "on shift" will be working inside the protection of the command post vehicles. The small number of personnel used in the TOC during the battle, will allow additional personnel to accomplish the critical tasks of local security and small arms air defense. In case of enemy attack, the Spartan set-up of the "Split" TOC allows rapid, hasty displacement. With two "TOCs" located separately on the battlefield, the survivability of the command and control system is more assured. This also confuses the enemy to the actual location of the command post, and increases his targeting problem.

Due to the lack of radios in the tracked vehicles under current TOEs, great reliance is placed on wheeled vehicles to provide the required radio nets using the "Split" TOC configuration. While not as individually survivable as the tracked vehicles, this configuration's reduced visual signature should allow acceptable survivability rates for the wheeled vehicles.

Using the same rationale as above, the "Red" TOC is more survivable than the "Traditional" TOC configuration.

MOBILITY

Mobility of our three TOC configurations vary greatly. Mobility of the command post also increases its survivability since it will be in the same location for a shorter period of time. As discussed in the previous chapter, the "Traditional" TOC technique utilizes its

extensions in a fully deployed mode. This can prevent displacement in a timely manner. Since each of the other techniques operate from within the tracked vehicles and have little equipment to stow, they can displace more quickly.

Fewer vehicles to displace at one time permits the "Split" TOC to move in and out of position more rapidly than the other techniques. This enables it to assume control of the battle quickly, allowing the other team to then displace, maintaining the mobility of the TOC. This increased mobility allows the "Split" TOC to rapidly move forward and maintain its relative position to the combat elements, ensuring continuous communications with the forward elements of the task force.

Operational Effectiveness

Each of the TOC configurations requires an SOP to explain, in detail, the duties and responsibilities of each individual. Training must then be conducted to ensure each person knows, and can perform his required functions. The SOP must then be "fine-tuned" to account for the capabilities of the personnel assigned and equipment available to accomplish these tasks. The final required component, personnel stability, must occur to allow the trained personnel to operate effectively.

The "Traditional" TOC configuration allows for exceptional coordination between staff elements. This requirement I believe, is more vital during the planning

and orders production phase of operations than during the execution phase, at the task force level. Most battles at the NTC last less than four hours. Once in contact, minor modifications are normally required to maximize the effectiveness of task force plans. Time is usually not available for wholesale changes to these plans. These changes usually do not require the entire staff to plan or execute; but rather key individuals.

Less reliance on wheeled vehicles to provide required radio nets allows these assets to be used for unforeseen activities easier. This allows better flexibility in the TOC.

Due to the increased working space in this configuration, staff elements are more dispersed. This makes the effective exchange of information more difficult, yet vital. The XO must ensure the dissemination of information between staff sections occurs and that critical information is being forwarded to the commander.

Since the TOC is together in one location except during displacement, this technique allows better personnel management for continuous operations. Critical personnel may be replaced during lulls in action, and the XO can better monitor the apparent signs of fatigue in his subordinates. It also provides a better capability for the XO to rest, since there is more expertise at the TOC.

The greatest reduction in operational effectiveness, and a significant shortcoming of both the "Traditional" and

"Red" TOCs occurs during displacement. The continuity of command and control is disrupted. A "jump" cell determined by SOP composed of representatives from each section must now form, deploy, work as a team, and control the activities of the task force. This, combined with the slowness of displacement causes the command and control effectiveness of the "Traditional" and "Red" configurations to be reduced during longer periods of the battle than the "Split" configuration. Terrain and tempo of the battle will not always allow displacement to occur during lulls in the battle. This period of degraded capability can have a devastating impact on the command and control system of the task force if it occurs at an inopportune time.

The "Red" TOC, due to its compact working space on the vehicle ramps, allows for quicker coordination and information flow than the "Traditional" configuration. This also makes it easier for the XO to monitor the ongoing battle.

Like the "Traditional" technique, this configuration also has less reliance on wheeled vehicles to provide all required radio nets.

In the "Split" TOC, information flow and coordination is enhanced because key personnel sit beside one another in a multi-functional track. Having key individuals personally operate in radio nets improves effectiveness with this configuration since they can hear first-hand what is occurring throughout the task force.

"...forward headquarters at all levels should have only principal staff officers or their assistants on the radio...It is exceptionally irritating, inefficient, and potentially dangerous to call a headquarters with critical, time-sensitive information, and have a radioman transcribe it to a message form and deliver it to a staff officer." 27

The use of these experienced personnel also allows better filtering of information for the commander in a timely manner. This filtering,

"... is simply the ability to determine what information is important at each level, to know what information must be acted on, what information must be passed on and, most importantly, what information must be discarded." 28

Because of the division of personnel, planning for future operations is more difficult in the "Split TOC" configuration. A way to accomplish this required function is to have one team control the ongoing battle while the other cell concurrently plans for future operations. This technique can also be used to provide personnel their required sleep if the tactical situation permits.

Continuous control of the task force during displacement, is a major advantage of the "Split" TOC technique. Continuity of command and control enhances the operational effectiveness of the task force. The "second" or "B" Team, when in control, is at least as capable as the "jump" element utilized by both the "Traditional" or "Red" TOCs.

Based on the comparisons above, I feel the "Split" TOC is the superior technique to utilize during combat

operations. Although inferior to the "Traditional" technique in terms of coordination and information exchange, the synergistic advantages of survivability, mobility, and continuity of effective command and control quickly overcome these shortcomings during active operations.

When used, it will provide the commander with a mobile, survivable, effective main command post, equal to the challenges of the AirLand Battlefield.

CHAPTER VIII

CONCLUSION

"Degraded command and control is unacceptable during combat operations because task forces lack sufficient radios during displacement. Two actions must be taken. The maneuver Combat Development Community must revise MTOEs to provide task forces with sufficient communications, and maneuver doctrine must reflect the proper way to organize and displace a task force TOC." 22

U.S. Army doctrine as outlined in FM 100-5, Operations, and subordinate manuals provide solid operational concepts for the defeat of our potential enemies. Key to effective operations is effective command and control of our forces. This doctrine however, must be supported by sound tactics, techniques, and procedures which are currently missing from the Army's doctrinal and training literature.

In this monograph, I have attempted to fill part of the current doctrinal void at the task force level. First, specific execution functions of the TOC were presented using the seven operating systems as a guide. Then, three possible TOC configurations to be used during combat operations were presented using currently authorized personnel and equipment. These three configurations were compared using survivability, mobility, and operational effectiveness as comparison criteria. The lessons from the NTC are clear for the requirements of an effective TOC:

"A task force TOC must retain its mobility and never lose communications. It should be highly mobile during any battle or movement. During periods of enemy contact or expected contact, the TOC should operate with the absolute minimum equipment on the ground and should be capable of moving in five to ten minutes maximum." 40

Our tactical doctrine is based on speed and agility. The recommended "Split" TOC configuration will meet all the above criteria if manned by a well trained staff, and was proven during two rotations to the National Training Center.

"So the message is this: Command and control is manageable, but it takes a lot of thought and even more hard work...Without effective command and control, we can never hope to fight successfully and win the AirLand Battle. 41 This fight begins at the task force level, and an effective TOC can make the difference on the battlefield of the future.

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