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UNITED STATES ARMY

OPERATIONS HANDBOOK

UNITED STATES ARMY INFANTRY SCHOOL
FORT BENNING, GEORGIA

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OPERATIONS HANDBOOK
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CHAPTER 1
COMMAND AND STAFF PROCEDURES

Section I. GENERAL

1-1. OBJECTIVE. This part of the Operations Handbook is designed to serve as a reference for the U.S. Army Infantry School resident and nonresident students on staff doctrine, staff organization, individual staff responsibilities and staff procedures.

1-2. SCOPE.

a. The material contained herein is applicable to instructional problems covering peacetime operations as well as problems covering cold war, limited war, and general war to include internal defense and development (IDAD) operations.

b. The information provided relates primarily to staff operations at battalion and brigade. Staff operations at all levels are similar.

Section II. STAFF DOCTRINE (Command and Staff Relationship)

1-3. COMMAND.

a. Command is the authority that a commander in the military service exercises over his subordinates by virtue of his rank or assignment. Command includes the authority and responsibility for effectively using available resources, *planning, organizing, directing, coordinating, and controlling military forces for the accomplishment of assigned missions. Command also includes responsibility for health, welfare, morale, training, and discipline of assigned or attached personnel. *See Figure 1-1

b. The commander alone is responsible for all that a unit does or fails to do. He can delegate authority but not responsibility. He is assisted in performing command functions by assistant commanders and a staff. In larger units it is physically impossible for the commander to personally handle to numerous tasks associated with the efficient management and control and still command the unit effectively. Therefore, he must delegate performance of some of his duties to staff officers. This does *not* relieve the commander of responsibility for everything his unit (including the staff) does or fails to do.

c. The commander discharges his responsibility through an established chain of command which is the succession of commanding officers from superior to a subordinate and vice versa. The commander commands the staff, but the chief of staff or executive officer directs and supervises it. The staff is not in the chain-of-command, however, staff officers act for the commander as he directs or delegates.

1-4. STAFF.

a. The primary purpose of a staff is to assist the commander in the dispatch of his command responsibilities. To accomplish this, staffs or staff officers are assigned specific areas of responsibility and delegated the authority to take final action on matters within command policy in their respective areas. The complexity and tempo of combat operations prevent a commander from personally accomplishing or even supervising all of the tasks involved in the employment of his unit. Thus a staff which possesses a thorough knowledge and understanding of the commander's concepts and mode of operation is capable of acting with complete confidence in the commander's absence. This kind of efficiency frees the commander to devote more of his attention to maintaining personal contact with his fighting headquarters and/or fighting elements. The staff, like the commander, must understand the units of the command; their situations, capabilities, limitations, and charactor. The goal of the staff is to do everything possible to conserve the resources of the command, maximize troop efficiency, and enhance troop performance.

b. Basic staff functions are: Gather information in commander's name, appraise, anticipate, inform, recommend, order, and supervise.

(1) *Staff sections must continuously collect, collate, analyze, and disseminate information.* Information is gathered from all available sources; it is the result of a plan-not chance. This information must be rapidly processed to provide the commander with data that is pertinent and in a useable form for decision making. It must be quickly and carefully disseminated within the staff and to units that need it without disclosing the information to the enemy.

(2) *The apprisal process is continuous. It is based on all available information.* Staff appraisals are expert evaluations which consider all contingencies that may affect a planned course of action. Staff appraisals are prsented informally to the commander, as required.

(3) *The staff anticipates the commander's actions.* It also anticipates the enemy's actions and the flow of the battle. It is normal procedure for the staff to anticipate events and the availability of resources, thus helping the commander to reduce reaction time when changes in the situation occur.

(4) *The staff informs* the commander; other members of the staff; and subordinate, adjacent, and higher headquarters through formal military briefings (Chapter 14) and informal meetings. The information provided is timely and oriented to the needs of the recipient.

(5) *The staff makes recommendations* to the commander as to policy, and as to actions to be taken and orders to be issued. They produce alternatives and list tradeoffs. These recommendations follow informal and timely staff coordination. They cue the commander on when to change the mission, the operating area, forces assigned, or priority of resources.

(6) *The staff prepares and issues the orders for the commander* to insure that all necessary details are coordinated and actions are initiated according to his plan. Warning orders alert elements and provide time to prepare for action. Fragmentary orders effect change to basic plans and orders and provide implementing instructions to changes in the situation.

(7) *The staff supervises the execution of the commander's decisions* and determines the ability to accomplish the mission with the resources on hand. This supervision relieves the commander of much detail. The progress and effectiveness of the execution is closely watched to insure that maneuver, combat support, and combat service support systems act in concept and in complementary fashion.

Section III: STAFF ORGANIZATION

1-5. GENERAL. At battalion and brigade levels there are two types of staff groupings: the unit staff and the special staff.

a. *Unit Staff.* The unit staff consists of the executive officer, S1 (Personnel), S2 (Intelligence), S3 (Operations), S4 (Logistics), and when authorized, S5 (Civil-Military Operations). They are principal assistants to the commander, have broad fields of interest, and exercise staff supervision over the activities of the special staff.

b. *Special Staff.* The special staff consists of staff members who assist the commander and unit staff in professional, technical, and other functional areas included in, but narrower than, the broad fields of interest of unit staff officers. They are mostly related to technical, administrative, and branch matters.

(1) The special staff at battalion includes the headquarters commandant, chaplain (if attached), scout platoon leader, communications-electronics (C-E) officer, mortar platoon leader, antitank platoon leader, redeye section leader, medical platoon leader, support platoon leader, motor officer, and two liaison officers. The battalion fire support officer (FSO) is normally from the field artillery battalion in direct support of the brigade. When no field artillery officer is available, the mortar platoon leader is the fire support officer under unit staff supervision of the S3. The commanders of combat, combat support, or combat service support units that are attached, under operational control (OPCON), or direct support (DS) serve as special staff officers to the battalion commander and staff on matters pertaining to the employment of their units.

(2) The special staff at brigade consists of the headquarters commandant (headquarters and headquarters company commander), chaplain, chemical officer, C-E officer, aviation officer, surgeon, two (when augmented), liaison officers. When combat support and combat service support units are attached to, under operational control of, or in direct support of the brigade, commanders of these units may be brigade special staff officers for their fields of interest if a special staff officer is not assigned in this area. For example, the commanding officer of an attached or supporting engineer company is the brigade staff engineer. The commander or his representative of the field artillery battalion in direct support of the brigade is the brigade fire support officer (FSO).

c. *Organization.* For organization of battalion and brigade staffs, see Figures 1.2 and 1.3. Note that the commander commands each staff group, that the executive officer coordinates and supervises the staff, and that the unit staff coordinates and supervises special staff officers whose functions pertain to their area of responsibility. The battalion and brigade unit staffs are considered action or implementing staffs when compared to the division coordinating staff.

d. *Separate Brigades.* The command and staff structure of separate brigades is similar to the division staff, because of the necessity to engage in administrative and logistical functions to a greatest degree than divisional brigades. The brigade commander should specify responsibilities of the dupty brigade commander and his relationship to the brigade staff. Separate brigade staff consists of a unit and special staff with functional areas of staff responsibility that parallel the corresponding staff sections at division. The unit staff of a separate brigade, like the coordinating staff of a division, is concerned with the broad aspect of planning and coordinating brigade activities. In addition, the brigade commander's aide and selected special staff officers who normally have direct access to the brigade commander (PAO, SJA, IG, other) constitute a personal staff group similar to the comparable grouping at division level. See Figure 1.4 for the staff organization of a type separate brigade.

Section IV: STAFF RESPONSIBILITY

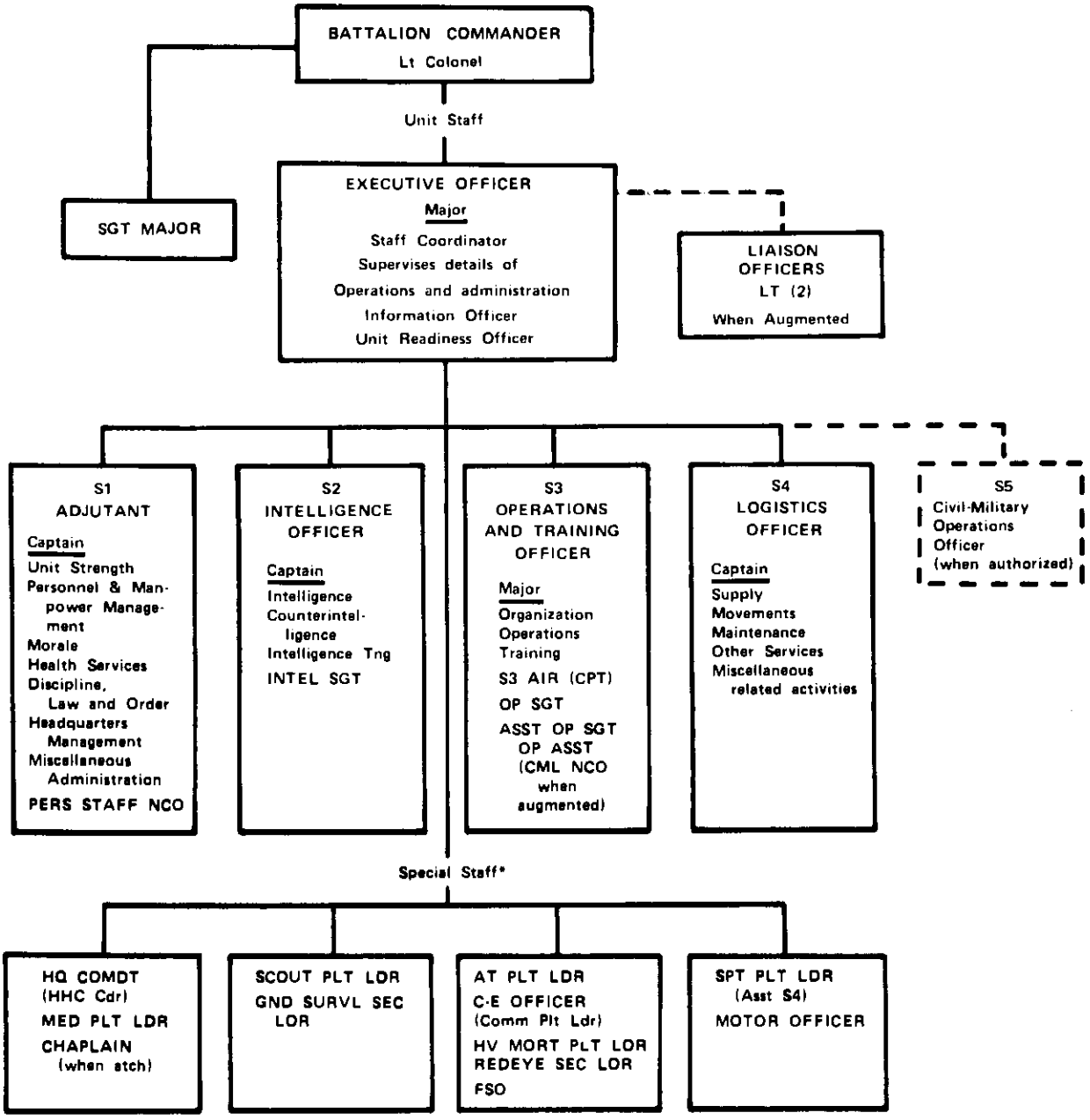
1-6. UNIT STAFF.

a. *Executive Officer.* The executive officer (XO) is the principal assistant to the commander. Although he may assume command in the temporary absence of the commander, he is not in chain of command. As the coordinator and supervisor of the staff he is responsible for the execution of staff tasks and the coordinated efforts of its members. He insures that the staff performs as a team and not as separate staff sections. He assigns definite responsibilities and transmits the commander's decisions to the staff and to subordinate commanders when applicable in the name of the commander. This does not preclude staff members dealing directly with the commander. However, a staff officer is obligated to inform the executive officer of instructions or requirements received from the commander. During the commander's temporary absence, the executive officer represents him and directs actions in accordance with his policies. He must be prepared to assume command at any time. He is responsible for the establishment of liaison and liaison activities. As an additional duty, he is responsible for the information program and is the Materiel Readiness Officer. The executive officer's duties, in the final analysis, are based on the desires of the commander.

b. The S1 (Adjutant). The S1 has staff responsibilities for maintenance of unit strength; personnel and manpower management; morale; health services; discipline, law and order; headquarters management; and miscellaneous administrative duties not assigned to another staff officer. He is responsible for all strength reports. He has staff responsibility for letters of sympathy. After coordination with the S3 on priorities, he recommends distribution of replacements to the commander. Promotions, reductions, eliminations and classification actions are monitored by the S1. He advises the commander on military justice matters. He has staff responsibility for development and maintenance of morale to include personnel services, medical services, and graves registration. Through the Headquarters Commandant, he supervises control of stragglers, handling and evacuation of POW's and CP security. The S1, after receiving the general CP location from the S3, selects the exact site in coordination with C-E Officer and Headquarters Commandant. He is also responsible for interior arrangements of the CP and functioning of the quartering party. Maintenance of the unit journal, policy files, individual radiation exposure data, and the personnel estimate are a few of his miscellaneous duties. Ref: ST 7-150-101-5, "Company Commander and Staff Officer Handbook."

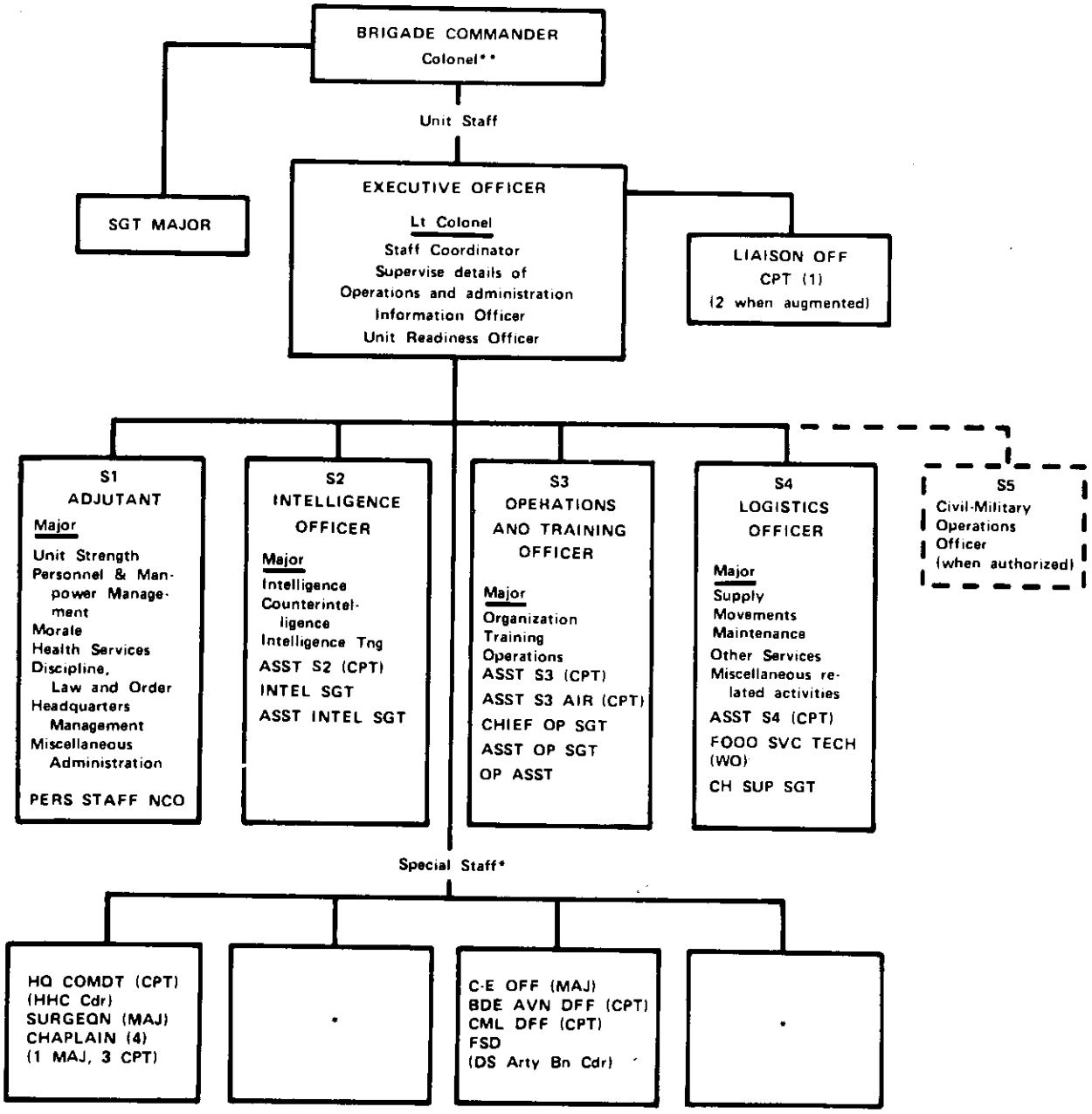
PLANNING	ORGANIZING	DIRECTING	COORDINATING	CONTROLLING
1. study decision and situation in detail, including limitations. 2. Make reasonable assumptions. 3. Develop an initial detailed plan. 4. Determine time and resource requirements to support this plan. 5. Check available resources against requirements of initial plan. 6. If required, adjust initial plan in area that will least affect the overall mission, to balance requirements against available resources. 7. Develop alternate plans. 8. Outline policies and procedures under which the plan will be implemented.	1. Determine functions required to accomplish the mission. 2. Subdivide broad functions into management tasks and group-related functions. 3. Establish organizational relationships; use optimum span of control. 4. Select and assign appropriate personnel and other resources to accomplish the mission. 5. Allow for change in mission or resources. 6. Assign duties and responsibilities with commensurate authority. 7. Emphasize essentiality, balance, cohension, flexibility, and efficiency.	1. Determine the extent of direction necessary by considering the type of operation, the type of organization, the experience and competence of executives, and the policies of top management in relation to the assigned mission. 2. Issue timely instructions including when, where, and by whom each task is to be completed and insure that these instructions are properly understood. 3. Supervise execution of the instructions. Be available for consultation and guidance.	1. Promote intelligent cooperation and mutual understanding. 2. Cross-train supervisors and keep them well informed as to overall goals and objectives. 3. Encourage lateral and vertical communication throughout the organization. 4. Synchronize as required with external activities involved. 5. Use SOP's and administrative instructions to promote coordination.	1. Determine extent, types, and methods of controls necessary to keep all actions oriented toward accomplishing the mission. 2. Collect, analyze, and evaluate pertinent management information. 3. Establish a norm for measuring results. 4. Establish acceptable variances from this norm. 5. Take corrective action promptly when acceptable variances are exceeded. 6. Make controlling both constant and repetitive.

Figure 1-1.



----Unit Staff responsibility for staff supervision.
*Cdr/Ldr of Cbt/Cbt Spt/Cbt Svc Spt units attached, under OPCON, or in DS of the battalion acts as special staff officers under the appropriate unit staff officer.

Figure 1-2. Battalion Staff.



—Unit Staff responsibility for staff supervision.
*Cdr/Ldr of Cbt/Cbt Spt/Cbt Svc Spt units attached, under OPCON, or in DS of the battalion acts as special staff officers under the appropriate unit staff officer.
**BG when authorized by DA.

Figure 1-3. Brigade Staff.

NOTE: For the sake of brevity, the foregoing staff responsibilities have been stated in general terms. Refer to ST 7-150-101-5, "Company Commander and Staff Handbook," for specific and detailed guidance.

TYPE SEPARATE BRIGADE STAFF ORGANIZATION

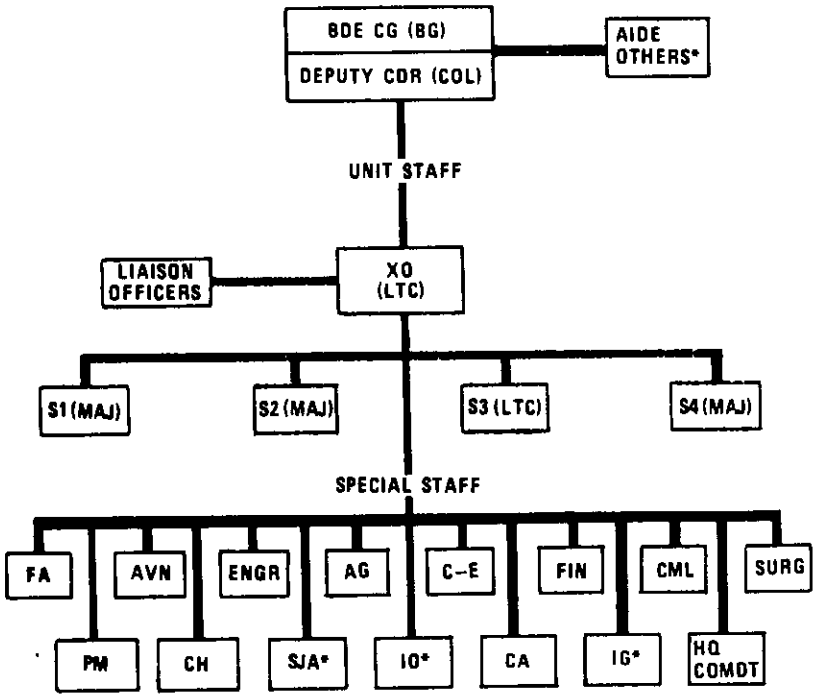


Figure 1-4. Type Separate Brigade Staff.

c. The S2 (Intelligence Officer). The S2 has staff responsibility for combat intelligence, counterintelligence, and intelligence training. He collects, evaluates, and interprets information to determine the effects of weather, terrain, and the enemy on the accomplishment of the mission. He insures that information and intelligence are disseminated expeditiously to the commander, staff, and higher, subordinate, and adjacent units. He recommends counterintelligence measures to the commander and supervises the execution of approved plans. He plans, prepares, and supervises intelligence training programs. He supervises and coordinates surveillance, target acquisition, and reconnaissance activities of organic and attached units. He exercises staff supervision over attached or supporting intelligence units or specialists. He plans for and recommends information gathering patrols, prepares the daily battalion patrol plan, and debriefs all patrols. He is responsible for chemical, biological, and radiological monitoring and survey data; and preparation of fallout prediction plots relating to enemy detonated nuclear weapons. He determines requirements and priorities for maps and furnishes this information to the S4 for procurement and distribution. Ref: ST 7-150-101-5, "Company Commander and Staff Officer Handbook."

d. The S3 (Operations Officer). The S3 has staff responsibility for organization, training, and operations. For a detailed discussion of the Operations Officer, refer to Chapter 2.

e. The S4 (Logistics Officer). The S4 has staff responsibility for planning, coordinating, and supervising operation of logistic facilities. He insures that organic and nonorganic combat service support elements adequately support the tactical plan. The major areas of logistical responsibilities are supply, movements, maintenance, other services, and miscellaneous related activities. The S4 is responsible for the preparation of logistical estimates and appropriate portions of plans and orders; the location, functioning, and local security of unit trains; supervision of all logistical functions; and area damage control. He additionally supervises the disposition of captured enemy supplies.

f. The S5 (Civil-Military Operations Officer). Current series TOEs do not authorize S5's at battalion and brigade level. When an S5 is not provided, the S3 performs this function. However, S5's may be authorized at battalion and brigade level by MTOE or by local command action for units engaged in IDAD operations. Staff responsibility of the S5 corresponds generally to those stated for the G5 in FM 101-5 and FM 41-10.

NOTE. The Command Sergeants Major (CSM). The Command Sergeants Major is a member of the command group and is the commander's principal advisor and respresentative in dealing with noncommissioned officers and enlisted men. He performs duties directed by the commander which normally include supervising the functions of enlisted men in the headquarters and assisting the executive officer and adjutant in administrative matters and special reports. The command sergeants major normally accompanies the commander on unit area and field training inspections; conducts periodic NCO calls; visits units in garrison and reinforce the commander's policies, to help solve problems, and to keep abreast of the personnel and administrative situations; and performs other duties the commander assigns.

Section V. STAFF PROCEDURES

1-7. GENERAL. To prepare itself for a battlefield environment, the staff must develop, understand and use certain staff procedures or "tools." The proper use of these "tools" can contribute significantly to the survivability and effeciency of a command.

a. *STAFF COORDINATION.* Coordination, one of the basic tools of the staff, is conducted informally with the idea of simplifying staff procedures, reducing paperwork, and saving resources and time whenever possible. Specific procedures are established to facilitate staff coordination and resolve differences between coordinating staff elements.

(1) Means of staff coordination include–

. Formal and informal conferences and briefings, conducted only as required and limited in length, scope, and attendees.

. Properly functioning staff message control.

. Routing of essential information, decisions, and orders between staff sections.

. Close contact and exchange of information between each of the staff sections and with staff sections at subordinate, adjacent, supporting, and higher headquarters.

(2) Coordination is essential for harmonious staff relationships and minimum conflict and duplication.

(3) Staff officers must know what information is readily available from other staff sections as well as what information should be provided to them. They can then determine if discussions with other staff sections are necessary and what specific problems need further coordination. When detailed information is required from other headquarters, the most effective method is the staff liaison visit. These visits, more than any other staff activity, extend the presence of the commander to subordinate, adjacent, and higher units. Staff members, acting as the commander's representatives, are not only interested in supporting their own functional roles of staff performance and in coordinating the efforts of the command, they also concern themselves with gathering information that will assist in future planning and coordination. *The function of a staff liaison visit is to observe, coordinate, and assist–not to meddle.* The primary mission is to relate, listen, and see for the commander and other staff members. This means that prior to making a liaison visit a staff officer must have a broad understanding of current plans and be read-in on the latest situation. Further, he must be aware of future plans or anticipated actions.

(4) Frequent visits to subordinate echelons are a necessity, as well as visits to supporting or supported elements and higher headquarters. The morale factor gained by the visited unit is also very important to the commander's extension of influence.

(5) Another liaison function is performed by the unit liaison officer. He represents the commander at other headquarters, promoting coordination and information exchange. The commander can increase the impact of his liaison officers with higher and adjacent elements by introducing his representatives personally. The liaison element should provide for its own communications and support within practical limitations. Liaison officers with that staff duty should return to their parent headquarters frequently on an exchange basis to keep the command informed.

b. *FUNCTIONAL EXPERTISE.*

A professional staff officer must continually update and refresh himself in his functional responsibility. He must fully understand and be capable of making good use of all of the procedures and techniques peculiar to his specific area of staff interest, and must continually see more efficient ways of accomplishing these responsibilities.

c. *STAFF WRITING.*

(1) Staff writing is a means of communicating ideas to the commander, subordinate unit commanders, and other staff officers through orders, recommdations, studies, reports, and other types of formal and informal documents. Effective staff writing conveys the writer's exact meaning and is not subject to misinterpretation. The staff writer must consciously insure that every written product is essential and that it contributes to rapid action and reaction on the part of the organization rather than to bureaucratic files maintenance.

(2) The battle is directed by orders. Battle orders, therefore, must be short, unambiguous, and direct. Formal written orders are rare. Whether oral or written, a good order is clear to those who must carry it out. Clarity and conciseness and far more important than form. The initial order must explain the situation and the intent of the commander so clearly that additional fragmentary orders to meet the changing situation will suffice. Fragmentary orders may be as brief as a few words spoken over the radio, or they may consist of a map overlay or sketch with little explanatory text.

d. *ADMINISTRATIVE TOOLS.*

Complex operations at command posts procedure an irreducible minimum of files and records that must be maitained for current reference and historical purposes. Recordkeeping is reduced by minimizing informal written reports, eliminating unnecessary and duplicate files and records, removing unnecessary functions from the main command post, increased emphasis on oral reporting, and efficient journalkeeping.

e. *REPORTS.*

The status of each broad functional area of command interest is maintained through periodic, spot, or summary reports. Commanders and staff officers use reports for the distribution of vital information about the command to higher, lower, and adjacent headquarters. The staff must insure that reporting requirements are kept to an absolute minimum. Only those reports needed to provide essential information and to satisfy higher headquarters should be required of subordinate commands. Continued review of recurring reports eliminates unnecessary items and duplication.

f. *MESSAGES.*

Hardcopy message traffic includes radio teletype, facsimile, and courier-delivered written messages. Use of electronic means is limited to essential information of immediate operational necessity.

g. *VOICE RADIO FM.*

Voice radio is the mainstay of division communications. Traffic should be limited to transmission of information of an immediate operational nature, and must be clear and concise. Operational codes, known and understood, will help. Command awareness is instrumental in the success of division FM radio communications.

h. *SITUATION MAPS AND INFORMATION DISPLAYS.*

(1) Staff sections maintain the minimum number of information displays required to keep members of their sections informed of frequently needed, essential information. The main command post keeps an operational situation map that graphically portrays the friendly and enemy situation. More detailed information is maintained on overlays by each section. Journals are normally used to record significant events.

(2) Information displays are often required to supplement details contained on the situation map or to make available information that is not suitable for posting on the situation map. These displays, usually providing data on the status of units or activities, are simple, and located for easy viewing and posting.

1-8. COMPLETED STAFF ACTIONS.

a. (See Figure 1-5.) A completed staff action is a study of a problem and the presentation of its solution in such a form that all that remains to be done by the commander is to indicate approval or disapproval.

b. The staff officer's views are placed before the commander in finished form to include an impletmenting memorandum, directive, or letter.

c. The theory of completed staff action usually makes more work for the staff officer, but it gives the commander more freedom. It also protects the commander from partially developed ideas, voluminous memorandums, and incomplete oral presentations.

d. The results of completed staff action should be clear and furnish concise statements of essential facts.

e. The concept of a completed staff action has a corollary doctrine of equal importance-planning guidance to the staff. Adequate command guidance facilitates completed staff action and precludes wasted effort.

f. A completed staff action concludes with follow up actions by the staff to ensure compliance with instructions or orders.

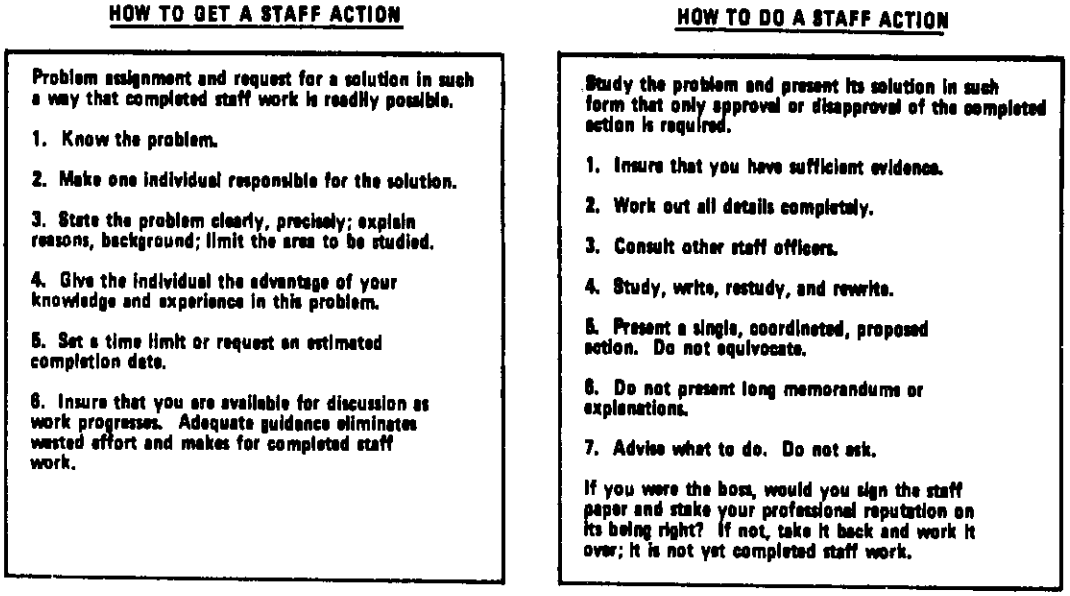


Figure 1-5. Completed staff work.

1-9. STAFF COORDINATION.

a. Staff coordination is "staff teamwork" and includes those actions required within the staff to ensure plans and orders are executed in accordance with the commanders desires. Most actions have an overlap of interest that affect more than one staff section; therefore, a close personal working relationship between staff sections is mandatory Conflicts and duplication are avoided by close and continuous coordination.

b. Staff actions are examined by all interested staff officers to adjust and resolve conflicts. Brigade and battalion operations generally require rapid coordination and reaction time and must rely heavily upon sound coordination procedures.

c. It is essential that staff officers know responsibilities of other staff sections to determine each other's requirements and facilitate coordination.

d. Staff officers must provide a free exchange of information and ideas among themsaelves to insure coordination.

1-10. PROCEDURES FOR STAFF COORDINATION.

a. Common methods or procedures are established within a unit to facilitate coordination.

(1) Internal arrangement of the headquarters is established to receive and route messages, routine, or special action papers to ensure quick delivery and speed reaction time.

(2) Similar operations are closely located to provide convenient working conditions (S2 S3; S1 - S4).

(3) Internal communications provide easy, rapid means of contact.

(4) A system of formal and informal reports is established to provide prompt exchange of information. Direct contact between staff sections is necessary.

b. Coordination is further ensured by conferences, visits, inspections, and briefings.

(1) Conferences are used to facilitate coordination between staff sections.

(2) Staff officers visit units to obtain information for the commander, observe execution of orders, and assist subordinate commanders. Normal courtesy is practiced during visits, e.g., call on the commander initially, state the purpose of the visit, report facts noted, and what the staff officer will report upon return to the headquarters. After the visit, the staff officer reports significant facts to the visited commander and staff.

(3) The commander and staff officer conduct inspections to determine the readiness condition of the unit. Various methods or techniques may be used to inspect, but in each case the subordinate commander is furnished results of the inspection. These results may then serve as the basis for corrective actions.

(4) Briefings are a means of keeping the commander and staff informed of the situation and of problems facing the command. Each staff officer must be prepared to brief on the activities of his section, or contribute to a command-type briefing.

1-11. INDIVIDUAL STAFF ACTIONS. Many routine actions are handled within a staff that do not require the formality of the commander and staff planning sequence. Unit SOPs normally prescribe required actions and designate primary staff responsibility. Conflict, or overlapping interest that can not be resolved will be solved by the executive office or commander.

a. The officer designated as 'action officer' for a particular requirement must coordinate with interested staff sections to develope that requirement. The final result of this coordination is then a staff recommendation.

b. Action officers normally coordinate informally, by telephone calls and conferences with interested persons, or routing of action papers through the headquarters. The value of face to face contact or personal meetings cannot be overemphasized as such relationships provide the action officer with a better knowledge of his subject, provide an excellent exchange of information to others, and generally produce timely and effective results.

1-12. SEQUENCE OF ACTIONS IN MAKING AND EXECUTING DECISIONS.

a. The commander is responsible for deciding how elements of his command will be employed to accomplish missions. The commander controls the operations of his forces with the issue of timely orders. It is a major function of the staff to assist the commander in arriving at and executing decisions. Routine decisions may be made by the staff within the authority delegated to them by the commander. However, operational decisions are of such fundamental importance that the commander must personally influence the preparation of orders implementing these decisions (Figures 1-6 and 1-7).

b. The sequence of actions in making and executing decisions involves a series of separate actions or steps known as the sequence of commander and staff actions (Figures 1-6 and 1-7). The sequence describes a logical and systematic procedure to solve major problems and arrive at a properly considered decision. Keep in mind that the sequence is flexible and that steps may overlap, be accomplished concurrently, or even omitted.

(1) Mission (Step 1). Though estimating and planning are continuous, they are put more into focus upon receipt of a mission. Normally, higher headquarters assigns the mission, but the commander may develop or deduce the mission. The mission or task to be accomplished puts the sequence of commander and staff planning sequence into focus. The commander may initiate his mission analysis at this point. Mission analyusis is discussed in (3) below.

(2) Information avialable (Step 2). The staff provides the commander with information avialable based on knowledge of the latest facts and current situation. Subordinate commanders receive information concerning the mission (warning order) and the situation as early as practicable in the planning phase and at least by the time staff estimates are being prepared.

(3) Mission analysis and planning guidance (Step 3). Based on information available, the commander completes his mission analysis and issues his planning guidance.

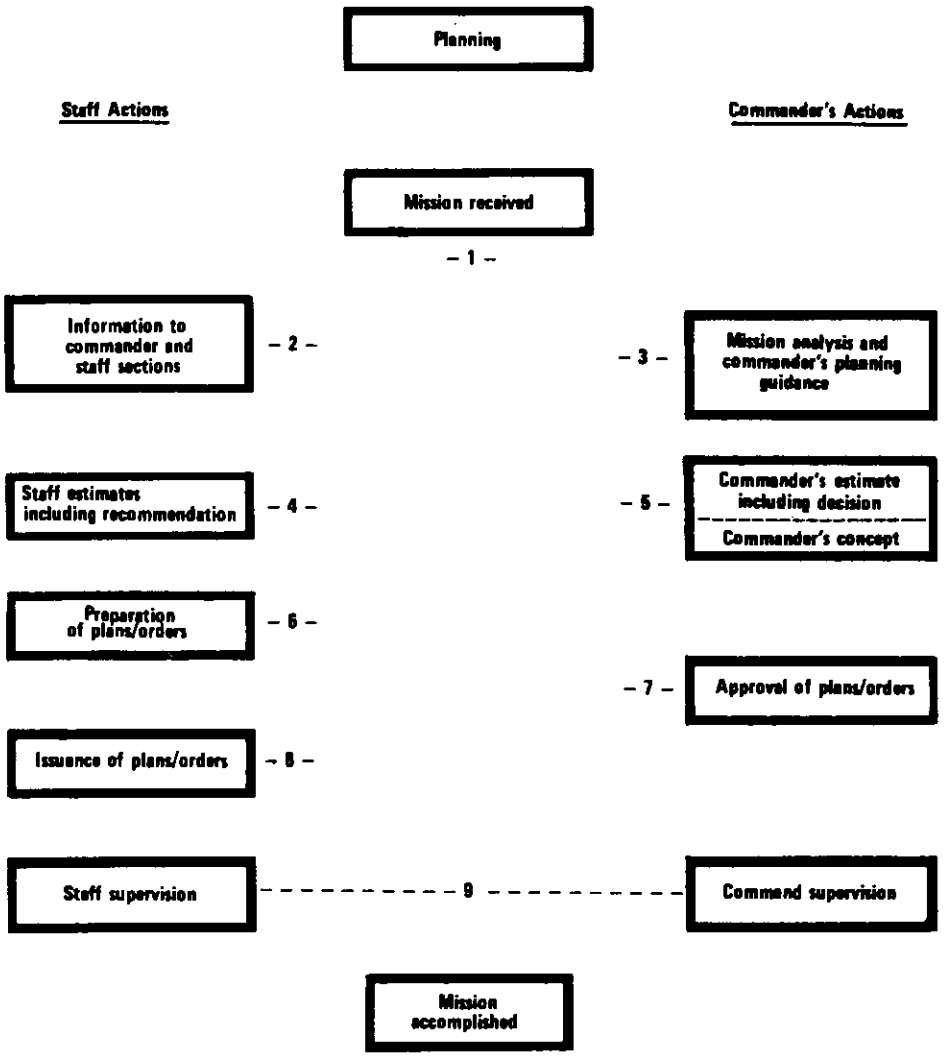


Figure 1-6. Sequence of commander and staff actions.

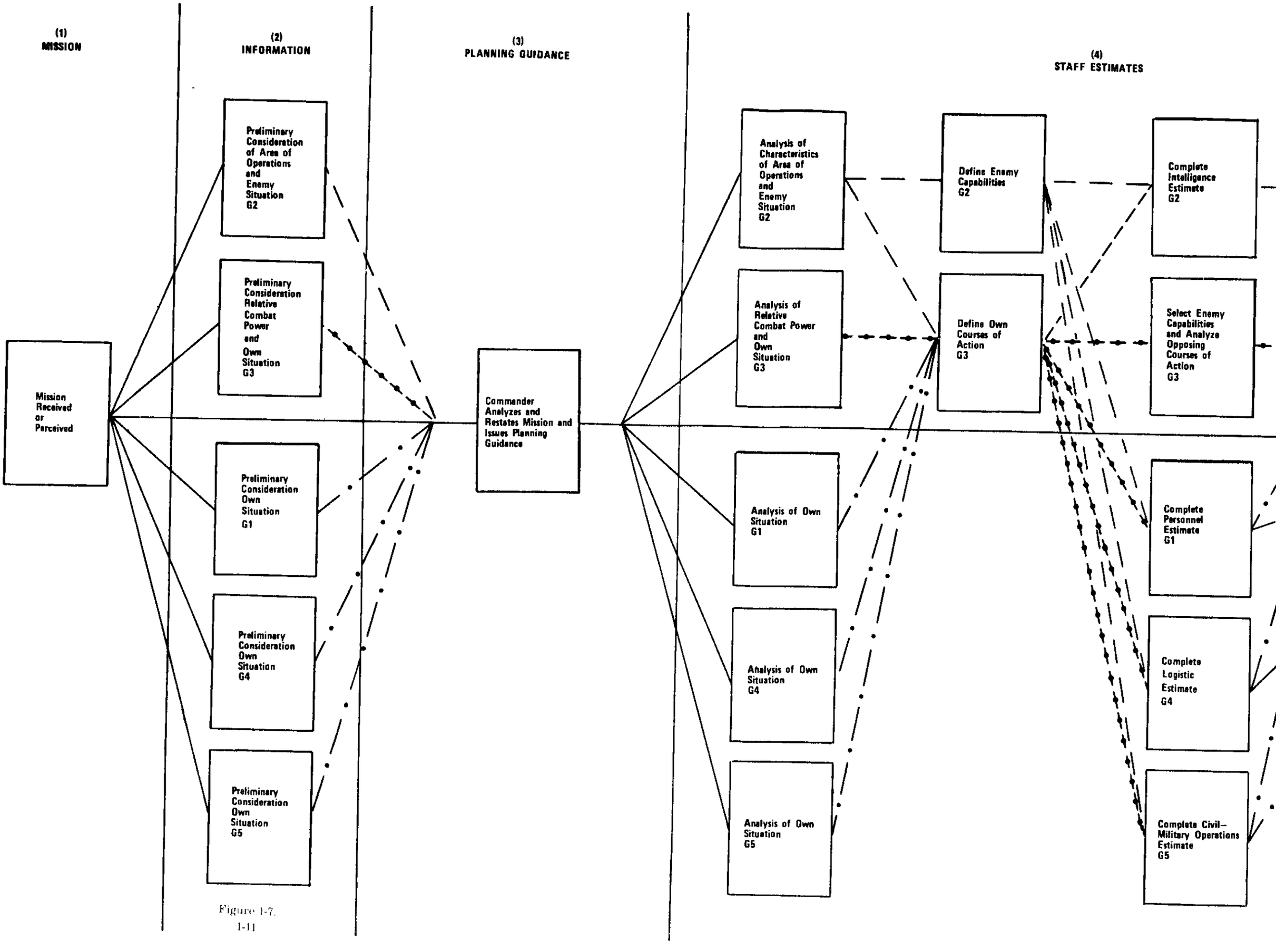

(1)
MISSION
(2)
INFORMATION
(3)
PLANNING GUIDANCE
(4)
STAFF ESTIMATES
Mission Received or Perceived
Preliminary Consideration of Area of Operations and Enemy Situation G2
Preliminary Consideration Relative Combat Power and Own Situation G3
Preliminary Consideration Own Situation G1
Preliminary Consideration Own Situation G4
Preliminary Consideration Own Situation G5
Commander Analyzes and Restates Mission and Issues Planning Guidance
Analysis of Characteristics of Area of Operations and Enemy Situation G2
Analysis of Relative Combat Power and Own Situation G3
Analysis of Own Situation G1
Analysis of Own Situation G4
Analysis of Own Situation G5
Define Enemy Capabilities G2
Define Own Courses of Action G3
Complete Intelligence Estimate G2
Select Enemy Capabilities and Analyze Opposing Courses of Action G3
Complete Personnel Estimate G1
Complete Logistic Estimate G4
Complete Civil–Military Operations Estimate G5

Figure 1-7.

(5)
COMMANDER'S ESTIMATE

CULMINATING IN DECISION AND ANNOUNCEMENT OF SELECTED COURSE OF ACTION AMPLIFIED AS DESIRED IN HIS CONCEPT.

(6)
PREPARATION OF PLANS OR ORDERS

(7)
APPROVAL OF PLANS OR ORDERS

(8)
ISSUANCE OF PLANS OR ORDERS

(9)
COMMAND AND STAFF SUPERVISION

Compare Own Courses of Action. Select and Recommend Best Course of Action. G3

Commander's Estimate Commander's Decision

Prepare Intelligence Plans and Intelligence Portion of Operation Plan or Order G2

Prepare Operation Plan and Operation Portion of Operation Order G3

Prepare Personnel Plans and Personnel Portion of Operation and Administrative/ Logistics Plans or Orders G1

Prepare Logistic Plans and Logistic Portion of Operation and Administrative/ Logistics Plans or Orders G4

Prepare Civil–Military Operations Plans and Civil–Military Operations Portion of Operation and Administrative/ Logistics Plans or Orders G5

Complete Operation Plan or Order G3

Complete Administration/ Logistics Plan or Order G4

Commander Approves Operation and Administrative/ Logistics Plans or Orders

Issue Operation Plan or Order G3

Issue Administrative/ Logistics Plan or Order G4

G2 Staff Supervision G2

G3 Staff Supervision G3

Command Supervision

G1 Staff Supervision G1

G4 Staff Supervision G4

G5 Staff Supervision G5

Mission Accomplished

LEGEND

Commander's actions.

G3 actions.

G2 actions.

G1, G4, and G5 actions.

0–3034

(a) The purpose of mission analysis is to insure that the commander fully understands his mission to allow him to develop those tasks that are essential to accomplishment of the mission. The commander assisted by his staff performs his mission analysis by identifying the specified and implied tasks.

1. Specified tasks are tasks delineated in the mission received from higher headquarters or the missions developed or deduced by the commander.

2. Implied tasks are additional tasks that the commander identifies as essential to ensure accomplishment of the mission. When identifying implied tasks, the commander should exercise caution not to include tasks that are routine or inherent in his mission.

NOTE: At brigade and battalion levels, seldom will the commander develop implied tasks because the division (or brigade) mission to its subordinate units are normally definitive.

(b) Planning guidance is a result of mission analysis. To guide the staff along common lines of investigation in the search for the best possible way to accomplish the mission, the commander issues his planning guidance. It provides the necessary staff direction for concurrent planning by providing a framework for making studies and estimates. The amount of planning guidance varies with each mission, the volume and validity of information available, the situation, and the experience of the commander and staff. Planning guidance is not limited to one specific step in the sequence. However, initial guidance should precede the preparation of estimates. Planning guidance must include, as a minimum, the restatement of the mission as determined in mission analysis. This restated mission is used as paragraph 1, in all staff estimates. Additionally, planning guidance may include tactical determinations, courses of action the commander desires his staff to consider, key terrain within the overall objective area or defensive sector, use of nuclear and chemical fires, security, tactical cover and deception objective, restrictions on operations, allocations of means, EEI or other intelligence requirements, and pertinent assumptions. Unless higher headquarters has directed a specific course of action, the commander does not specify a course of action at this time because to do so would prevent objective and unbiased staff estimates. Too much planning guidance destroys staff initiative and objectivity.

(4) Staff estimates (Step 4). Staff members, having received the commander's planning guidance, are prepared to focus their individual efforts on the problem to be solved. It involves a consideration of all circumstances affecting the situation and a systematic analysis and evaluation of possible ways to accomplish the task or mission. Staff officers furnish information, conclusions, and recommendations through preparation of estimate. They summarize the significant aspects of the situation, evaluate, and determine how the means available can best be employed to accomplish the mission. The development of individual estimates (Chapter 3) requires staff officers to consult with each other to ensure coordination of all factors affecting the situation. When the mission requires a basic decision as to tactical employment of the unit, the operation estimate made by the S3 is the key staff estimate and incorporates the conclusions of the other staff estimates. This then becomes the coordinated staff recommendation. As the staff concurrently prepares their estimates, the information is provided as follows:

(a) The S2 furnishes the S1, S3, and S4 the results of his analysis of the weather, terrain, and enemy.

(b) The S1 and S4 provide the S3 with information pertaining to the personnel situation and logistical support, respectively.

(c) The S3 determines the possible courses of action and passes them to other unit staff officers.

(d) The S2 refines his own estimate in light of the courses of action plans for the production of additional intelligence.

(e) Based on the information received from other staff members and an evaluation of their areas of responsibility, the S1 and S4 complete their estimates to determine what major problems exist in providing the required support and which of the proposed courses of action can best be supported from a personnel and logistical viewpoint.

(f) Meanwhile, the S3 completes his operation estimate. The result will be the determination of that scheme of maneuver which offers the greatest probability of success. After coordination with other staff members, to include consideration of any advantages or limitations developed as a result of their estimates, the operation recommendation becomes the *coordinated staff recommendation.*

(g) The S3 presents the coordinated staff recommendation to the commander as a statement of the general scheme of maneuver to be adopted and, if applicable, any nuclear fires to be employed. The S3 should comment upon any significant problems and elebrate on the recommendation as necessary to ensure that the commander is fully informed. An example of a recommendation is given in Chapter 3.

(5) Commander's estimate (including decision and concept) (Step 5).

(a) While the staff members are completing their estimates, the commander is concurrently making his own. He consults with his staff during this time and visits units. His estimate prepares him to receive and evaluate the staff recommendation and to make a decision.

(b) Upon receipt of the staff recommendation, the commander completes his estimate and states his decision. In a tactical situation, the decision is a statement of the general scheme of maneuver (placement of movement of major maneuver elements) to be adopter and, if applicable, any nuclear fires (nuclear rounds to be fired and their targets or nuclear rounds to be held in reserve or on call status). It is based on the course of action offering the greatest probability of success in accomplishing the unit's mission.

(c) To assist the staff in preparing detailed plans to execute the decision, the commander usually elaborates upon the decision by stating his concept. These instruction outline to the staff the intent of the commander with regard to the operation. Although detailed plans are made by the staff, the commander should outline the direction he desires the plans to take. No form is prescribed for this concept, although it may, at the commander's discretion, include additional guidance, an elaboration on the general scheme of maneuver, organization for combat, general plan of fire support, combat service support, and other details for preparation of the orders.

(d) The commander's decision and concept are the basis for preparation of paragraph 3a, *Concept of Operations*, of the operation order by the S3.

(6) Preparation of plans or orders (Step 6). Although the staff plans continuously, it is not until they receive the commander's decision with respect to the tactical employment of the unit that their plans can be finalized. Throughout their estimates the staff develops areas not essential to the commander's basic decision requiring further study and planning. Having received the commander's decision and concept, the staff must finalize all of the operational details by continuing with their planning and preparing the orders necessary to implement the commander's decision. The S3 has primary staff responsibility for the preparation of the operation orders (oral or written).

(7) Approval of plans or orders (Step 7). The operation plan or order is presented to the commander for approval. This step may be ommitted if the urgency of the situation so warrants and if the commander has delegated such authority.

(8) Issuance of plans or orders (Step 8). After approval, the S3 supervises final preparation of the plan or order, authenticates copies, and ensures proper distribution if issued in written form. At battalion level, oral orders are often used. Time permitting, written orders may be published to confirm or change the oral order, or to serve official record purposes. Such commanders issue orders at a briefing or deliver them personally to avoid misunderstanding.

(9) Supervision (Step 9). After the order is issued, the commander and staff supervise its execution. The primary purpose of the staff is to assist subordinate units to carry out the intent of the commander's order.

1.13. APPLICATION OF THE SEQUENCE OF COMMANDER AND STAFF ACTIONS.

a. The extent to which each of the above steps (exclusive of the decision) will be performed personally by the commander depends on a number of factors. Some of these factors are: time available, the size of the command, the situation, and the experience and training of the commander and the members of his staff. However, it must be recognized that the manner in which these steps are performed and their relationship to each other depends on many factors. The basic sequence describes a logical and systematic procedure to solve major problems.

b. The very nature of staff activities requires that many of the steps be acted upon concurrently by individual sections. Delineation of staff responsibilities often overlap the areas of interest between staff officers and requires not only close coordination but mutual assistance as well.

c. Particularly at battalion level the sequence is applied on an informal basis. Time available, experience of the commander and his staff, and the relative urgency of the situation may necessitate variations in application of the sequence. Nonetheless, the basic steps of this sequence of commander and staff actions are employed to ensure the best possible solution.

CHAPTER 2
OPERATIONS OFFICER S3

2-1. GENERAL.

a. The operations officer (S3) is the principal staff assistant to the commander in matters pertaining to the organization, training, and operations of the command.

b. The S3 is a member of the unit staff. He assists the commander not only in planning and coordination but also in the capacity of an operator in the detailed supervision of the accomplishment of unit missions.

2-2. RESPONSIBILITIES.

a. *General.* The S3 is directly concerned with the *organization* of the command and the allocation of personnel, weapons, and equipment. He is the commander's principal advisor in matters dealing with *training.* He is also the staff officer to whom the commander turns for advice and assistance in conducting tactical operations. In this regard, the operations officer provides information and recommendations on the tactical scheme of maneuver and coordinates the use of available combat support. As the focal point for tactical planning, he prepares and disseminates necessary plans and orders to implement the commander's decision.

b. *Organization.*

(1) Activation and inactivation.

(a) The S3 is responsible for preparing the overall plan for the activation of a unit. The operations officer analyzes the unit's mission, determines tasks to be accomplished, and recommends to the commander a plan to establish task responsibilities and a schedule for their completion. The plan gives the details of unit organization and establishes priorities for the assignment of personnel (particular attention given to the assignment of cadre) and the allocation of weapons and equipment in short supply and similar pertinent instructions. Throughout the analysis, the determination of tasks, and the preparation of the detailed phases of activation, close coordination with other members of the staff is essential.

(b) During the execution phase of activation, the operations officer is responsible for receiving and processing units or teams, to include such orientation, training, and reorganization as may be required.

(c) For a unit's inactivation, he prepares and coordinates a similar plan in reverse.

(2) Troop list. The operations officer maintains the troop list. He establishes procedures that provide for the continual review of the troop list by interested staff members to insure that the numbers and types of units assigned are those that can best accomplish and support the command mission. The troop list is a current list of units organic, attached, under operational control (OPCON), and providing support. There is no prescribed format for a troop list.

(3) Table(s) of Organization and Equipment (TOE) and Tables of Distribution and Allowances (TDA). The operations officer is responsible for the submission of recommended changes/modifications to TOE's and TDA's for personnel and equipment. This includes responsibility for the management and processing of personnel authorization documents (The Army Authorization Documents System (TAADS), AR 310-49) and subsequent distribution of personnel spaces that may be authorized by higher headquarters. Other staff members submit recommendations based on the impact of the recommended changes/modifications on the overall operations of the command.

(a) The TOE is designed for combat operations under normal conditions of terrain and other factors found in the operational environment. However, conditions under which a TOE unit will be employed vary extensively according to the physical location of the unit. e.g., there are great differences between requirements for arctic, jungle, desert, and mountain operations. Therefore, the S3 continually studies the requirements of the unit and, where appropriate, recommends changes to the TOE. These requirements may be divided into two broad areas of personnel and equipment.

(b) Based upon his study of the TOE/TDA and the personnel and equipment requirements needed to accomplish the mission, the operations officer may recommend modification of the organizational structure of the unit through channels in accordance with AR's 310-31 and 310-49. This may eventually result in a modification of the TOE or TDA (MTOE or MTDA).

(4) Requesting and allocating units. The operations officer requests units and teams for assignment or attachment (except individual and unit replacements, which the personnel officer reequisitions) and allocates them according to instructions and priorities that the commander establishes.

(5) Organization for combat. The operations officer recommends the organization for combat for the conduct of operations and changes thereto, as appropriate, during execution of the operation. The organization for combat includes attachments, supporting roles, and delegation of operational control. Coordination with other staff members is necessary. Often, the staff member consulted provides the organization for combat for a particular element that falls under his supervision.

(6) While a unit may be designated "a combat unit" it contains elements that perform combat support and combat service support functions. In his consideration of organization, whether internally organizing for combat or determining the need to request additional forces, the operations officer must keep the function of forces concept firmly in mind.

(a) The integration of these functions into tactical operations to accomplish a mission is exercised through the various headquarters which provide *command and control.* The operations officer recommends that additional units be attached or placed in support. He makes recommendations on internal organization for combat so as to obtain the appropriate blend of forces.

(b) *Combat* elements are characterized by their capability to perform infantry, armored, and cavalry missions.

(c) *Combat support* elements provide support which increases the combat power of combat units. This support increases effectiveness of combat elements through additional fire support, communications, performance of engineer tasks, and tactical transportation.

(d) *Combat service support* elements perform operations or services which sustain combat and combat support elements conducting tactical operations. These activities are primarily logistical or administrative. Examples of these activities are: administration, supply, maintenance, and nontactical transportation.

(e) The schematics in Figure 2-1, 2-2, and 2-3 depict the function of forces in the mechanized infantry division, brigade, and battalion.

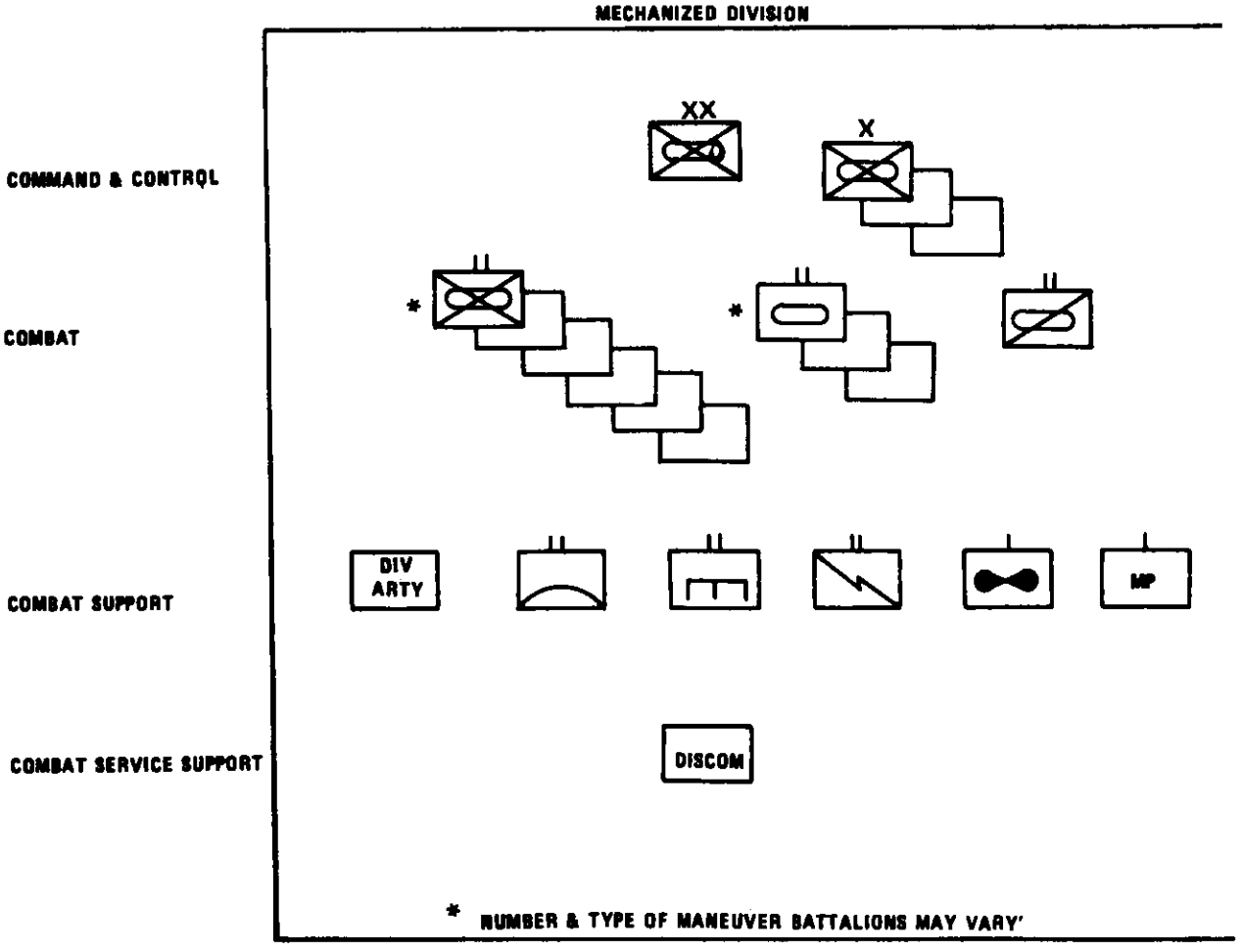


Figure 2-1. Mechanized Division Base Showing Function of Forces.

NOTE: Although a *combat* element of the brigade and division, the elements of the battalion perform the four functions of forces.

c. Training. The S3 has primary staff responsibility for training. All staff officers, however, have a responsibility for making recommendations for training that falls within their areas of interest. The operations officer coordinates with other staff officers and units in carrying out this responsibility. Brigade and battalion S3 training responsibilities include:

(1) Training programs and directives.

(a) Based on the commander's decision relative to the factors considered in the training mission and the commander's training estimate, the S3 prepares the unit training program. He disseminates the training program in the form of a training circular or directive which contains guidance for subordinate commanders to develop their training program (See Figure 2-5).

(b) The S3 further prepares necessary orders and directives for the commander based on changing requirements for implementation of the program.

(2) Training aids and facilities. Based on his analysis and determination of unit requirements in light of the unit mission and requests from subordinate units, the S3 plans for the procurement and allocation of training aids and facilities and establishes procedures controlling their use within the unit. These procedures may be outlined in the training circular or may be disseminated separately by a directive.

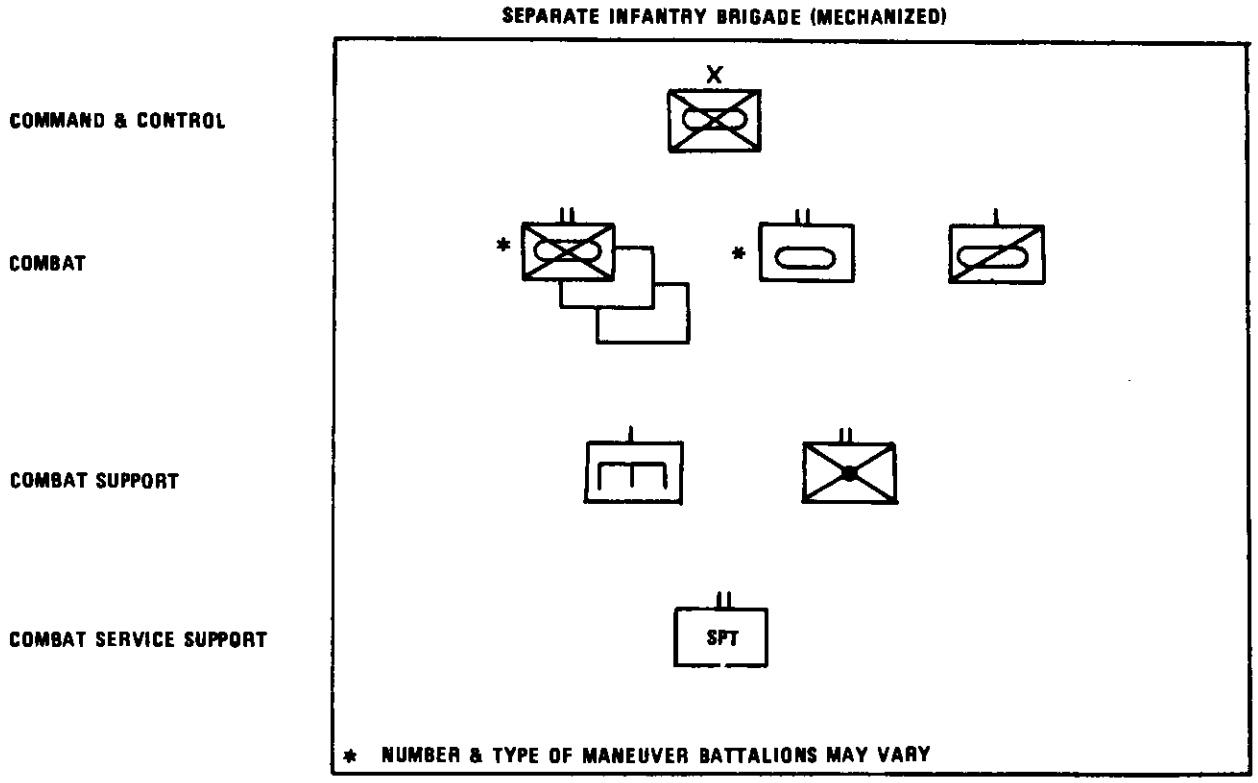


Figure 2-2. Separate Infantry Brigade (Mechanized) Showing Function of Forces.

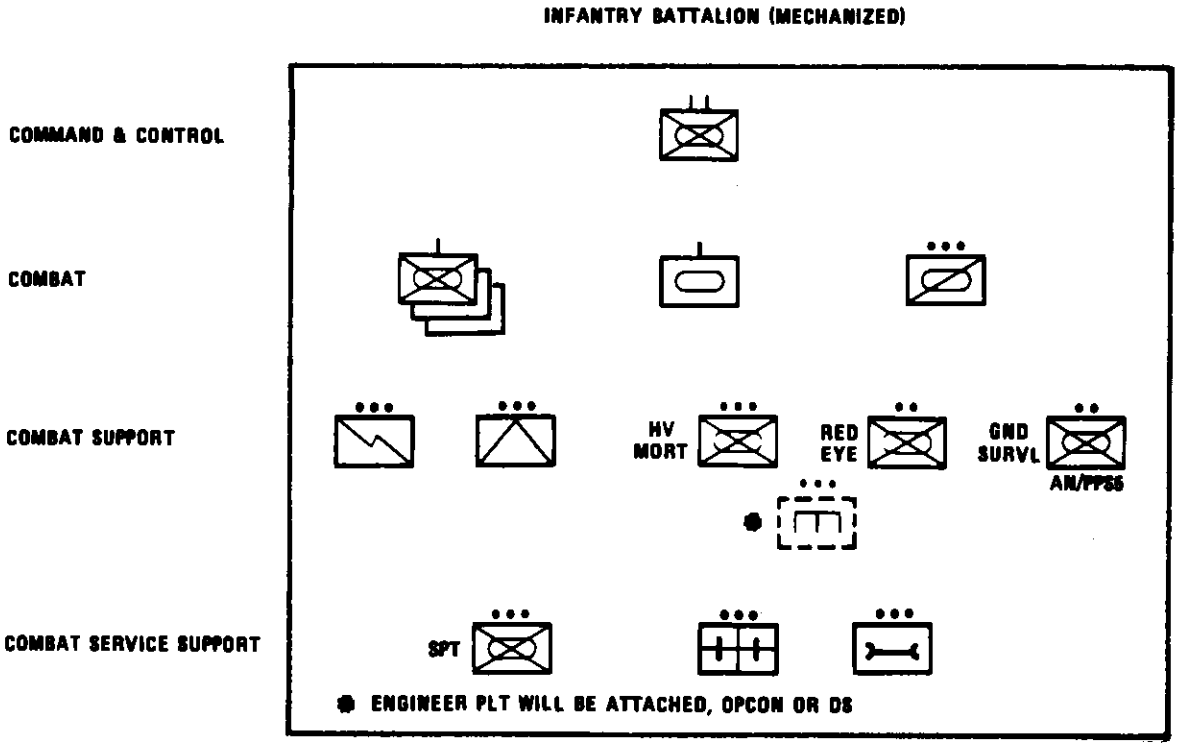


Figure 2-3. Infantry Battalion (Mechanized) Showing Function of Forces.

(3) Allocation of training ammunition. These requirements are based on the unit mission, requests from subordinate units, and the commander's desires. They are usually disseminated in an annex to the training circular. Army training Programs and the CTA 23-100 series (CTA 23-100-6 Active Army; CTA 23-100-3 Overseas; CTA 23-100-4 NG/USAR; CTA 23-100-5 USMA/ROTC) are basic guides used in the determination of ammunition requirements for training. Once the requirements and allocations have been established, the S3 coordinates with the S4, who has staff responsibility for procurement of ammunition.

(4) Field exercises. The S3 is responsible for the preparation and execution of field exercises at the level necessary to train the unit and its subordinate elements. He accomplishes this by following the procedures outlined in FM 105-5, Maneuver Control.

(5) Unit schools and school quotas. Based upon the state of training, unit requirements, and subordinate unit requests, the S3 requests quotas to branch, service, and technical schools, post or higher unit schools, or NCO academies. He then suballocates quotas to subordinate units or to the headquarters sections based on requirements and requests. He also is responsible for local unit schools. This will frequently include scheduled officer and NCO classes on particular subjects for enhancing unit efficiency.

(6) Training evaluation. The S3 has staff responsibility for supervision of training. He, therefore, must plan and conduct training and evaluation. Training progress and effectiveness is measured through periodic administration of individual and unit proficiency and performance tests. These tests are valuable aids in determining the development or progress of units and identifying areas in which increased emphasis is required.

(7) Training records and reports. Training records and reports are no longer required and are not sugject to inspection by higher headquarters. However, the S3 should designate those records necessary for identifying unit and individual training status and progress. Elaborate charts are discouraged.

(8) The following are reference publications applicable to training:

(a) FM 21-6, "How to Prepare and Conduct Military Training."

(b) ARTEP 71-2 for "Mechanized Infantry/Tank Task Force."

(c) AR 672-12, "EIB Test."

(d) TC 21-5-7, "Training Management In Battalions."

(e) FM 7-11B/C/CM, "Commander's Manual."

(f) "Infantryman's Job Book."

(g) For specific areas refer to DA Pamphlets 310-1, Index of Administrative Publications (contains listing of all DA regulations, circulars, and pamphlets), and DA Pamphlet 310-3, Index of Doctrinal, Training, and Organizational Publications. (Contains listing of Field Manuals, Training Circulars, Army Subject Schedules, and Army Training Tests).

(h) Soldiers Manuals.

d. *Operations.* The S3 is the principal assistant to the commander on combat operations. In this capacity he presents to the commander a coordinated staff recommendation based on the operation estimate and the estimates of the remaining staff officers. The duties of the S3 vary with the situation and commander. The S3 has primary staff responsibility for the following general ares of combat operations:

(1) The operation estimate.

(2) Preparation of operational records, reports, and SOP's.

(3) Supervision and coordination of TOC activities.

(4) Recommendation of priorities for the allocation of personnel and logistics as they effect operational readiness.

(5) Preparation of overlays to orders/plans and integration of appropriate annexes/ appendixes into orders/plans.

(6) Recommendations during conduct of operations concerning:

(a) Task organization.

(b) Scheme of maneuver and fire support integration.

(c) Employment of combat, combat support, and combat service support units.

(d) Allocation and assignment of special ammunition.

(e) Prescribed loads to include ammunition.

(f) Required supply rate (RSR).

(g) Coordination of airspace (brigade).

(h) Nuclear vulnerability assessment.

(i) Supervision of operational security (OPSEC) and signal security (SIGSEC).

(j) Implementation and coordination of electronic warfare support.

(k) Supervision of tactical troop movements and publication of movement orders.

(l) Designation of areas for occupation, quartering parties, or staging of units.

e. *Planning.* Continuous planning is a major function of the S3. The highest degree of coordination is required in preparation of future and contingency plans. Time and availability of personnel determine the extent and detail of planning. Brigades and battalions are normally involved with immediate operations and the contingency plans to support them.

2-3. ORGANIZATION OF OPERATIONS SECTIONS. TOE authorizations for operations sections are shown below. Personnel below the dashed line are assigned to sections by the executive officer. Operations sections are organized for control of combat operations as discussed in paragraph 2-4.

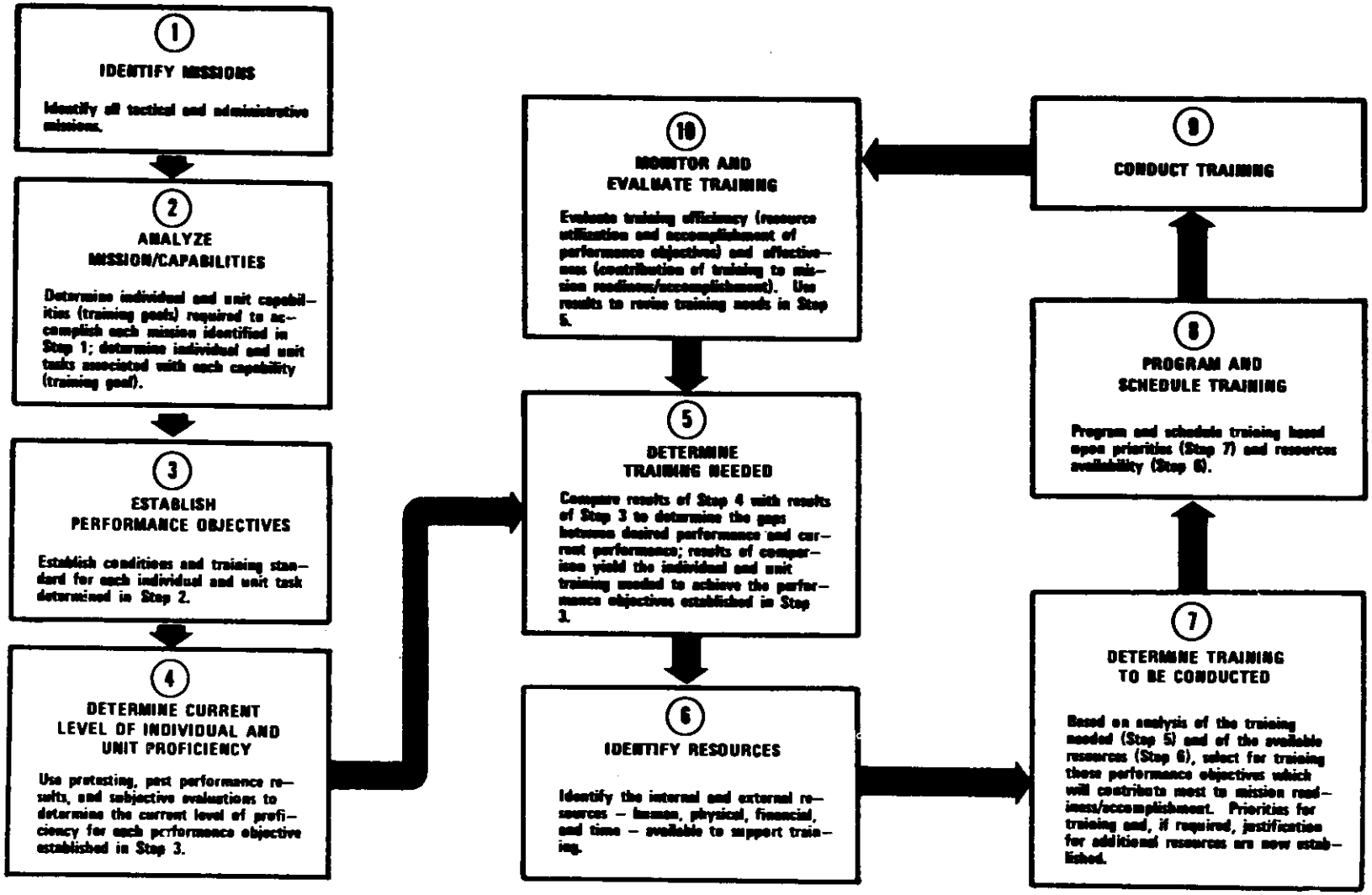

1
IDENTIFY MISSIONS
Identify all tactical and administrative missions.
2
ANALYZE MISSION/CAPABILITIES
Determine individual and unit capabilities (training goals) required to accomplish each mission identified in Step 1; determine individual and unit tasks associated with each capability (training goal).
3
ESTABLISH PERFORMANCE OBJECTIVES
Establish conditions and training standard for each individual and unit task determined in Step 2.
4
DETERMINE CURRENT LEVEL OF INDIVIDUAL AND UNIT PROFICIENCY
Use pretesting, past performance results, and subjective evaluations to determine the current level of proficiency for each performance objective established in Step 3.
5
DETERMINE TRAINING NEEDED
Compare results of Step 4 with results of Step 3 to determine the gaps between desired performance and current performance; results of comparison yield the individual and unit training needed to achieve the performance objectives established in Step 3.
6
IDENTIFY RESOURCES
Identify the internal and external resources – human, physical, financial, and time – available to support training.
7
DETERMINE TRAINING TO BE CONDUCTED
Based on analysis of the training needed (Step 5) and of the available resources (Step 6), select for training those performance objectives which will contribute most to mission readiness/accomplishment. Priorities for training and, if required, justification for additional resources are now established.
8
PROGRAM AND SCHEDULE TRAINING
Program and schedule training based upon priorities (Step 7) and resources availability (Step 6).
9
CONDUCT TRAINING
10
MONITOR AND EVALUATE TRAINING
Evaluate training efficiency (resource utilization and accomplishment of performance objectives) and effectiveness (contribution of training to mission readiness/accomplishment). Use results to revise training needs in Step 5.

Figure 2-4.

(HEADING)

CIRCULAR
No. 350-1

(DATE)

EXPIRES_____

EDUCATION AND TRAINING

Battalion Training Program

1. PURPOSE. To establish the battalion training program for (time Period).

2. TRAINING MISSION. To achieve and maintain (level_____) capacity to execute the following missions:

a. Tactical. (List all missions assigned to the battalion as part of a larger force, and any unclassified missions unique to the battalion.)

b. Administrative. (list all administrative missions eigher specified by higher headquarters or otherwise identified at battalion level.)

3. TRAINING GOALS. (Restate any training goals selected by higher headquarters and list any additional goals developed by battalion and selected for special emphasis.)

4. TRAINING OBJECTIVES. (Restate any training objectives specified by higher headquarters. Add any training objectives selected at battalion level for special emphasis.)

5. TRAINING PHILOSOPHY. (Optional) (The commander's concept of how training should be oriented and/or conducted.)

6. ORGANIZATION FOR TRAINING.

a. Centralized Training. (List the training to be planned, conducted, and evaluated by battalion to assist in achieving the goals and objectives listed in paragraph 3 and 4 above. The training calendar and forecast may be referred to and included as annexes.)

b. Decentralized Training. (Delegates authority to company commanders to plan, conduct, and evaluate all other training to achieve the goals and objectives listed in paragraphs 3 and 4 above. Authorizes the subordinate commanders to develop additional training to meet the unit's special needs.)

7. TRAINING RESOURCES.

a. Time: (Identified the 'Prime Time' policy in effect, the percentage of training to be conducted at night, and policy on training holidays.)

b. Physical Resources. (Specifically identifies training areas, facilities and aids under battalion control. Identifies procedure for requesting additional physical resources.)

c. Financial Resources. (Identifies the existing funds used for training, the headquarters which controls those funds, and procedure for requesting special training funds.)

d. Human Resources. (Lists schools and quotas available to train personnel in specialized skills which cannot be effectively taught within the battalion.)

8. ESSENTIAL PERSONAL KNOWLEDGE SUBJECTS. (Lists the subjects requiring periodic refresher training, i.e., Military Justice, Race Relations, etc.)

9. REFERENCES. (Lists the regulations, circulars, manuals, or local publications from which this circular was derived. Includes the number of the Army Training and Evaluation Program (ARTEP) that applies to the unit.)

FOR THE COMMANDER:

(SIGNATURE BLOCK)

ANNEXES: (If applicable)

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*This is a sample format only and may be modified as necessary to meet local requirements. However, most if not all information contained in this circular will be required if subordinate commands are to effectively implement a training program.

Figure 2-5. Sample Battalion Training Circular.

BRIGADE

DESIGNATION	MOS	GRADE	AUTHORIZED
S3	11A	MAJ	1
Assistant S3	11A5M	CPT	1
Assistant S3 Air	11A5U	CPT	1
Chief Operations Sergeant	11B50	SGM (E9)	1
Assistant Operations Sergeant	11B50	MSG (E8)	1
Operations Assistant	11B20	SP4 (E4)	1
*Flight Operations SGT	11B20	SP4 (E4)	1
Clerk Typist	71B30	SP4 (E4)	1
Personnel Carrier Driver	11B20	SP4 (E4)	1
Senior Radio Operator	05E20	SP4 (E4)	1
Light Vehicle Driver	11B10	PFC (E3)	2
Radio Operator	05E20	PFC (E3)	1

*NOTE: Airmobile Brigade only

Figure 2-6. Brigade S3 Section.

BATTALION

DESIGNATION	MOS	GRADE	AUTHORIZED
S3	11A	MAJ	1
S3 Air	11C5U	CPT	1
Operations Sergeant	11B50	MSG (E8)	1
Assistant Operations Sergeant	11B40	SFC (E7)	1
*Operations Assistant	11B20	SP4 (E4)	1
Clerk Typist	71B30	SP4 (E4)	1
**Lt Veh Driver (RATELO also)	11B20	SP4 (E4)	1
Light Vehicle Driver (RATELO also)	11B10	PFC (E3)	1

*Deleted in Mech Bn

**Personnel carrier driver in Mech Bn

Figure 2-7. Infantry Battalion S3 Section

DESIGNATION	MOS	GRADE	AUTHORIZED
S3	11A	MAJ	1
S3 Air	11A5U	CPT	1
Ops SGT	11B50	MSG (E8)	1
Asst Ops SGT	11B40	SFC (E7)	1
Ops Asst	11B20	SP4 (E4)	1
Clerk Typist	71B30	SP4 (E4)	1
			(TOE 7-56H)

Figure 2-8. Air Assault Battalion S3 Section

DESIGNATION	MOS	GRADE	AUTHORIZED
S3	11A	MAJ	1
S3 Air	11A	CPT	1
Ops SGTons Sergeant	11B5P	MSG (E8)	1
Asst Ops SGT	11B4P	SFC (E7)	1
Ops Asstns Assistsnt	11B2P	SP4 (E4)	1
Clerk Typist	71B3P	SP4 (E4)	1
Sr Voice Op (Drv)	05E2P	SP4 (E4)	1
Voice Op (Drv)Driver (RATELO also)	05E2P	PFC (E3)	1
			(TOE 7-36)

Figure 2-9. Airborne Battalion S3 Section

2-4. ORGANIZATION FOR CONTROL OF COMBAT OPERATIONS. (TOC)

a. Each level of command establishes a tactical operation center (TOC) to insure control, coordination, and integration of effort. The S2 and S3 staff sections constitute the nucleus of the TOC. The internal organization must be flexible. The size of elements represented vary with the level of command and operational requirements. The objective of internal organization is to provide quick, responsive, and coordinated staff action.

b. Primary Functions of the TOC are:

(1) Validate and evaluate combat intelligence of immediate interest to the commander.

(2) Control of maneuver forces.

(3) Control of all immediate fire support means to include tactical air and attack helicopters.

(4) Coordination of airspace and forward air defense operations.

(5) Receive, evaluate and process tactical information from subordinate units and higher headquarters.

(6) Issues instructions to subordinate units.

(7) Coordinate combat and combat support requirements.

(8) Remain current on combat service support requirements.

(9) Submit reports to higher headquarters.

(10) Graphically depict the friendly and enemy situations.

(11) Make a continuous estimate of the situation.

(12) Make recommendations to the commander.

(13) Prepare and issue operations orders and plans.

(14) Provide for its own physical security.

c. There are many measures critical to the survivability of the TOC. These are continuous processes which require as much emphasis as any of the primary TOC functions. These are: Use of minimum essential personnel to man the TOC, frequent TOC displacement; reduction of the TOC's electronic signature by operating radios on reduced power as often as practicable; making messages brief; using directional antennas, remoting radios and changing radio frequencies and call signs often; maximizing the use of camouflage; noise and light discipline and providing for all around physical security.

d. The following significant factors should be considered in locating the TOC:

(1) Will the physical layout and camouflage preclude visual detection?

(2) Is the area trafficable in all weather?

(3) Is the area accessible to friendly forces?

(4) Can the TOC communicate with required units on FM radio?

(5) Is the area physically defensible?

e. *Tactical Operation Duty Shifts.*

(1) Although the TOE authorizes the S3 section certain personnel, there is no fixed internal organization. The S3 organizes his section to function effectively and to meet the requirements of the situation. In a tactical situation, the S2 and S3 activities are so closely intermingled that both sections are organized as a single entity. Therefore, the S3, in coordination with the S2 organizes the S2-S3 operations portion of the command post. This S2-S3 operation, operates on a 24-hour basis, provides a group capability for displacement, and when required, operates a jump, or temporary tactical operations center. The S2 and S3 are often away from the command post to accompany the commander to higher headquarters, to assist the commander in making a reconnaissance, to accompany the commander as a part of the command group during tactical operations, and to provide staff supervision by visits to subordinate units.

(2) For specific S2/S3 and S3 air combat duties refer to ST 7-150-101-5 "Company Commander and Staff Officer Handbook", Chapter 2.

(3) The following is a suggested organization for TOC duty shifts. This example does not include fire support elements.

No. 1	*No. 2*
S3	S2
S2 Operations NCO	S3 Air
Ass't Operations Sergeant	Operations Sergeant
Operations Assistant	Clerk Typist
*LNO	*LNO

*Augmented to infantry and airborne battalions

NOTE: Specific arrangement of duty shifts at battalion and brigade is often a matter of command policy. Considerations that accompany the decision on how to arrange TOC suty shifts should include, but not be limited to:

(a) Period of time the TOC is to be operational.

(b) Around the clock operations.

(c) Integration of operations and intelligence personnel on every shift.

(d) Anticipated frequency of TOC movement. In tactical situations that demand frequent movement of the TOC, 3 duty shifts might be required.

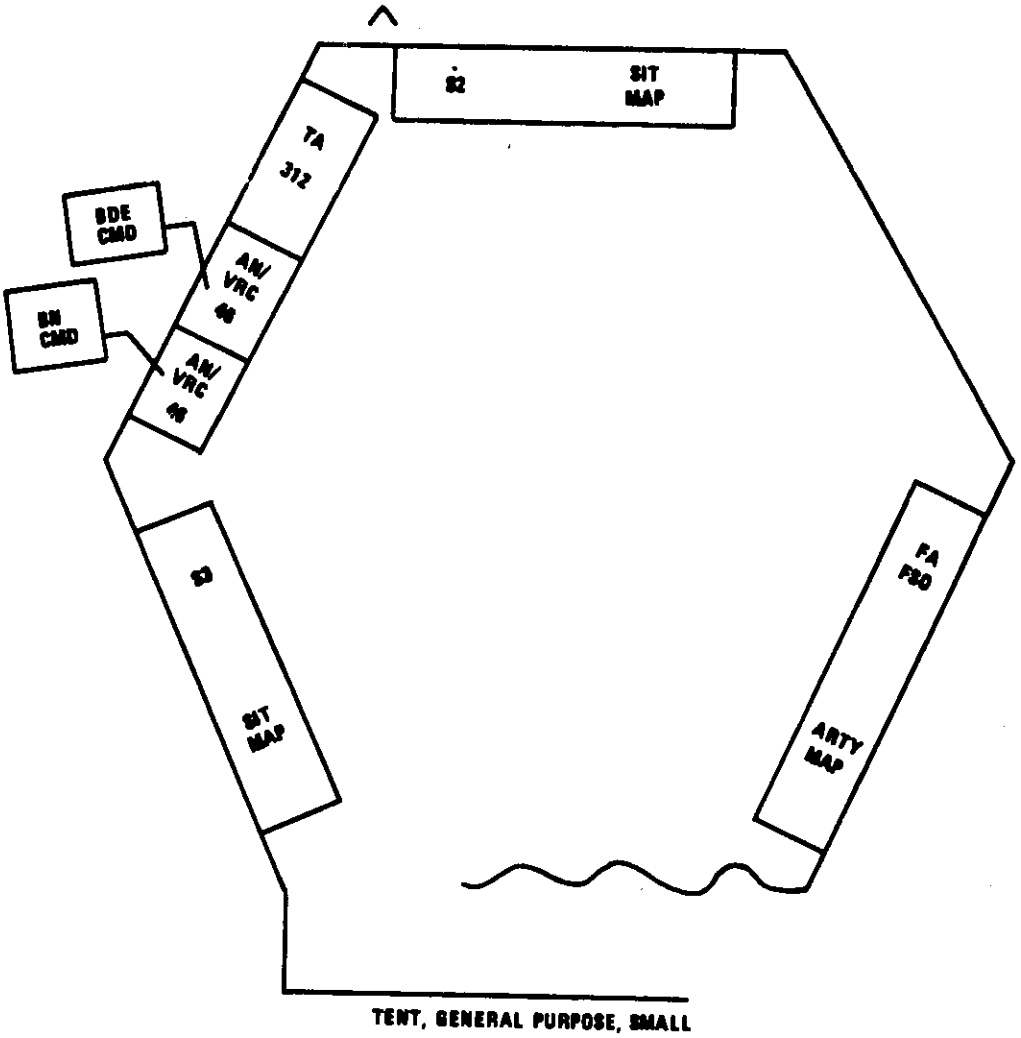
(e) Experience of personnel.

(f) Vary size of shift to periods of activity.

(g) The principal staff officer should be able to accompany the commander away from the TOC without a reduction in TOC efficiency.

f. *Infantry Battalion and Brigade Tactical Operations Center.* Examples of TOC arrangements are shown as follows:

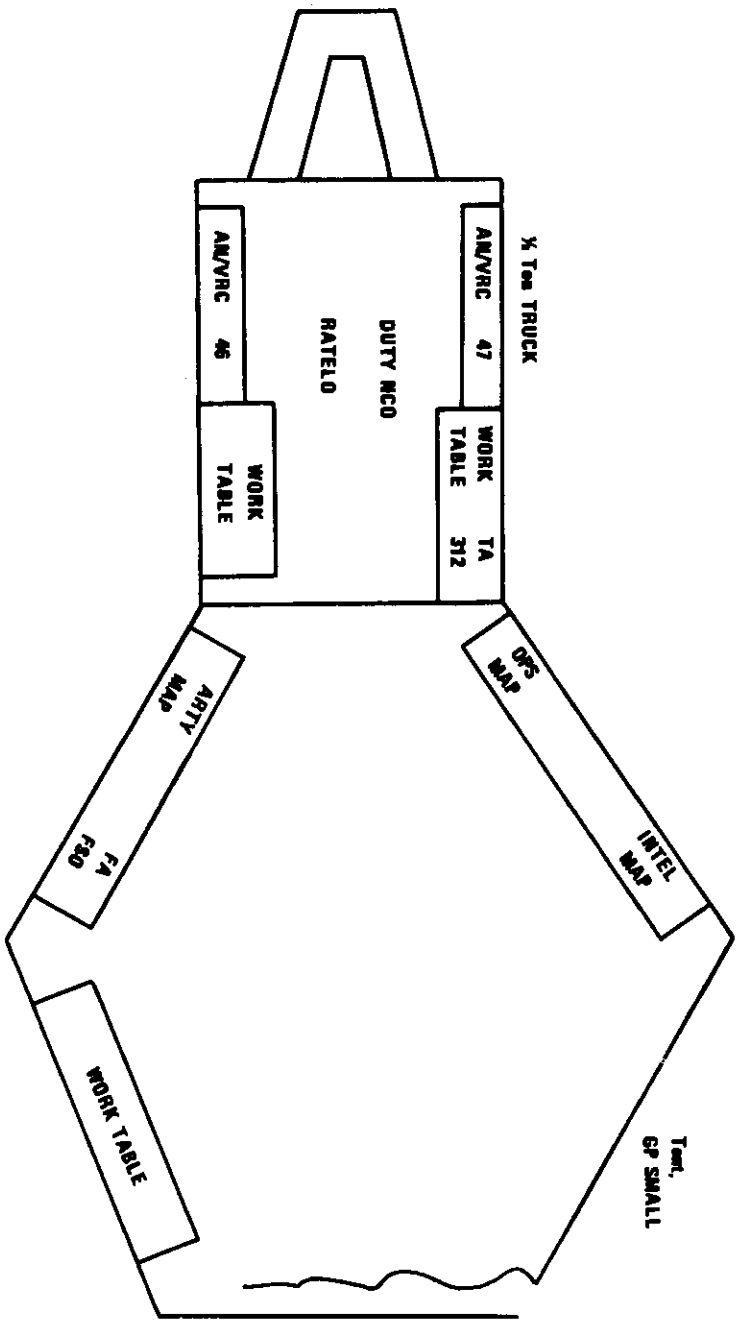
AIRBORNE/AIRMOBILE BATTALION	Figure 2-10
INFANTRY BATTALION	Figure 2-11
MECHANIZED BRIGADE	Figure 2-12
INFANTRY BRIGADE	Figure 2-13



NOTE: Radios remoted from vehicles.

NOTE: Limited FM vehicular capability exists in the air assault battalion. It may be necessary to use the AM voice radio (AN/PRC 74) to communicate with higher headquarters.

Figure 2-10. Airborne and Airmobile TOC.



NOTE: Radios remoted from vehicle. Radios can be mounted in trailer and operated from Gamma Goat when it is modified. Power source from generator or prime mover.

Figure 2-11. Infantry Battalion TOC

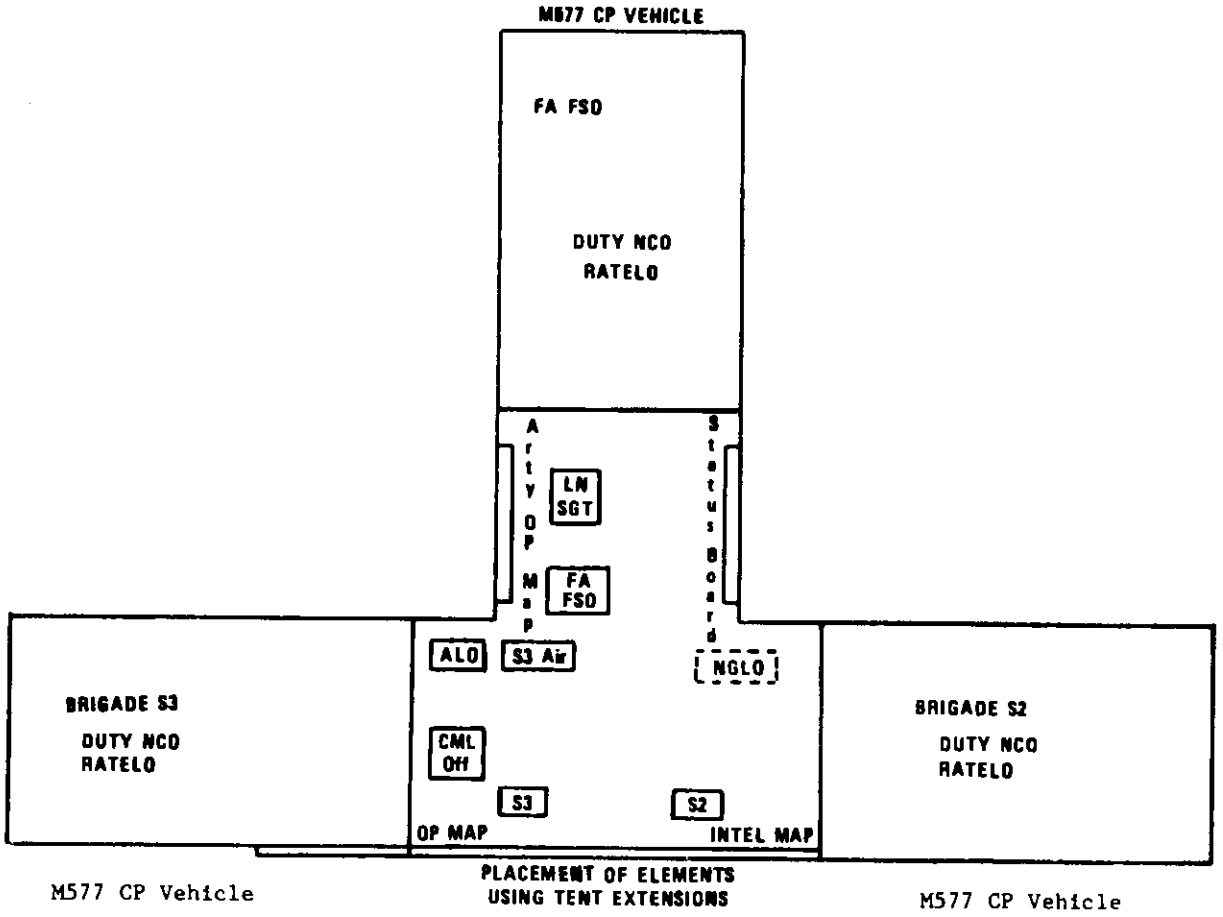


Figure 2-12. Infantry Brigade (mechanized) TOC

h. *Techniques.* The following techniques contribute to efficiency of a TOC:

(1) Map boards and acetate drops in the TOC for the S2, S3, FSO, etc., be uniform and interchangeable.

(2) Preprinted operation orders (fill-in-the-blank-type) be available for use when time does not permit reproduction of the original.

(3) Unit positions may be depicted by the use of color coded pins.

(4) Map boards may be constructed with a plexiglass cover.

(5) All TOC personnel be aware of recurring reports to higher headquarters.

(6) All TOC personnel be thoroughly familiar with the current situation.

(7) Radio call signs should be visible to TOC personnel for quick reference.

(8) Location of the commander should be known by TOC personnel.

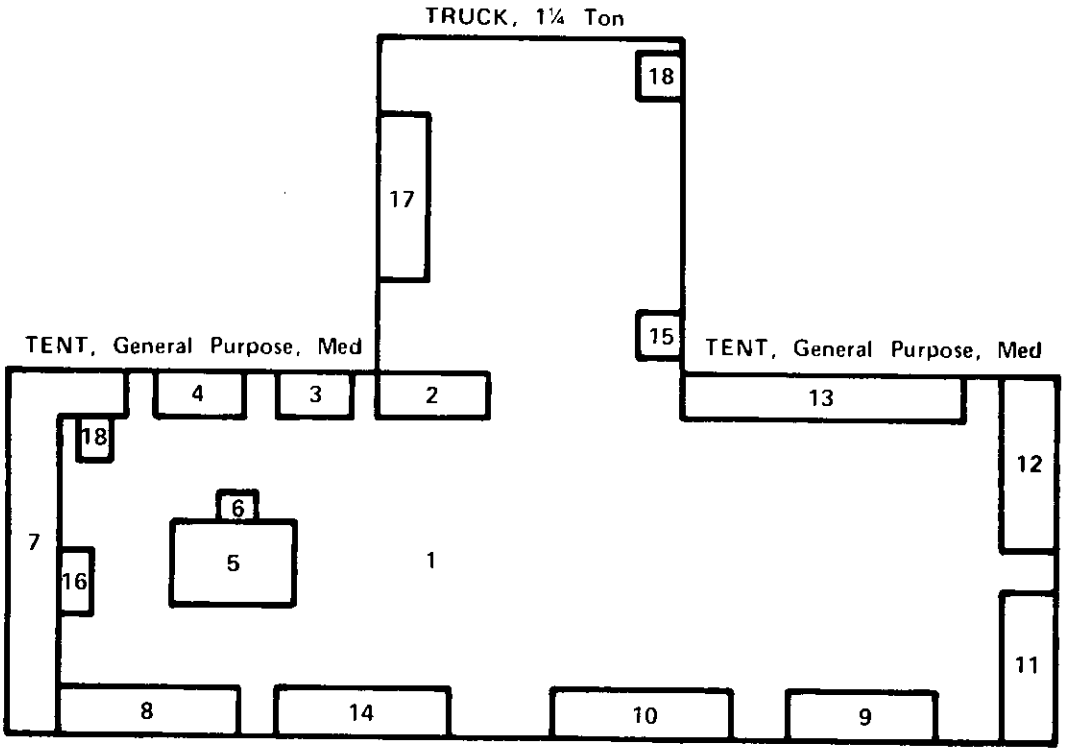
i. *Tactical Operation Center Activities and Functions.* Refer to Section V, Activities, Appendix J, Tactical Operations Center, FM 101-5, for detailed list of activities for accomplishment of the TOC mission.

j. *Tactical Employment of the Tactical Operation Center.* Refer to Section IV, Appendix J, FM 101-5.

2-5. DISPLACEMENT OF THE TOC.

a. Displacement is planned and implemented to cause minimum interference with normal operations. Changes in the enemy or friendly situation may dictate that a temporary or jump TOC be located forward or to the rear of the main TOC. The configuration of a jump TOC at battalion and brigade level depends on the commander and often the experience of the S2 and S3. The jump TOC may consist of the commander, the S3, and FSO in the commander's vehicle at a location where the tactical situation can be controlled. The jump TOC may also consist of an M577 manned by personnel, who monitoring the situation, will assume responsibility as NCS and control headquarters until the main TOC becomes operational at the same or different location.

b. Considerations for the jump TOC in matters of site selection, techniques, and functions are the same as those for the main TOC. A reduction in efficiency will occur if the jump TOC is expected to maintain its role for an extended period of time as the single control element.



1. Briefing Area
2. Situation Maps
3. Bde Cmd Radio FM
4. Div Cmd Radio FM
5. Operations Section Telephones
6. Duty NCO
7. S3/Section
8. S2/Section
9. S3 Air/Avn Off
10. TASE
11. (Air Intel NCO AMBL Bde)
12. CHL Off/NCO
13. CE Off
14. Arty FSO
15. Asst Ops SGT
16. Ops Asst
17. Duplicating Machine
18. Clerks

Figure 2-13. Infantry Brigade TOC

c. If displacement of the main TOC and CP is required, the S3 coordinates with the communication officer and the HQ cmdt representing the S1 before recommending to the commander a new general CP location and a time for displacement. Prior to displacement, the HQ Cmdt coordinates with the following:

(1) The S2 for weather forecast, road conditions, and enemy situation.

(2) S4 for transportation and logistical considerations.

(3) S5 for civil military considerations

(4) Communications officer.

(5) S3 (who coordinates with higher headquarters).

d. The quartering party, consisting of the quartering officer (headquarters commandant representing the S1), a security element, communications personnel and representatives of the various staff sections that will occupy space in the CP area, move to the general location of the new CP. After the quartering officer selects the exact CP site, he designates the location of each facility and post guides to direct incoming elements into position. The quartering officer notifies the TOC when arrangements have been completed from displacement.

e. Displacement in two echelons insures continuous control of operations. The forward echelon consists of the command group. See Figure 2-14. As this echelon moves to the new area and prepares for operations, the remainder of the CP continues to operate, in the old location under the executive officer. Higher headquarters and organic, attached, and supporting units are notified of the exact location and time of opening of the new CP. Upon assumption of control by the forward echelon, the remainder of the old CP moves to the new location.

f. Occasionally, the CP displaces as a unit. Command and control is exercised by the command group while moving.

	COMMAND GROUP OPERATES WITH CP	COMMAND GROUP OPERATES AWAY FROM CP
ENEMY	FORWARD ECHELON	FORWARD ECHELON NOTE: MAY REQUIRE ADDITIONAL COMMO
CONTACT IMMINENT	CO S3 S2 FA FSO ALO HQ CMDT NOTE: PERFORMS QUARTERING PARTY FUNCTIONS	HQ CMDT CE Off S3 Air
HASTY DISPLACEMENT (BN IN THE ATTACK) QUARTERING PARTY NOT USED	REAR ECHELON XO S3 Air CSM TOC PERSONNEL HHC ELEMENTS CE Off	REAR ECHELON XO CSM TOC PERSONNEL HHC ELEMENTS
NO ENEMY CONTACT	QUARTERING PARTY	QUARTERING PARTY
TACTICAL SITUATION PERMITS DELIBERATE DISPLACEMENT (MOVING FROM ASSEMBLY AREA TO DEFENSIVE POSITIONS) QUARTERING PARTY ALSO USED	HQ CMDT CE OFF SECTION REPS FORWARD ECHELON CO S3 S2 FA FSO ALO REAR ECHELON XO S3 AIR NOTE: MAY BE WITH QUARTERING PARTY CSM TOC PERSONNEL HHC ELEMENTS	HQ CMDT CE OFF SECTION REPS CP NOTE: TOC OPERATES WHILE MOVING XO S3 AIR TOC PERSONNEL CSM HHC ELEMENTS

Figure 2-14. Displacement of the battalion command post.

2-6. THE COMMAND GROUP.

a. *General.*

(1) When the commander operates away from the CP, a command group is formed. Its function is to effectively exercise command and control in the forward area for short periods of time. It normally consists of the S3, S2, fire support representatives, and other personnel the commander desires. The CP continues to acquire and coordinate information, plan operations, monitor the command group's actions, and submit reports to higher headquarters. The CP assumes control if the command group loses communication or is rendered ineffective.

(2) During movement to contact, the command group normally moves near the front of the column. In the attack, the group may locate with one of its subordinate units.

b. *Communications.* The command group maintains FM voice communications with its TOC, its higher headquarters, attached, and supporting units. If the command group operates dismounted with back-pack radios, a retransmission station may be required to maintain communications.

c. *Transportation.*

(1) The commander rides in a 1/4 ton truck. One or more 1/4 ton trucks are used by the staff accompanying him. (Infantry Battalion)

(2) The airborne (battalion) command group is usually foot mobile initially.

(3) The airmobile command group operates initially from a command and control helicopter. If operating on the ground, it is footmobile and uses portable radios.

2-7. THE ALTERNATE COMMAND POST

a. If the CP is destroyed or rendered ineffective, the commander operates from the alternate CP, which becomes the new CP.

b. This facility must have sufficient trained personnel and equipment for continuity of operations until additional personnel and equipment arrive. Complete manning of an alternate CP is not normally possible. A small headquarters section or sub-element that can operate a facility similar to the TOC is required. Personnel operating the alternate CP are trained in duties that are performed in the TOC. The command net and the higher headquarters command net are monitored. Necessary duplicate records and situation maps are maintained.

c. The following can operate an alternate command post:

(1) Battalion

(a) The combat support company CP. During normal operations, the headquarters section is not involved full time as a command and control headquarters.

(b) The heavy mortar platoon. It is knowledgeable of the tactical situation due to its FDC and involvement with preparation of the fire support plans.

(c) The reserve company CP. Once the reserve is committed, it can not function as an alternate CP.

(2) Brigade

(a) The direct support artillery battalion CP. It is knowledgeable of the tactical situation due to its FDC and involvement with preparation of the fire support plans.

(b) The reserve battalion CP. Once the reserve is committed, it can not function as an alternate CP.

(c) Brigade trains. It has multi-channel VHF communications with division.

d. The alternate CP must meet the following criteria:

(1) An experienced officer is present at the alternate CP during critical periods such as when the unit is in the attack or under attack. He remains current on the tactical situation.

(2) Personnel are present to monitor radios and maintain situation maps and records in addition to their normal duties.

(3) It has sufficient communications to monitor the command net. It is desirable to monitor the higher command net; however, lack of equipment with proper range and secure mode may prevent it.

(4) If it is used as the CP, the change must have minimal impact on the unit.

(5) The enemy must not detect this facility because of vehicular traffic, other radios operating there, or activity associated with its normal functions.

(6) It is far enough forward to influence the situation, but far enough away from the CP to avoid simultaneous destruction.

CHAPTER 3
ESTIMATE OF THE SITUATION

Section I. BASIC ESTIMATE OF THE SITUATION

3-1. DEFINITION AND PURPOSE.

a. The estimate of the situation is a mental problem solving process. Its purpose is to arrive at the best way to accomplish a task or mission. Since many people do things differently, an orderly approach is necessary in arriving at any solution. The estimate is designed to provide a systematic analysis of all essential data to arrive at sound decisions. It follows the five basic steps shown below:

(1) Know the problem.

(2) Assemble all facts which bear on the problem, determine opposing conditions, and seek out various possible solutions.

(3) Analyze each possible solution to determine its advantages and disadvantages.

(4) Compare the possible solutions and select the one most likely to best solve the problem.

(5) Translate the selected possible solution into a decision.

b. As may be seen, this is nothing more than an orderly arrangement of information to assist anyone in solving a problem.

c. To assist this process, there is a prescribed basic form applicable in any situation and at any echelon or level of command. Commanders and staff officers use this basic form for solving any problem, either nontactical or tactical in nature.

3-2. FORMAT FOR AN ESTIMATE OF THE SITUATION.

a. A format for the estimate of the situation has been developed to assist the estimator. This format is an aid, not a formula, in applying thoroughness, judgment and professional knowledge to the situation at hand to reach sound conclusions and decisions. The basic format for an estimate of the situation is shown in Figure 3-1.

b. The estimate of the situation is a continuing mental process. With each change in the situation, the estimate is revised and the course of action is modified as appropriate. It is as thorough as time and circumstances permit. It may vary from a short, almost instantaneous process, when the requirement for a decision is urgent, to a long, complex, and detailed process requiring coordination by the entire staff.

ESTIMATE OF THE SITUATION.

a. DIRECTED TASKS
IMPLIED TASKS

1. MISSION (OR PROBLEM)
2. THE SITUATION AND COURSES OF ACTION
   a. Considerations affecting possible courses of action.
   b. Opposing conditions.
   c. Own courses of action.
3. ANALYSIS OF OPPOSING COURSES OF ACTION (ANALYSIS OF FRIENDLY OPTIONS)
4. COMPARISON OF OWN COURSES OF ACTION
5. DECISION (OR RECOMMENDATIONS)

Figure 3-1. Format for the Estimate of the Situation.

c. The format and content of each element of the estimate of the situation is discussed below:

1. MISSION (OR PROBLEM)

This paragraph involves a statement of the task and its purpose. The task and purpose may be deduced by the estimator or prescribed by higher authority. In either case, the reduced or prescribed mission or problem normally does not reflect all tasks that must be performed. Therefore, the mission or problem is studied to determine what tasks must be performed to accomplish it, the sequence in which they are to be accomplished, and the conditions or circumstances under which you will be operating.

2. SITUATION AND COURSES OF ACTION

This paragraph consists of three major considerations which bear on how the mission will be accomplished as discussed below:

a. Considerations affecting possible courses of action. This involves determining and arranging in an orderly manner facts which have a bearing on the situation. In the absence of facts, logical assumptions are made. Only those facts and/or assumptions which contribute to or influence the ultimate choice of a course of action are appropriate for consideration.

b. Enemy capabilities. Determine and arrange in order of probability of occurrence opposing conditions which may adversely affect the accomplishment of the mission and which will assist in the ultimate choice of a course of action. These conditions should not be confused with facts established in 2a which may affect both "own courses of action" and "opposing conditions." These are conditions which can directly oppose and success of each course of action being considered. They provide a basis for the analysis of each of our "own courses of action" and a subsequent determination as to which course of action offers the greatest probability of success.

c. Own courses of action. Formulate courses of action which represent possible solutions to the accomplishment of the mission. Courses of action, although in general terms, are formulated in sufficient detail to distinguish one from the other and to provide a basis for a flexible analysis.

3. ANALYSIS OF OPPOSING COURSES OF ACTION (ANALYSIS OF FRIENDLY OPTIONS)

a. In this paragraph the estimator analyzes each of his own courses of action when opposed by the conditions established in 2b above. The purpose of this step is to determine the advantages and disadvantages of each of his own courses of action. A separate analysis is made for each of his own courses of action. If applicable, the opposing conditions may be combined to simplify and speed up the estimate process.

b. The technique is to determine the probable events that will occur during the execution of each own course of action, when faced with the opposing conditions, as it is visualized from its beginning to its completion. Keeping in mind the mission to be accomplished, determine the effects of the facts established in 2a above on the course of action being considered and on the opposing conditions established in 2b above. Thus, the advantages and disadvantages of each own course of action are determined.

4. COMPARISON OF OWN COURSES OF ACTION

Review and evaluate the advantages and disadvantages of each course of action, established above, to determine their significance. Compare courses of action in terms of the significant advantages and disadvantages. Decide which course of action promises to be most successful in accomplishing the mission. Usually the estimator will find that this determination is influenced by his evaluation of advantages or disadvantages which in his judgment are more significant than others.

5. DECISION (OR RECOMMENDATIONS)

Translate the course of action selected into a complete statement as to the action to be taken. It should include WHO, WHAT, WHEN, WHERE, HOW and WHY, as appropriate. The decision statement represents the minimum that must be decided to initiate the action necessary to accomplish the mission. It may represent the complete action required or it may serve only as a basis for further study and development of a more complete plan.

* * * * * *

3-3. APPLICATION.

a. The basic estimate is used to solve command problems of major or minor significance. The application of the basic estimate will depend on the problem being solved.

b. At battalion level and higher, the commander is assisted in his study of the mission by his staff which provides information, conclusions, and recommendations as a result of their estimates. The staff estimates are designed to provide the commander with conclusions and recommendations with regard to a particular mission, nontactical or tactical in nature. When solving a problem within his own area of interest, the staff officer applies the basic estimate in its purest form.

c. The basic estimate shown in Figure 3-1 is the basis for all estimates. It is modified as necessary to solve any problem or mission at hand. It must be understood that the estimate is not a magic formula that guarantees a correct solution. Its use requires thoroughness and clarity, and the application of judgment and professional knowledge to the situation at hand to reach a sound decision.

d. At the Infantry School, instruction is concentrated on the application of the basic estimate to tactical situations. Sections II and III of this chapter discuss the application of the basic estimate by the tactical commander (Tactical Commander's estimate) and by the S3 (Operation Estimate). Personnel, Intelligence, and Logistic Estimates are discussed individually and in detail in ST 7-150-101-5 "Company Commander and Staff Officer Handbook."

Section II. TACTICAL COMMANDER'S ESTIMATE

3-4. GENERAL.

a. The tactical commanders estimate is a modified version of the basic estimate discussed in Section I. Its purpose is to assist the commander in arriving at the scheme of maneuver that can best accomplishment the mission.

b. The tactical commander's estimate is as thorough as time and circumstances permit. The amount of detail varies with the level and type of command. Although the commander incorporates information, conclusions, and recommendations provided by his staff into his estimate, he alone is responsible for his estimate and decisions.

3-5. THE ESTIMATE PROCESS.

a. The commander begins (continues) his estimate upon deduction or receipt of a mission. He integrates the estimate process closely with his application of troop-leading procedures to ensure efficient use of time. At battalion and higher, he relied heavily on information, conclusions, and recommendations of his staff. Figure 3-2 graphically portrays the flow of reasoning in the tactical commander's or operation officer's estimate.

b. The tactical commander's estimate and the S3's operation estimate serve the same purpose. They explore all possibilities and assist the commander in determining the best scheme of maneuver. They differ only in form: the tactical commander's estimate ends in a decision, the operation estimate in a recommendation. Since the techniques of an operation estimate are discussed in Section III, the techniques of making the tactical commander's estimate will not be discussed in detail in this section.

c. The estimate process, whether in an offensive or a defensive operation, is the same. The same considerations and factors affecting the current situation and possible courses of action are made whether attacking or defending. The only difference is that in one instance you are concerned with the effects of these factors in your ability to attack and in the enemy's ability to defend; in the other instance you are concerned with the effects of these factors on your ability to defend and the enemy's ability to attack. As an example, in a defensive situation we are still concerned with the enemies relative combat power. Not because we need to know in order to build up our forces to sufficient strength in order to attack, but because we need to know when the enemy has built up his forces sufficiently to attack us. The weather remains important to us in the defense not because we need the trafficability to attack but because we may need the trafficability to reinforce our defense.

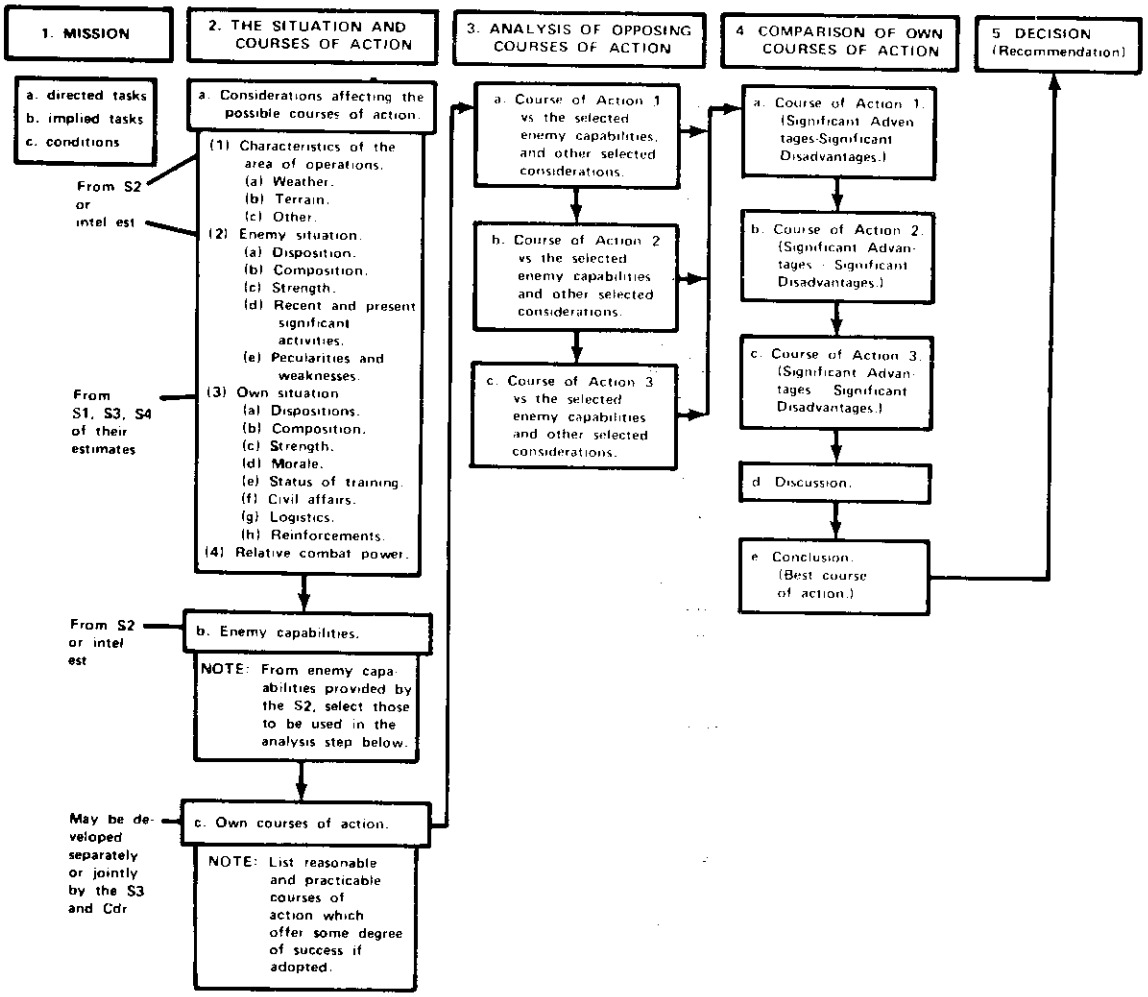


Figure 3-2. Flow or reasoning in the Tactical Commander's (or Operations Officer's) Estimate.

3-6. RELATIONSHIP OF SEQUENCE OF COMMANDER AND STAFF ACTIONS TO TACTICAL COMMANDER'S ESTIMATE.

a. The sequence of commander and staff actions is a logical process for making and executing decisions. It is a function of the staff to assist the commander by providing information, conclusions, and recommendations as a result of staff estimates.

b. The commander, assisted by his staff, studies the mission with available information to ensure that all tasks which must be performed are understood. Based upon this study, the commander issued planning guidance to his staff and continues with his estimate. The staff, considering the commander's planning guidance, continue with their estimates. In a tactical situation, the operation estimate becomes the *key* staff estimate, for it ends in a recommendation of the scheme of maneuver. Other staff estimates (Personnel, Intelligence, and Logistic) contribute to the commander's estimate and operation estimate by providing information and conclusions. The information and conclusions are used by the commander and operations officer in their estimates.

c. There is a mutual exchange of information between the commander and his staff during the estimating process. For example, the commander, in his planning guidance, may announce a particular course of action he wants the staff to consider; the S3 will provide other staff members the courses of action under consideration; the S2 provides information of the enemy to include capabilities and most probable enemy course of action; and the S1 and S4 provide information and conclusions as to whether the operation can be supported from their respective areas of interest. Although the operation estimate, in a tactical environment, is the key staff estimate, it is coordinated with all other members of the staff before presentation to the commander. By virtue of this coordination, the operation estimate becomes the coordinated staff recommendation. The commander, considering the staff recommendation, completes his estimate and announces his decision.

Section III. OPERATION ESTIMATE

3-7. GENERAL.

a. The purpose of the operation estimate is to arrive at a recommendation as to the best scheme of maneuver to accomplish the mission. When applicable, it includes nuclear rounds and targets that complement the scheme of maneuver.

b. The operation estimate also develops details of the tactical plan other than the scheme of maneuver. Although these details are pertinent and integrated into the tactical plan, the S3 should not allow them to obscure the principal issue of determining the best scheme of maneuver. Although they are developed to support or contribute to the scheme of maneuver, they are not expressed in the recommendation statement.

3-8. ESTIMATE PROCESS.

a. The S3 plans continuously, based on his general knowledge of the situation and logically assumed missions. Before he can complete his estimate a more specific mission must be deduced by the commander or prescribed by higher authority. Then the S3 completes his estimate and determines a recommended scheme of maneuver.

b. The following is the technique and mental process of making an operation estimate:

* * * * * *

1. MISSION. The mission is the restated mission determined by the commander in Step 3, Mission Analysis and Planning Guidance of the Sequence of Commander and Staff Action. The restated mission includes a listing, in sequence of accomplishment, of the specified and implied tasks as determined through mission analysis.

2. THE SITUATION AND COURSES OF ACTION. The S3 considers all features of the environment in which the mission must be accomplished.

a. Considerations affecting the possible courses of action. The purpose of this subparagraph is to identify the pertinent facts of the situation. These concern the area of operation, enemy situation, and own situation that will influence enemy and own actions. In application, the S3 already knows many of these facts. However, if assigned a new mission he normally needs to review and update his knowledge of the situation, obtain additional information and revise his appreciation of the effect these facts may have on the mission. In the absence of facts, logical assumptions may be used. These facts are used in the study of the mission, development of possible courses of action, and are applied in the "analysis" (para 3) and "comparison" (para 4). The better the S3 understands the characteristics of the area of operation, the enemy and own situation, and enemy capabilities, the more sound his analysis will be.

(1) Characteristics of the area of operation. The S2 provides the S3 with his analysis of weather, terrain, and other aspects of the area of operation. The S3 considers the influence these characteristics have on enemy and friendly actions.

(a) Weather. Primary emphasis on visibility, trafficability, men and equipment.

(b) Terrain. The five military aspects of terrain: observation and fire, cover and concealment, obstacles, key terrain, and avenues of approach.

(c) Other characteristics. Any characteristics, other than weather and terrain, which influence enemy and friendly actions, e.g., sociological, political, psychological, and economic characteristics.

(2) Enemy situation. The S3 considers enemy dispositions, composition, strength, activities, and peculiarities and weaknesses. The S2 provides them to the S3. Since the S3 equates the enemy situation with his own to determine relative combat power, he should consider these from the viewpoint of planned operations.

(3) Own situation. Note own dispositions, strength, morale, and status of equipment, supplies, and training. The S3 considers these primarily from the viewpoint of own situation versus the enemy situation established above. He equates these facts to relative combat power.

(4) Relative combat power. Combat power is the integration of the tangible means (physical) with the intangible (superior generalship, etc.). Morale, esprit, and superior leadership increase the tangible combat power of a unit. Combat power is significant only in relation to the combat power of an opposing force. Therefore, the S3 considers the friendly and enemy situation to determine relative combat power for a specific operation. If the S3 determines that additional resources are needed to develop the required combat ratio, he recommends additional reources be requested.

b. Enemy capabilities.

(1) Enemy capabilities are broad courses of action which the enemy is physically capable of adopting and which will affect the accomplishment of the mission if adopted. The S3 considers enemy capabilities provided by the S2 and evaluates their possible influence on own courses of action. Following are examples of how enemy capabilities are applied.

(a) In formulating a course of action in an attack situation, the S3 considers enemy capabilities to defend or delay and to reinforce his defense. Although the enemy may possess the capabilities to attack and withdraw, they are not evaluated. If the enemy attacks prior to our attack, it would present the estimator with a new situation (defense) and require reconsideration of friendly courses of action. Any enemy attack capability employed during our attack is a counterattack inherent in the enemy defense capability. Should the enemy withdraw prior to or during our attack, no basis would be provided for choosing an attack course of action.

(b) In defense situations, the S3 considers enemy capabilities to attack and to reinforce his attack. Since enemy capabilities to defend delay or withdraw, would provide no basis for choosing a defense course of action, these enemy capabilities are not normally considered.

(c) Enemy support capabilities such as nuclear, air, chemical, and biological are normally considered with enemy maneuver capabilities and will not be considered separately.

(2) The S3 now considers the capability(ies) the enemy is most likely to adopt. The S2 provides the S3 with his conclusion of the enemy's most probable course of action. In the absence of evidence to the contrary, if his unit is to attack, the S3 may assume that the enemy will defend. If his unit is to defend, he may assume the enemy will attack (for analysis purposes).

(3) Vulnerabilities. Enemy weaknesses, such as an exposed flank which can be exploited, are always considered.

NOTE: The analysis above of weather, terrain, and the enemy is made by the S2 in the intelligence estimate. This does not preclude the commander and other staff officers of making an independent analysis of these factors. The analysis of the effects of weather, terrain, and enemy is accomplished through the application of methods and techniques contained in Intelligence Workbook.

c. Own courses of action.

(1) At this stage of the operation estimate, the S3 formulates courses of action. A course of action is a possible plan open to an individual or a commander which could accomplish his mission. They are formulated in terms of WHAT (actions to be taken), WHEN (time the action will occur), WHERE (the location of the action), HOW (means to be employed), and WHY (purpose of the action).

(2) Courses of action can be formulated in broad or detailed. They may be terms. That is, there may be a variation in the elements of WHAT, WHEN, WHERE, HOW, and WHY included. As a general rule, it is best to initially formulate them in broad terms and add details during the analysis.

(3) There are many methods of expressing an offensive course of action.

(a) A simple way to state a course of action is to combine avenues of approach with subordinate maneuver units. For example:

"TF 2-78 attacks 240600 May 1978 with two company sized forces on AA1 and one company sized force on AA2 to secure OBJ 1."

(b) Another method of stating a course of action is in terms of formation of the attacking force. For example:

"Attack 010500 Jun in line formation with two companies abreast; one company in direction HILLS 410 (NA7865) - 450 (NA7870) - 480 (NA7873) to seize HILL 480; one company in direction HILLS 430 (NA8065) - 445 (NA8070) - 475 (NA8075) to seize HILL 475."

(4) In the defense the S3, considering terrain and avenues of approach leading into the sector, selects more specific traces for the FEBA along which the forward committed units can defend. Normally two or three such traces are sufficient. Using these, he develops courses of action expressing these more specific traces of the FEBA.

(a) The following are examples of defense courses of action expressed in terms of WHERE:

"Defend by 031800 Nov along (FEBA) west bank BLUE Creek from QL073271 to QL072243."

"Defend by 031800 Nov along (FEBA) QL073271 - QL073255 - QL072243."

(b) The following is an example of a defense course of action expressed in terms of HOW:

"Defend HILLTOWN (GL1864) employing three battalions from north to south along FEBA."

(c) The following is an example of a defense course of action expressed in terms of HOW and WHERE:

"Defend by 031800 Nov employing one company from AB073271 to AB078280 and one company on the right to AB082289, one company in reserve."

(5) The S3 provides other members of the staff with all courses of action under consideration so that they can complete their estimates and provide conclusions for the staff recommendation.

3. ANALYSIS OF OPPOSING COURSES OF ACTION. (ANALYSIS OF FRIENDLY OPTIONS)

a. The S3 analyzes each of his courses of action against enemy capabilities established in 2b above. Normally, at brigade and battalion, he combines enemy capabilities into a single statement to speed up and simplify the analysis process. However, if time permits, the S3 might analyze each course of action against each enemy capability separately.

b. The manner in which the analysis is made is a matter of personal choice. The S3 should keep the purpose of the analysis in mind throughout. The purpose is to determine the advantages and disadvantages and develop a general scheme of maneuver (the WHERE and HOW) for each own course of action. Keeping the mission in mind, he determines the significant effects of weather, terrain, enemy situation and friendly situation, and other pertinent factors on each course of action. While analyzing each of his courses of action, the S3 develops the need for employment of forces other than the main attack described in his initial course of action. In doing so, he is further developing and refining the WHERE and HOW (developing the general scheme of maneuver) that would apply if the course of action under consideration were adopted. He concurrently applies the principles of war and considers appropriate tactical fundamentals, methods, and techniques as he "war games" each course of action from start to finish. Each major subordinate unit has then received its primary mission.

c. The S3 must keep in mind that the primary purpose of the operation estimate is to arrive at a RECOMMENDATION concerning the best scheme of maneuver to accomplish the mission. Therefore, during the analysis he concentrates *primarily* on determining the advantages and disadvantages of each of his own courses of action and the development of a general scheme of maneuver for each. During the course of the analysis, matters which may not directly pertain to the general scheme of maneuver come to his attention. These matters may include the need for supporting fires at particular locations; the requirements for engineers to clear a minefield, span a water obstacle or to emplace an obstacle; vulnerability of a flank to enemy attack; the need for antitank protection; lack of important intelligence; and like items. The S3 notes these matters for subsequent completion of the detailed tactical plan. Although these matters are important, the S3 does not allow them to cloud the principal issue or to preclude his timely completion of the operation estimate and presentation of the staff recommendation. These matters can be worked out later.

d. The above process is repeated for each friendly course of action. No attempt should be made at this time to compare each of them.

NOTE: During the analysis, the S3 may introduce a new course of action, make a major change in one being considered, or eliminate one from further consideration.

4. COMPARISON OF OWN COURSES OF ACTION.

a. In comparing own courses of action, the S3 first reviews and evaluates the advantages and disadvantages that were determined during his analysis. Some advantages and disadvantages may be so insignificant as to be ignored. The S3 must determine the significance of each advantage and disadvantage before allowing them to influence his comparison and conclusion. He considers that the significance and weight of each of the advantages and disadvantages rarely will be the same and that one or more advantages or disadvantages may become overriding considerations. Therefore, any judgment made by the S3 depends upon his appreciation of the degree to which the advantages or disadvantages increase or decrease his opportunities for success or may improve the degree of success he might attain.

b. The S3 next compares the courses of action in terms of the general scheme of maneuver for each. He reaches a conclusion as to the general scheme of maneuver offering the greatest probability of success. He may conclude that the best course of action is a combination of two or more under consideration and may so state the revised course of action in his recommendation. The S3 brings to bear all of his knowledge of tactics, judgment, skill, and experience in making this comparison.

5. RECOMMENDATION.

a. The recommendation is a statement of the general scheme of maneuver to be adopted and, if applicable, any nuclear rounds to be fired, scheduled, or on call and their targets to complement the scheme of maneuver. It normally will not include designating specific units to be employed. The S3 considers the conclusions of other staff estimates, and when presented to the commander, the recommendation represents a coordinated staff position.

b. Examples of recommendations:

(1) Attack. To complete the general scheme of maneuver, he indicates use of the reserve. Additionally, he adds the nuclear round and its target.

"Bn attacks 230715 Oct with one company/team attacking in the direction of HILL 930 (AM2312) - BRESLAU (AM2412) - HILL 1050 (AM2413) to seize HILL 1050 and one company/team attacking in the direction of HILLS 821 (AM2411) - 748 (AM2412) - 819 (AM2412) to seize HILL 819. One company/team, in reserve, follows; on order, continue the attack to seize HILL 1071 (AM2513). One MRC/1KT round employed on HILL 1045 (AM240140) at 230705."

(2) Defense. The recommendation reflects the general area to be defended by each forward unit as illustrated in this example.

"Bn defends by 031800 Oct along FEBA west bank BLUE Creek from QL073271 to QL072243 employing one company/team on the north to vicinity QL074251 and one company/team on the south. One company/team, in reserve, occupies blocking position on HILL 536 (QL0625)."

* * * * * *

3-9. COMMANDER'S DECISION AND CONCEPT TO HIS STAFF.

a. As outlined in para 12, Sequence of Actons in Making and Executing Decisions, the commander considers the staff recommendation presented by the S3, completes his estimate, and announces his decision. It takes the same general form of the staff recommendation except that it includes the elements of WHO and so much of the WHY as are necessary for understanding. Many decisions are made by the commander in the course of planning an operation. However, the initial decision made as a result of his estimate is considered the minimum essential information to further develop the tactical plan. This is the DECISION reflected in the last step of the tactical commander's estimate. It will be used by the staff to develop the balance of the tactical plan. Examples of decision statements are indicated below.

NOTE: Designation of units to be employed is a command responsibility that cannot be delegated. Although units may be recommended by the S3, the commander will always make as positive confirmation by stating the units to be employed in his decision statement and may further elaborate in his concept.

(1) Attack.

"Battalion attacks 230715 Oct. Co A attacks in the direction HILL 930-BRESLAU - HILL 1050, to seize HILL 1050, and Co C attacks in the direction HILLS 821 748 - 819, to seize HILL 819; Co B, in reserve, follows Co A; on order, continue the attack to seize HILL 1071. One MRC/1 KT round employed on HILL 1045 (AM240140) at 120705."

(2) Defense.

"Bn defends by 031800 Oct along (FEBA) west bank BLUE Creek from QL073271 to QL072243 employing Co A on the north to QL074251 and Co C on the south; Co B, in reserve, occupies battle position on HILL 536."

b. Following his decision, the commander provides the staff with his concept: how the operation will be conducted. It is an elaboration of his decision in which he explains any aspects deemed necessary. In addition, he provides guidance and instructions to his staff that facilitates their completion of planning and preparation of orders. This may include an elaboration of the scheme of maneuver, plan of fire support, and combat service support. Of specific concern is the general plan of fire support to support the plan of attack.

(1) The commander's attack decision in the example above could be amplified by his concept as follows:

"The battalion will attack dismounted to overcome the initial enemy resistance, with attacking companies clearing their zones. However, after seizure of HILL 1050, I visualize the attack can be mounted on one axis to seize HILL 1071. Cross attach platoons of the attached tank company with the two attacking companies. I want close contact maintained with the battalion on our south flank. A 5-minute preparation will be fired beginning at H-5. In addition to the 1 KT round to be fired on HILL 1045, on call nuclear fires will be employed under brigade control. Plan one MRC/2 KT round on HILL 1071. Priority of fires to Co A. Are there any questions? Very well, complete the plan. I will issue the operation order orally at the battalion OP at 1630. Make sufficient overlays to issue one to each company commander."

(2) The commander's defense decision in the example above could be amplified as illustrated below:

"Attach one AT Section to Co C. Plan one MRC/1 KT round to be employed on HILL 821 (AM2411), on call. One 155 Howitzer FPF is allocated to Co C and the 4.2 in mortar FPF to Co, with priority of fires to Co C. In counterattack planning, give priority to a penetration in the sector of Co C. Are there any questions? Very well, complete the plan and prepare a written operation order for my signature by 1000. I will issue it at the battalion CP."

c. The commander's decision statement, together with his concept, provides the necessary elements of paragraph 3a, *Concept of Operation*, of the operation order.

CHAPTER 4
GRAPHIC REPRESENTATION
Section I. MAPS AND OVERLAYS

4-1. GENERAL.

a. A military symbol is a condensed pictorial representation of a unit, installation, activity, or piece of equipment. Identification is accomplished by a systematic combination of diagrams, letters, numbers, abbreviations, words, and colors to portray items of military significance.

b. Military symbols are graphic aids which accurately identify items of operational interest. Departure from commonly accepted symbols should be avoided.

c. Military symbols lose their value if they become too complicated or too cluttered with unnecessary detail. The purpose and level of command determines the amount of information required.

d. Examples throughout this handbook are instructional and show more information than is normally required. In practical application, we should depict essential information only. Simplicity, brevity, and clarity are the keys to good graphic representation.

4-2. MAPS AND OVERLAYS.

a. *Situation Map.* A situation map is a map on which the tactical, combat support, and combat service support situation is represented graphically as it actually exists at a particular time. Normally, the map is covered with acetate and symbols are posted with grease pencil. In this way the situation may be kept current.

b. *Operation Map.* An operation map is a map on which information for and instructions to subordinates concerning a specific operation are represented graphically. It most often depicts information shown on the current operation overlay.

c. *Planning Map.* A planning map is maintained for planning future operations. Like the situation map, it is normally covered with acetate and posted with a grease pencil. This facilitates changing graphic portrayal as the plan develops. The completed planning map may be the basis for the operation map or overlay for the operation.

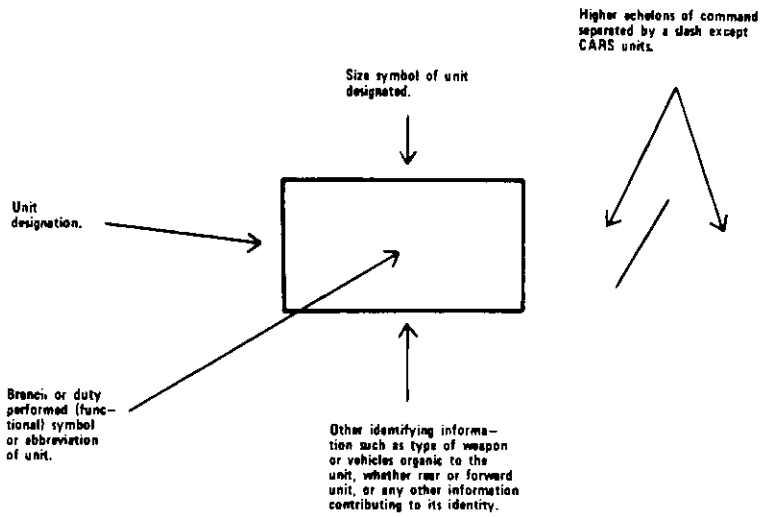
d. *Situation Overlay.* A situation overlay is a tracing on translucent paper of graphics from a situation map. It represents the situation at the time the overlay was made. Usually it accompanies and clarified a situation report. It is routinely made a matter of record by inclusion in the unit journal.

e. *Operation Overlay.* An operation overlay is a tracing on translucent paper of the graphics from an operation or planning map. The primary purpose of the overlay is to reduce the content of and to enhance the understanding of the written or oral order. Since there are usually insufficient maps for issue with plans and orders, the operation overlay meets this requirement.

Section II. MILITARY SYMBOLS

The following symbols supplement and clarify those listed to current publications. They have been placed in this handbook to provide a convenient reference.

4-3. DEVELOPING THE UNIT SYMBOL.



When numbers, letters, names, or abbreviations are used to designate a unit, the first one of them, i.e., the units' own designation, is placed on the *left* of the basic symbol. The size symbol, if the unit has one, is placed on top of the basic symbol and agrees with the unit designation. Higher echelons of command are placed on the *right* of the basic symbol and are separated by a slash. For this purpose, the chain of command, as shown in paragraph 4-4, is used. For units identified under the Combat Arms Regimental System (CARS), both the battalion (squadron) and traditional regimental numbers are shown. To avoid confusion with different levels of command, both numerical designations of the CARS unit are always written together and separated by a dash rather than a slash.

4-4. SIZE. To indicate the size of a specific unit or activity, the appropriate size notation is placed above or beside the unit or installation symbol.

SIZE NOTATION	*UNIT*
•	Squad
••	Section
•••	Platoon or Detachment
I	Company, Battery, or Troop
II	Battalion or Squadron
III	Group, Regiment, or Equivalent
X	Brigade
XX	Division
XXX	Corps
XXXX	Army

4-5. TACTICAL UNIT SYMBOLS.

III Corps .....

Infantry Div .....

Infantry Div (Mechanized) .....

Air Assault Div .....

Airborne Div .....

Armor Div .....

1st Brigade, 21st Infantry Division .....

Headquarters and Headquarters Company, 1st Brigade, 21st Infantry Division .....

2d Bn (Mech), 76th INF .....

TF 2-76 (Inf Bn Task Force) .....

Co A, 2d Bn (Mech) 76th Inf .....

Tm BRAVO, 2d Bn (Mech) 76th Inf .....

1st Plt, Co A, 2d Bn (Mech) 76th Inf .....

Wpns Plt, Co A, 2d Bn (Mech) 76th Inf .....

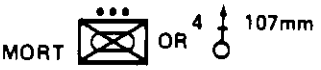
(Infantry (Non-Mech)

Scout Plt.....

Armored Cavalry Plt .....
Mech Inf Bn Scout Plt
Armored Bn Scout Plt

Antitank Plt .....

Hv Mort Plt (Mech Inf) .....



Redeye Section (Mech Inf) .....

Company Observation Post .....

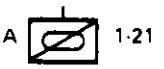
Combat Support Company (Mech Inf).....

Platoon Battle Position .....

Trp D (Air Cav), 2d Sqdn (Armd), 23d Cav .....

Armd Cav Squadron .....

Trp A, 1st Sqdn, 21st Armored Cav .....



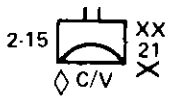
Division Artillery 21st Inf Div .....

Division Aviation Bn.....

1st Plt, Co B, 21st Engr Bn .....

Observation Post (OP), 2d Bn (Mech), 76th Inf.....

Divisional air defense units are identified by designation and branch symbol of the division to which it is organic. Example: An air defense Bn organic to an Inf Div, (Note: The symbol and the abbreviations VUL or CHAP placed at the base of the symbol further indicates that the unit is equipped with self-propelled Vulcans or Chaparrals) 2d Bn, (C/V 15th Air Def Artillery, 21st Inf Div .....

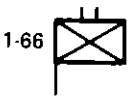


Co A (Aslt Hel), 21st Cbt Avn Bn (Inf Div) .....

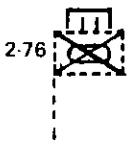
Engineer Bn (Armored Division) .....

COMMAND POSTS.

Present Location (1st Bn, 66th Inf) .....



Future (Proposed) Location (TF 2-76 Inf (Mech) .....



4-6. AREAS OF CONCERN.

a. The symbol [ ] placed over the size designation of a tactical unit symbol indicates a company team or a battalion task force.

b. When depicting future locations, the unit activity or installation symbol and offset line (if used) will be dashed. The branch or function designation within the symbol and size designation will be solid.

c. In drawing unit symbols, the unit designation is placed on the left of the unit symbol and must agree with the size designation on top of the unit symbol. When the designation of more than one echelon of command is shown, the designation of the remaining echelons is placed immediately to the right of the unit symbol. Higher echelons, separated by a slash, follow to the right of lower echelon designations. Brigade subordination need not be shown on a unit symbol unless the unit is assigned to a brigade; e.g., Headquarters and Headquarters Company or a battalion of a separate brigade.

d. A slash separates letters and numbers designating command echelons; a dash is used to separate a battalion and its parent regiment (Combat Arms Regimental system). Example: The First Platoon of Company A, First Battalion, 66th Infantry, 1st Brigade, 21st Infantry Division is portrayed: 1/A/1-66/1/21.

e. Use of (-) and ( ) to the right of a symbol depicting a friendly unit does not convey specifically what has been detached from or attached to the unit indicated. Attachments and detachments are discussed in the operation order. When used, the (-) indicated that a substantial part of the unit is detached or that the unit has suffered substantial losses. The ( ) indicates that the unit is substantially reinforced.

4-7. COMBAT SERVICE SUPPORT SYMBOLS.

Brigade Trains, 1st Bde, 21st Inf Div (Repre- sents all installations normally found in the brigade trains) .....

Field Trains, 1st Bn, 66th Inf .....

Combat Trains, 1st Bn, 66th Inf .....

Combat Trains TF 2-76 (Mech) .....

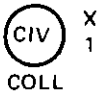
Support, 1st Bn, 66th Inf .....

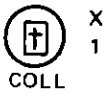
Aid Station, 1st Bn, 66th Inf .....

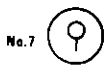
Evacuation Point .....

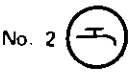
Recovery Point .....

Maintenance Point .....

Civilian Collecting Point, 1st Bde ..... 

Collecting and Evacuation Point, Graves Registration, 1st Bde ..... 

Traffic Control Point Number 7 ..... 

Water Point Number 2 ..... 

Clas I Supply Point (rations) .....

Class II Supply Point (clothing & indiv equip) .....

Class III Supply Point (POL) .....

Class IV Supply Point (construction material) .....

Class V Supply Point (ammunition) .....

Class VI Supply Point (personal demand items) .....

Class VII Supply Point (major and items) .....

Class VIII Supply Point (medical material) .....

Class IX Supply Point (repair parts) .....

Class X Supply Point (civil affairs items) .....

Multiple Class Supply Point .....

Rapair and Maintenance Unit .....

Communications Unit .....

Medical Unit .....

Transportation Unit .....

Supply Unit .....

Ordnance Unit .....

Personnel Services and Administration Unit .....

Aeromedical Evacuation Unit .....

Army Airfield .....

Army Heliport .....

a. Graphic portrayal of supply routes.

(1) Main supply route (MSR). The main supply route is defined as: "The route(s) designated within an area of operations upon which the bulk of traffic flows in support of military operations." NOTE: The term MSR is not used below division level.

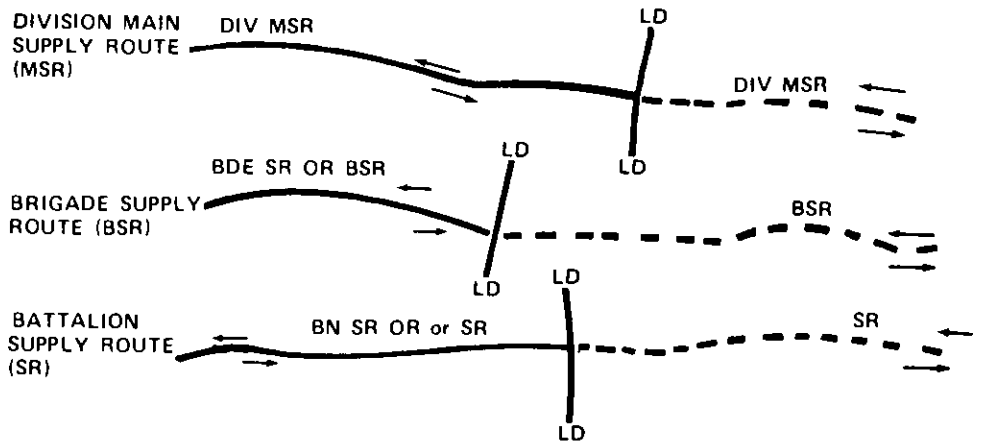
(2) In the defense, division extends the MSR forward to the rear boundary of the forward brigade(s). The brigade BSR extends from the division MSR to the brigade trains area and may be further extended to a point rearward of the forward battalion defense sectors. The battalion SR extends from the brigade BSR to the battalion combat trains area and may be further extended to a point rearward of the forward company defense sectors.

(3) In the offense, the proposed SR may be shown forward to the objective, or as far as the S4 can visualize the combat service support for the operation. Forward of the LD, it is shown as a broken line.

(4) The S4 will always plan on a primary and an alternate supply route. In this case the routes can be given names or numbers. EXAMPLE: Primary--SR RED, Alternate--SR BLUE.

(5) Prior to recommending the supply route(s) to the commander the S4 should coordinate with the S2 and S3 on the enemy situation and the tactical plan.

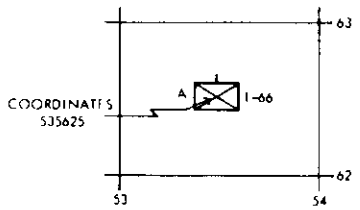
b. The symbols used by division, brigade, and battalion to depict the supply route are as follows:



c. At battalion and brigade, combat service support facilities may be depicted on the operation overlay or their locations disseminated by the S4.

4-8. GRAPHIC PORTRAYAL OF A UNIT LOCATION.

a. To show the location of a unit on a map or overlay, the symbol should be drawn so that the center of the symbol corresponds with the coordinates at which the unit is located.

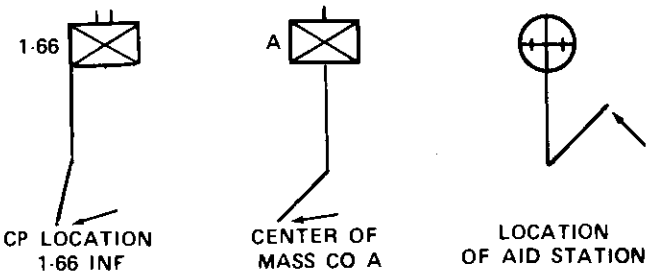


(Company A, 1st Battalion, 66th Infantry is located at coordinates 535625)

b. To show the location of a trains, observation/listening post, or a logistical activity, the center of the symbol should correspond with the coordinates at which the element is located.

c. Offset technique is used to preerve clarity when space limitations preclude normal placement of symbols. Offset staffs may be 'bent' as required. The offset staff is dashed for future or proposed locations. Offset staffs extend vertically from the bottom center of the symbol (except for CPs) and the end of the offset staff indicates exact locations of CPs and aid stations and *center of mass* for other units or installations.

EXAMPLE:



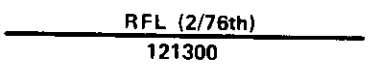
4-9. ARTILLERY.

a. *Lines*

Coordinated Fire Line (shown in black) ..... CFL (1st Bde) 262400

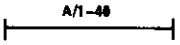
Fire Support Coordination Line ..... FSCL (1st Corps) 100800

Restrictive Fire Line (shown in red) .....

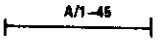


Final Protective Fires (FPFs) (plotted to scale on overlay) .....

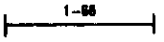
Btry A, 1st Bn, 40th FA (155, SP) (300 meters x 150 meters) .....



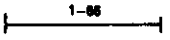
Btry A, 1st Bn, 45th FA (105, towed) (200 meters x 150 meters) .....



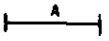
Mort Plt, 1st Bn, 66th Inf (200 meters x 50 meters) .....



One 4.2-in Mort Sec, Mort Plt, 1st Bn, 66th Inf (100 meters x 50 meters)

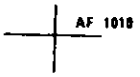


Mort Sec, Co A (100 meters x 50 meters).....

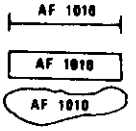


b. *Target Symbols.*

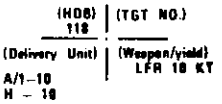
(1) The tick mark is the common symbol used to mark a target on a map or an overlay. A tick mark indicates the location of the center of the target .....



(2) Targets of unusual size or shape may be marked by using special symbols. These symbols include the linear plot for long, narrow targets; the rectangular plot for rectangular targets; and the area symbol for irregularly shaped targets .....



(3) The symbol used for special weapons targets is the tick mark. In addition to the target number, information is also included as to the weapon and/or yield, delivery unit, time on target (TOT), and desired height of burst, when known.....

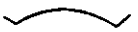


4-10. ENGINEERS

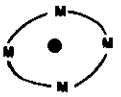
a. *Obstacles.* (All indicated in green, both friendly and enemy).

(1) *Land Mines:*

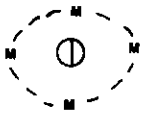
Claymore .....



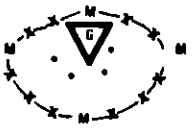
Known Unfenced Antitank Minefield .....



Indefinite or Unconfirmed Boundary and Type and Number of Mines Unknown .....

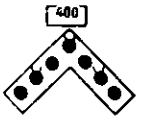


Integrated Toxic Chemical, Antitank Minefield (fenced) (show chemical agent) .....



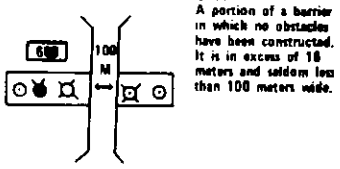
(2) Minefields:

Minefield or 400 mixed antitank and anti- personnel mines .....

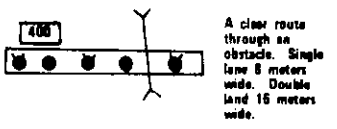


Minefield of 600 antitank mines .....

(3) *Lanes of Gaps*: A minefield of 600 mixed antipersonnel mines and double antitank mines, some of which are rigged with antihandling devices. A gap traverses this belt .....



A minefield of 400 antipersonnel mines and antitank mines. A lane traverses this belt .....

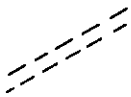


(4) *Roadblocks, Craters*:

Completed .....

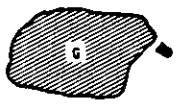
Prepared but passable.....

Proposed.....



(5) *Tank Obstacle Trace* (type unspecified) or Barrier Trace .....

(6) Area contaminated with toxic chemical agent (show G (Gas) or BIO (Biological), time and date fired) (Symbol shaded yellow) .....



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4-11. WEAPONS AND VEHICLES.

a. *Weapons*: (Exact caliber, if known, is indicated by placing the appropriate number on the right of the symbol.)

Basic Infantry Crew-served Weapon (machinegun) .....

Basic Artillery Weapon .....

High Trajectory (Placed on base of weapon symbol) .....

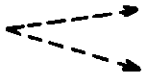
Air Defense (base of weapon symbol) .....

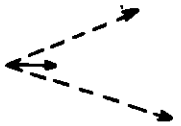
Self-propelled (below weapon symbol) (Tracked vehicles only).....

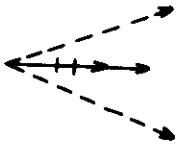
Antitank (base of weapon symbol).....

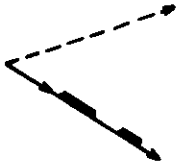
Antitank Guided Missile .....

Missile (light) in air defense role.
(Note: Designation of specific missile may be added on the right of the symbol.) .....

Field of Fire ..... 

Primary Sector of Fire of light machinegun (Appropriate weapon symbol may be used. The base of the shaft of the symbol indicates the position of the weapon.)..... 

Primary Sector of Fire and Fixed Line of Fire of a heavy machinegun. (The two symbols may be used together, providing a weapon symbol is used.)..... 

Primary Sector of Fire and Final Protective Line of a light machinegun. (The heavy portion of solid line indicates grazing fire.) 

WEAPON	CALIBER		
	Light (and basic)	Medium	Heavy
Machinegun	7.62-mm or smaller	7.63-mm to 14.4-mm	14.5-mm or larger
Mortar	81-mm or smaller	82-mm to 199-mm	200-mm and larger
Air defense machinegun			
Air defense missiles	REDEYE	CHAP/VULCAN	
Recoilless Rifle		90-mm and 106-mm	

Antitank Missiles	LAW	MAW DRAGON	HAW TOW
Gun or gun howitzer	120-mm or smaller	121 to 160-mm	161-mm
Howitzer, high trajectory artillery weapon	120-mm or smaller	121 to 160-mm	161-mm
Rocket launcher (artillery)	120-mm or smaller	121-mm to 160-mm	161-mm or larger
Gun in antitank role	120-mm or smaller	121-mm to 160-mm	161-mm to 210-mm
Gun in air defense role	Less than 80-mm	80-mm or greater, weight less than 20 tons	Weight 20 tons or more
Flamethrower	Manpack	Mounted on vehicle	

b. *Vehicles:*

Tank, Light .....

Tank, Medium .....

Tank, Heavy .....

Tank, Amphibious (Medium) .....

Emplaced or Dug in (Light Tank) .....

Armored Reconnaissance Vehicles .....

Full-tracked Armored Personnel Carrier .....

4-12. SENSOR SYMBOLS.

a. Sensors are a technical means to extend man's natural senses. They can detect the presence of military targets and other natural and mamade objects and activities by energy emitted or reflected by such targets or objects. The energy may be nuclear; electromagnetic, including visible and invisible portions of the spectrum; chemical; biological; thermal; or mechanical, including sound, blast, and earth vibration (AR 310-25).

b. A variety of sensors are used for surveillance, target acquisition, and night observation (STANO) activities as explained in FM 31-100 and ST 7-285. They muyst be depicted on maps, overlays, and field sketches. Below are basic sensor symbols, various sensing technique symbols, and special application and mode designators. Additionally, a symbol for a sensor relay station and a sensor monitor station are presented. Further information about sensors or sensor fields represented by these symbols on a map or overlay are contained in an information sheet attached thereto. These symbols are not depicted in STANAG 2019.

(1) Basic symbol.

SYMBOL	DESCRIPTION
	Sensor
	Sensor relay station
	Sensor monitor station

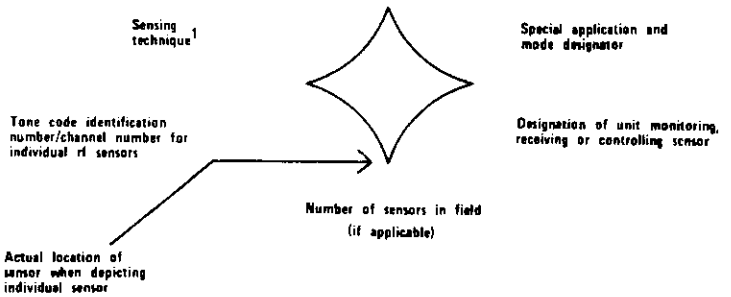
(2) Sensing technique.

A	Acoustic (hydrophone)	M	Magnetic
C	Chemical effluent	PH	Photographic
D	Disturbance	P	Pressure (balance)
E	Electromagnetic	S	Seismic
IA	Infrared (active)	R	Radar
IP	Infrared (passive)	TV	Television

(3) Special application and mode designators.

W	Underwater
	Diurnal switch operating
	Watercraft detection mode (swimmers pass undetected)
	Vehicle detection mode (dismounted personnel pass undetected)
RT	Real time mode
NRT	Non-real time mode

(4) Construction of a complete sensor symbol.

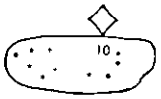


Plus sign (+) between sensing techniques indicates detection of both stimuli to activate response.
Slash sign (/) between sensing techniques indicates detection of either stimuli to activate report.

(5) Combining basic sensor symbols with other symbols.

SERIAL	SYMBOL	DESCRIPTION
(a)		Field of sensors
(b)		Sensor monitor - receiving only
(c)		Sensor in a cluster of mines

(6) Examples

SERIAL	SYMBOL	DESCRIPTION
(a)		Commandable seismic/acostic sensor (either seismic or acoustic stimuli will activate report) tone code #1 on channel 2, monitored by 1st Infantry Division
(b)		Seismic + magnetic sensor (both stimuli must be nearly simultaneously detected) tone code #3 on channel 2
(c)		Field of ten sensors with exact locations plotted. Key is included as part of attached information sheet

(7) For detailed application of enemy/activity symbols in posting intelligence situation/incident maps or overlays see FM 30-5 and FM 21-30.

4-13. RADAR SURVEILLANCE UNITS AND DEVICES. (With type of set indicated):

Short/Medium Range Radar (AN/PPS-5) ..... OR AN/PPS 5

Long Range Radar (AN/TPS-25) ..... OR AN/TPS 25

Lines indicate assigned area of scan and juncture of lines indicates radar location .....

Gnd Survl Sec, CSC, 1st bn, 66th Inf .....

4-14. ENEMY SYMBOLS.

a. Enemy unit and tactical dispositions are usually shown in red. When red is not available, the box of the symbol is inclosed by a second line. To depict enemy units for any particular theater of operations, use the appropriate identified designation of the units, in red, as if they were United States units. If no U.S. symbol is applicable, consult appropriate Order of Battle handbooks.

b. Question marks used in conjunction with an enemy symbol indicate unconfirmed enemy information. No notation is made for unknown information.

c. To depict enemy units used at the United States Army Infantry School, follow the procedures outlined below:

106th Motorized Rifle Regiment (Red) .....

2d Battalion, 106th Motorized Rifle Regiment (Red) .....

2d Company, 2d Battalion, 106th Motorized Rifle Regiment (Red) ...

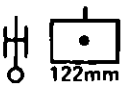
3d Platoon, 2d Company, 2d Battalion, 106th Motorized Rifle Regiment (Red) .....

Type of Enemy Regiment is unconfirmed (Red) .....

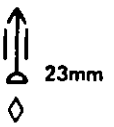
Enemy Guerrilla Company (Red) .....

Enemy reconnaissance company (division level) (amphibious capability) (Red) .....

Enemy Artillery Battery (122mm SP) (RED) .....



Air Defense Gun (23mm SP) ZSU 23-4 (RED).....

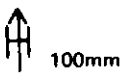


Enemy Armor Personnel Carrier (BMP (RED) .....

Enemy Antitank Guided Missile Carrier (BTR-40P2 ATGM) (RED) .

Enemy Antitank Gun 73mm (Recoilless) (RED) .....

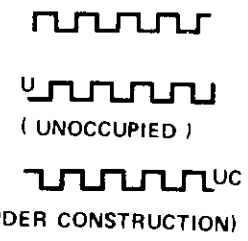
Enemy Antitank Gun 100mm (Recoilless) (RED) .....



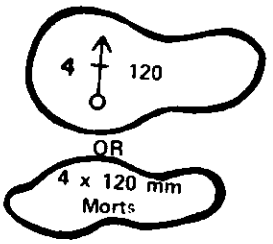
Enemy Antitank Weapon RPG-7V (RED).....

d. Enemy entrenchments and gun positions, since they are usually not accurately indicated, may be shown in on two ways. If in red, the general location is shown as follows:

Entrenchments
(When unoccupied U is placed next to the symbol; when under construction UC is placed next to the symbol) .....



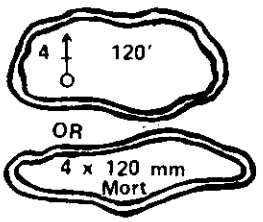
Four 120mm Mortars.....



e. If the friendly and enemy units are to be shown in the same color the enemy forces will be depicted with double lines. The following are examples:

Enemy Entrenchment .....

Four Enemy 12-mm Mortars .....

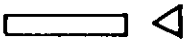


Four full-tracked armored assault guns (Red) .....

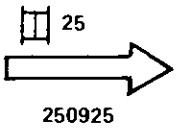
106th Motorized Rifle Regiment .....

Moving enemy units such as a convoy or column, arrow indicates direction of movement. Time of information data placed on right of symbol (Red) .....

If an enemy convoy is halted, the arrow is shown facing toward the rear of the column .....



This symbol may be annotated with an appropriate vehicle symbol.
Example: A column of 25 medium tanks seen at 0925 on the 25th (Red)



4-15. CONTROL MEASURES

a. *Checkpoints.* Checkpoints, shown graphically by a circle with a number or letter inside, are easily recognized terrain features or objects such as crossroads, churches, long buildings, stream junctions, hills, bridges, and railroad crossings. Checkpoints may be selected throughout the area of operation. By reference to these points, subordinate commanders may rapidly and accurately report locations.

Example

b. *Contact points.* Points on the ground where two or more units are required to make physical contact. Contact points may also be used to delineate areas of responsibility in specific localities when boundaries are unsuitable; e.g., between elements of a flank guard.

Example:

c. *Point of departure (PD).* A point of departure, shown graphically by a square with the letters PD and the number or letter designation of the departure point within the square.

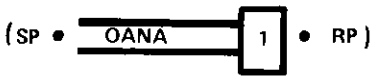
Example:

, is a specific location where a unit crosses the line of departure.

d. *Start point (SP).* Is a well defended point on a route where the first vehicle or soldier will enter on that route. Normally the unit would be given the SP by a higher headquarters.

e. *Release point (RP).* Is a well defined point, along a route of march where the last vehicle or soldier will cross along that route.

f. *Passage lane.* Areas along which a passing unit moves to avoid stationary units and obstacles. A contact point will be used where responsibility is changed to insure coordination.

Example: 

EXAMPLE OF SP's and RP's

Start points (SP) and release points (RP) are used in conjunction with a route of march, the following graphic portrayal applies.

g. Coordinating Points

(1) Provides a reference point for coordination by adjacent units and may be used to highlight the limits of an are of responsibility. They may be used anywhere that coordination is needed between the elements and should be located on some easily recognizable terrain feature.

(2) They are indicated by the symbol ⊗ and are used whenever a boundary intersects any other line or control measure, i.e., FEBA, phase lines, and delay lines

h. Lines

(1) Frontline (Blue-Friendly; Red-Enemy).....

(2) *Enemy* Frontline

(When using the same color for both friendly and enemy).....

(3) Line of departure.

(a) The line of departure serves as a control measure top coordinate the advance of the attacking units.

(b) Desirable characteristics.

1. Clearly defined on the ground and on the map.
2. Approximately perpendicular to the direction of attack.

(c) When units are in contact with the enemy, the frontline is shown as a series of arcs and the ends of the arced line will be labeled "LC".

(d) If the line of contact is used as the line of departure it will be marked LD/LC.

EXAMPLE: LD/LC ⌒⌒⌒⌒⌒⌒⌒⌒ LD/LC

(e) If the line of contact is not used, the line of departure will be shown by a solid line marked LD.

EXAMPLE: LD ——— LD

(4) Trace of Enemy Thinly Held and Patrolled Frontlines (When using the same color for both friendly and enemy) ..... o o o o o o o o o o o o o

(5) Trace of Thinly Held and Patrolled Frontlines (Blue-Friendly; Red-enemy)..... • • • • • • • • • • • • • • • •

(6) Phase lines.

(a) Shown by solid lines drawn approximately perpendicular to the direction of movement. Phase lines may also be drawn approximately parallel to the axis of advance or direction of attack to indicate the general line to be screened by ground or air security forces or to indicate a general line along which a security force is to operate, i.e., flank guard, north flank, at least as far north as PL DELTA, etc. They should be labeled "PL" with a letter, number, or code name designation; e.g., PL VICTOR, PL TWO.

(b) Used in moving situations or when a high degree of control is demanded. They are used as a reference when issuing orders or reporting, to delineate an area, or to facilitate maintaining or changing formations.

(c) Clearly defined on the ground and map.

EXAMPLE PHASE LINE RED PL RED ——— PL RED

(7) Final Coordination Line (FCL) ..... FINAL CL ——— FINAL CL

(NOTE: Effective time will be included)

(8) Probable Line of Deployment (Control measure for night operations ..... PLD- - - - - - - - - - -PLD

(9) Limit of Advance..... LA- ——— LA

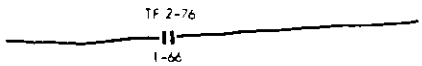
i. Boundaries.

(1) Boundaries are used to delineate areas of responsibility. In the offense, these areas are referred to as zones of action. In the defense and retrograde, they are referred to as sectors of responsibility. When described orally, lateral boundaries are described from rear to front in the offense and from front to rear in the defense and retrograde.

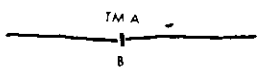
EXAMPLE: Boundary separating two battalions

(2) Unit designations on battalion boundaries indicate the numerical designation. If the battalion is organized into a task force, the letters "TF" precede the numerical designation. Company boundaries are labeled with the appropriate letter unless the company is organized into a team. In the latter case, the boundary will be labeled with the abbreviation "TM" and the letter designation or a code name. On other boundaries, only unit designations are required for clarity. Branch designations may be added when necessary for clarity. When unequal size units have a boundary in common, the designation of smaller units is spelled out.

EXAMPLE: Boundary between a task force under the control of the commander of the 2d Bn, (Mech), 76th Infantry (TF 2-76) and 1st Bn, 66th Inf.

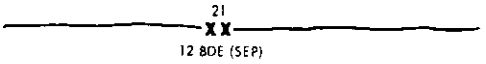


EXAMPLE: Boundary between a team under control of the commander of A/1-77 (TM A) and B/2-77.



(3) If units are of unequal size, the symbol of the higher unit is shown and the designation of the lower is given completely to show its size (except rear boundaries).

EXAMPLE: Boundary between 21st Inf Div and 12th Inf Bde (Separate).

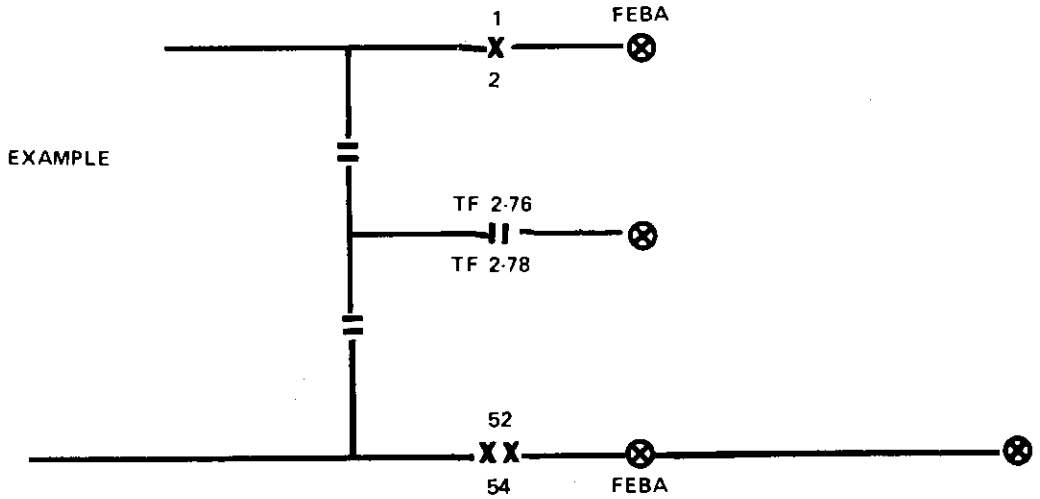


(4) Desirably, boundaries are drawn along easily recognizable terrain features and are situated, if possible, so that key terrain features, avenues of approach, and rivers are wholly inclusive to one unit. They are shown by a solid line if presently in effect or made effective by the order being prepared. Their use is based on the techniques and tactics peculiar to tactical operation in which they are used.

(5) Lateral boundaries, establish zones of action of units in the offense and control fires and maneuver of adjacent units. They should extend forward beyond the objective(s) at least to the depth necessary for coordination of fires. They should extend rearward to the extent necessary to insure that sufficient space is provided for the force to include its administrative installations. The rearward extension of a lateral boundary indicates the rear limit of a unit's territorial responsibility.

(6) Rear boundaries normally are not drawn at battalion level. However, rear boundaries may be drawn if responsibility for such matters as rear area security must be clearly defined. When a rear boundary is not delineated, the rear limit of a unit's area of responsibility is determined by visualizing a rear boundary drawn preferably along a natural terrain feature, generally parallel to the front, and connecting at the rearward limit of the unit's lateral boundaries.

(7) If a rear boundary is shown, the size indication along the boundary corresponds to the smaller unit. Arm or branch are shown when required to prevent confusion.



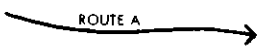
j. Routes

(1) Route of march.

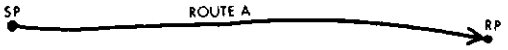
Arrows are used to show routes of march. They should be labelled with the word "ROUTE" and a number, letter, or name designation.

A route of march will usually be designated for short tactical moves.

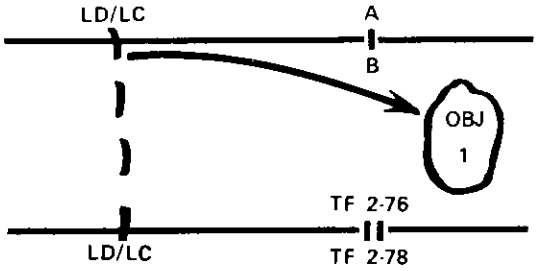
EXAMPLE:



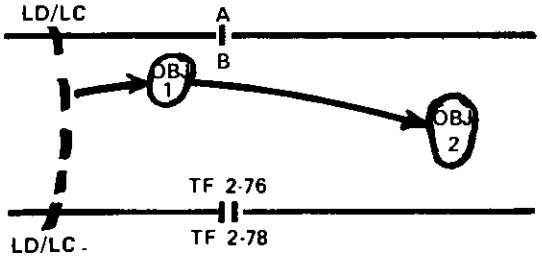
If start points (SP) and release points (RP) are used in conjunction with a route of march, the following graphic portrayal applies.



(2) Direction of Attack - Designates the route of the bulk of a unit's combat power during the attack. A unit cannot deviate from the direction of attack except to maneuver against enemy forces impeding line of attack. Used in night attacks or to coordinate counterattacks.



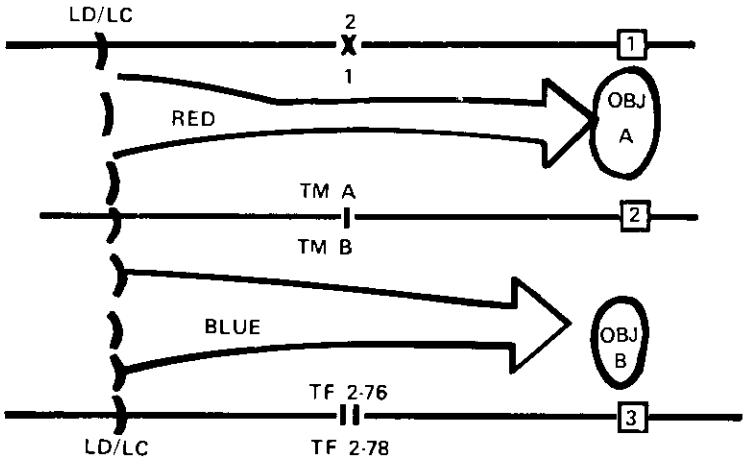
When a unit is directed to seize successive objectives with its main attack along a certain line, either one arrow extending through the objectives to the final objective or a series of arrows connecting the objectives may be used.



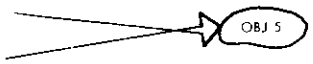
(3) Axis of advance.

(a) An axis of advance arrow should extend only as far as this form of control is essential. Normally it is depicted from the LD to the objective following an avenue of approach. It indicates that the commander may maneuver his forces and place his fires freely to either side of the axis to avoid obstacles, to engage the enemy, or to bypass enemy forces that could not threaten his security or jeopardize his mission. The commander insures that such deviation does not interfere with adjacent units, that his unit remains oriented on the objective, and that the location and size of the bypassed enemy forces are reported to higher headquarters. Boundaries may be assigned as an additional control measure when using the axis of advance.

(b) A commander need not employ his unit in a single column on his assigned axis. He may designate the assigned axis as the axis of advance for one maneuver unit and designate an additional axis for another maneuver unit, or he may designate two axes of advance following generally the assigned axis. Care must be exercised in assigning additional axes to preclude interference with adjacent units.



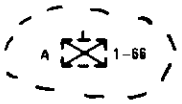
(c) To differentiate between a ground axis of advance and an air assault axis of advance, a twist is placed in the shaft of the open arrow symbolic of a propeller.



k. Areas and Positions.

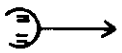
(1) Assembly Araea. Area in which the command is assembled to prepare for operations. A/1-66 INF.

Proposed or future assembly area (Note: Everything is indicated by a broken line except the branch symbol.) A/1-66 INF.



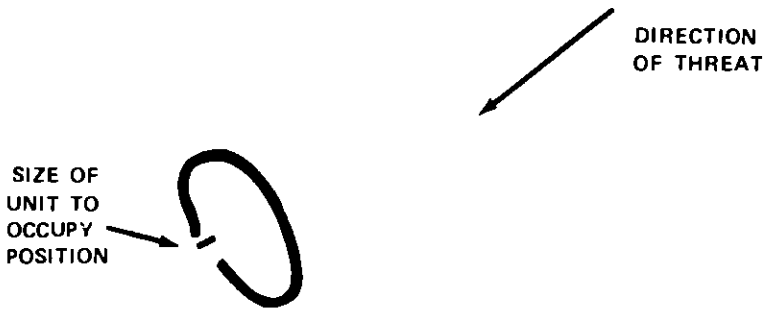
(2) Attack Position - Area behind the line of departure where units leding the attack deploy.

(3) Ambush (Point of arrow at map location)



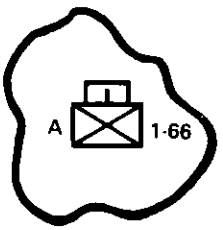
(4) Battle Area - The defensive area for which a unit has responsibility. Within ihe boundaries of the battle area, the unit has complete freedom to employ fire and maneuver.

(5) Battle Position: A location selected as a result of terrain and weapon analysis from which units can defend. They can be selected for occupation by units as large as battalion task forces and as small as platoons. (Normally used in the defense).

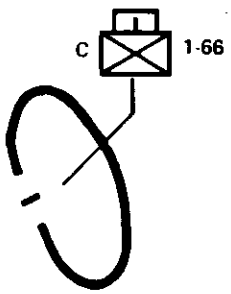


(6) Reserve Unit Locations:

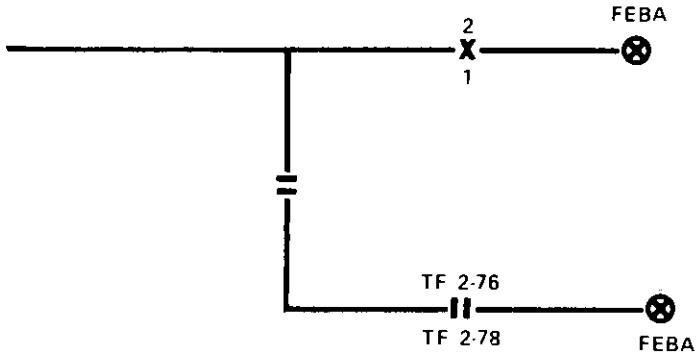
(a) Offensive: Normally a reserve location in the offensive is indicated by a unit within an assembly area. (TM A/1-66 INF)



(b) Defensive: Normally a reserve location in the defense is indicated by a unit occupying a battle position. (TM C/1-66 INF)



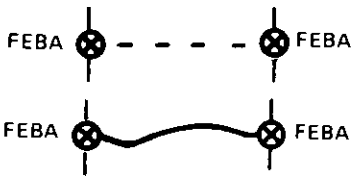
(7) Forward Edge of the Battle Area - The foremost limit of the area where the main battle is to be fought. It excludes the areas in which the covering forces are operating. It is designated to coordinate fire support, the positioning of forces or the maneuver of units. Also known as "FEBA".



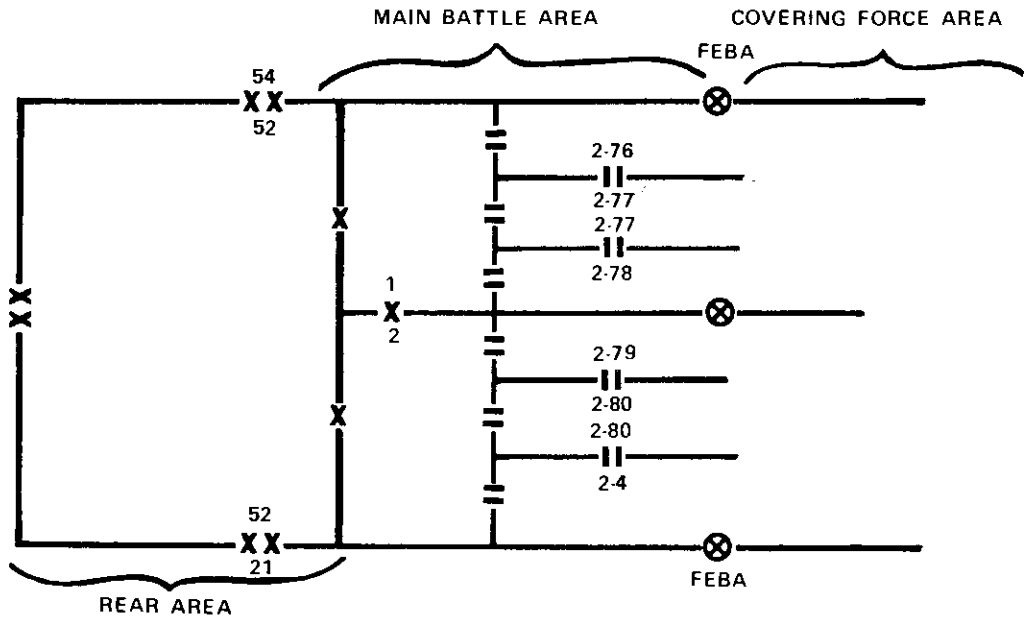
(8) Proposed Trace of the Forward Edge of the Battle Area.....
(Directive to subordinate commands to defend along the proposed trace as shown on the Op overlay)

(9) Actual trace of the Forward Edge of the Battle Area .....
(Present location of FEBA for use on the situation map)

(10) Main Battle Araea and covering force area



MAIN BATTLE AREA AND COVERING FORCE AREA



(a) *Main Battle Area* - That area extending rearward from the FEBA to the rear boundaries of the subordinate elements of the unit. It is in this area that the decisive defensive battle for that unit will be fought.

(b) *Covering Force* - (1) A covering force provides the main body early warning, reaction time, maneuver space, and information about the enemy. A covering force is a tactically self-contained security force which operates at a considerable distance to the front, flank, or rear of a moving or stationary force. Its mission is to develop the situation early and defeat the enemy, if possible. If the latter is not possible, then the covering force deceives, delays, and disorganizes the enemy until the covered force can effectively react. (2) In defensive operations, a covering force operating apart from the main body has four basic tasks:

1. Force the enemy into revealing the strength, location, and general direction of his main attack.

2. Deceive the enemy, or prevent the enemy from determining the strength, dispositions, and locations of friendly forces, especially those in the main battle area.

3. Divest the enemy of his air defense umbrella, or require him to displace his air defenses before attacking the main battle area.

4. Gain time for the main body, enabling it to deploy, move, or prepare defenses within the main battle area.

(11) OTHER AREAS AND ZONES

A solid closed line, dashed if proposed, is used to graphically portray a variety of miscellaneous areas:

Drop Zone (DZ).....

Landing Zone (LZ).....

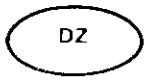
Pick-up Zone (PZ).....

Tactical Area of Responsibility (TAOR)....

Delineate outer limit of trains area.....

Base of Operations, Night Defensive Position (NDP), Fire Support Base (FSB).....

Example:



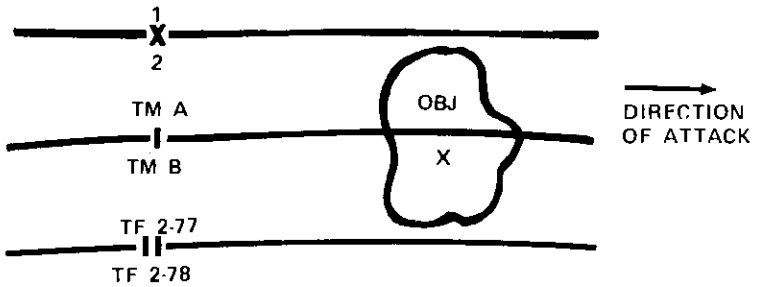
NOTE: Unit symbol may be placed inside to indicate unit assignment.

(12) Objectives

At battalion level and below there are two methods that can be used to indicate objectives on an overlay.

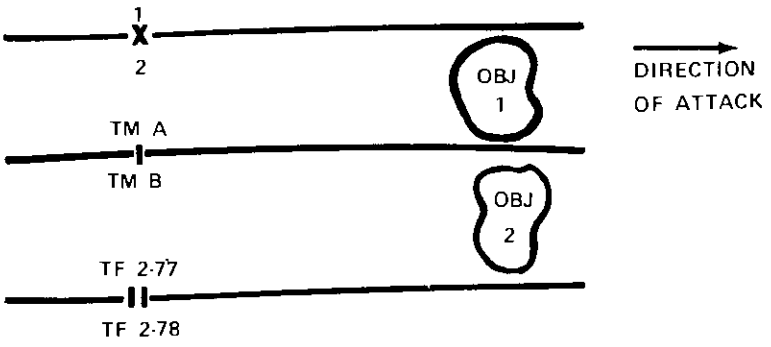
METHOD NUMBER 1

Using the objective given to the unit by a higher headquarters the commander can divide that objective in two or more parts by a boundary and indicated the unit(s) responsible for those portions of the objective. OBJECTIVE X was designated by brigade as a battalion objective.

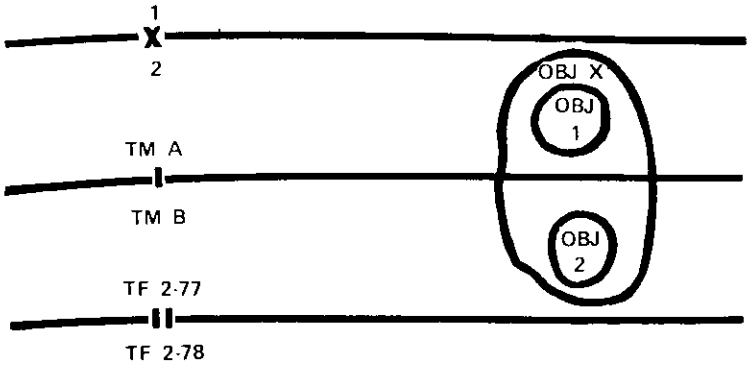


METHOD NUMBER 2

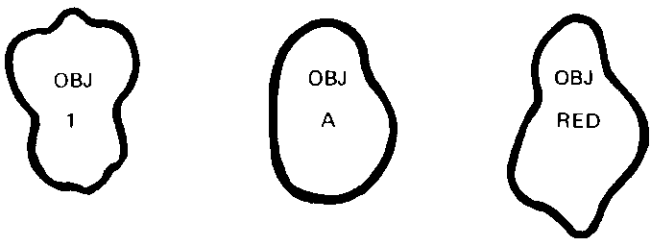
The Bn/TF commander takes the OBJ X given to him by Bde, analyzes the OBJ area and selects the key terrain within the OBJ. This key terrain will now be designated as company/team objectives.



DO NOT combine the two methods on an overlay. Subordinate commanders may become confused as to what OBJECTIVE to report as secure. EXAMPLE:



Each objective is identified by the abbreviation "OBJ" and a number, a letter, or a name.



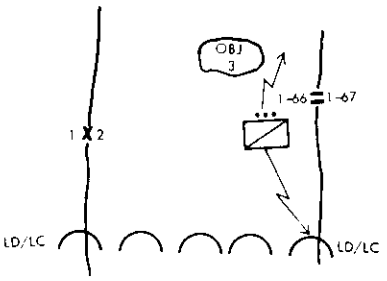
4-16. SECURITY MISSIONS

a. In either offensive or defensive schemes of maneuver a security mission is normally depicted on an operation overlay. The security mission must be described in the appropriate subordinate unit subparagraph to include what (guard, cover, or screen), where (forward of the FEBA), why (maintaining contact), when, and who. The flash arrows indicate only the general location of the security force.

b. Graphic portrayal of units assigned a security mission.

(1) The following symbol may be shown the general location of a unit with a security mission.

(2) The arrows indicate generally the terrain over which the unit will operate and the farthest extension of its mission.



(Sct Plt 1-66 INF is performing a security operations on the right flank of the Bn. From LD/LC to vic of OBJ 3. Type of security operation is indicated in Sct Plt subparagraph)

(3) The primary security mission will normally be depicted on an operation overlay; *secondary/proposed* missions *are not* depicted.

Section III. OPERATION OVERLAY

4-17. OVERLAY TECHNIQUES

a. Keep the overlay neat and simple.

b. As a general rule the following should be included on the overlay at BN/TF level:

(1) boundaries
(2) location of all maneuver elements directed by battalion
(3) location of BN/TF reserves
(4) location of mortar platoon
(5) location of the command post
(6) all control measures utilized
(7) location of alternate CP
(8) location of scout platoon

Should space permit without cluttering up the tactical situation the following should be included on the overlay:

(9) location of Task Force OP
(10) location of combat trains
(11) location of field trains
(12) BN/TF supply routes
(13) proposed locations
(14) location of combat support elements

c. All writing on the overlay should be capitalized; all writing should be horizontal (except when labeling a route or axis of advances) so it can be easily read.

d. The overlay should support paragraph 3 of the operation order.

e. Pages 4-39 and 4-40 contain examples of offensive and defensive overlays.

4-18. EXPLANATION OF OVERLAY (DEFENSIVE)

No 1. Task force rear boundary will normally be found in the active defense when given a sector and determined by the higher headquarters.

No 2. Location of task force combat trains. Determined by the S4, S3, and the commander. If the proposed new location is not shown on the overlay it will be specified in paragraph 4 of the order.

No 3. Proposed company size battle positions 4-10 determined by S3 or commander. What units are to occupy or reconnoiter these positions will be specified in the unit subpargraphs.

No 4. Location of the heavy mortar platoon is determined by the S3 or commander in coordination with the platoon leader and the CSC commander. If the proposed location is not shown on the overlay it will be specified in his subunit paragraph.

No 5. Location of TF command post. Location determined by the S3 or commander. Proposed location of the CP to the rear, if not shown on the overlay, will be specified in paragraph 5 of the order. (Note: Unit designation need not be included on all unit symbols. The unit designation is spelled on the boundary. See No 6.)

No 6. Boundary between two task force size units. If one or both units are designated a task force, then they must be labeled TF. Determined by higher headquarters.

No 7. Boundary between the 1st and 2d Brigade. Determined by higher headquarters.

No 8. Location of battle position 1 occupied by TM KILLER, a tank company attached to TF 2-78. Determined by S3 or commander.

No 9. Location of battle position 2 occupied by TM BRAVO. Determined by S3 or commander.

No 10. Location of battle position 3 occupied by TM ALFA. Determined by S3 or commander.

No 11. Forward edge of the battle area. Determined by higher headquarters.

No 12. Scout platoon performing a security operation forward of the FEBA. What type security mission will be specified in the scout platoon subparagraph.

No 13. Phase line TROUT. This is probably where the covering force will turn over command and control of the battle to the elements occupying the main battle area. What will be accomplished at this control measure will be specified in the coordinating instructions of paragraph 3 of the order.

No 14. Grid register marks. Determined by the S3 or the operations NCO.

No 15. Classification. The security classification is entered at the top and bottom of the overlay. Normally the classification is specified by the higher headquarters.

No 16. Contact Points 2 and 5 are used to establish physical contact between covering force and main battle area.

No 17. Passage lane Waco. Guides establish contact with covering force elements forward of main battle area obstacles and guide them to the release point or until after passage of the last friendly obstacle.

NOTE: This is only one OPERATION OVERLAY. Other overlays may accompany the order, i.e., Sensor Overlay, Fire Support Overlay.

4-19. EXPLANATION OF OVERLAY (OFFENSIVE)

No 1. Location of the combat trains. Determined by the S4, S3, and the commander. If the proposed new location is not shown on the overlay it will be specific in paragraph 4 of the order.

No 2. Assembly area for TM KILLER. Note TM KILLER is a tank company attached to TF 2-78 and the unit symbol must reflect that it is a tank company. Location determined by S3 or commander.

No 3. Location of the heavy mortar platoon. If the proposed location is not shown on the overlay it will be specified in his subunit paragraph. Location of heavy mortar platoon is determined by the S3 or commander in coordination with the platoon leader and the CSC commander.

No 4. Location of TF command post. Location determined by the S3 or commander. (Note: Unit designation need not be included on all unit symbols. The unit designation is spelled out on the boundary. See No 9.) Proposed location is not shown on the overlay, will be specified in paragraph 5 of the order.

No 5. Line of contact/line of departure. Normally determined by a higher headquarters.

No 6. Check points A-F. If not already dictated by a higher headquarters, the S3 or commander decides the locations for the checkpoints to be used to report location of friendly units.

No 7. OBJECTIVES RED, WHITE, BLUE, and GOLD were determined by the S3 or commander. In this case the S3/CO took the OBJECTIVES given to him by brigade and broke them down to company/team OBJECTIVES.

No 8. Phase line FISH. Determined by the S3 or commander. Instructions for this control measure will be found in either paragraph 3a or coordinating instructions.

No 9. Boundary between two task force size units. If one or both units are designated a task force, then they must be labeled TF. Determined by higher headquarters.

No 10. Boundary between *Team* ALFA and *Company* B. Determined by S3 or commander.

No 11. Boundary between the 1st and 2d Brigade. It must be labeled as a brigade boundary even if a battalion or task force is sharing the boundary with TF 2-78. Determined by higher headquarters.

No 12. Scout platoon performing a security operation on the task force right flank. What type security mission will be specified in the scout platoon subparagraph.

No 13. *Proposed* command post location. Location determined by S3 or commander.

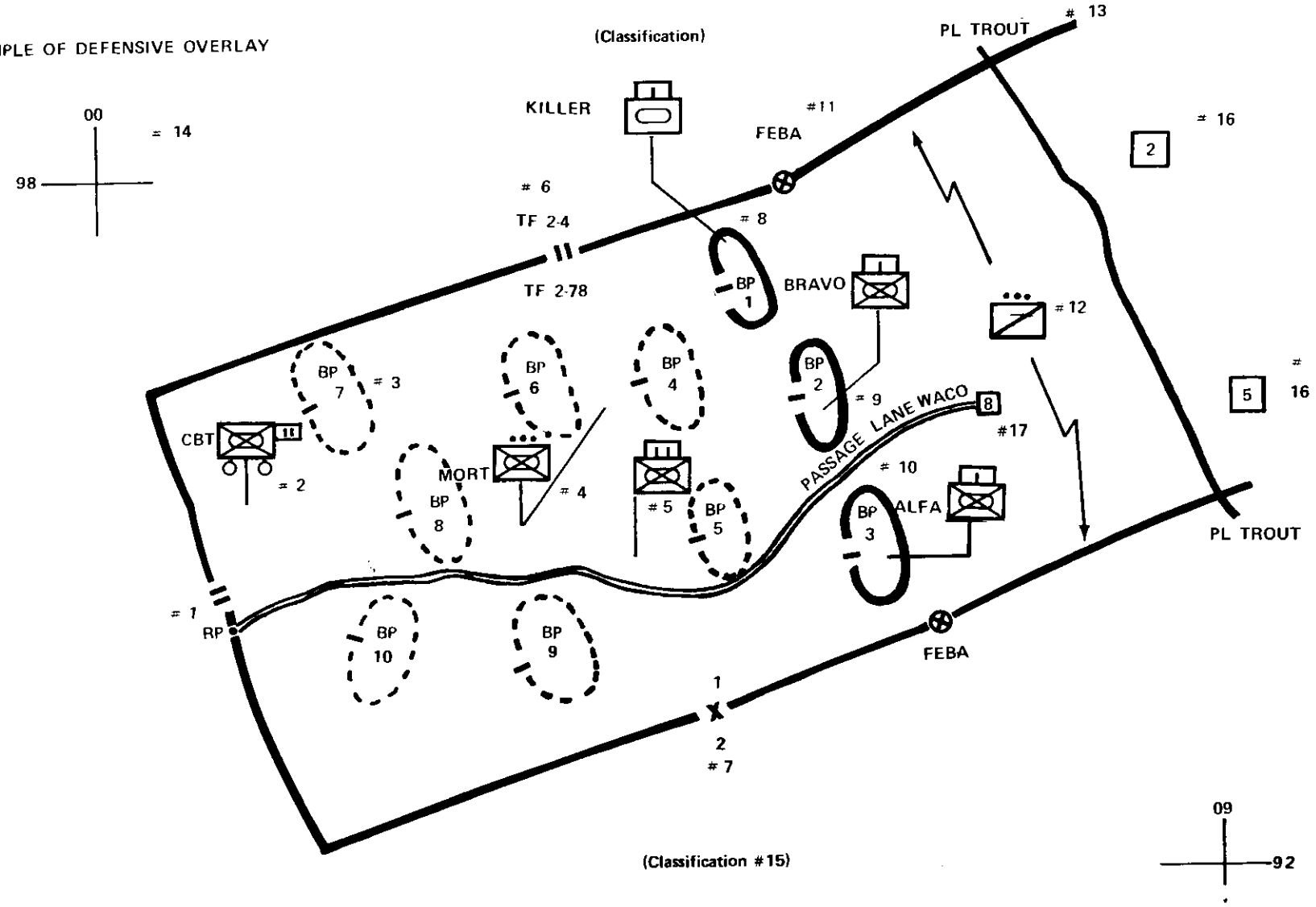
No 14. Contact points 1 and 2 were determined by a higher headquarters. Contact point 6 was determined by the S3 or the commander.

No 15. Grid register marks. Determined by the S3 or the operations NCO.

No 16. Classification. The security classification is entered at the top and bottom of the overlay. Normally the classification is specified by the higher headquarters.

NOTE: This is only an OPERATION OVERLAY. Other overlays may accompany the order, i.e., target overlay, logistics overlay (supply routes, etc.).

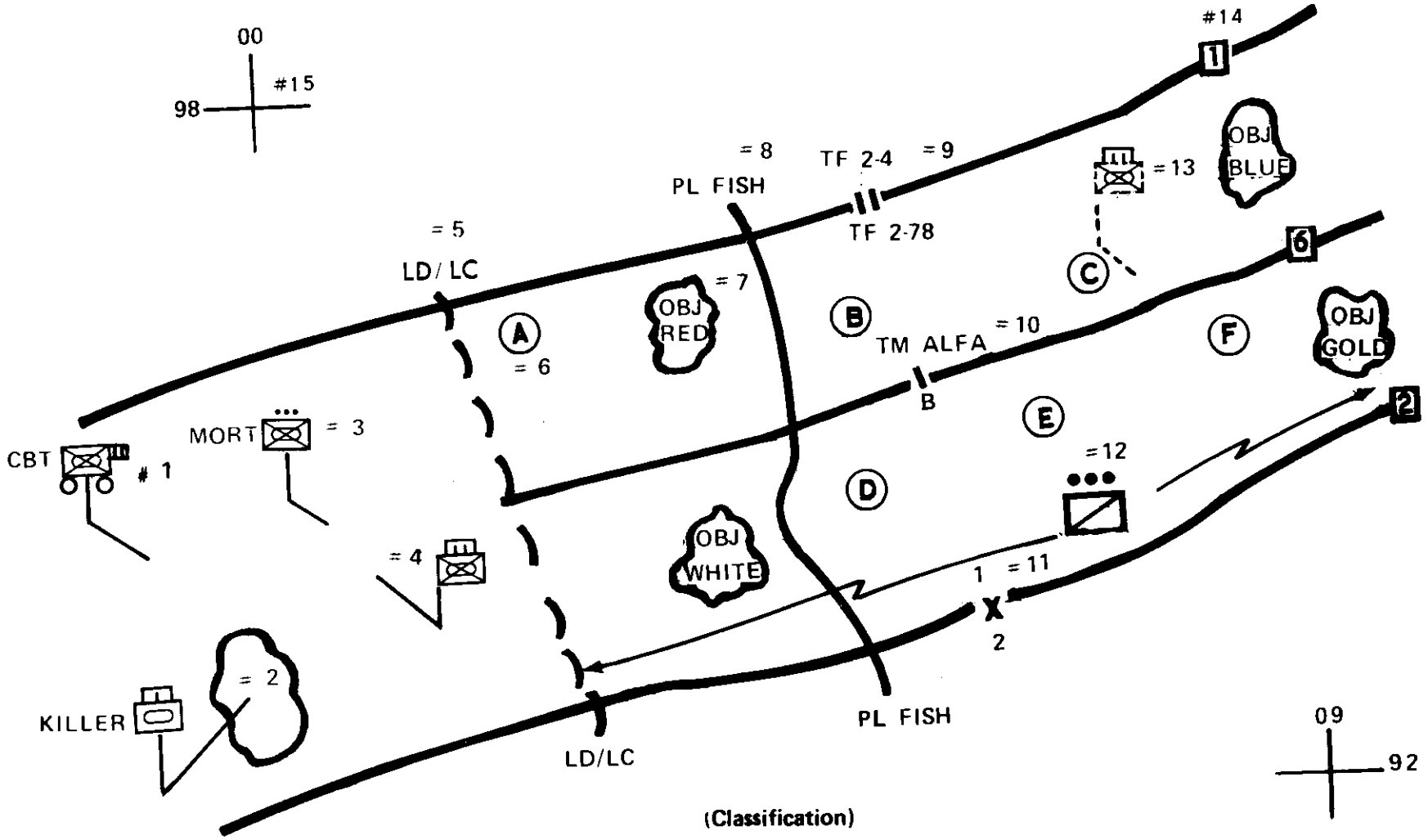
EXAMPLE OF DEFENSIVE OVERLAY



= 16

(Classification)

EXAMPLE OF OFFENSIVE OVERLAY



(Classification)

CHAPTER 5
ORDERS

Section I. INTRODUCTION

5-1. GENERAL. The terms order, directive, letter of instruction, and command are synonymous. All are written or oral communications directing mission accomplishment. A directive describes a communication indicating broad aims, policies, or strategic plans published by theater or higher commands. A Letter of Instruction (LOI) is generally applied to documents prescribing guidance and control of the operations of a large command (such as an army) over a considerable period of time. A command implies less choice in the manner of execution by the recipient than do other forms of orders. Orders set forth the details of tactical operations as well as administration in the field.

Section II. COMBAT ORDERS

5-2. GENERAL.

a. Combat orders are written or oral communications that transmit missions pertaining to combat operations. By using combat orders, the commander announces his decisions, policies, and intentions as they apply to tactical operations in the field. It must be understood, however, that the mobility of warfare today will leave little time for writing orders. Once the battle begins complete formal, written orders will normally not be used and any changes in the situation, task organization, mission, or support will result in a concise, clear, brief order (fragmentary order). There are generally five (5) types of combat orders: An operation order, a warning order, a fragmentary order, an administrative/logistics order, and a standing operating procedure.

b. Characteristics of a Combat Order. A combat order is characterized by:

(1) *Clarify.* Each commander that uses a combat order must understand it thoroughly. Use of accepted military terminology and phraseology is a necessity to insure identical meaning to all recipients.

(2) *Recongnition of Subordinate Commanders' Prerogatives.* The order should not limit the initiative of subordinate commanders. Only under overriding circumstances such as an operation requiring extremely close cooperation and timing, should a subordinate commander be told precisely how to accomplish an assigned mission.

(3) *Timeliness.* Timely distribution of orders allows subordinate commanders *sufficient time* for adequate *planning* and *preparation.*

c. Techniques of Preparation. The following techniques are guidelines for producing a clear, concise opeation order:

(1) *Abbreviations.* Abbreviations save time and space as long as there is no loss of clarity. Their use should be consistent throughout the plan or order and their annexes. Except for abbreviations in common international use, e.g., mm (for milimeters) or adopted by international agreement, abbreviations are not normally used in inter-allied communications. AR 310-50 contains detailed US Army policy for abbreviations and brevity codes.

(2) *Positive Expressions.* Positive expressions should be used throughout all orders. Negative statements such as "The trains *will not* accompany the battalion" do not specify the action desired and should not be used. The proper form should be "Trains displace on order." No doubt arises in the affirmative expression. Meaningless expressions, such as "Attack vigorously," which weaken the force of subsequent orders in which the expression does not appear, are to be avoided.

(3) *Subparagraph Headings.* Paragraphs as well as all subparagraph headings are underlined followed by a colon. If there is only one instruction following the heading, it is on the same line as the heading. If there is more than one instruction, the instructions are itemized and placed below the heading.

(4) *Directions.* Normally, compass points are used instead of the terms "right" and "left." If the situation indicates the advisability of advisability of including the terms "right" and "left," they are placed in parentheses immediately following the appropriate compass point. When the direction is such that the use of compass points would be awkward (for example, northeast, southeach, etc.), the terms "right" and "left" may be used alone. As a general rule directions are not used in an overlay-type order because the operation overlay is always before the reader and he can readily see who is on the east, left, etc. On the contrary, in an order to which the overlay is appended as a separate annex, the use of directions is helpful in portraying the tactical scheme without requiring the reader to refer to the overlay.

(5) *Georgraphic Names.* Names of specific geographical areas, cities, towns, rivers, mountains, and places named on a map are printed in CAPITAL letters. When referring to a hill by number, write "HILL" in capital letters.

(6) *Place of Feature.* The first time a place or feature appears in the order, add grid coordinates in parentheses after it. When the place or feature is mentioned again the grid coordinates are not required unless there is a possibility of misunderstanding.

(7) *Overlays.* An operation overlay is habitually prepared to show geographically instructions which can be represented by conventional symbols contained in FM 21-30 and Chapter 4 of this handbook. To prevent it from becoming cluttered, it contains only graphic information required for a clear understanding of the order. Information may be placed in the body of the order and/or graphically on the overlay as long as the required information is adequately disseminated to the subordinate command.

d. *Sources of Information.* The S3 (operations officer) has the primary staff responsibility for the preparation and distribution of orders. Other staff officers provide information for their respective functionalized areas as input for the orders. The S3 has various sources available to him to effectively prepare an order.

The primary sources are as follows:

(1) Higher Headquarters Operations Order. The higher headquarter's order provides a great deal of information needed in the preparation of the order. Examples of this are: intelligence about the enemy, missions of adjacent units, your unit mission, and logistical support available to our unit. The S3 and other staff members should extract that information that will impact or influence their order.

(2) The commander's guidance, decision, and concept (Chapter 3).

(a) Commander's Guidance. Immediately upon receiving an order from higher headquarters the commander will analyze the mission assigned to his unit, to determine the specified and the implied tasks that must be accomplished. As a minimum he will restate the mission to the staff. It may be word-for-word as stated in the higher headquarters order, or he may include the implied tasks as part of his new mission statement. The commander's restated mission may provide additional guidance to the staff which could effect their estimates, e.g., "S3, I would prefer to have all three companies forward in the defense," or, "S4, working with the S3 I want you to identify at least three different battle positions where we can stockpile ammunition during the defense of our assigned sector."

(b) Decision. The commander's decision is based on the S3's recommendation (Chapter 3). The commander approves the S3's recommendation or makes appropriate changes. The commander's decision on the scheme of maneuver to be employed becomes the basis for paragraph 3a of the operations order.

(c) Concept. Normally contains information pertaining to the task organization. The commander may also assign additional or contingency missions to his subordinate commanders or he may specify additional information he wants included in the order, e.g., control measures, priority of fires.

(3) Staff Estimates. Each of the staff members should have completed an appraisal and presented their conclusions to the S3. The S3 should include this information within the order or he may request the appropriate staff member to prepare his particular annex and paragraph of the operation order, e.g., S2, paragraph 1a; S1 and S4, paragraph 4; the CE officer 5a.

5-3. Operation Orders/Plans

a. The Operation Plan (OPLAN) is generally written using assumptions to initiate the troop dispositions for combat. When the assumption(s) listed in paragraph 1d of the OPLAN are removed the OPLAN becomes an operation order (OPORD). The standard form and techniques used in preparing operation orders apply to the operation plan. (Annex E Example)

b. Operation orders detail the coordinated actions necessary to cary out the commander's concept and decision. Normally at battalion level and below the operations order will be an oral order following a standard 5-paragraph order format. The oral order will be accompanied by a graphic overlay that shows control measures, sectors, objectives, and battle positions, depending on the mission. If an overlay is impractical the commander's map may be used as a reference for subordinate elements. Once the oral order is issued the battalion will, if time permits, prepare a written order for its files as well as copies for adjacent units.

c. Format for Operation Orders.

(1) Operation orders or plans always follow a prescribed format which contains a heading, a body, and an ending as shown in Annex A.

(2) Heading (Generally not part of an oral order).

(a) Classification. Operation orders or plans are classified in accordance with appropriate regulations. For training when there is no actual classification, the word "Classification" enclosed in parentheses and overscored, is shown at the top and bottom of each page to confirm that the classification was not inadvertently omitted.

(b) Reference to Oral Orders. A statement or reference to oral orders is made whenever oral orders have previously been issued for an operation and the written order is published to either confirm or change the oral order. If there was no oral order, no statement is made. In the case of no change, the statement will appear as (No change from oral orders). When this statement is used it will be placed directly under the classification. If there is a change, a statement such as (No change from oral orders, except the attachment of AT Plt) or (No change from oral orders, except paragraphs 1c, 3b, c, and e) is used. Entries of this type are always enclosed in parentheses.

(c) Copy No _____ of _____ copies. The issuing headquarters assigns a copy number to each copy of a written order or plan. A record of the number of copy issued to each addressee, is maintained. The copy number, stated as "Copy No _____ of _____ copies" is entered in handwriting when the copies are ready for distribution.

(d) Issuing Headquarters. The unit issuing the order is always shown; e.g., 1st Bn, 76th Inf, or TF 2-78 (Mech).

(e) Location of CP. The physical location of the headquarters issuing the order is identified by coordinates. The name of a town and country, if applicable, is normally included. Example: BITBURG (NA689432), GERMANY.

(f) Date/Time Group. The date/time group is the date and time the order is effective. It is also the date/time changes to task organization are effective. The date/time group consists of six digits, followed by the time zone designator used throughout the order, the month, and year. Example: 061030R Jan 78.

(g) Message Reference Number. The message reference number consists of letters, numbers, or a combination of letters and numbers which permit the order to be acknowledged in the clear. These letters and/or numbers should in no way refer to the fact that it is connected with an operation order. It is not advisable to have any continuity or similarity between the message reference numbers of successive orders, nor should there be any associated with any numbering system used by the unit message center. The message reference number may be assigned by the S3 or a block of reference numbers may be assigned by higher headquarters, normally as part of the CEOI. All annexes and appendixes issued at the same time as the basic order and having the same distribution hear the same message reference number as the basic order. If annexes and appendixes are not issued at the same time as the basic order or have a different distribution, the message reference numbers will be different. Examples of possible message references are: BQR, 4826, or RF 28. Acknowledgement may be made as follows: "This is Hotspur, I acknowledge BQR, over."

(h) Title and Number of Orders or Plans.

1. Orders. Operation orders of an organization are numbered consecutively during a calendar year. If two or more are issued on the same day, they are given consecutive numbers, e.g., OPORD 24, OPORD 25, etc.

2. Plans. Operation Plans are normally numbered consecutively during the calendar year and assigned a *code name.* When executed, the order of execution specifies the operation order number, e.g., "OPLAN 3 (COBRA) is OPORD 5 effective 070800R July." Normally the time of execution or H-Hour would also be specified in para 3, Coordinating Instructions.

WHERE TO OBTAIN INFORMATION FOR YOUR OPERATIONS ORDER

INFORMATION FOR:	SOURCE:
1. TASK ORGANIZATION	- TASK ORG OF HIGHER HQ'S ORDER - YOUR CDR'S CONCEPT
2. PARA 1a (SITUATION-ENEMY FORCES)	- PARA 1a OF HIGHER HQ'S ORDER - CURRENT INSUM - INTEL ANNEX OF HIGHER HQ'S ORDER - S2'S ESTIMATE
3. PARA 1b (SITUATION-FRIENDLY FORCES)	
a. MSN OF HIGHER HQ'S	- PARA 2 OF HIGHER HQ'S ORDER
b. MSN OF UNIT ON LEFT OR RIGHT	- PARA 1b OF HIGHER HQ'S ORDER - PARA 3a OF HIGHER HQ'S ORDER
c. MSN OF UNIT TO YOUR FRONT OR REAR	- PARA 1b OF HIGHER HQ'S ORDER - PARA 3a OF HIGHER HQ'S ORDER - SUBUNIT PARAGRAPHS OF HIGHER HQ'S ORDER
d. MISSIONS OF ORDER SUPPPORTING ELEMENTS	- PARA 1b OF HIGHER HQ'S ORDER - SUBUNIT PARAGRAPH OF HIGHER HQ'S ORDER - TASK ORG OF HIGHER HQ'S ORDER
4. PARA 1c (ATTACHMENTS AND DETACHMENTS)	- TASK ORG OF HIGHER HQ'S ORDER - PARA 1c OF HIGHER HQ'S ORDER - PARA ___ (COORDINATING INSTRUCTIONS) OF HIGHER HQ'S ORDER
5. PARA 2 (MISSION)	- HIGHER HQ'S ORDER PARA 2 PARA 3a SUBUNIT PARAGRAPHS - YOUR CDR AS DEDUCED BY YOUR CDR BASED ON HIGHER HQ'S ORDERS CDR'S PLANNING GUIDANCE
6. PARA 3a (EXECUTION-CONCEPT OF OPN)	- PARA 3a OF HIGHER HQ'S ORDER YOUR CDR CDR'S DECISION - CDR'S CONCEPT
7. SUBUNIT PARAGRAPHS	- YOUR CDR'S CONCEPT
8. PARA ____ (COORDINATING INSTRUCTIONS)	- PARA ___ (COORDINATING INSTRUCTIONS) - OF HIGHER HQ'S ORDER - YOUR CDR'S CONCEPT YOUR S2 - YOUR FSO -
9. PARA 4 (SERVICE SPT)	- PARA 4 OF HIGHER HQ'S ORDER YOUR CDR'S ORDER - YOUR S4 -
10. PARA 5 (COMMAND AND SIGNAL)	- PARA 5 OF HIGHER HQ'S ORDER YOUR CDR'S CONCEPT YOUR C-E OFFICER

(i) Reference. The reference designates the map, sketch, aerial photograph, or other documents required to understand the order. Reference to a map includes the map series number (and country or geographical area, if required), sheet number (and name if required), edition, and scale. EXAMPLE: Map, series M550, POLAND. PIESDA Sheet 7062, Edition 1, 1:50,000.

(j) Time Zone Used Throughout the Orders. This item is always listed. The time zone letter designator is spelled out in capital letters, e.g., "ROMEO." The time zone letter designator need not be repeated in the body and ending of the operation order. Correct official time/zone is available by consulting the CE officer. Example: Annex B.

(3) Body - Consists of the task organization and five (5) main paragraphs. The headings of each paragraph are depicted using capital letters.

(a) TASK ORGANIZATION

1. Task organization indicates the internal organization or tactical groupings for combat in order to achieve mission accomplishment. It includes combat and combat support units. The organization is developed by the S3 based on the commander's decision, concept, planning guidance, and staff conclusion/recommendations. Task organization will also show the command relationship of units, as well as names or titles assigned to these groups.

2. Major subordinate unit (organic and attached) are normally listed alphabetically or numerically and are listed in the following sequence: Infantry, Infantry (Mech), Air Assault Infantry, Airborne Infantry, and Armored. A control grouping is also shown as appropriate: Brigade Control, Battalion Control; or Task Force Control. Generally, only the combat and combat support elements are shown in the task organization at brigade and battalion level.

3. Organic, attached, operational control, and supporting units are indicated in the task organization with their command relationships depicted. When subordinate commanders review the task organization it should show what has been provided them to accomplish their respective missions. If the command relationship is indicated properly in the task organization there is no need to mention it in a subparagraph.

4. To depict command relationships in task organizations, organic or attached elements are listed without any parenthetical expression. Attached elements are indented and listed under the unit to which they are attached. A detachment of a major subordinate element is indicated by a minus sign (-). Operational control elements are indicated with a parenthetical expression (OPCON). OPCON units may further be shown OPCON or in support of subordinate elements. Supporting units that have been directed by a higher headquarters to provide direct support to subordinate elements are shown in the task organization at brigade and battalion. Supporting units providing general support and field artillery units providing general support and general support-reinforcing fires are not shown in the task organization. General support and general support-reinforcing field artillery units are placed in paragraph 1b, Fiendly Forces, of the operation order/plan. Units providing direct support are qualified with a parenthetical term (DS), which denotes a command relationship of support between the supported and the supporting unit. The term (DS) in task organization does not denote a mission assignment to the supporting unit. Mission assignment is made in the next higher headquarters order and may be included in the appropriate annex to the issuing unit order/plan, e.g., engineer, fire support, barrier, etc. Examples of task organizations may be found at Annexes B, C, and G.

5. Considerations for Task Organization.

a. When the issuing headquarters (supported unit) establishes a further command relationship, it is indicated in the task organization. The supported commander cannot assign a command relationship which is more restrictive than that received from higher headquarters, e.g., a unit in direct support (DS) cannot further be attached or placed under operational contol (OPCON).

b. Organic units to the battalion performing normal support/security type missions such as the Scout/Recon Platoon, Mortar Platoon, Redeye Section, and organic combat service support elements are included in the task organization, under TF/BN Control.

c. The use of a (-) in the task organization states that a unit has detached one or more of its major subordinate elements. The use of a (-) in the task organization also denotes that a unit under OPCON of one headquarters has placed one or more of its subordinate elements under OPCON of another headquarters. The detached or OPCON element is shown in an attached or OPCON status under another unit within the task organization or listed in paragraph 1c, "*Attachments and Detachments,*" if detached from the headquarters issuing the order.

d. When the task organization is lengthy and complex, it may be appended as an annex and referenced in the "*Task Organization.*"

e. It is not necessary to repeat task organization matters already known by subordinates. When minor adjustments (not more than two) to the present task organization are involved, only the changes themselves need by specified. For example, if the only change to the existing task organization is detaching the 1st Platoon from A/2-4 Armor and attached it to A/2-76 (-), thus forming a company team which will be named "Tm ALFA," the task organization may be shown as follows: *Task Org:* No change, except 1/A/2-4 Armor attached to A/2-76 (-) to form (Tm ALFA). Example at Annex F.

f. For clarity it may be necessary to include a "NOTE" regarding some unique aspect of the task organization. Example: A tank company of two platoons becomes attached to a mechanized battalion. To insure addresses of the battalion order understand there are only two tank platoons available in the Task Force, a note should be included in the task organization as follows: A/2-70 Armor (-) consists of 1/A/2-70 Armor and 3/A/2-70 Armor.

(b) SITUATION: Paragraph 1 of the operatiuon order has three (3) subparagraphs: Enemy Forces, Friendly Forces, and Attachments and Detachments. In operation plans, a fourth sub-paragraph, Assumptions, is added. Paragraph 1 gives an overview of the general situation so subordinate commanders have an understanding of the environment in which they will be operating. This paragraph is used exclusively to provide information and contains no orders.

1. Enemy Forces (Subparagraph 1a):

a. This paragraph contains that information about the enemy necessary to accomplish the mission. Reference may be made to an intelligence annex, overlay, periodic intelligence reports, or to an intelligence summary (INTSUM). The S2 is responsible for disseminating intelligence by using a periodically published INTSUM or other media. Reference to a specific INTSUM is avoided and the phrase CURRENT INTSUM is used.

b. Enemy information when included in the order will normally provide composition, disposition, location, movement, morale, strength, status of supply, enemy capabilities, and the enemy's most probable course(s) of action (extracted from the intelligence appraisal).

c. Units at battalion level and below should be provided specifically with what they can expect to encounter. Not only should they be told what division or army is opposing them, but whether they are armor or infantry, what size (platoon, company, battalion) and their capabilities.

2. Friendly Forces (Subparagraph 1b):

a. This paragraph contains the verbatim mission statements of the next higher headquarters, adjacent, supporting, and reinforcing units, lilsted in the following sequence:

Higher Unit - (As a minimum, the mission of the next higher unit).

Adjacent Units - (Listed in sequence: Left, right, front, rear, as applicable.) Reference to units to the front and rear should not include organic, attached, or OPCON units. An example of a unit to the front would be the division covering force. Listing units to the rear should include those units that could directly influence the mission or add combat power to the unit issuing the order.

b. *Supporting Field Artillery.* Direct Support (DS), Reinforcing (R) and General Support Reinforcing (GSR) are listed when appropriate. If (DS) artillery units are listed in the task organization they will not be included in para 1b.

c. Since units in direct support of the headquarters issuing the order are listed in the task organization they need not be repeated in paragraph 1b. Paragraph 1b portrays units providing support or reinforcement in addition to that which is normally provided. Units which are reinforcing or general support-reinforcing are listed in paragraph 1b. Units which are in direct support of the next higher headquarters are also listed. For example: artillery and engineer units in direct support of a brigade provide combat support to the maneuver battalions and, consequently, are listed in paragraph 1b of the battalions' operation order. Organic divisional support units normally employed in general support of the division are not mentioned at brigade and lower since their employment in this role provides no unusual, distinct support advantage.

d. The listing of the missions of higher, adjacent, and combat support units provides subordinates with information concerning actions occuring on its flanks as well as front and rear.

3. Attachments and Detachment (Subparagraph lc):

List here units attached or detached from the issuing unit headquarters and the time the attachment/detachment is effective. At battalion and below entries are normally made here if a unit will be attached or detached after the effective time in the heading of the order. If the unit issuing the order has an element detached at the effective time the unit would not appear in the Task Organization but would be shown in this subparagraph. When all attachments and detachments are depicted in the Task Organization this subparagraph references "TASK ORGANIZATION."

4. Assumptions (Subparagraph 1d): An operation plan always contains paragraph 1d, "Assumption." For example a counterattack plan includes an assumed penetration. The assumed penetration is normally shown graphically or stated in paragraph 1d with other assumptions establishing conditions upon which the plan is based. (See Annex E)

(c) MISSION (Paragraph 2). The mission is a clear, concise, statement of the task to be accomplished. It contains the WHO (TF 2-81), WHAT (attacks), WHEN (date/time group), and as appropriate the WHY (seize/prevent penetration of rear boundary), and WHERE (generally grid coordinates). The mission statement is written based on mission analysis of the higher headquarters order and the commander's planning guidance. The HOW (scheme and maneuver and support) will be shown in paragraph 3-EXECUTION. Mission statements are stated in full regardless of how clearly it may be shown on an overlay. A mission statement must stand alone because it serves as the basis for the friendly forces subparagraph of subordinate orders. Since subordinates do not receive overlays for adjacent units they should, if necessary, be able to plot missions solely from the mission statement.

Examples:

TF 2-81 attacks 220600 Jan to seize HILL (453 (NA760140) and HILL 354 (NA771140).

TF 2-81 defends in sector WN6226 - WN5524 - WN5519 - WN6221 by 30700 Jan to prevent penetration of rear boundary.

(d) EXECUTION (Paragraph 3). The execution paragraph contains the "How To" information needed for mission accomplishment. It will contain the concept of operation, missions to subordinate units (organic, attached, or operational control, and coordinating instructions.

1. Concept of Operation (Subparagraph 3a) states briefly the commander's tactical plan. It describes the scheme of maneuver and plan of fire support, as taken from the commander's decision and concept or developed during staff planning. Although brief it *must* be stated in sufficient detail to insure appropriate action and to avoid confusion by subordinates. The concept of Operation may be one paragraph or broken down into two subparagraphs with subheadings: Scheme of Maneuver and Fire Support respectively. (See Annex C & G with examples of these methods.)

a. Scheme of Maneuver: The scheme of maneuver is spelled out in Paragraph 3a and addresses placement and movement for major maneuver elements as well as providing the *primary* mission to each maneuver element. It is the commander's decision based on his estimate of the situation. In an attack order the scheme of maneuver portion specifies the elements making the main and supporting attack (if designated), assigns objectives and designates reserve. In the defense order the scheme of maneuver assigns principal tasks to major subordinate units to include the reserve.

NOTE: All secondary or "be prepared" missions will be spelled out in separate subordinate unit paragraphs.

b. Fire Support: The fire support portion of paragraph 3a contains a brief summmary of all fires that will support the scheme of maneuver. Preparation fires (starting time and duration) for the attack; allocation of final protective fires for the defense; priority of fires; special fires (e.g., chemical, smoke, etc.); tactical air support; and reference to Fire Support Annex, if used, are all noted when appropriate. Normally, the commander addresses supporting fires in his concept. If higher headquarters prohibits firing a preparation, a comment, such as "No preparation authorized" is noted in paragraph 3a.

c. Nuclear Fires: Current nuclear weapons employment doctrine envisions Corps planning and fighting the tactical nuclear battle, while division and brigade fight the conventional battle. Authority to expend nuclear munitions will normally not be delegated below Corps. This obviously does not preclude units sobordinate to Corps from being designated delivery units, or nuclear fires planned in support of a subordinate unit. Nuclear rounds planned by higher headquarters in support of a subordinate unit's concept of operation.

d. Chemical Fires. Authority to employ chemical munitions is delegated as follows:

2. Nonpersistent agents (GB): Down to brigade level.

3. Persistent agents (VX, HD): Down to division level.

4. Chemical fires planned by higher headquarters in support of a battalion are identified in the fires portion of the concept of operations in the same manner as nuclear fires. Examples are:

(e) Concept of Operations:

1. Maneuver...

2. Fires. 54 rounds of 155mm agent GB employed on OBJ ANN at H-15.

Fires. 18 rounds of 8" agent VX employed to isolate left flank of OBJ ANN at H-10 minutes. Expected contamination boundaries indicated in Annex J.

3. Subordinate Unit Subparagraphs:

a. Beginning with subparagraph b, only units organic, attached, or under operational control of the issuing headquarters are listed. The abbreviated designation (A/2-76) or the Task Force (TF 2-76) or team (Tm BRAVO) title is used followed by a colon. This title is the samé title established in the Task Organization, with the exception that at battalion the abbreviated designation may be further shortened by deleting the battalion designation, e.g., "Co A" or "Co C (-)." Branch identification, such as infantry, mechanized infantry, or armor, is included in these subparagraphs when necessary for clarity.

b. Only listing of the unit, team, or task force is required when instructions for the unit to understand its mission are contained in paragraph 3a, "Concept/"Concept of Operation."

Specific "Prepare Position X and Y in that priority."

"Upon seizure of Obj 1 and 2, occupy HILL 465 on order."

"Be prepared to seize or assist in the seizure of Obj 3."

c. Task assignments to security forces are written using the imperative to "screen," "guard," "cover," or provide rear area security. Since missions to security forces cannot be clearly described graphically, they are stated in the written portion of the order.

d. Sequence of listing - Generally units will be listed by size.

Infantry units.

Armor units. List tank units first, then cavalry units.

Scout platoons.

Mortar platoon.

Antitank platoon.

Redeye section.

e. Other units performing a straight combat mission are listed in alphabetical sequence by branch. (For example, an engineer platoon with a combat mission rather than its normal support mission).

f. Headquarters and Headquarters Company/Combat Support Company and their subordinate elements such as the Communications Platoon, Aviation Section (brigade) and combat service support elements are not assigned a unit subparagraph unless elements of these units are given a specific tactical mission.

g. Combat Support Company would appear in battalion/TF task organization if the combat support company headquarters were used as a tactical control headquarters and assigned a specific tactical mission. Under these circumstances, Combat Support Company would also be assigned a subparagraph in paragraph 3 and would be listed in sequence after all lettered infantry companies but before any infantry platoons that might be operating under battalion/TF control.

4. Coordinating Instructions. The final subparagraph of paragraph 3 is, "*Coordinating Instructions.*" It contains tactical instructions and details of coordination (other than signal items) applicable to two or more elements. When there are no coordinating instructions, the word "None" is placed after the heading. *Coordinating Instructions* may include:

a. Essential elements of information or specific orders for information of an intelligence nature. *NOTE*: The order is only one method the S2 uses to disseminate EEI or orders for information. Absence of these items in the order does not mean the S2 is not disseminating this information.

b. Any counterintelligence measures not a matter of SOP (except signal counterintelligence).

c. Restrictions on the use of nuclear weapons.

d. Troop safety instructions, if different from SOP, e.g., operation exposure guidance (OEG). If chemical operations are imminent or have commenced the Mission Oriented Protective Posture (MOPP) level will be indicated in the troop safety portion of coordinating instructions.

e. Effective time of attachment or detachment of units in the issuing headquarters organization when such times are different from the effective time of the order and are not indicated in the task organization.

f. References to annexes not mentioned elsewhere in the body of the order.

g. Time, date, or condition the order or plan becomes effective when the order or plan is not effective on receipt. For example, in operation plans, the subparagraph would include the phase: "Effective for planning upon receipt; for execution on order."

h. Reference to nuclear allocation in the Nuclear Fire Support Appendix to the Fire Support Annex when necessary for clarity (brigade only).

4. *SERVICE SUPPORT*

a. *General.* Outlines the general plan for combat service support and its purpose.

b. *Materiel and Service.* (Information not covered by unit SOP).

(1) Supply items beginning with Class I through X (as appropriate) to include special ammunition load (SAL), if appropriate, and miscellaneous supplies.

(2) Transportation information.

(3) Services information.

(4) Labor information.

(5) Maintenance information.

c. *Medical Evacuation and Hospitalization.*

(1) Evacuation.

(2) Hospitalization.

d. Personnel.

(1) Strengths.

(2) Personnel Management.

(3) Development and Maintenance of Morale.

(4) Maintenance of Discipline, Law, and Order.

(5) Headquarters Management.

(6) Miscellaneous.

(7) POW Procedures.

e. Combat service support procedures at brigade and battalion are usually routine and covered by SOP. Therefore, an administrative/logistics order is normally not required. At brigade and battalion, pertinent information on current and projected administrative and logistical installations and facilities may be shown graphically on the operation overlay. Other logistical or administrative information may be disseminated by other means. Therefore, paragraph 4 at this level does not generally contain lengthy administrative or logistical instructions. When required by nature of the operation, paragraph 4 may contain various subparagraphs as necessary. They follow the sequence, including paragraph headings, of an administrative/logistics order as follows:

f. *Civil Military Cooperation.* (Civil Affairs and Psychological Operation).

g. Miscellaneous.

* * * * * *

NOTE: Although this sequence is followed in paragraph 4, include only those items required. Example: When information concerning only one or two of the items listed under "*Materiel and Service*" is included, only the specific item is listed, e.g., "*Supply*" and "*Service*" is omitted.

5. *COMMAND AND SIGNAL.* (Paragraph 5) contains two subparagraph: "*Signal*" and "*Command*" in that sequence.

a. Paragraph 5a contains, as a minimum, the index of the effective Communication Electronics Operation Instructions (CEOI). Special instructions relating to signal communications, such as instructions on the use of radio or pyrotechnics or restrictions on the employment of communications, is placed in the subparagraph. All signal type information is placed in this paragraph.

b. Paragraph 5b includes location of the command post of the issuing unit (if not shown graphically) and location of the command group, e.g., "Cdr will follow the main attack" or "Cdr will be located at OP No 1." It may include instructions to report locations of command posts of subordinate units. Location of the command post of the next higher headquarters may be listed. Designation of an alternate command post may be entered in this subparagraph if it is different from that stated in the SOP.

(1) *Ending.* The ending of the order consists of the acknowledgment instructions, signature of the commander, authentication (if required), list of annexes (if any), and distribution.

(a) Acknowledgment Instructions. These instructions are placed under the final subparagraph and are given neither a heading, a paragraph number, nor a letter as a subparagraph. They may contain detailed acknowledgment instructions or simply "Acknowledge." Acknowledgment is always given using the message reference number unless otherwise directed. The acknowledgment of an order means that the order has been received and understood.

(b) Signature of Commander. The original copy (No 1) of a written order bears the actual signature of last name of the commander or his designated representative. It is written above the typed last name and rank. This copy is retained in the unit files.

(c) Authentication. The last name and rank of the commander appears on all copies of the order. If the commander or an authorized representative signs a master copy, permitting automatic reproduction of the document with the signature thereon, no further authentication is required. If this signature is not reproduced, authentication by the S3 is required on all subsequent copies. Annexes are authenticated by the unit staff officer responsible for its preparation.

Example:
OFFICIAL:

PIEPER
S3

i. Annexes. Annexes are supporting documents attached to the order or distributed at a later time to amplify and supplement instructions in the order. All annexes to operation orders are listed by letter and title. When the annex is to be issued later, the parenthetical phrase (to be issued) follows the title of the annex. See paragraph D, this chapter.

j. Distribution. This indicates to whom the order is distributed. Frequently, use of a distribution code, as established by unit SOP, is sufficient. A combination of a distribution code and listing of units not included by the code may be used. STANAG 2014, 3d Edition, states, "when orders are to be distributed either to a unit of a nationality other than that of the issuing headquarters or to a NATO command, the distribution list normally will be given in full."

d. Annexes to Orders/Plans.

(1) Annexes are separate documents attached to plans and orders. They preserve brevity clarity, and simplicity in the body of the order. They may include information that simplifies a plan or order. An example is an annex reflecting fire support. This is the coordinated and integrated plan for all fire support availale to the commander. At brigade and battalion items of information and/or instructions may be distributed in fragmentary form. When this is done, information or instructions need not be published as an annex to the operation order.

(2) Annexes that have a wider distribution than the basic order or are issued separately, must identify with the basic order and bear the same heading and ending except for the title of the annex and the message reference number. However, annexes issued as part of the basic order need only be identified by title and reference. Formats for most annexes are in FM 101-5. The annex titles are inclosed in parentheses.

(3) Annexes are issued to all units or agencies whose actions are affected by information or instructions therein. Detailed informatin included in an annex need not be covered in the order. As previously noted, each annex is mentioned at the first place in the order where it is needed.

(4) Even when accompanied by annexes, the order itself contains all essential information for effective employment of the command. Recipients should not have to read an entire annex to determine the basic organization and employment of their unit.

(5) Maps, sketches, or overlays are frequently used as annexes. When the written portion of a plan or order is placed directly on a map or overlay, the map or overlay becomes the plan or order and is not an annex.

e. Oral Operation Order (Annex H Example).

(1) General. At battalion and below, the time required to prepare written operation orders is frequently not available. Therefore, orders are normally issued orally at these levels and frequently at brigade level. The basic order format for a written order, as discussed in paragraph 5-3c is used when preparing and issuing an oral order. However, when issuing the oral order, items contained in the heading, reference to paragraph numbers in the body, and items contained in the ending of the order, etc., are omitted.

(2) Issuing of Oral Order. The oral order is issued by the commander or his designated representative, normally the S3. The following is generally the technique and sequence used in presenting an oral order.

(a) Subordinates are issued an operation overlay (or graphical information is posted on subordinate commander's maps).

(b) Subordinates are oriented on the enemy situation (usually by the S2).

(c) Subordinates are oriented (normally by the S3) on the friendly situation and terrain that will be referred to throughout the order (objective areas, LD, boundaries, etc.).

(d) The Task Organization is announced. If only minor changes are made from the existing Task Organization, only changes are mentioned.

(e) Other items of the situation (paragraph 1) that have not previously been covered aer noted at this time.

(f) The mission of the unit as a whole (paragraph 2) is explained and discussed to insure complete understanding.

(g) The scheme of maneuver and plan of fire support are covered (paragraph 3a).

At this time all major subordinate elements receive their mission. Remarks concerning nuclear or nonnuclear fire support normally include the time and duration of preparation or allocation of FPF, when appropriate, and priorities of fires.

(h) Separate platoons receive missions.

(i) Coordinating instructions are covered.

(j) Service support items (paragraph 4) that remain in effect or are changed for the operation are noted.

(k) Coordination on signal matters and location of the commander during the operation (paragraph 5) are announced.

(l) Supporting plans are discussed, as necessary, and the correct time is established.

f. Written Confirmation of Oral Orders. Time permitting, oral orders may be confirmed in writing. Normally, at battalion, this is not done.

5-4. A Warning Order

a. Alerts subordinate units of an impending mission so that commanders and staffs may make maximum use of available time to implement troop leading procedures. Warning orders may be issued as brief oral or written messages and contain the essentials to begin preparation, i.e., who, what, when, and where.

b. As a general rule there is no prescribed format for a warning order. However, in order to facilitate the who, what, when, and where referenced in para A, they will contain four minimum essential elements.

Addresses
Nature of the Operation
Time and Place - When order to be issued and location
Time of Operation

c. A sample Warning Order may be found at Annex I.

5-5. Fragmentary Order (Frag Order) provides brief, specific, and timely instruction without lose of clarity. Frag orders contain missions of immediate concern to subordinate units and may be either written or oral. Frag orders will be used because they are timely and brief. The frag order will be issued to change an order that has already been issued and as such only those items that are changed from the original order should be included in the frag order as long as clarity is not sacrificed.There is no standard format for a FRAGO.

5-6. An administrative/logistics order is issued to provide coordinated combat service support for a command. It is normally prepared and issued at division and higher level. At brigade and battalion level, the administrative/logistics order is not normally used. At these levels, paragraph 4 of the operation order is normally used to disseminate written administrative/logistics instructions. A service support annex to the OPORD may also be used. Example for Administrative/Logistics Order format may be found in the Logistics Handbook, Volume II.

5-7. The unit standing operating procedure (SOP) is a set of instructions having the force of orders. It covers features of operations which lend themselves to standardized procedure without loss of effectiveness. It is used to supplement other combat orders. Procedures outlined in the SOP are applicable unless otherwise prescribed.

ANNEX A (FORMAT, OPERATION ORDER)

OPERATION ORDER/PLAN FORMAT
(Based on STANAG 2014, 3d Edition)

(Classification)
(Changes from Oral Orders)

HEADING

Copy No ___ of ___ copies
Issuing Headquarters
Location of CP
Date/Time Group
Message Reference No.

OPORD No./OPLAN No. (Code Name)

Reference:

Time Zone Used Throughout the Order:

Task Organization:

1. SITUATION
   a. Enemy Forces.
   b. Friendly Forces.
   c. Attachments and Detachments.
   d. Assumptions.*

2. MISSION

3. EXECUTION
   a. Concept of Operation.
   b. _____
   c. _____ (Subordinate Unit Subparagraphs)
   d. _____
   _. Coordinating Instructions. (Always the last subparagraph)

4. SERVICE SUPPORT

5. COMMAND AND SIGNAL
   a. Signal.
   b. Command.

BODY

Acknowledgement Instructions.

ENDING

Commander's Last Name
Commander's Rank

Authentication: **

Annexes:

Distribution:

(Classification)

*Used only in an operation plan.
**Used only when applicable.

ANNEX B (SAMPLE BRIGADE OPERATION ORDER)

(Classification)

Copy No ____of ___Copies
2d Bde
FRAVROMACH (NB448132)
081800R Oct 77
RB 39

OPORD 15

Reference: Map Series M550, GERMANY, BITBURG SHEET 7062 Edition 1, 1:50,000

Time Zone Used Throughout the Order: ROMEO

Task Org:

TF 4-78
4-78 Mech (-)
A/4-4 Armor
1/C/54 Engr (DS)

TF 4-79
4-79 Mech (-)
B/4-4 Armor

TF KILLER
4-4 Armor (-)
A/4-78 Mech
C/4-79 Mech
2/C/54 Engr (DS)

Bde Con
9-51 FA (DS)
C/54 Engr (DS)
1/54 MP (DS)
1/121 Avn Co (OPCON)

1. SITUATION
a. Enemy Forces.
(1) Bde is opposed by elements of the 189th motorized rifle regiment. Enemy forces in our zone are estimated at 80 percent strength in personnel and 75 percent in equipment.
(2) Enemy is capable of employing nuclear weapons as large as 10KT, by air and ground delivery means.
(3) Indications are the enemy will delay in present and successive positions.
b. Friendly Forces.
(1) 54th Inf Div (Mech) atks 090615 Oct to seize high ground vic HILL 524 (NB6129) and HILL 511 (NB6232).
(2) 1st Bde atks 090615 Oct to seize high ground vic HILL 524 (NB6129)
(3) 52d Div atks 090615 Oct to seize high ground vic UFHAUSEN (NB6025)-RASDORF (NB6319)-REINHARDS (NB6210).
(4) 3d Bde, Div Reserve, follow 2d Bde be prepared to seize or assist in the seizure of HILL 802 (NB6118) and HILL 914 (NB6213).
(5) 9-53 FA (8" SP) GSR 9-51 FA.
(6) Elements of the 9th AF support the atk.
c. Attachments and Detachments: Task Org.

2. MISSION
2d Bde attacks 090615 Oct to seize HILLS 802 (NB6118), HILL 900 (NB6211), and HILL 914 (NB6214). Be prepared to continue the attack east on order.

3. EXECUTION
a. Concept of Operation. Bde atks with TF 4-78 atking to seize OBJ LAURA and TF KILLER atking to seize OBJ DON. TF 4-79 Bde reserve, follow TF 4-78 on order. A 15-minute nonnuclear preparation on call. Priority of fires to TF 4-78. Annex A (Target List).
b. TF 4-78:
c. TF 4-79: Be prepared to seize or assist in the seizure of OBJ LAURA.
d. 1/121: GS, priority of fires to TF 4-78.
e. Fire Support: See NOTE.
(1) Field Artillery.
(a) General:
1. FA supports the brigade's operation in the conventional fires.
2. Priority of fires to TF 4-78
3. One priority target allocated to TF KILLER, two priority targets allocated to TF 4-78.
(b) Organization for Combat:

(Classification)

(Classification)

9-51 FA (155mm) (SP) DS 1st Bde
9-53 FA (8") (SP) GSR 9-51 FA
(c) Special Instructions:
1. PL MARY JOE is a CFL on order.
2. Coordinate use of smoke and illumination through FSO.

	HE	ICM (AP)	ICM (DP)	WP	ILLUM	SMK
155mm	80	2	2	2	2	1
8"	60					

(2) Close Air Support
(a) General:
1. 76 air sorties allocated for planning purposes to 54th Inf Div (Mech).
2. 2d Bde allocated 32 sorties daily.
(b) Special Instructions: Four sorties per mission for planning purposes.
f. Coordinating Instructions: All units report crossing phase line MARY JOE.

4. SERVICE SUPPORT
a. Trains presently located NB411171, displace on order to NB532156.
b. CSR 107mm HE 8-12 Oct is 120 rds.
c. Div Admin/Log Order 12.

5. COMMAND AND SIGNAL
a. Signal.
(1) CEOI Index 1-9.
(2) Emergency signal for shifting supporting fires. Day: Two green smoke streamers; night: Two green star clusters.
b. Command. Comd Gp follows TF 4-78.

Acknowledge.

HAGLER
COL

OFFICIAL:

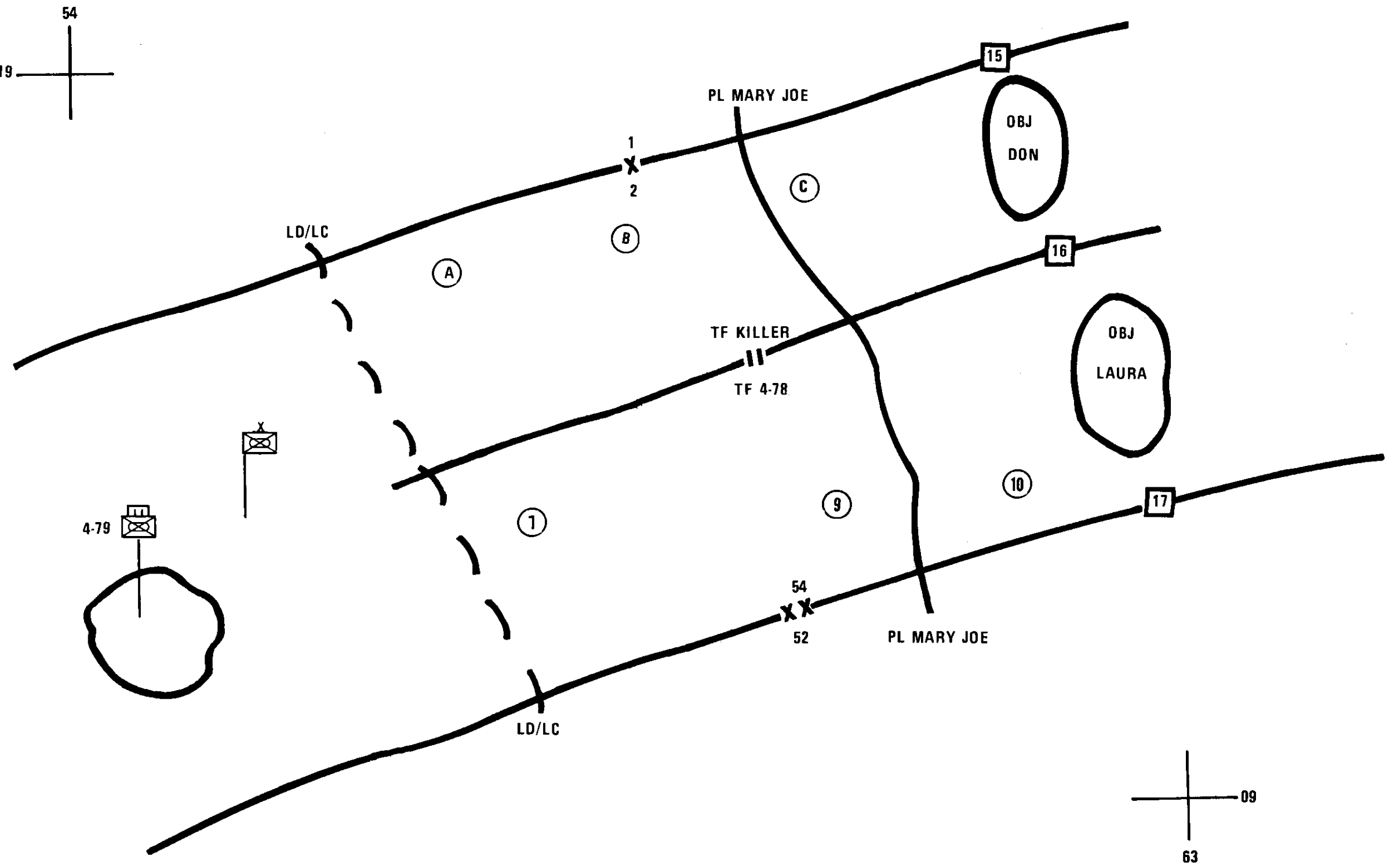
STAUSS
S3

ANNEX A - Target List
ANNEX B - OESO (PVT VAN EYNDE)

NOTE: This subparagraph for fire support is a new procedure currently being used by some units in the field. The fire support subparagraph is designed to be used in lieu of the fire support annex where possible, but especially at brigade and battalion level. While it is preferred that the subparagraph be used, the commander retains the option to use the fire support annex when the fire support plan requires amplification.

The fire support officer (FSO) prepares the fires portion of the concept of the operation and coordinates the preparation of the fire support subparagraph for each fire support agency involved in the operation. Input for these subparagraphs comes to the FSO from the appropriate agencies (FISTS).

(Classification)


54
19
15
PL MARY JOE
1
2
OBJ
DON
C
LD/LC
B
A
16
TF KILLER
TF 4-78
OBJ
LAURA
10
9
17
7
4-79
54
52
PL MARY JOE
LD/LC
09
63

ANNOTATED OPERATION ORDER

The order and its number. Orders are numbered consecutively throughout the calendar year.

"Reference:" The reference designates the map, sketch, aerial photograph, or other documents required to understand the order: Reference to a map includes the map series number (and country or geographical area, if required), sheet number (and name if required), edition and scale. Example: Map, Series M350, GERMANY, BITBURG Sheet 7062, Edition 1, 1:50,000.

The zone applicable to the operation will always be listed. Times in other zones are converted to this time zone for this operation.

"Task Organization" appears here. This indicates the tactical groupings derived from the commander's internal organization for combat, command relationships among tactical components, and names or titles assigned to these groupings.

Paragraph 1, "SITUATION," contains information of enemy forces, friendly forces, and attachments to or detachments from the issuing headquarters. This paragraph is devoted exclusively to information. It contains subparagraphs, a, b, and c. In an operation plan, assumptions are listed as subparagraph 1d.

Paragraph 1a, "Enemy Forces," contains factual information of the enemy listed in the following sequence: Items pertaining to the enemy situation (e.g., composition, disposition, strength, morale, and status of supply); enemy capabilities; enemy's most probable course(s) of action. In most situations, reference to current intelligence summaries, published intelligence documents, overlays, or annexes is sufficient.

Paragraph 1b, "Friendly Forces," refer to higher, adjacent, and supporting or reinforcing units and their mission. They are listed: higher, adjacent (left, right, front, and rear), field artillery; air defense artillery, and supporting units in any order. Supporting units contained in the issuing unit's task organization are not repeated.

Paragraph 1c, "Attachments and Detachments," lists units attached to or detached from the headquarters issuing the order with the effective time (if applicable). If these units are indicated in the "Task Organization," reference to Task Organization is entered as illustrated.

Paragraph 2a, "Concept of Operation," contains the commander's scheme of maneuver and plan of fire support (as taken from the commander's decision and concept or developed during staff planning). The scheme of maneuver portion contains statements of the placement and movement of major maneuver elements and provides principal missions to each element.

In the offense, designate units making the main and supporting attacks and assign objectives; designate reserve elements and their mission. In the defense, designate units occupying defensive positions from left to right; designate the reserve elements and their position(s). Fire support information provided in paragraph 2a includes, as applicable, the following items: assigned nuclear rounds to support the scheme of maneuver, fired, in reserve, or on call are shown by number, type, yield, specific target, and time; preparation starting time and duration (attack); allocation of FPF (defense); special fires (e.g., chemical, smoke, etc.); tactical air support; priority of fires; and reference to the Fire Support Annex. When missions for major maneuver elements are clearly stated in the "Concept of Operation," they are not repeated in the mission subparagraph for those units.

In subsequent separate lettered subparagraphs, give tasks to be accomplished by each element of the command; organic, attached, or under operational control of the unit issuing the order. The largest headquarters subordinate to the unit issuing the order is listed first followed in order by infantry units, armor units (tanks, then cavalry), other combat elements (recon/scout platoon, heavy mortar platoon, antitank platoon, redeye section, and any other units performing a tactical mission listed alphabetically). Other organic attached or OPCON elements are then listed in alphabetical sequence (e.g., aviation, chemical, transportation, etc.). These instructions concern only combat or combat support portion of the unit's mission; normal combat service support missions are not included.

The last subparagraph is entitled, "Coordinating Instructions." It contains tactical instructions and details of coordination applicable to two or more elements. An exception is signal instructions, which always appears in paragraph 5a. Annexes not mentioned elsewhere in the order are listed here. When there are no coordinating instructions, the word "None" is placed after the heading.

The commander or his designated representative signs the first copy. If the signature is reproduced, no authentication is required. If the signature is not reproduced, authentication by the preparing unit staff officer (S3) is required on all subsequent copies.

Distribution usually refers to a standard distribution list, adding any additional units that are required. SOP distribution in this case includes higher headquarters, organic and attached units, supporting units, staff and file. If desired, adjacent and reinforcing units may be added.

ANNEX C (ANNOTATED BN/TF OFFENSIVE OVERLAY OPERATION ORDER)

(Classification)

(No Change from Oral Orders)

Copy No _____ of _____ copies
TF 4-78
NB 461104
081800M Oct 77
ABX

ORDER 61

Reference: Map Series M350, GERMANY, BITBURG SHEET 7062, Edition 1, 1:50,000.

Time Zone Used Throughout the Order: ROMEO

Task Org:

TM SYLVAN B/4-78 1/A/4-4 Armor 1/1/C/54 Engr (DS) AT Sec	TM PERKERSON C/4-78(-) 2/A/4-4 Armor
TM CITADEL A/4-4 Armor (-) 2/C/4-78 2/C/4-78 AT Sec	TF CON Sct Plt Mort Plt AT Plt (-) Redeye Sec 1/C/54 Engr (DS)

1. SITUATION
   a. Enemy Forces.
      (1) TF is opposed by company and platoon size elements of the 189th Motorized Rifle Regiment. Enemy forces in our zone are estimated at 80 percent strength in personnel and 75 percent in equipment.
      (2) Enemy is capable of employing nuclear weapons as large as 10KT, by air and ground delivery means.
      (3) Indications are the enemy will delay in present and successive positions.
   b. Friendly Forces.
      (1) 2d Bde atks 090615 Oct to seize HILLS 802 (NB6118) and 914 (NB6213). Be prepared to continue the atk to the east on order.
      (2) TF KILLER atks 090615 Oct to seize HILL 802 (NB6118).
      (3) 52d Div atks 090615 Oct to seize high ground vic UFMAUSEN (NB6025)--RASDORF (NB6319)--REINHARDS (NB6210).
      (4) TF 4-79 Bde reserve, follow TF 4-78, be prepared to seize REINHARDS (NB6210) or assist in the seizure of HILL 914 (NB6213).
      (5) 9-51 FA (155mm SP) DS 2d Bde.
      (6) 9-53 FA (8" SP) GSR 9-51 FA.
      (7) C/54 Engr DS 2d Bde.
      (8) Elements of the 9th AF support the atk.
   c. Attachments and Detachments.
      (1) Task Org.
      (2) Co A attached to TF KILLER.

2. MISSION
   TF 4-78 attacks 090615 Oct to seize HILL 900 (NB6211) and HILL 914 (NB6214). Be prepared to continue attack east on order.

3. EXECUTION
   a. Concept of Operation (Operation Overlay Annex B)
      (1) Maneuver. TF 4-78 atks with TM Sylvan seizing OBJ RYAN and TM Citadel seizing OBJ PEPPER. TM Parkerson TF Reserve follow TM Sylvan.
      (2) Fires. A 15-minute nonnuclear preparation on call. Priority of fires to TM Sylvan. Annex A (Fire Support).
   b. TM SYLVAN:
   c. TM PERKERSON: Be prepared to seize or assist in the seizure of OBJ RYAN.
   d. TM CITADEL:
   e. SCT PLT: Screen TF north flank.
   f. MORT PLT: GS, displace forward on order.
   g. AT PLT (-): GS, priority of fires to attacking teams, command groups, and reserve in that order.
   h. REDEYE SEC: GS priority of fires to attacking teams, CP, and trains in that order.
   i. Coordinating Instructions:
      (1) All units report crossing phase line ATLANTA.
      (2) Intelligence Annex C.

4. SERVICE SUPPORT
   a. Trains displace on order.
   b. CSR 107mm ME 8-12 Oct is 120 rds.

5. COMMAND AND SIGNAL
   a. Signal
      (1) CEOI Index 8-15.
      (2) Emergency signal for shifting supporting fires. Day: Two smoke streamers; night: Two green star clusters.
      (3) Normal radio traffic prior to the atk.
   b. Command.
      (1) Commander follows TM Sylvan.
      (2) CP displace on order.

Acknowledge. _____

WEERSING
LTC

OFFICIAL:

THURMAN
S3

Annexes: A - Fire Support
B - Operation Overlay
C - Intelligence

Distribution: Special

(Classification)

Classification is centered at the top and bottom of each page. If the order is an overlay-type or an overlay is issued as an annex to the order itself, the classification is centered at the top and bottom of the overlay. Classification is determined by the S3. For training documents, an actual classification is not entered; therefore, the word "(Classification)" is used.

The phase "No change from oral orders" or "No change from oral order except paragraph _____" appears here if oral orders have been issued. If oral orders have not been issued, no entry is made.

Copy number assigned by issuing headquarters. Used for accountability and maintaining logs on distribution of the order.

Official designation of unit issuing order.

The physical location of the headquarters issuing the order is designated by map coordinates. The name of the town or place is normally included. The name of the country may be included.

Date/time group is the time the order is effective unless otherwise specified in paragraph 3, "Coordinating Instructions." It is also the date/time attachments and detachments are effective unless otherwise stated in "Task Organization," paragraph 1c "Attachments and Detachments," or "Coordinating Instructions." Time must include time zone suffix.

Message reference number assigned by the issuing headquarters for acknowledging and referring to the order in the clear.

Paragraph 2, "MISSION," contains a clear, concise statement of the task(s) to be accomplished by the unit. It is based on the order from the next higher headquarters and the commander's mission analysis. The mission is stated in full even though it may be shown on the operation overlay. This requires the inclusion of who, what, when, why and where, as appropriate, of the commander's restated mission.

Paragraph 4, "SERVICE SUPPORT," covers the administrative instructions and support provided for the operation. At brigade and higher, if an Admin/Log order is in effect or is issued separately, only reference is made to the Admin/Log order. Paragraph 4 contains such subparagraphs as required and follows the sequence of the Admin/Log order. Subparagraphs are given headings corresponding to the paragraph or subparagraph headings of the Admin/Log order.

The final paragraph contains instructions relative to command and the operation of signal communications. It contains subparagraphs "a. Signal." "b. Command." Signal instructions may refer to an annex, but as a minimum, lists the index number of the CEOI in effect. Command instructions include the location of the commander and may include the command post location of subordinate, own, and higher headquarters if not shown on the operation overlay. Designation of alternate command posts is shown in this subparagraph if not adequately covered in an SOP or operation overlay.

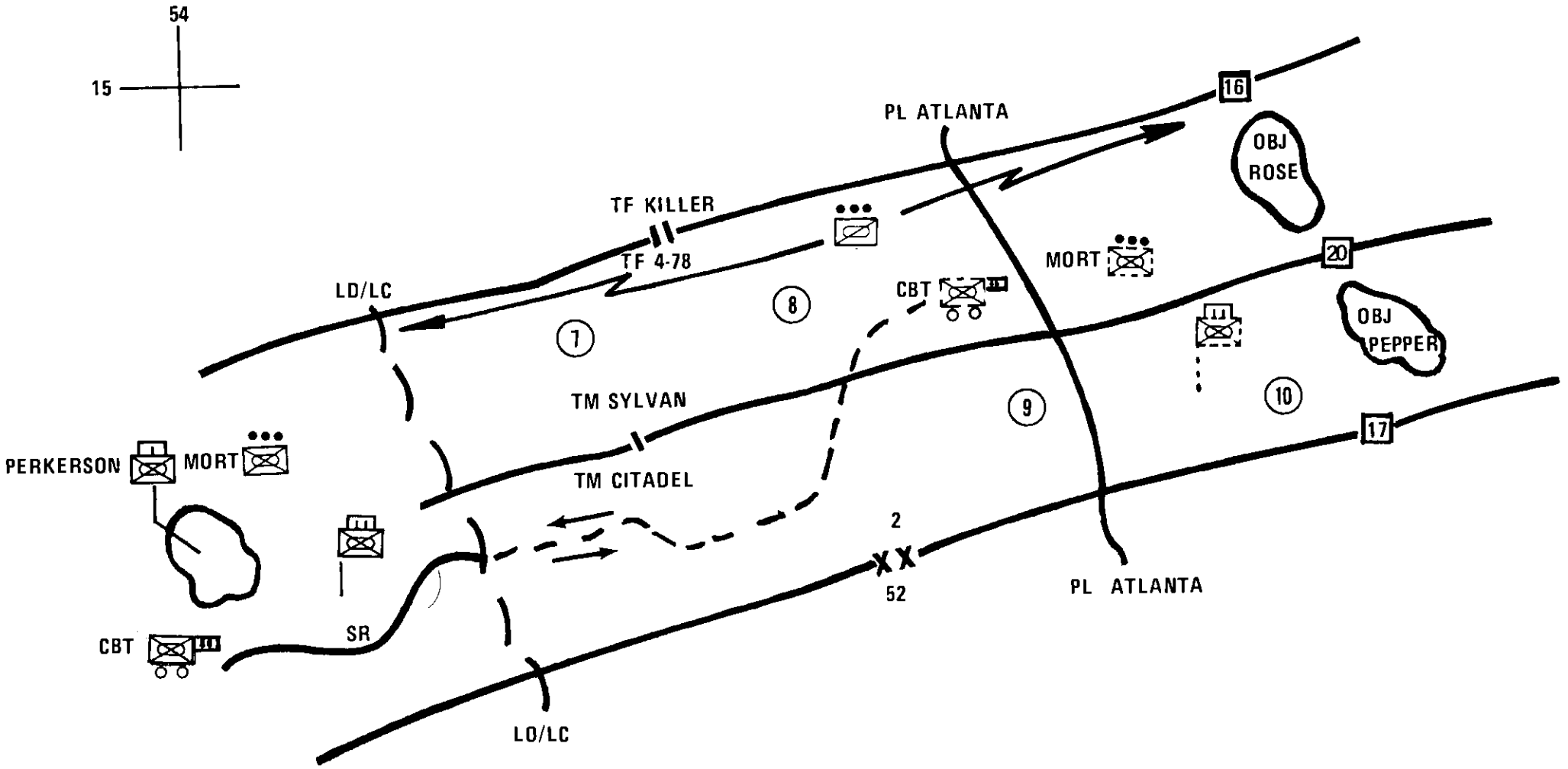
Acknowledgement instructions are a part of the ending and must be included. Normally the single word "Acknowledge" is sufficient. This indicates that the receiver will, by use of the message reference number in the heading, acknowledge that he has received and understands the order.

The last name and rank of the commander appear on all copies of the order. The original copy (No 1) is signed by the commander or his designated representative. The original copy is the record copy.

Annexes are listed by letter and title. The S3 assigns the letter designations to the annexes. If an annex is not issued with the basic order, the phrase "to be issued" or "issued later" will be included in parentheses. If there are no annexes, the term "Annex" is omitted.

CLASSIFICATION

BN ATTACH



07

63

NEW

CLASSIFICATION

NOT TO SCALE

ANNEX D (COMPANY ATTACK ORDER)

COMPANY COMMANDER'S ORDER: (This is a written depiction of the company commander's oral operation order)

Task Organization

1. SITUATION

a. Enemy Forces. Enemy in our area has established company and platoon positions. Enemy is estimated at 80 percent personnel; 75 percent equipment. Enemy is capable of employing chemical and nuclear low yield weapons. Most probable course of action--delay in present and successive positions.

b. Friendly Forces. TF 4-78 attacks 090615 Oct to seize HILL 900 (NB6211) and HILL 914 (NB6214). Be prepared to continue the attack east on order. TM Sylvan attacks 090615 Oct to seize HILL 914 (NB6214). 52d Division attacks 090615 Oct to seize high ground vicinity UFHAUSEN (NB6025) - RASDORF (NB6319) - REINHARDS (NB6210). Bn mortars in General Support.

c. Attachments and Detachments. None.

2. MISSION TM Citadel attacks 090615 Oct to seize HILL 900 (NB6211).

3. EXECUTION

a. Concept of Operation. TM Citadel will attack with 1st Plt making the main to seize northern half of OBJ Pepper. 3d Plt making a supporting attack to seize southern half of OBJ Pepper. 2d Plt reserve follow 1st Plt on order. There will be a 25 minute artillery and mortar preparation beginning H-10. Priority of fires to 1st Plt.

b. 1st Plt:

c. 2d Plt: Be prepared to pass through 1st Plt and continue attack east on order.

d. 3d Plt:

e. Weapons Plt:

(1) AT Sec: Location vicinity NB
Displace on order.

(2) Mortar Sec: Displace on order.

f. Coordinating Instructions: Units report crossing phase line Atlanta
Use MOPP level consistent with table 8-1, 8-2, FM 21-40. Insure all oil levels are checked, road wheels are inspected, and headspace and timing is checked on 50 caliber machineguns.

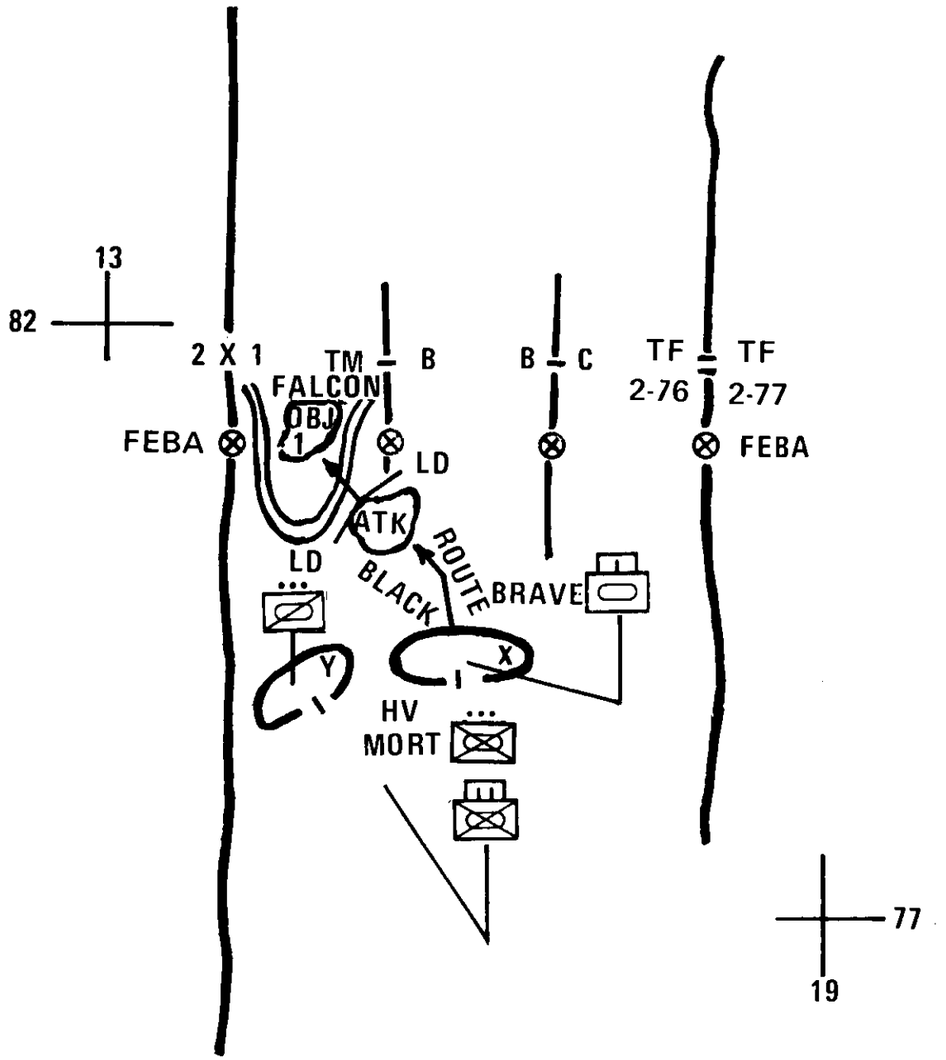
4. SERVICE SUPPORT Maintenance Section located 540091
Each man carry 3 C-rations. Bn Aid Station located with Combat Trains.

5. COMMAND AND SIGNAL

a. Signal: Current CEOI in effect. Emergency signal for shifting supporting fires is two red smoke streamers. Normal radio traffic prior to attack.

b. Command: I will follow the 1st Plt. Time is now _____.

NOTE: When the platoon leader issues his oral orders, he will probably NOT read the coordinates of the terrain feature to his subordinates, but point them out using a map, sketch map, terrain model, or from a vantage point overlooking the platoon's zone of section.



ANNEX E (EXAMPLE OF AN OPERATION PLAN)

Reference: No change.

Time Zone Used Throughout the Plan: ROMEO.

Task Org: OPORD 28

1. SITUATION
   a. Enemy Forces. Current INTSUM.
   b. Friendly Forces. OPORD 28.
   c. Attachments and Detachments. No change.
   d. Assumptions.
      (1) Tm FALCON contains enemy penetration.
      (2) Tm BRAVE is available for counterattack.

2. MISSION
   TF 2-76 counterattacks H-hour D-day to seize HILL 500 (FL135811), reduce enemy penetration in TM FALCON'S sector, and restore FEBA.

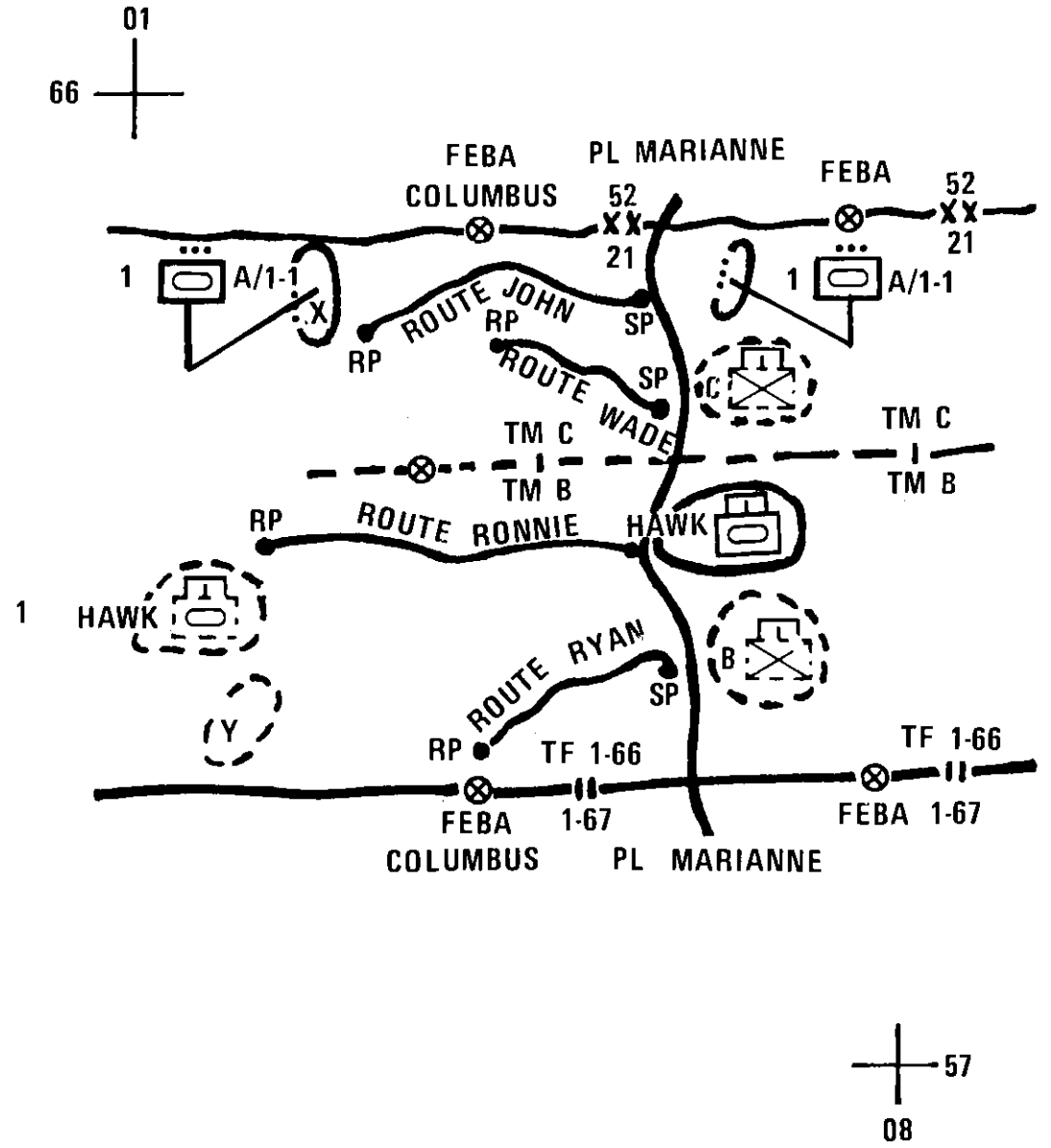
3. EXECUTION
   a. Concept of Operation. TF counterattacks with TM BRAVE attacking to seize Obj 1, reduce penetration and restore the FEBA. TM FALCON contains enemy penetration and assists passage of TM BRAVE. Co B supports TM BRAVE by fire and continues defense of sector. Co C continues defense of sector. A 5-min nonnuclear preparation will commence H-5. Priority of fires to TM BRAVE. Appendix 1, (Fire Support)**
   b. TM FALCON:
      (1) Be prepared to occupy Position X as TF reserve.
      (2) Be prepared to relieve TM STRIKE and reoccupy the FEBA.
   c. Co B:
   d. Co C:
   e. TM BRAVE:
      (1) Be prepared to defend western portion of TF sector.
      (2) Be prepared to relief by Tm FALCON and reoccupy BPX.
   f. Sct Plt: Assemble Battle Poaition Y as TF reserve.
   g. Mort Plt: GS.
   h. AT Plt (-): GS.
   i. Redeye Sec: GS.
   j. Coordinating Instructions:
      (1) Unit cdr conduct recon and minimum one daylight and one night rehearsal, to include sqd ldrs.
      (2) LD is LC for execution.
      (3) Effective for planning on receipt; for execution on order.
      (4) Elements of TM FALCON within the penetration are attached to TM BRAVE effective H-hour.

4. SERVICE SUPPORT

5. COMMAND AND SIGNAL
   a. Signal. Current CEOI.
   b. Command. Comd Gp located initially at TF CP.

*This OP Plan would normally be an Annex to Operations Order.
**Not included in this example.

ANNEX F (WITHDRAWAL ORDER)



NOTE: The present and proposed future location of the TF CP, Mort Plt, Aid Station, and Cbt Tns have been intentionally omitted from this illustration due to space limitations. They would normally be graphically represented on the operation overlay or spelled out in the body of the order.

(Classification)

Copy No ____ of ___ copies
TF 1-66
ZEUSCHEID (NA0562)
161030A Dec 19___
B27

OPORD 29

Reference: Map Series _____, GERMANY, ZEUSCHEID and KRONEN Sheets, Edition II, 1:50,000

Time Zone Used Throughout the Order: ALFA.

Task Org: No change except 1/A/21 Engr attached, TF Con.

1. SITUATION
   a. Enemy Forces. Current INTSUM.
   b. Friendly Forces.
      (1) 1st Bde withdraws not under enemy pressure beginning 162100 Dec from present position; occupies and defends in assigned sector behind FEBA COLUMBUS, NA041647 to NA044542.
      (2) 52 Inf Div (Mech) defends in assigned sector behind FEBA from NA038752 to NA041647.
      (3) 1-67 Inf withdraws not under enemy pressure beginning 162100 Dec from present pos; occupies and defends in assigned sector behind FEBA from NA042595 to NA044542.
      (4) Arty and tac air support: No change.
   c. Attachments and Detachments.
      (1) A/1-66 detached to 1-67 Inf effective 162100 Dec.
      (2) Task Org.

2. MISSION
   TF 1-66 withdraws not under enemy pressure beginning 162100 Dec from present position; occupies and defends in assigned sector behind FEBA COLUMBUS from NA041647 to NA042595.

3. EXECUTION
   a. Concept of Operation. TF withdraws not under enemy pressure employing DLIC; occupies and defends in assigned sector behind FEBA COLUMBUS with TM C and B from left to right; TM Hawk in reserve, occupies assembly area and platoon battalion position. One MRC/1 KT round held in reserve. Priority of firea to DLIC; on FEBA COLUMBUS, to TM C. Annex A (Fire Support).
   b. Tm B:
   c. Tm C:
   d. Tm Hawk:
      (1) Withdraw on order.
      (2) Be prep to catk in sector to reestablish pos, to disengage fwd units, or assume mission of fwd unit; priority TM C for catk on FEBA COLUMBUS.
      (3) Prepare Position Y, occupy on order.
   e. Scout Plt:
      (1) DLIC reserve.
      (2) Upon withdrawal DLIC, initially screen fwd of FEBA COLUMBUS, upon passage of FEBA COLUMBUS screen south flank, limits to be announced.
   f. Mort Plt:
      (1) One Sec (2 - 4.2 Mort), OPCON DLIC.
      (2) Plt (-), GS.
   g. AT Plt (-): GS, priority to TM C during withdrawal and at FEBA COLUMBUS.
   h. Redeye Sec (-): GS.
   i. 1/A/21 Engr:
      (1) GS.
      (2) Annex B (Barrier)
   j. Coordinating Instructiona.
      (1) Detachments left in contact MAJ King.
         (a) Mission:
            1. Continue defense, simulating normal activities of TF.
            2. Cover withdrawal.
            3. Withdraw on bde order.
         (b) Composition:

(Classification)

(Classification)

            1. One-third of rifle strength and one-half of organic supporting weapons of each fwd company.
            2. All tanks in forward area.
            3. Scout Plt.
            4. Gnd Survl Sec.
            5. One Sec, Hv Mort Plt.
            6. One Sec, AT platoon.
      (2) OPCON of DLIC ceases on completion of withdrawal DLIC to FEBA COLUMBUS.
      (3) Be prepared to conduct withdrawal under enemy pressure if enemy attacks in strength.
      (4) Annex C (Counterattack Plan (NELLIE)).
      (5) Annex D (Surveillance).

4. SERVICE SUPPORT

5. COMMAND AND SIGNAL
   a. Signal. CEOI Index 1-14.
   b. Command.
      (1) Comd Gp moves on Route RONNIE.
      (2) Comd Gp initially at OP #1 on FEBA COLUMBUS.

Acknowledge by wire or messenger.

HOBBY
LTC

OFFICIAL:

PIEPER
S3

Annexes: A - Fire Support (to be issued)*
B - Barrier (to be issued)*
C - Counterattack Plan (NELLIE) (to be issued)*
D - Surveillance (to be issued)*

Distribution: A

*Not included in this example.

(Classification)

ANNEX G (BN/TF DEFENSE ORDER)

(Classification)

Copy No 1 of 50 copies
TF 2-77
NB 488208
051500A Oct ____
GEX

OPORD 68

Reference: Map Series M745 GERMANY, Sheets L5322 (LAUTERBACH) and L5324 (HUNFELD) 1:50,000 Edition 1.

Time Zone Used Throughout the Order: ALFA

Task Organization:

Team Jackson
A/2-77 Mech(-)
1/C/ 2-4 Armor

Team Stuart
B/2-77 Mech (-)
2/C/2-4 Armor

Team Lee
C/2-4 Armor (-)
1/A/2-77 Mech
2/B/2-77 Mech
1 AT Sec

TP Control
Scout Plt
Mortar Plt
AT Plt (-)
Redeye Sec
2/A/52 Engr (DS)

1. SITUATION
a. Enemy Forcea.
(1) Bn opposed by elements of the 31st Motorized Rifle Regiment.
(2) Enemy units are short antitank ammunition.
(3) Indications are that enemy will attack along our front with committed forces supported by all available artillery and air.
b. Friendly Forces.
(1) 1st Bde defends by 051800 Oct in assigned sector.
(2) 54th Inf Div (Mech) defends by 051800 Oct in assigned sector.
(3) TF 2-78 defends by 051800 Oct in assigned sector.
(4) TF TIGER Bde covering force delays along PL SKIPPER until 051900 Oct. Return to BP 50 (NB428168) passing through TF 2-77 assigned sector.
(5) 7-52 FA GSR 7-51 FA (DS) to 1st Bde.
(6) Elements of 9th AF support the defense.
c. Attachments and Detachments. Task Org.

2. MISSION
TF 2-77 defends by 051800 Oct from NB523195 - NB523152 - NB500152 - NB500195 to prevent penetration of rear boundary.

3. EXECUTION
a. Concept of Operation (Annex A Operation Overlay). Task force defends in sector with TM Jackson in BP 1, TM Lee in BP 2, and TM Stuart in BP 3. One 155 How FPF to TM Lee, one 107mm Mort FPF to TM Stuart. Priority of firea to the scout platoon when they screen forward of the FEBA to PL Shotsie. Upon their withdrawal through the FEBA priority of fires will go to TM Lee. ANNEX A (Fire Support).
b. TM Jackson.
(1) Prepare to retain BP 8; occupy on order.
(2) Recon BP 4, 5, and 9.
c. TM Stuart.
(1) Prepare to retain BP 10; occupy on order.
(2) Recon BP 6 and 7.
d. TM Lee.
(1) Prepare to retain BP 9; occupy on order.
(2) Recon BP 5 and 6.

(Classification)

(Classification)

e. Scout Plt.
(1) Screen forward of FEBA along PL Shotsie.
(2) Assist passage of TF Tiger through PL Shotsie.
(3) On order withdraw thru FEBA and assemble in BP 5.
f. Mort Plt: GS.
g. AT Plt (-): GS.
h. Redeye Sec: GS.
i. Coordinating Instruction:
(1) Assist passage of TF Tiger Bde covering force thru 2-77 FEBA.
(2) Annex C (BARRIER).

4. SERVICE SUPPORT
a. Supply per SOP:
(1) Class I: Units will maintain 2 ea C-ration meals per man on hand for the next 36 hours to be consumed on unit commander's order only.
(2) Class V: Coordination point NB526168.
b. Medical evacuation and hospitalization per SOP.
c. Personnel per SOP except:
(1) POW collection point is 100 meters forward of Cbt Trn on supply route. No POW's to be brought to trains area.
(2) Guard remains under S1 control until relieved.

5. COMMAND AND SIGNAL
a. Signal.
(1) CEOI Index 1-6 in effect until 061800 Oct.
(2) Annex D (COMMUNICATIONS ELECTRONICS).
b. Command. Comd Gp initially at HILL 501 (NB530185).

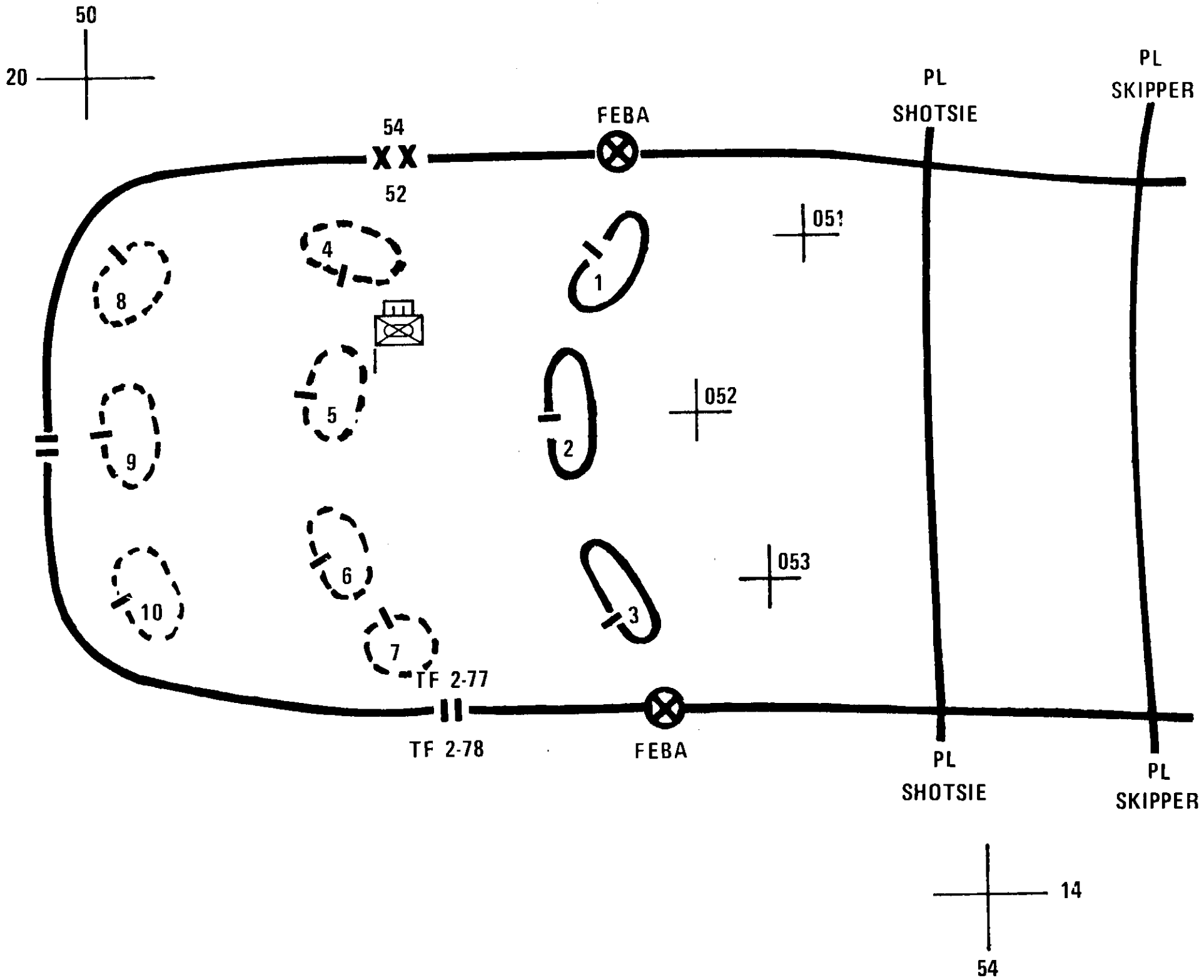
Acknowledge by messenger only.

COLLINS
LTC

OFFICIAL
S3

Beauregard

Annexes: A - Operations Overlay
B - Fire Support (to be issued)
C - Barrier (to be issued)
D - Communications Electronics (to be issued)

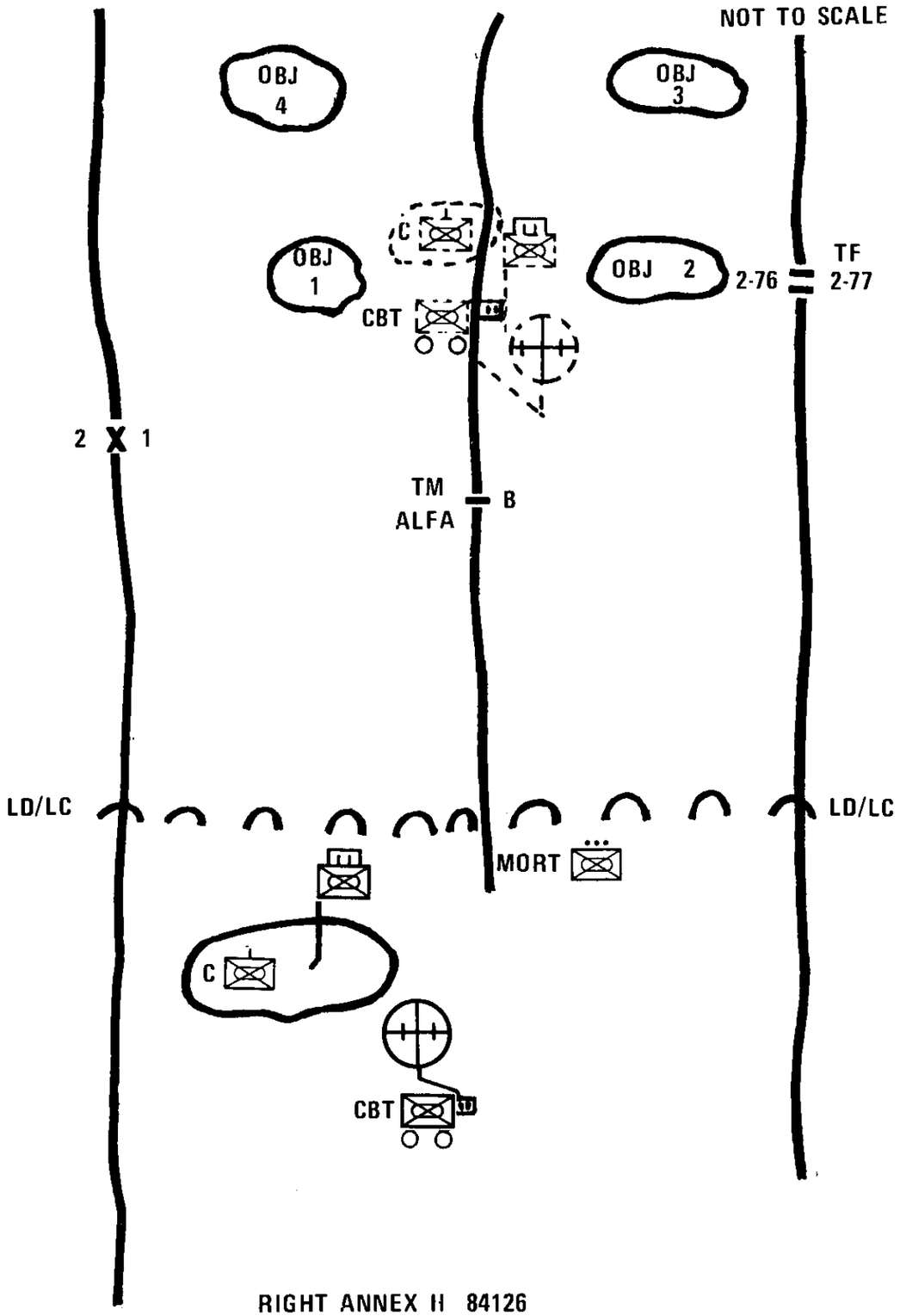


ANNEX G RIGHT SIDE 84126

ANNEX H (ORAL BATTALION ATTACK ORDER)

NOTE: The following is an oral battalion attack order as it might be issued from a vantage point on or near the line of departure overlooking the area of operation. In this situation, it is assumed that prior to issuing this order, subordinate commanders were oriented and presented information on the weather, terrain, and enemy. Further, an operation overlay similar to the schematic provided at the left was issued.

OPORD FORMAT	ORAL ORDER
Task Org:	There is no change in our task organization except the 1st Plt, Co A, 2d Bn, 4th Armor, attached to us effective 1800 today, is further attached to CO A.
1. SITUATION a. Enemy Forces. (NOTE: Normally the S2 would have briefed the subordinate commanders on any changes in the enemy situation prior to the order being issued.)	The enemy is defending as has previously been discussed.
b. Friendly Forces. (1)	1st Bde attacks at 0700 tomorrow to seize the ridgeline extending from HILL 733 to HILL 781.
(2)	2d Bde attacks on our left at 0700 tomorrow, to seize high ground vicinity HILLS 739 - 748.
(3)	TF 2-81 will be adjacent to us.
(4)	TF 2-77 attacks on our right at 0700 tomorrow, to seize HILLS 722 - 781. Co A will be adjacent to us.
c. Attachments and Detachments. (NOTE: The attachment of the tank platoon has already been covered in the task organization; therefore, this subparagraph (1c) is not mentioned.)	There is no change in artillery and engineer support.
2. MISSION	We will attack at 0700 tomorrow to seize HILL 733 and HILL 721 and be prepared to continue the attack north.
3. EXECUTION a. Concept of Operation.	Tm ALFA will make the main attack on the left to seize Obj 1 and continue the atk to seize Obj 4 and Co B will make a supporting attack on the right to seize Obj 2 and cont the atk to seize Obj 3. Co C will be in reserve, and follow Tm ALFA by bounds, on order. A 10-min preparation will be fired commencing H-10. Priority of fires will go to the main attack.
b. (NOTE: Missions to Tm ALFA c. and Company B are given completely in the "Concept of Operation" and therefore are not repeated.	
d. (NOTE: Instructions to Co C are not fully covered as part of the scheme of maneuver in "Concept of Operation,"	Company C, upon seizure of Obj 1 and 2 be prepared to occupy HILL 712. This will place you in a reserve blocking position for consolidation of the bat-
e.	The Scout Platoon will screen out left flank.
f.	Discuss the details with me after I have completed issuing this order.
g.	Mortar Platoon will be in GS with an initial position in the vicinity of FL135478.
h.	The AT Platoon will be in GS. Pay particular attention to the approaches into our right flank. The Redeye Section will provide GS; I want you evenly dispersed across our zone of action.
i. Coordinating Instructions. (NOTE: If an operation overlay had not been issued, instructions as to line of departure, boundaries, objectives, etc., would be presented at this place in the verbal order.)	All units will report immediately the occupation of presently unoccupied positions within our zone. Also report any new enemy unit identification.
4. SERVICE SUPPORT (NOTE: In this case, administrative installations and the Bn MSR are shown on the operation overlay. If there are any specific items concerning service support, they may be disseminated separately by the S4.)	There are no service support matters that need to be brought up at this time.
5. COMMAND AND SIGNAL a. Signal.	CEOI Index 1-13 is in effect for the operation. The emergency signal for shifting supporting fires will be two Red Smoke Streamers.
b. Command.	The Command Group will follow Tm ALFA. The time now is 1800. Are there any questions?



RIGHT ANNEX II 84126

ANNEX I (EXAMPLE WARNING ORDER)

NOTE: The following is a warning order as it might be issued by a battalion commander in the conduct of the attack. The format column is shown to assist in understanding the sequence in which information appears.

WARNING ORDER	FORMAT
Tm ATLAS, Tm CLAW Co B, AT Platoon, Sct Plt, Redeye Section Mortar Plt	Addressees
Prepare to conduct spoiling attack vic NB215134.	Nature of Operation
Order to be issued at 061645 June at NB195104 all addressees to be present.	Time & Place
Attack to take place 062000 June.	Time of Operation

ANNEX J (FRAGMENTARY ORDER)

NOTE: The following FRAGO is shown as it might be issued by a battalion commander during the conduct of an attack. The format is shown to assist in understanding the sequence in which FRAGO information appears. There is NO standard format for a FRAGO. This format is only an example.

FRAGO	FORMAT
"Enemy resistance vic HILL 219 (Obj JAY) is extremely light. Estimated enemy tank company in well prepared positions vic HILL 525 (Obj DOG) has stopped Tm CLAW.	Enemy Situation Friendly Situation Any reference to task organization would normally be written/included after reference to the situation.
"Tm ATLAS continues atk to seize Obj BULL. Tm CLAW contain enemy vic Obj DOG. Tm FURY continue to follow Tm ATLAS until north of town of LIEBOLZ (NB789689) then atk to seize HILL 620 (Obj CAT). Co B follow Tm ATLAS and be prepared to seize or assist in seizure of Obj BULL. Priority of fires remains with Tm ATLAS.	Orders to subordinate units
	Fire support
"New boundary between Tm CLAW and Tm FURY from NB580123 to NB637213. Priority of routes are Tm ATLAS, Tm FURY, and Co B respectively."	Coordinating Instructions

85235 Army-Ft. Benning, Ga. 1979

CHAPTER 6

Section I. TROOP MOVEMENTS

6-1. GENERAL.

a. This chapter outlines staff responsibilities and techniques for planning tactical troop movements, employing the methods of movememt by foot, motor, and air: it is in accordance with the provisions of current NATO Standardization Agreements (STANAG).

b. The movement of troops is inherent in military operations. Mission accomplishment is directly related to the ability to arrive at the proper place, at the proper time, in effective conditions, and in the formation best suited for accomplishmnet of the mission.

c. Troop movements are classified as administrative or tactical. They may be further classified as to method of movement: foot, motor, air, or water.

(1) Administrative troop movements.

(a) An administrative troop movement considers tactical implications but is conducted with primary emphasis on efficient use of transportation. Administrative moves are based on the assumption that contact with the enemy is remote during and shortly after the move.

(b) The S4 has primary staff responsibility for planning of administrative troop movements.

(2) Tactical troop movements.

(a) Tactical troop movements are conducted with primary emphasis on movement in combat-ready formations. Ground contact with the enemy, either en route or shortly after arrival at the march destination is expected. A tactical troop movement ends when ground contact with the enemy is made (interpreted as sufficient to require deployment by the main body) or when the march destination is reached, such as an attack position, a forward assembly area, or a march objective.

(b) Primary factors for planning tactical troop movements are:

1. Timely and detailed planning.
2. Thorough preparation.
3. Adequate supervision.
4. State of training.

(c) The S3 has primary unit staff responsibility for planning tactical troop movements.

6-2. MOVEMENT PLANNING.

a. Basic considerations for planning any movement are: the mission and tactical situation; what is to be moved (troops and equipment); and the type, number, and characteristics of transportation available for the move. Regardless of the type of movement, success depends largely upon the thoroughness of planning. It is difficult to correct errors once the march has begun.

b. The following publications pertain to troop movements:

FM 21-18	Foot Marches
FM 55-30	Army Motor Transport Operations
FM 57-35	Airmobile Operations
FM 57-1	U.S. Army/U.S. Air Force Doctrine for Airborne Operations
FM 101-5	Staff Officer's Field Manual, Staff Organization and Procedure
FM 101-10-1	Staff Officer's Field Manual, Organization, Tactical and Logistical Data
FM 7-10	The Rifle Company, Platoons, and Squads
FM 7-20	Infantry, Airborne Infantry and Mechanized Infantry Battalions
TM 55-310	Motor Transport Operations
TM 55-450-15	Air Movement of Troops and Equipment (Administrative)
STANAG 2041	"Operational Road Movement Orders, Tables and Graphs"
STANAG 2154	"Definitions and Regulations for Military Motor Movement by Road"

6-3. MOVEMENT ORDERS. Movement planning culminates in the preparation and issuance of a movement order prepared in the standard five paragraph operation order form. Annexes are attached to furnish detailed information. A discussion of the annexes is contained in the appropriate sections of this chapter.

Section II. MARCHES

6-4. GENERAL. The following terms apply to march planning. This list includes new terms and/or definitions addopted by STANAG 2154.

Arrival Time (AT)--The time the head of a column or element therof reaches a designated point, line, or object.

Average Speed--The average number of miles or kilometers traveled per hour, excluding ordered halts.

Clearance Time--The time at which the tail of a column, or element thereof, passes a designated point, line, or object.

Close Column--A motor column in which vehicles are closed up to safe driving distance behind the preceding vehicle.

Column Gap (COLMGP)--The space between two consecutive elements proceeding in the same direction on the same route. It can be calculated in units of length (meters) as road gaps or in units of time (minutes) as time gap as measured from the rear of one element to the front of the following element.

Column (general)--A formation in which elements of a unit are placed one directly behind the other.

Critical Point--A selected point along the route of march used for reference in giving instructions; any point along the route of march where interference with the movement may occur.

Detrucking Point--A location where vehicles halt to unload troops or equipment.

Entrucking Point--A location where vehicles halt for boarding of personnel or loading of equipment.

Guide--An individual who leads or directs men or vehicles over a predetermined route. Guides are placed at critical points to provide direction and to assist in preventing accidents.

Infiltration--

Foot march: Infiltration is the dispatch of units over a route in small groups at irregular intervals to provide the maximum secrecy, deception, and dispersion.

Motor march: March is accomplished by the dispatch of individual vehicles or small groups of vehicles over a specified route at irregular intervals with a fixed density.

Length of Column (LGTHCOLM)--The length of roadway occupied by a column in movement including gaps inside the column measured from front to rear.

Marches--Troop movements conducted on foot or by motor or a combination of these two means.

March Unit--Unit which moves and halts at the command of a single commander. The march unit normally corresponds to one of the smaller troop units such as a squad, section, platoon, or company.

Open Column--A motor column in which distance between vehicles is increased to accomplish greater dispersion.

Pace Setter--An individual designated by the march commander, located in the lead vehicle or element, responsible for regulating its speed.

Pass Time (PST)--Actual time between the moment when the first element passes a given point and the moment when the last element passed the same point.

Rate of March--The average number of miles or kilometers traveled in a given period of time, *including* short periodic halts and other short delays. It is expressed as miles or kilometers per hour.

Release Point (RP)--A well defined point on a route at which the elements composing a column return to the authority of their respective commanders. Each of the elements may continue movement towards its own appropriate destination. (A RP is always a critical point.)

Serial--A serial consists of one or more march units usually a battalion, brigade, or larger unit within a series which is given a numberical or alphabetical designation for convenience in planning, scheduling, or controling movements by land, sea, or air.

Speed--The actual rate of movement of a vehicle at a given moment as shown on the speedometer. It can be expressed in miles or kilometers per hour.

Speedometer Multiplier (SM)--Any number by which the speedometer reading converted to kilometers per hour is multiplied to establish distance in meters between vehicles.

Start Point (SP)--A well defined point on a route at which a movement comes under control of the commander of the move. At this point the column is formed by successive passing, at an appointed time, of each of the elements composing the column. There may be secondary start points for various elements. (A SP is always a critical point.)

Time Distance (TDIS)--This time it takes the head of a column, or any single element thereof to move from one point to another at a given rate of march.

Traffic Density--The average number of vehicles that occupy 1 mile or 1 kilometer of road space, expressed in vehicles per mile (VPM) or vehicles per kilometer (VPK).

Vehicle Distance--The space between two consecutive vehicles of an organized element of a column.

Vehicle Length--The average length of vehicles in a column.

6-5. FOOT MARCHES.

a. The command is organized into march units or serials to facilitate control. When possible unit integrity is maintained. The normal march formation for foot troops is a column a twos. The tactical situation, terrain, and weather dictate the formation and rate of march.

(1) Reduced distances--1 to 3 meters between men, 25 meters between platoons and 50 meters between companies.

(2) Normal distances--2 to 5 meters between men, 50 meters between platoons and 100 meters between companies.

(3) Extended distance--When the terrain is extremely rugged or when the column is marching within the range of enemy artillery, distances are extended in accordance with the situation and degree of control required.

b. The rate of march is prescribed by the commander of the column and may be standardized in the unit SOP. The rate prescribed depends upon terrain and weather conditions, condition of the troops, length of the march, and mission. For planning purposes, a normal foot march is 8 hours, covering 32 kilometers at a rate of 4 kilometers per hour.

c. For a detailed discussion see FM 21-18, Foot Marches.

6-6. MOTOR MARCHES. There are three basic formations for motor marches:

a. *Close Column.* A close colunm is one in which elements are formed as compactly as practicable in order to increase traffic density and reduce pass time to a minimum. Units in close column use a traffic density of more than 30 vehicles per kilometer (vpk). The standard used in the computation tables is 48 vpk with a vehicle distance of 11 meters.

(1) Close column is employed when a road net must be used to the maximum capacity. It can be used for movements through cities or other congested areas for better control. Close column is useful for night moves under blackout conditions, particularly over poorly marked routes.

(2) In close column, vehicles are closed to safe driving distance behind the preceding vehicle. A small speedometer multiplier (normally SM2) may be used to provide a safe-driving vehicle distance. A maximum speed (greater than the prescribed rate) is announced for vehicles that need to catch up.

(3) In close column, control and intracolumn communication are good because of the compact column. Fewer guides, escorts, and markers are needed.

(4) The close column provides minimum dispersion for passive protection against enemy observation and attack. The strength and type of organization are really apparent to hostile observation.

b. Open Column.

(1) In open column, elements are widely spaced as a passive defense or safety measure. To aid in passive defense vehicles maintain reasonable dispersion, which permits overtaking vehicles, not a part of the column, to enter the column. Units in open column use a vehicle density of 30 to as few as 7 vpk with a vehicle distance of 24 to 155 meters. The standard used in the computation tables is 12 vpk with a vehicle distance of 80 meters.

(2) Open column is particularly applicable to daylight tactical moves. Open column can be used to overcome the effects of dusty road conditions and for moving on routes where a moderate volume of higher or lower speed traffic may affect the column.

(3) An open column is accomplished by use of a large speedometer multiplier (SM3 or more) or a prescribed minimum distance between vehicles. In addition, a prescribed traffic density limiting the number of vehicles over a stretch of road may be established.

(4) Open column movement provides the best possible compromise between the conflicting requirements of a large traffic flow and a wide dispersion of vehicles within the column. Column control, while not as good as in close column, is better than that obtained by infiltration. In addition, driver fatigue and the probability of accidents are less pronounced than in close column marching.

(5) Because of the relative regularity of vehicle spacing in open column, less secrecy is possible in daylight. Vehicle distances are greater than in close column and consequently, traffic density on a road is lower.

c. *Infiltration.*

(1) When sufficient time, traffic density, and other tactical considerations permit, infiltration of vehicles provides maximum secrecy, deception and dispersion as a means of passive protection against enemy observation and attack.

(2) It may be used to move a unit over a heavily traveled route when it would be impracticable to move the entire unit at one time.

(3) Under light traffic conditions, movement is limited by road conditions, vehicle mobility, and the training, experience, and physical condition of drivers.

(4) Higher speed of individual vehicles is possible; however, pass time for the unit is longer and completion time of the march is later.

(5) Control is difficult. More detailed briefings of drivers and vehicle commanders, and careful marking of routes are required. Maintenance, refueling, and feeding arrangements are more difficult to arrange.

(6) Maintaining tactical integrity is more difficult, and the capability of a unit to be employed tactically is considerably reduced until the movement is completed.

d. For a detailed discussion of motor marches see FM 55-30, Army Motor Transport Operations.

6-7. MARCH PLANNING. The sequence of march planning must be integrated into the sequence of command and staff actions described in Chapter 1.

a. *Pareparation and Issuance of the Warning Order.* After receipt of a movement, the commander gathers his staff to obtain current information, analyze and the mission, and issue his planning guidance. To give subordinate units as much time as possible to prepare for a pending move, the commander issues a warning order containing as much information as is readily available. Initial computations are normally made to provide more information as to the WHO, WHAT, WHEN, and WHERE.

b. *Estimate of the Situation.* This step corresponds to Step 4, Staff Estimates, of the Sequence of Commander and Staff Actions. In making the operation estimate, the S3 considers the mission, weather, terrain, tactical plan, time and space factors, available routes, available transportation, enemy capabilities, and disposition of own forces. He develops courses of action based on all of the above and the commander's planning guidance. He then analyzes and compares his own courses of action to determine the route or combination of routes to use. In some cases, the S3 may delay his final recommendation until he gains additional information from the reconnaissance party (discussed below). The S3 recommends the route(s) (scheme of maneuver) and the organization of the march column. After coordination with other staff officers, the coordinated staff recommendation is presented to the commander by the S3.

(1) Organization and dispatch of a reconnaissance party. Every march plan is based on as thorough and complete route reconnaissance as time and situation permit. Map and aerial reconnaissance are valuable but are not substitutes for an actual route reconnaissance. Route reconnaissance is accomplished by a reconnaissance party of a reconnaissance, an engineer, and a traffic control element. Unit SOP generally establishes the basic composition of the reconnaissance party which is tailored to the situation.

(a) The S3 coordinates with the S2 for route intelligence and data to support his planning. The S2 exploits existing sources and agencies such as maps and photographs; aerial reconnaissancae; friendly units and staff sections such as engineer, provost marshal, and transportation; and civil government and policy agencies. The S2 supervises the route reconnaissance to obtain, confirm, or supplement route intelligence and data not readily available from existing sources and agencies.

(b) The reconnaissance/scout platoon generally provides the nucleus of the reconnaissance party and operates under the staff supervision of the S2. Engineer support is normally furnished by the supporting (or attached) engineers to provide technical assistance and estimates for minor repairs along the route. Logistical support is furnished by the support platoon and maintenance platoon for refueling, minor repairs, and vehicle recovery. Special requirements may require the reconnaissance party be augumented with an additional security element or surveillance section.

(c) The reconnaissance party determines:

1. Available routes and conditions. (Route may be specified by higher headquarters.)
2. Recommended rates of march.
3. Selection of SP and RP or confirmation of suitability of SP and RP selected by map reconnaissance.
4. Location of critical points.
5. Confirmation of location and suitability of the assembly or bivouac area.
6. Road distance between critical points on the route and total road distance SP to RP.
7. Location of obstacles and estimation of necessary men and equipment to repair and maintain routes. Recommend bypass routes as required.
8. Number of guides required and their location.

(d) A recommended form for reporting information secured by the route reconnaissance party is shown in Figure 31.

ROUTE RECONNAISSANCE REPORT

ROUTE	Kilometers from SP	Suitable Rate Motors Blackout	REMARKS
SP;RJ 8th Div Rd-Superhighway	--	16 kmph	Bridge; hard surface; 2 guides
RJ Jamestown-Hersey Rds	2.25	16	Traffic heavy; 2 guides Jamestown bears to right
RJ Jamestown-Yankee Rds	7.10	16	2 guides
RJ Jamestown-Lightning Rds	10.50	16	2 guides
RJ Jamestown-Sunshine Rds	12.40	16	Light traffic; 1 guide; Sunshine Rd; gravel, poor traction when wet
RP; RJ Sunshine-Sedan Rds	14.80	16	2 guides

Figure 6-1

(2) Organization and dispatch of a quartering party. The new area is prepared for the orderly arrival of units by members of the quartering party.

(a) A battalion quartering party normally consists of a quartering officer (usually the HQ Cmdt, representatives from each company, and communications, security, and medical personnel.

(b) The quartering officer is furnished the general area for the battalion command post and the general disposition of subordinate units by the S3. The quartering officer selects the exact site for the units command and administrative installations, indicates the location of major subordinate units to unit representatives and formulates a plan to receive and guide units from the RP to their area.

1. Communications personnel install equipment to insure immediate control of units as they arrive. Provisions are made for opening the new command post.
2. Selection of areas and routes, local security and control measures are supervised by the quartering officer.
3. Unit or section representatives are carefully selected. They are familiar with the tactical mission, methods of employment, and capabilities of their unit or section.

(c) The quartering party is dispatched in advance of the main body so that it can complete preparations for arrival of the main body.

(3) Organization of the column. The S3 must organize the battalion into manageable components. The number of personnel and number and type of vehicles must be determined. Units are organized into a serial(s) and march units, and given an order of march best suited for tactical control of the movement.

(a) In determining the order of march, the planner considers the mission, enemy situation, unit integrity, and desired order of arrival of units at the destination.

(b) Where dispersion is required and multiple routes are available, the unit may be organized into two or more columns, each assigned a different route.

c. *Development of Detailed Movement Plans.* This step corresponds to the preparation of plans or orders (Step 6) of the Sequence of Command and Staff Actions. After the commander receives the staff recommendation and makes his decision, the S3 develops the detailed movement plan.

(1) March computations. Total time distance is determined between the SP and RP after determining rates of march and road distance. Time distances between successive critical points are also determined. Using the number of personnel of a foot march or number of vehicles in a motor move, the planner computes the pass time for each march unit and serial.

(a) Pass time is determined by considering the formation, number of march units and serials, and rates of march.

(b) Arrival and clearance times are computed for the SP, RP, and critical points based on start point times, time distances, and pass times.

(2) Draft of road movement table. Using the completed march computations, a draft road movement table is prepared. A road movement graph may be used to assist in preparing this draft.

d. *Approval and Issuance of Orders.* This step corresponds to Steps 7 and 8 of the Sequence of Commander and Staff Actions. The plan for the move is submitted to the commander for his approval. A written movement order is prepared using the standard format for an operation order. Annexes are used to detail instructions and appropriate: road movement tables, overlays, strip maps, vehicle assignment tables, and administrative details. The movement order may be published as an annex to an operation order. A complete road movement order is shown at Figure 6-10.

(1) The road movement table provides serial and march unit commanders with arrival and clearance times at critical points along the route. It also provides the column commander proposed locations of elements at various times. This is the most important annex to the movement order.

(2) An overlay should show, as a minimum, present location of units, route of march, control points, and location of units in the new area.

(3) Strip maps give a schematic picture of the route of march. They show landmarks, ciritcal points, and distances. A strip map may be issued as an annex in lieu of an overlay, or as an additional annex, and is of particular value to drivers or individual vehicle commanders.

(4) A vehicle assignment table showing the allocation of organic, attached, or supported vehicles may be included as an annex.

(5) An administrative order or annex may be included or referenced when administrative details are too voluminous for inclusion in the body of the order.

e. *Supervision.* The commander and staff must supervise conduct of the movement. The primary purpose is to assist subordinate units in the execution of the move and to make adjustments as necessary.

6-8. MARCH COMPUTATIONS. The S3 makes certain time and space computations to provide data during planning of a foot or motor march.

a. Time distance is the time required for an individual or vehicle to travel between two given points. Time distance (TDIS) is determined by dividing the distance to be traveled by the rate of march:

$$\text{TDIS (hours)} = \frac{\text{Distance (km)}}{\text{Rate of March (kmph)}}$$

Convert fractional part of an hour to minutes by multiplying fractional part by 60. Round off to the nearest whole minute.

EXAMPLE:

$$\text{TDIS} = \frac{126 \text{ km}}{24 \text{ kmph}} = 5.25 \text{ hours}$$

$$\frac{.25}{120} \quad \frac{60}{}$$

$$24\overline{)126} \quad 5.25$$

60

48

120

120

15. 00

TDIS = 5 hours, 15 minutes

b. Length of column is the length of roadway (or terrain) occupied by a column in movement including gaps measured from front to rear inclusive. Length of column (LGTHCOLM) of a motor column is determined by dividing the number of motor vehicles (disregarding trailers and towed weapons) by the traffic density (number of vehicles per kilometer) and adding to the figure the time gaps (minutes) multiplied by the rate of march divided by 60.

$$\text{LGTHCOLM (km)} = \frac{\text{No of vehicles}}{\text{Density (vpk)}} + \frac{\text{Time gaps (min)} \times \text{Rate (kmph)}}{60}$$

EXAMPLE: Motor column of 150 vehicles organized into 5 march units of 30 vehicles each traveling at a rate of march of 24 kmph; traffic density is 12 (open column); 3 minute time gap between march units.*

*NOTE: The 3 min time gap between companies includes 1 min extra time allowance (STANAG).

$$\text{LGTHCOLM (km)} = \frac{150}{12} + \frac{(4 \times 3 \text{ min}) \times 24}{60}$$

$$= 12.5 + 4.8$$

LGTHCOLM = 17.3 km

An approximation of the length of column can be determined by using the LGTHCOLM approximation formula (based on standard densities and speeds).

EXAMPLE:

LGTHCOLM (km) = No of vehicles x .12 (two or more march units in open column)

= 150 x .12

LGTHCOLM = 18 km

c. Pass time is the actual time between the moment the first element passes a given point and a moment the last element passes the same point. Pass time (PST) of a motor column is determined by multiplying the length of column (LGTHCOLM) (km) x 60 and dividing by rate of march.

$$\text{PST (min} = \frac{\text{LGTHCOLM (km)} \times 60}{\text{Rate of March (kmph)}}$$

EXAMPLE: Using the LGTHCOLM OF 17 km derived in the preceding example, the PST for 150 vehicles traveling at 24 kmph is determined as follows:

$$\text{PST (min)} = \frac{17 \times 60}{24}$$

= 42.5

PST = 43 minutes*

*NOTES: 1. Round off to nearest whole minute rule of computation.
2. Extra time allowance need not be added because it was included in the company time gap of 3 min in the LGTHCOLM computation.

An approximation of pass time can be determined by using the PST approximation formula (based on standard densities and speeds).

EXAMPLE:

PST (min = No of vehicles x 0.30 (two or more march units in open column)

= 150 x 0.30

PST = 45 minutes.

d. Start point (SP) time can be determined if completion time is known by using the following formula:

SP (time) = Completion time (CT - (PST + TDIS + Scheduled halts)

EXAMPLE:

Using the preceding example, computations with a completion time of 1700 and a scheduled 1-hour refueling halt, the SP time can be determined as follows:

SP (time) = 1700 - (0043 + 0515 + 0100)

= 1700 - 0658

SP = 1002

	hours	minutes
1700	16	60
-0658	-06	58
	10	02

or

e. Completion time (CT) is determined by adding the PST, TDIS, and any scheduled halts other than normal breaks to the SP time (when known).

CT = SP time + PST + TDIS + Scheduled halts

Using the preceding computations with a SP time of 1000, the CT can be determined as follows:

CT = 1000 + 0043 + 0515 + 0100

hours	minutes	
10	00	SP time
00	43	PST
05	15	TDIS
01	00	Sch halt
16	58	

f. Length of column (LGTHCOLM) of foot troops is determined by multiplying the number of men by a factor for the formation used and adding the distance of the column gaps between units.

LGTHCOLM = (No of men x Factor)* + Column gaps

EXAMPLE:

Foot elements of a battalion = 350 men, formed into 3 company march units, each containing 3 platoon size march units. Formation is a column of 2's, 2 meters between men (Factor 1.2). Column gaps between companies = 50 meters; between platoons = 25 meters.

LGTHCOLM = (350 x 1.2) + (3-1)(50) + (9-3)(25)

350	50	25	420
1.2	2	6	100
700	100	150	150
350			670
420.0			

LGTHCOLM = 670 meters

g. Pass time (PST) of a foot column is determined by multiplying the length of column (LGTHCOLM) by the factor for rate of march.

PST (min) = LGTHCOLM x Factor*

Foot column (as in f above) moving at rate of march of 3.2 kmph (factor .0187).

*NOTE: Factors found in Figure 37.

PST = (670)(.0187)

.0187
670
1309
1122
12.529 or 13 minutes

PST = 13 minutes

h. Units obtain march experience data through normal operations. Experience tables can be developed, included in unit SOPs, and used to reduce the time required to complete computations.

6-9. ROAD MOVEMENT GRAPH. A road movement graph is a time-distance diagram used in planning, preparing, or checking road movement tables and controlling marches. The road movement graph is a visual representation of a march plan it prevents conflicts and discrepancies in the planning stage. To prepare a road movement graph:

a. Designate the lower left corner of the graph as the SP times or earlier even hour before the march begins. Select a covenient scale, and plot the hours from left to right on the horizontal axis.

b. Determine the distance in kilometers. Indicate the PS at the lower left corner of the graph sheet. Using an appropriate scale, plot the number of kilometers on the vertical scale from the SP to the RP. Indicate the location of critical points on the vertical scale.

c. At the proper distance from the start point, draw a horizontal line indicating location of the RP. Indicate the hour the movement must be completed by a vertical line. Plot lines representing route restrictions, if any, at the proper distances and times.

d. Determine the pass times of foot and/or motor elements of the column.

e. Starting at the SP at the specified hour, plot the movement of the head of the leading element. If the motors move at a blackout rate of 16 kmph, at 30 minutes they will have move 8 kilometers; at 1 hour, 16 kilometers, etc. Plot the trace of he lead vehicles to the RP.

(1) The last vehicle will cross the SP one "pass time" after the first vehicle. Measure this time on the graph and plot the trace of the last vehicle of the element.

(2) The lines describing the head and tail of the serial are parallel.

(3) Indicate the time subsequent serials (foot or motor) reach the SP and plot the traces of the head and tail.

(4) Check to see that the plan complies with all restrictions and orders. If there are an violations or conflicts, the plan may be made to conform by changing the order of march, the starting time of the serials, the planned rate of march, or the organization of the column.

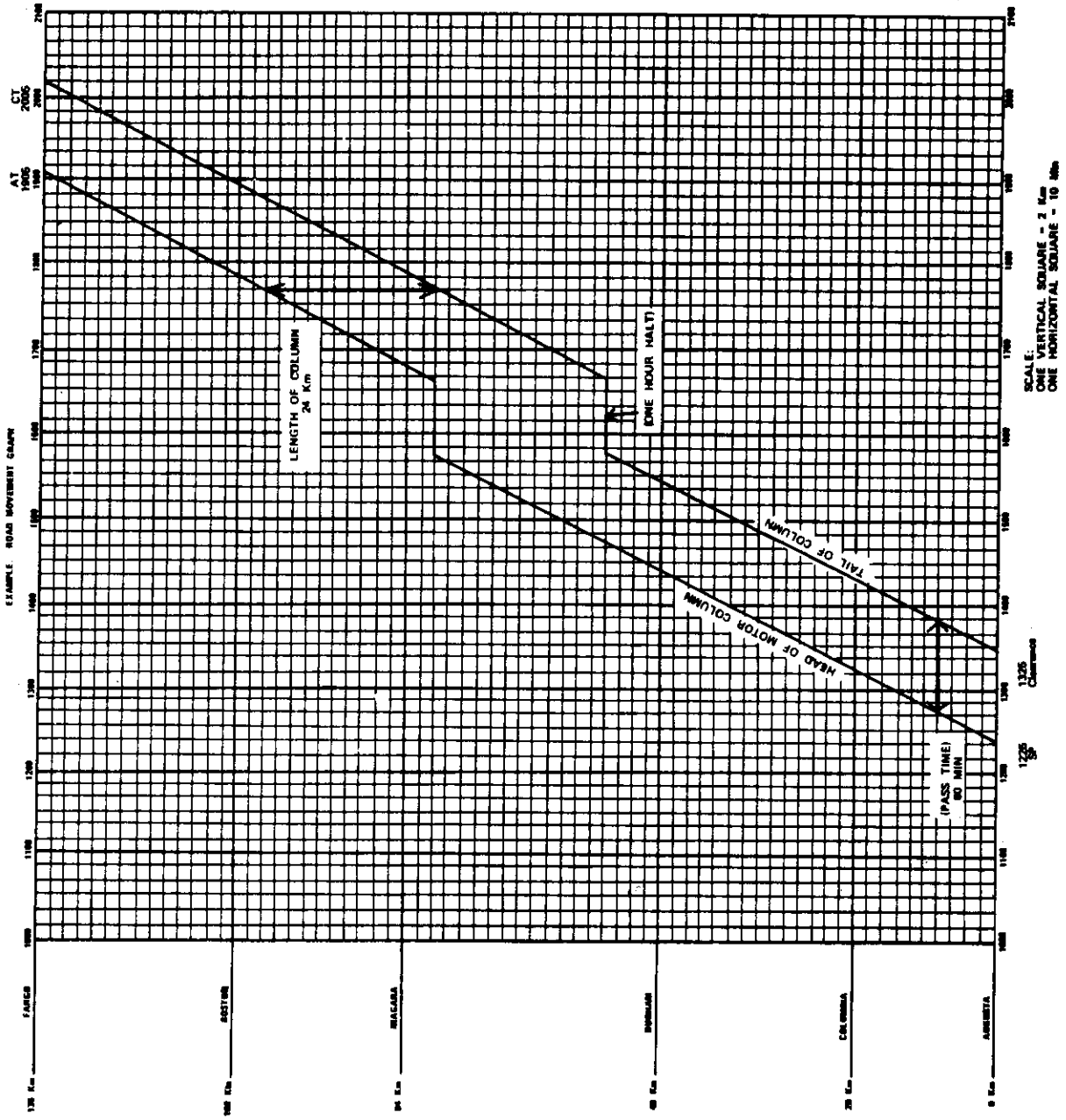


Figure 6-2. Road movement graph.

METRIC CONVERSION FACTORS	
TO CONVERT KILOMETERS TO MILES: Multiply the number of kilometers by the factor x .62 Mi = No of km x .62	TO CONVERT METERS TO YARDS: Multiply the number of meters by the factor 1.1 Yds = No of m x 1.1
TO CONVERT MILES TO KILOMETERS: Multiply the number of miles by the factor 1.6 Km = No of mi x 1.6	TO CONVERT YARDS TO METERS: Multiply the number of yards by the the factor .91 M = No of yds x .91

Km to miles	
1 =	.62
2 =	1.24
3 =	1.86
4 =	2.48
5 =	3.10
6 =	3.72
7 =	4.34
8 =	4.96
9 =	5.58
10 =	6.21
30 =	18.63
40 =	24.84
50 =	31.05

Miles to Km	
1 =	1.60
2 =	3.21
3 =	4.82
4 =	6.43
5 =	8.04
6 =	9.65
7 =	11.26
8 =	12.87
9 =	14.48
10 =	16.09
30 =	48.27
40 =	64.36
50 =	80.45

Figure 6-3. Metric conversion.

VEHICLE CAPACITIES FOR PERSONNEL

(Personnel Combat loaded, driver extra)

APC	11
Trk, 1/4-ton	3
Trk, 3/4-ton	9
Trk, 1 1/4-ton	10
Trk, 2 1/2-ton	20
Trk, 5-ton	20
Semitrailer, 12-ton	50

FM 101-10-1

Figure 6-4. Vehicle capacities.

UNIT	AVERAGE RATES OF MARCH (KMPH)				DAYS MARCH KILO-METERS
	ON ROADS		CROSS-COUNTRY		
	DAY	NIGHT	DAY	NIGHT	
Foot troops	4	3.2	2.4	1.6	20-32
Trucks, general	40	40 (lights) 16 (blackout)	12	8	280
Tracked vehicles	24	24 (lights) 16 (blackout)	16	8	240
Truck-drawn artillery	40	40 (lights) 16 (blackout)	12	8	280
Tractor-drawn artillery	32	32 (lights) 16 (blackout)	16	8	240

[1]This table is for general planning and comparison purposes. All rates given are variable in accordance with the movement conditions as determined by reconnaissance.

Source FM 101-10-1.

Figure 6-5. Planning average rates of March (KMPH).

BASIC EQUATIONS

There are three basic march factors - Distance (D), Rate (R), and Time (T). When two of these factors are known, the third may be found by simple equation. March planning formulas are based on these simple equations.

$D = R \times T$ (distance equals rate multiplied by time)

$T = \frac{D}{R}$ (time equals distance divided by rate)

$R = \frac{D}{T}$ (rate equals distance divided by time)

Source FM 55-30

Figure 6-6. Basic equations.

TIME DISTANCE (TDIS)

(Time required for an individual or individual vehicle to travel between two given points).

Divide the distance (kilometers) by the rate of march (kilometers per hour).

$$\text{TDIS (hr)} = \frac{\text{Distance (km)}}{\text{Rate of march (kmph)}}$$

To convert fractional parts of an hour to minutes, multiply the fractional part by 60.

Figure 6-7. March formulas. Source FM 101-10-1.

PASS TIME (PST) OF MOTOR COLUMN

(Time required to pass given point)

Multiply the LGTHCOLM in kilometers by 60; divide by the speed of the column.[1]

$$PST\ (min) = \frac{LGTHCOLM\ (km) \times 60}{Rate\ (kmph)}$$

The following can determine an approximation of PST: [2] [3]

PST (min) = No of veh x 0.08 (one march unit in close column)

= No of veh x 0.18 (two or more march units (a serial) in close column)

= No of veh x 0.20 (one march unit in open column)

= No of veh x 0.30 (two or more march units (a serial) in open column)

NOTES:

1. Extra time allowance must be added it not included in the unit SOP formations.
2. Open column figures are standard for a density of 12 vpk and a rate of 24 kmph; close column density is 48 vpk at 16 kmph.
3. March units consist of approximately 30 veh.

LENGTH OF COLUMN (LGTHCOLM) OF VEHICLES

(This is the sum of the lengths of the veh, the distance between veh, and the distance between march elements)

Divide the no of vehicles by the density of vehicles per km. Add this to the quotient of the time gaps multiplied by the rate (kmph) divided by 60.

$$\text{LGTHCOLM} = \frac{\text{No of veh}}{\text{Density (vpk)}} + \frac{\text{Time gaps (min)} \times \text{Rate (kmph)}}{60}$$

The following can determine an approximation of LGTHCOLM: (2)

LGTHCOLM (km) = No of veh x .02 (one march unit in close column)

= No of veh x .04 (two or more march units (a serial) in close column)

= No of veh x .08 (one march unit in open column)

= No of veh x .12 (two or more march units (a serial) in open column)

NOTES: 1. In close column, a 15-min time gap occupies 4 km LGTHCOLM; in open column, a 15-min time gap occupies 6 km LGTHCOLM.

2. Open column figures are standard for a density of 12 vpk and rate of 24 kmph; close column density 48 vpk at a rate of 16 kmph.

START POINT (SP) TIME

Substract PST, TDIS, and any scheduled halts from the completion time (CT).

SP (time) = CT - (PST + TDIS + Scheduled halts)

Figure 6-7. March formulas (cont). Source FM 101-10-1.

ARRIVAL TIME (AT) AT THE RP

Add TDIS and any scheduled halts to the SP time; or subtract PST for CT.

AT = SP (time) + TDIS + Scheduled halts

or

AT = Completion time (CT) - Pass time (PST)

COMPLETION TIME (CT)

Add PST, TDIS, and any scheduled halts to the SP time.

CT = SP (time) + PST + TDIS + Scheduled halts

PASS TIME (PST) OF FOOT COLUMN

Multiply length of column (LGTHCOLM) by factor for rate of march.

PST (minutes) = (LGTHCOLM x Factor)

Select factor from table below

Rate (Kmph)	Factor
4.0	.0150
3.2	.0187
2.4	.0250
1.6	.0375

LENGTH OF COLUMLN (LGTHCOLM) OF FOOT TROOPS

Multiple number of men by factor for formation and add the total distance of the gaps between units.

LGTHCOLM (meters) = (No of men x Factor) + Column gaps

Select factor from table below

Formation	2m/Man	5m/Man
Single File	2.4	5.4
Column of Two's	1.2	2.7

Figure 6-7. March formulas (cont). Source FM 101-10-1.

RULES OF COMPUTATION

To achieve uniformity of results, conform to the following rules in solving problems involving march computations.

1. Carry fractional parts of an hour to two decimal places and round off (.4 and lower down; .5 and higher up).

Example: 136 kilometers divided by a rate of 24 kilometers per hour equals 5.666666 etc.

Round off to 5.67.

2. Round off fractional parts of a minute to the nearest whole minute (.4 and lower down; .5 and higher up).

Example: Round off 10.20 minutes to 10 minutes. Round off 10.70 minutes to 11 minutes.

3. Round off meters to the nearest whole 10 meters.

Example: Round off 142 meters to 140 meters; round off 145 meters to 150 meters.

4. Compute length of motor columns to two decimal places for march units by rounding off if necessary.

Examples: Round 7.756 km off to 7.76 km.

Round 6.654 off to 6.65.

5. Compute length of motor serials in whole kilometers by round off.

Examples: Round 30.45 km to 30 km.

Round 30.50 km to 31 km.

Figure 6-8. Rules of computation, USAIS.

6-10. MOTOR MOVEMENT BY ECHELON.

a. Motor movement by echelon, in which vehicles of the unit make several trips back and forth to a new area transporting part of the unit at a time, is used when lack of transportation makes it impossible to motorize the entire unit at one time.

(1) Movement by echelon considerably delays completion time of a march because of required turn around times, loading and unloading, and return trip requirements.

(2) The accompanying table indicates these delay factors in a two echelon march and provides a checklist for determining completion time.

b. Motor movement by echelon may take a number of different forms. In the full two-echelon march, troops are able to ride the entire distance.

(1) To reduce completion time, part of the troops may be initially required to walk a portion of the distance while the remainder ride. The walking element is then picked up and rides the remaining distance. In this case a suitable turn around and entrucking point may be selected. Completion time is shortened only by the distance covered by the walking troops.

(2) Another variation is leapfrogging.

(a) A portion of the unit is moved by motor a distance short of the final destination, where they detruck and continue on foot.

(b) The remaining element is initially the walking element. They move by foot until met by returning vehicles, at which point they entruck and move by vehicle to the final destination or other designated point.

(c) This procedure can be repeated as necessary.

(3) The completion time checklist can be applied with modifications to any type movement by echelon march.

COMPLETION TIME TABLE -- TWO ECHELON MARCH

Item	Hours	Minutes
(1) Preparation time (first echelon)		
(2) TDIS (each route)		
(3) PST (close entire first echelon)		
(4) Unloading		
(5) Reassembly		
(6) TDIS (each route).		
(7) PST (returning trucks)		
(8) Loading		
(9) Reassembly (head of column at SP).		
(10) TDIS (each route).		
(11) PST (close entire second echelon).		
Total		

Completion Time_____

Figure 6-9. Completion timetable – two echelon march.

(Classification)

Copy No____of____copies
TF 2-76
GAY (GL645745)
221030R Aug 19____
EEL

OPORD 31

Reference: Map, GEORGIA, L7014, 1:250,000, BENNING Sheet, 2d Edition.

Time Zone Used Throughout the Order: ROMEO

Task Org: Annex A (Road Movement Table).

1. *SITUATION*
   a. *Enemy Forces.* Enemy air attack can be expected.
   b. *Friendly Forces.*
      (1) 1st Brigade moves by motor commencing at 231800 August to assembly area vicinity FARGO (GN7512).
      (2) 52d MP Co will provide traffic control support from the SP (AUGUSTA GL6672) to RP (FARGO GN7512).
   c. *Attachments and Detachments.* A/2-4 Armor and 1/A/52d Engr attached effective 220430 Aug.
2. *MISSION*
   TF 2-76 Mech moves by motor commencing 221159 August to assembly are vicinity FARGO (GN7512); closes brigade assembly area by 221930 Aug.
3. *EXECUTION*
   a. *Concept of Operation.* Annex B (Route Overlay). TF conducts a motor march, in six march units vic Route RED, first march unit crossing SP at 221159 August and last march unit clearing the release point, vicinity FARGO, by 221930 Aug.
   b. *March Unit 1*:
   c. *March Unit 2*:
   d. *March Unit 3*:
   e. *March Unit 4*:
   f. *March Unit 5*:
   g. *March Unit 6*:
   h. *Coordinating Instructions.*
      (1) Quartering party assemble at task force CP at 220900 Aug.
      (2) Vehicle density: open column - 12 vehicles per km.
      (3) Time gap: 3 minutes between march units.
      (4) Rate of march: 24 kmph.
      (5) Vehicle bumper markings will be covered.
      (6) Road movement date: Annex A (Road Movement Table).
4. *SERVICE SUPPORT*
   a. *Supply.* Draw one-third C-ration at breakfast for evening meal 22 Aug.
   b. *Services.* Trail party task force control.
5. *COMMAND AND SIGNAL*
   a. Signal.
      (1) CEOI Index 1-10.
      (2) Panel markings for key vehicles during motor march as prescribed in SSI Item No 51-1.
      (3) Listening silence north of release point.
   b. *Command.*
      (1) Command group and march CP at head of march unit 2.
      (2) New CP opens on arrival of march CP in new area.

Acknowledge

OGG
LTC

OFFICIAL:

SEYBOLD
S3

Annexes: A - Road Movement Table
B - Route Overlay

Distribution: A

(Classification)

Figure 6-10. Example mech inf bn road movement order.

(Classification)

Annex A (Road Movement Table) to OPORD 31

Reference: Map, GEORGIA, L7014, 1:250,000, BENNING Sheet, 2d Edition.

Time Zone Used Throughout the Order: ROMEO

General Data:

1. Average Rate: 24 kmph

2. Traffic Density: 12 veh per km.

3. Halts: 1545-1645, meal and fuel; all others SOP.

4. Critical Points: Route RED
   a. Start Point, AUGUSTA (GL6672) (AUG)
   b. Release Point: FRAGO (GN7512) (FAR)
   c. Other critical points:
      COLUMBIA (GL6979) (COL)
      DURHAM (GL6989) (DUR)
      NIAGARA (GL6893) (NIA)
      BOSTON (GN7106) (BOS)
   d. Route Classification: 10X50
   e. Route Restriction: None.

5. Main Routes to Start Point: N/A

6. Main Routes to Release Point: N/A

* * * * * * *

(Classification)

March Unit	Date	Unit	No of Vehicles	Load Class of Heaviest Vehicles	From	To	Route	Critical Points			Remarks
								Ref	Due	Clear	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
N/A	22 Aug	Recon Party Scout Plt 1/A/52 Engr Spt Plt Maint Plt Comm Plt (LT Crosby)	14 (10) (1) (1) (1) (1)	25	AUGUSTA	FARGO	RED	AUG	0600	N/A	Move by infiltration
N/A	22 Aug	Quartering Party Bn HQ Sec Co HQ Comm Plt Med Plt Spt Plt Cbt Spt Co Hv Mort Plt AT Plt Radeye Sec Gnd Surv Sec Co A, B, and C A/2-4 Armor (CPT Dowling)	18 (3) (1) (2) (1) (2) (1) (1) (1) (1) (1) (3) (1)	4	AUGUSTA	FARGO	RED	AUG		N/A	Move by infiltration
1	22 Aug	Co A Engr Plt (CPT Henderson)	(25) 30 (5)	25	AUGUSTA	FARGO	RED	AUG COL DUR NIA BOS FAR	1159 1249 1359 1529 1729 1839	1205 1255 1405 1535 1735 1845	Includes halt at (1545-1645)

(Classification)

NOTE: Columns (i), Route to Start Point, and (m), Route from the Release Point, as shown in FM 101-5 has been eliminated from this example.

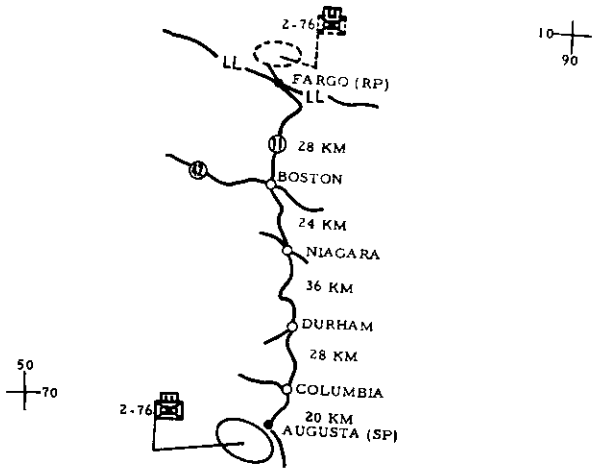
Classification

March Unit	Date	Unit	No of Vehicles	Load Class of Heaviest Vehicles	From	To	Route	Critical Points			Remarks
								Ref	Due	Clear	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
2	22 Aug	HHC (–) (Comd Gp) Co HQ Bn HQ Sec Comm Plt Spt Plt (–) Hv Mort Plt (CPT Blake)	29 (1) (11) (2) (10) (5)	13	AUGUSTA	FARGO	RED	AUG COL DUR NIA BOS FAR	1208 1258 1408 1538 1738 1848	1214 1304 1414 1544 1744 1854	Includes halt at (1545–1645)
3	22 Aug	A/2 – 4 Armor Spt Plt (–) (CPT Dooley)	(26) 30 (4)	50	AUGUSTA	FARGO	RED	AUG COL DUR NIA BOS FAR	1217 1307 1417 1647 1747 1857	1223 1313 1423 1653 1753 1903	Includes halt at (1545–1645)
4	22 Aug	Co B AT Plt (–) (CPT Wyatt)	(25) 30 (5)	25	AUGUSTA	FARGO	RED	AUG COL DUR NIA BOS FAR	1226 1316 1426 1656 1756 1906	1232 1322 1432 1702 1802 1912	Includes halt at 1545–1645)
6	22 Aug	Cbt Spt Co (–) Co HQ Radeye Sec Gnd Surv Sec Spt Plt (–) AT Plt (–) Med Plt (CPT Skinner)	30 (6) (2) (6) (9) (4) (3)	21	AUGUSTA	FARGO	RED	AUG COL DUR NIA BOS FAR	1235 1325 1435 1705 1805 1915	1241 1331 1441 1711 1811 1921	Includes halt at (1545–1645)
8	22 Aug	Co C AT Plt (–) (CPT Mitchell)	(25) 29 (4)	25	AUGUSTA	FARGO	RED	AUG COL DUR NIA BOS FAR	1244 1334 1444 1714 1814 1924	1250 1340 1450 1720 1820 1930	Includes halt at (1545–1645)
N/A	22 Aug	Trail Party Bn HQ Sec Maint Plt Med Plt A/2–4 Armor Comm Plt Spt Plt Deadlined Vehicles (CPT Martinez)	23 (1) (6) (1) (3) (1) (1) (10)	55	AUGUSTA	FARGO	RED	AUG	N/A	N/A	Move by infiltration

Classification

Annex B (Route Overlay) to OPORD 31

Reference: Map, GEORGIA, L7014, 1:250,000, BENNING Sheet, 2d Edition



CHAPTER 7
DECEPTION

Section I. GENERAL

7-1. PURPOSE AND SCOPE. This chapter contains information on definitions and types of operations and measures employed in the conduct of deception. It supports doctrine previously established in FM 31-40 (CONFIDENTIAL) and Training Circular 30-1.

Section II. DECEPTION OPERATIONS AND MEASURES

7-2. GENERAL. Tactical deception operational planning is conducted at the highest level concerned with the actual conduct of the operation. Each subordinate command may have its own part of play in the overall plan or it may be responsible for creating its own deception plan within the framework of the overall plan or it may be responsible for creating its own deception plan within the framework of the overall plan.

7-3. OPERATIONS. The types of tactical deception operations are discussed in paragraphs a. through d. They may be employed in general, limited, and cold war, including stability operations and nuclear or nonnuclear action.

a. *Feints.* A feint is a diversionary supporting attack. It should contribute to the enemy by drawing his attention away from the main attack. It is usually a shallow, limited-objective attack varying in size from a raid to a supporting attack. It should contribute to the overall accomplishment of the mission as well as serve its primary purpose of misleading the enemy. A feint is effective when--

(1) The enemy has a sizable reserve.

(2) There are several courses of action available to the attacker.

(3) The forces employed are of adequate composition and strength to cause the desired enemy reaction.

b. *Demonstrations.* A demonstration is an operation to deceive the enemy by a show of force in an area where a decision is not sought. The demonstration differs from a feint in that no actual contact with the enemy is intended. While the domonstration has certain advantages over the feint, it lacks the realism inherent in the feint attack.

c. *Ruses.* Ruses are tricks of war that achieve deception. They are generally single actions, planning or impromptu, that may be part of a cover and deception operation or may be an end in themselves. Ruses are a variation or a combination of a few simple tricks that have been practiced for years and are limited in application only by the imagination. Ruses range from the simple tactical tricks employed by soldiers to strategic actions employed by nations. Tactical tricks by soldiers are applicable under any condition of warfare where combat forces are in contact. Ruses may be employed in local areas by tactical units in situations short of war to cause the enemy to disclose his intention, state of morale, or combat readiness. Large-scale ruses can also be employed. However, in a situation short of war, ruses are often closely controlled by the strategic plan to avoid unexpected or unfavorable enemy reaction.

d. *Displays.*

(1) Displays are employed to deceive the enemy's sense of sight, whether through the unaided or aided eye, a camera, a radar, or an infrared device. Displays are normally used for three purposes:

(a) Simulation (decoy).

(b) Disguise.

(c) Portrayal.

(2) Decoys and dummies are mockups of weapons and installations with varying requirements for authenticity, depending on the closeness of anticipated enemy observation, detection equipment employed by the enemy, and amount of camouflage used to conceal the decoy or the dummy.

(3) Disguise means the alteration of the characteristic appearance of military objects or installations to make them appear less important. Because it is extremely difficult to conceal completely many military objects or installations, it is often more desirable and easier to disguide their appearance. By using disguise, a target of high value can be made to appear as one of little or no value. For example, tanks, artillery, missile transporters, and gasoline trucks may be disguised to appear as large cargo trucks. Railroad tank cars may be made to appear as empty boxcars or coal cars.

(4) A portrayal presents to the enemy the existence of a unit which does not exist or of a different type unit than that which actually exists. Elements of an armored cavalry regiment, for example, might be used to portray a complete armored division.

7-4. MEASURES. The principal means for implementing tactical cover and deception operations are visual, electronic, sonic, and olfactory deception. Certain of these measures are within the capabilities of all units; however, the larger the unit, the greater the means and methods available.

a. *Visual Deception.*

(1) Much of the enemy's intelligence gathering means are based on what is observed by individuals or what can be seen in aerial photographs. The old adage "seeing is believing" is an important consideration in tactical cover and deception operations. This must be kept in mind when displaying the false and concealing the real.

(2) Each enemy observer has a different set of values against which he evaluates visual simulation, depending on his knowledge and specialty. A competent observer practices critical observation. To be of value, deception must be able to withstand such examination. Air observers normally view the tops of ground-placed items and their shadows. Visual observation from low altitudes is close up but of short duration. Distant observation of longer duration occurs at higher flight altitudes. Image interpreters can study the object in three dimensions (stereo); make measurements of length, width, and

height of objects; study the terrain in color or camouflage detection film; compare photography with infrared and side-looking airborne radar (SLAR) returns; and gain evidence of movements into or around an area through the moving target indicator (MTI) of the SLAR. Image interpreters can also determine evidence of occupancy and note variations in the position of objects from time to time. Ground observers, by direct observation, normally see the sides and general outlines of visual simulators. Through optical viewing aids, ground observers may study the display for hours and will expect to witness some animation. Enemy radar operators will expect to see evidence of materiel when evaluating a simulation.

(3) The responsibility for visual deception is designated in the tactical cover and deception plan. Commanders assigned responsibilities for conducting visual deception operations normally use organic units to display decoys and real equipment as part of the cover and deception plan and submit their plans to the next higher headquarters for approval. TM 5-200 and FM 5-20 provide detailed guidance on materiels, decoys, simulation devices, and field expedients that may be used in visual deception operations.

(4) For a more detailed classified discussion of visual deception see FM 31-40, Chapter 5, Section II.

b. *Electronic Deception.* See FM 31-40, Chapter 5, Section II and FM 32-20, Chapter 4, Section II.

c. *Sonic Deception.*

(1) Sonic deception (employment of sound) consists of two types. The first type, nonelectronic sonic deception, simulates battle noises from the percussion of commonly available high explosives and blank ammunition. The second type, electronic sonic deception, reproduces, through high-powered projectors, the sounds associated with military functions; e.g., noises normal to vehicles, equipment, and installation activities. The objective of both types of sonic deception is to simulate and/or reproduce the sonic characteristics; i.e., sonic signature of a specific activity and/or materiel to deceive the enemy.

(2) The enemy, however, rarely acts on what he hears alone. He will become alert and try to confirm visually what he has heard. Thus, the integration of sonic deception with other types opf deception must be given serious consideration.

d. *Nonelectronic Sonic Deception.*

(1) A family of noise devices has been developed that simulates signal flares and small arms fire. Employment of these devices is discussed in FM 31-40, paragraphs 5-1 through 5-10; and they may be employed by all units.

(2) Standard high explosives, primacord, and blank ammunition can simulate gunfire. Common military sound-ranging devices can identify certain artillery pieces at various ranges only through the intensity and the duration of sound.

(3) Seldom are sonic devices simulating gunfire effective by themselves. Normally, employment requires some actual firing of the type of weapon being simulated to provide the sound of the projectile in flight as well as the terminal detonation of the round. Proper placement of the artillery piece is important in simulation because gunfire must appear to come from logical points under realistic conditions.

(4) The range of sound signals is dependent on climatic conditions and on vegetation. Humid, cool, still atmospheres and water surfaces carry sound best. However, no distances can be proposed for percussion noises because conditions vary on locale of operations. Each area of operations must have to be evaluated at the time sonic devices are employed.

e. *Electronic Sonic Deception.*

(1) Electronic sonic deception, which is conducted through the use of high-powered projectors (public-address systems), may be employed by all units. These projectors are portable and can be dropped by parachute or mounted in aircraft, ground vehicles, or boats. The amplification of existing sounds and the use of specially prepared recordings are two basic techniques of employment. Basically, electronic sonic deception takes advantage of the fact that although a man with normal hearing can recognize several separate sounds (exhaust of a motor, splashes, other men's voices), even though these sounds arrive simulataneously, his estimate of the distance from the source of sound is unreliable. He deduces that when a sound is rising in frequency it is coming toward him. If the sound lowers in frequency, he is convinced that it is receding from him. Specially prepared recordings can mislead or confuse him, even though the source of the sound is emanating from a sound projector in a fixed location. When preparing recordings, it is often necessary to synthesize the characteristic elements of a sound rather than to attempt actual reproduction. This limitation necessitates advance preparation by trained personnel. Because of the many variables involved in sound projection, the operation should be rehearsed and checked in surroundings similar to those in the deception target area. This introduces an additional time element that should be considered in planning sonic deception. Electronic sonic deception is most effective when it denies direct observation to the enemy. A means of artificial concealment, such as smoke, may be used to keep up the deception when darkness or reduced visibility cannot be used to advantage.

(2) Visual displays simulating a tactical situation frequently require sonic deception support. This is especially true when simulation of units or an activity takes place within the range of enemy sound detection. Activities may be simulated by producing noises relating to vehicular movement and construction work, such as bridge repair, road construction, or construction of troop emplacements and shelters on the battlefield. Sonic deception may also be employed to conceal the size and the types of forces and their location by creating loud sounds for the purpose of blanketing real operational noises.

(3) Specialized teams of psychological operations units may be employed for electronic sonic simulation.

f. *Olfactory Deception.*

(1) Simulated battlefield odors can be used to support cover and deception operations. Pending the development and standarization of olfactory agents, munitions, and devices, it is left to the ingenuity and resourcefulness of commanders in the field to improvise means for simulating battlefield odors. Chemical laboratory units in the field at Corps or Army level may be used in such improvisations.

(2) Olfactory agents may be used to support the efforts of provisional cover and deception units and/or tactical units, which also use other types of deception. For example, the smells associated with an armored force refueling at night could be used to assist in supporting other evidence of the existence of the existence of such an armored force.

Section III. DEFINITIONS

7-5. GENERAL. The terms commonly used in deception are as follows. Other terms are defined in TC 30-1.

Camouflage: The use of visual concealment and disguise to minimize the possibility of detection and/or identification of troops, material, equipment and installations. It includes taking advantage of the natural environment as well as the application of natural and artificial materials.

Communications Security (COMSEC): The protection resulting from all measures designed to deny to unauthorized persons information of value which might be derived from the possession and study of telecommunication, or to mislead unauthorized persons in their interpretations of the results of such study. Communications security includes cryptosecurity, physical security, and transmission security.

Concealment: Action taken to hide or disguise men, material and activities from the enemy with the aim of denying information as to the existence, nature disposition, or purpose of installation, equipment, or activities. Concealment means may be natural or artificial.

Counterreconnaissance: All measures taken to prevent hostile observation of a force, area, or place.

Countersurveillance: All measures taken to prevent hostile surveillance of a force, area, or place, to include counterreconnaissance, electronic countermeasures and all other countermeasures to deny enemy use of sensors.

Countersurveillance Discipline: The controls exercised by commanders and individuals to prevent or minimize the compromise of countersurveillance measures. It includes camouflage discipline, light discipline, radio communications discipline and the like.

Cover: Measures designed to provide security to a plan, operation, or activity as well as an intensification or normal security and passive measures.

Deception: Activities designed to mislead the enemy by manipulation distortion, or falsification of evidence to induce him to react in a manner prejudicial to his interest.

Imitative Electronic Deception: The intrusion of the enemy's channels and the introduction of matter in imitation of his own electromagnetic radiations for deceiving or confusing him.

Manipulative Deception: The use of friendly electronic radiations to falsify the information that an enemy can obtain from analysis of these radiations.

Notional: The adjective "notional" is used in combination with other normal military terms, such as "notional plans," "notional weapons," and "notional order of battle," to refer to false objects or plans that the friendly force seeks to make the enemy accept as real.

Passive Countersurveillance: Those meausres taken to minimize the detection, location or identification of a force, area or place. It includes camouflage, smoke or other screening agents, emitter silence, and simulations which are intended primarily to reduce the vulnerability of an actual force, item, area or place.

Physical Security: That part of security concerned with physical measures designed to safeguard personnel, to prevent unauthorized access to equipment, facilities, material and documents, and to safeguard them against espionage, sabotage, damage and theft.

Signal Security (SIGSEC): A generic term which includes both communications security and electronic security.

Simulation Device: An item capable of exhibiting selected characteristics of real item or facilities (for example, size and shape, heat emitting, sonic qualities, odor).

Tactical Military Cover and Deception: That form of cover and deception undertaken to support tactical military plans and operations. It embraces cover and deception that is sustained over a relatively short period of time, has a limited, well-defined mission, and is local in character.

CHAPTER 8
FIRE SUPPORT COORDINATION
Section I. GENERAL

8-1. INTRODUCTION.

a. Maneuver and firepower are essential ingredients of combat power. Firepower complements maneuver. The commander is supported by a greater selection of fire support than ever before in the history of warfare. These weapons systems include mortars, field artillery, armed helicopters, tactical aircraft, and naval gunfire. For maximum effectiveness, procedures must be established to coordinate all of this fire support.

b. Fire support coordination is the continuing process of planning for and managing of the fire support assets of the maneuver force. Its ultimate purpose is to insure that the appropriate amount and type of destructive force is delivered on the right targets at the right time.

c. Maneuver and fire support are interdependent; their planning and execution is closely integrated and coordinated. At each echelon of command, the plan for fire support is integrated with the plan for employment of the maneuver elements. The effectiveness with which fire support is coordinated with maneuver may be the decisive factor in battle.

(1) The commander at each maneuver echelon has final responsibility for fire support.

(2) The commander fulfills this responsibility through his S3, who integrates fire support with maneuver.

(3) A fire support officer (FSO) is designated for each maneuver battalion, and brigade. The senior field artillery officer is the FSO and is responsible for coordinating all fires on surface targets regardless of their source.

8-2. SCOPE.

a. This chapter contains information regarding:

(1) The principles of fire support coordination.

(2) Fire support coordination agencies and duties of key personnel at company, battalion, and brigade.

(3) Fire support coordinating measures.

b. For detailed information, see the USAIS Fire Support Handbook, (ST 7-375), FM 101-5, and FM 6-20.

Section II. PRINCIPLES OF FIRE SUPPORT COORDINATION

8-3. GENERAL. Fire support is one of the principal resources available to the commander for influencing the outcome of battle. It is his most responsive and flexible resource. The effectiveness with which he employs this resource may be decisive.

8-4. PRINCIPLES. The principles of fire support coordination are:

a. *Employ all available fire support.* Fire support must not be wasted or employed indiscriminately. Neither should the mission be jeopardized by excessive economy and caution.

b. *Furnish the type of fire support requested.* The requesting agency can best determine immediate fire support requirements. Because of existing conditions (e.g., availability of ammunition, tactical considerations, and safety), it may not be practical to provide the exact support requested. However, the support requested is the basis for determining the type of required time.

c. *Assign fire missions to the agency capable of delivering the most effective fire.* Fire missions are assigned to or requested of fire support agencies that can deliver the most effective fire in the required time.

d. *Establish procedures for rapid coordination.* Procedures must be established for rapid coordination to insure that targets are attacked in the shortest possible time.

e. *Use the lowest echelon capable of furnishing effective fire support.* Fire support is furnished by the lowest echelon that has the means readily available.

f. *Provide safeguards to friendly troops, vessels, aircraft, and installations.* Providing safeguards to friendly troops, vessels, aircraft, and installations is a basic tenet of fire support coordination. Fire support coordinating measures are described in Section IV.

g. *Use a common system of target numbering.* A common system of target/reference point (TRP) numbering facilitates effective and efficient use of fire support by eliminating duplication and identifying the planning source. All fire support agencies can locate and coordinate fires on a target through a common target numbering system. (NOTE: The common system of TRP designation used for all USAIS problems is described in Appendix H of the Artillery Fire Support Handbook. TRP numbering systems for units in the field comply with FM 6-20 and the unit SOP.)

h. *Avoid unnecessary duplication.* Fire support should not be wasted by "overkilling" targets. For example, it would be wasteful to mass the fires of three field artillery battalions to neutralize an enemy squad.

i. *Coordinate airspace use.* Fire support requires major use of airspace. The fire support coordination process must include the necessary airspace coordination to reduce interference between fire support and other airspace uses.

Section III. FIRE SUPPORT COORDINATION AGENCIES

8-5. GENERAL.

a. All available fire support is coordinated at each echelon of command. Procedures to accomplish coordination vary with the headquarters, the amount and type of fire support, and the type of operation. Fire support coordination agencies are required to:

(1) Provide the commander with coordinated advice to insure the most effective employment of all fire support.

(2) Resolve, to the limits of authority delegated by the commander, fire support conflicts during the planning and execution of operations.

(3) Insure prompt and effective attack of targets of opportunity.

b. *The maneuver commander at each echelon is responsible for fires in his area of operations.* Measures must be taken to insure that maximum fire support is provided while maintaining the greatest degree of safety to friendly troops and installations.

8-6. MANEUVER COMPANY. The company commander coordinates his fire support. He is assisted by his weapons platoon leader, forward observers from the direct support artillery battalion, and the maneuver battalion's heavy mortar platoon. A forward air controller (FAC) and naval gun fire (NGF) spotter also assist the company commander.(Came from Bn)

8-7. MANEUVER BATTALION.

a. At battalion, fire support coordination is accomplished in the fire support coordination center (FSCC) at the command post. The degree of formality in the FSCC is determined by the maneuver battalion commander. The FSCOORD functions under the staff supervision of the S3. They work closely in planning and executing fire support to insure that it supports the commander's scheme of maneuver or plan of defense. Key personnel in the FSCC are:

(1) The FSCOORD, a fire support officer sent to the maneuver battalion from the field artillery battalion in direct support the the brigade.

(2) The heavy mortar platoon leader or his representative.

(3) The S3 Air.

(4) An Air Liaison Officer (ALO) from the Tactical Air Control Party (TACP).

(5) A Naval Gunfire Liaison Officer (NGLO) if naval gun fire support is provided.

(6) Representatives of other fire support agencies.

b. The fire support officer from the direct support field artillery battalion (the FSCOORD) is responsible for:

(1) Keeping the maneuver battalion commander informed on the artillery situation and capabilities. As the fire support officer, he is his commander's representative and, as such, is the artillery adviser to the maneuver battalion commander.

(2) Keeping his commander informed on the plans and locations of the maneuver battalion and companies.

(3) Initiating, relaying, on clearing requests for fires and for lifting fires.

(4) Exchanging enemy information with personnel of his battalion intelligence section.

(5) Visiting his command post, when conditions permit, to report the situation and the effectiveness of fire support.

(6) Preparing the fire support annex for maneuver battalion operation plans and orders and advising the maneuver battalion commander on fire support.

(7) Accompanying the supported unit commander as requested. When the supported unit is in reserve, the fire support officer remains with it.

(8) Coordinating the location of the coordinated fire line and artillery final protective fires with the maneuver battalion commander and reporting this to his parent unit.

(9) Supervising the activities of first teams with the supported maneuver companies.

c. The S3 Air, as a member of the air-ground system, coordinates employment of close air support with ground operations. He works closely with the FSCOORD and with the TACP when one is provided. His duties are:

(1) Preparing, in coordination with the S3, SOP for air-ground operations.

(2) Preparing the air fire support appendix to the fire support annex.

(3) Preparing and processing planned requests for close air support through army communications nets.

(4) Preparing and processing immediate requests for close air support.

(5) Supervising joint recognition and identification procedures.

(6) Assisting the S2 by processing requests for planned and immediate tactical air reconnaissance missions.

d. A TACP is provided by the Air Force when air force support is available and by the Marine Corps when marine or naval air support is available. Each includes an ALO, a FAC, and enlisted personnel to operate vehicles and communications equipment. The TACP is not assigned below battalion. However, members of the party frequently work with company commanders. The TACP:

(1) Controls and operates the immediate air request net.

(2) Furnishes and maintains communications equipment that operates in the air request net.

(3) Advises the battalion commander and the fire support coordinator on suitable targets for air strikes.

(4) Communicates immediate air support requests (normally by the ALO) directly to the direct air support center (DASC). TACP at higher echelons monitors and acknowledges these transmissions.

(5) Provides (normally by the FAC) prompt and accurate direction of tactical aircraft against ground targets.

(6) Assists the FSO in the coordination of aircraft and artillery support.

(7) See Chapter 9 for a detailed discussion of air-ground operations.

e. The NGLO is the senior member of the shore fire control party furnished when naval gun fire is available. The shore fire control party consists of a naval gun fire liaison team and naval gun fire spotting team. They perform functions in planning the controlling naval gun fire similar to those performed by the artillery fire support officer and forward observer.

f. Representatives of other Army fire support agencies must be available if the battalion participates in operations which include their support. For example, if chemical weapons are employed, the battalion commander must have access to chemical personnel for advice concerning chemical fires.

8-8. BRIGADE.

a. At brigade fire support coordination is accomplished at the FSCC at the brigade command post. The degree of formality in FSCC is determined by the the brigade commander. The commander of the direct support field artillery battalion in support of the brigade is the FSO. The FSO and brigade S3 work closely to insure that fire support is properly planned and executed to support the scheme of maneuver. Key personnel in the FSCC are:

(1) The FSO.

(2) The Assistant FSO, the fire support officer from the direct support field artillery battalion.

(3) The Brigade S3 Air.

(4) An Air Liaison Officer (ALO) from the TACP.

(5) The Brigade Chemical Officer.

(6) The NGLO and representatives of other fire support agencies when appropriate.

b. The FSO at brigade has both command and staff responsibilities. As the commander of the field artillery battalion in direct support of the brigade, he employs his battalion and plans and recommends employment of other field artillery supporting the brigade. As the FSO, he plans and recommends employment of all fire support. His duties include:

(1) Advising the commander and staff on all fire support matters concerning delivery of fires on surface targets, to include:

(a) Requirements for fire support.

(b) Recommends the controlled supply rate, the assignment and allocation of nuclear weapons, and the special ammunition load for surface targets.

(c) Enemy fire support capabilities.

(d) Deception operations by fire support on surface targets.

(2) Preparing the fire support portion of brigade operation plans and orders, including the fire support annex. The FSO also integrates air, artillery, chemical, and other fire support appendixes into the fire support annex.

(3) Coordinating all supporting fires delivered on surface targets.

(4) Providing target analysis and damage assessment of nuclear and chemical fires used on surface targets by friendly forces.

(5) Advising on field artillery target acquisition.

c. The Assistant FSO functions as the FSO during the direct support field artillery battalion commander's absence from the command post.

d. The brigade S3 Air monitors and acknowledges requests for immediate close air support in addition to performing duties similar to those of the battalion S3 Air.

e. The TACP at brigade does not include a forward air control team. The ALO advises on all close air support matters, coordinates air strikes and transmits requests for immediate air strikes which originate at brigade level, and monitors the immediate air request net.

f. The brigade chemical officer:

(1) Assists in planning and coordinating nuclear and chemical weapons.

(2) Plans and recommends employment of chemical troops.

(3) Exercises technical supervision over CBR activities throughout the command.

(4) Plans and supervises the following CBR and nuclear activities.

(a) Coordination of CBR operations with other combat support and combat service support operations.

(b) Analysis of chemical targets and computation of munition requirements.

(c) Receipt, collation, evaluation, and distribution of NBC reports.

(5) Plans and coordinates collection, collation, evaluation, and distribution of CBR contamination data and advises on the impact of CBR contamination on tactical and logistic operations.

(6) Advises on CBR intelligence matters and coordinates with brigade intelligence personnel on all matters related to CBR intelligence.

(7) Provides advice and recommendations pertaining to smoke in support of tactical operations.

(8) Assists in planning chemical participation in denial operations and barriers.

(9) Advises on CBR and nuclear defense.

(10) For detailed information, see FM 3-10 and FM 21-40.

g. Duties of the NGLO and representatives of other army fires support agencies are similar to those performed at battalion level.

Section IV. FIRE SUPPORT CONTROL MEASURES

8-9. ZONE OF FIRE. An area in which a designated ground unit of fire support ship is responsible for delivering fire support. Zones of fire are assigned to artillery and naval gun fire support units for control of fire laterally and in depth.

8-10. BOUNDARIES. Boundaries designate the geographical area for which a particular unit is responsible. Within his boundaries a maneuver unit commander has complete freedom of fire and maneuver unless other control measures have been established. No unit may fire across boundaries unless such fires are coordinated with the unit to whom the area is assigned. The restriction applies to conventional ammunition and to special ammunition including its effects.

8-11. COORDINATED FIRE LINE (CFL).

a. The coordinated fire line is a line beyond which mortars, field artillery units, or naval gun fire support ship may fire at any time within the zone of the supported unit without coordinating.

b. Location of the CFL is established by the supported unit commander in coordination with the direct support artillery battalion commander. Each fire support coordination agency and artillery echelon is informed of the location of and changes to the CFL. Only the field artillery unit in DS of the maneuver unit which established the CFL may fire short of the CFL in its sector without coordination with any other artillery unit. Coordination is not required for fires beyond the CFL.

c. The CFL is shown on an overlay as a black dashed line with CFL and the establishing headquarters on top of the line and an effective date/time group below the line.

8-12. FIRE SUPPORT COORDINATION LINE. The fire support coordination line (FSCL) is used in relation to air, ground, or sea delivery weapons. An FSCL is not normally required for units below corps since no-fire lines and boundaries provide adequate control measures. All fires to include nuclear fires may be delivered beyond the FSCL without coordination.

8-13. RESTRICTIVE FIRE LINE.

a. A line established to coordinate fires between linkup forces or between converging friendly forces. The RFL is established by the headquarters which controls both forces and follows easily identifiable terrain features.

b. Fires and effects extending across the line must be cleared with the headquarters of the force on the other side of the line.

c. The RFL is shown on an overlay as a solid red line marked RFL with the establishing headquarters on top of the line and the effective date/time group below the line.

8-14. AIRSPACE COORDINATION AREA (ACA).

a. An airspace coordination area establishes a three-dimensional area safe from friendly, surface-delivered nonnuclear fires. Requests for airspace coordination plans are normally approved and disseminated by the division fire support element. The field artillery fire direction centers also disseminate ACA plans and other trajectory limitations to higher, lower, and adjacent field artillery fire direction centers to insure receipt.

b. Information normally disseminated includes minimum and maximim altitudes, length (by two coordinate points), width (possibly by SOP), and the effective date-time group for commencement and termination.

8-15. NO-FIRE AREA.

a. A no-fire area is a designated restricted area into which no fires will be delivered and into which no effects from fires will extend. Two exceptions to this rule are:

(1) When the establishing agency requests or approves fires (temporarily) within the no-fire area.

(2) When an enemy force in the no-fire area is a major threat and there is insufficient time to obtain approval from the establishing agency to fire into the no-fire area, the commander may engage the enemy to defend his force.

b. On a map or overlay, a no-fire area is outlined in red and has red diagonal lines drawn through the enclosed area. The words "no-fire area" and the effective date/time group are written inside the circumscribed area. The locations, designations, and effective date/time groups of the area are transmitted to all units.

8-16. RESTRICTIVE FIRE AREA. A restictive fire area is an area in which restraints have been imposed and into which fires in excess of those restraints will not be delivered without approval of the establishing authority. Long-term restraints may be disseminated through rules of engagement. Temporarily restraints may be disseminated by overlay, radio, or wire.

8-17. NUCLEAR AND TOXIC CHEMICAL SAFETY MEASURES.

a. Additional coordinating and limiting measures may be required for troop safety when nuclear and toxic chemical weapons are used in support of ground operations. Safety measures should be related to well-defined terrain features based on a careful analysis of weapons effects.

b. Typical safety measures are:

(1) Lines of departure to coordinate exploitation of the effects of nuclear and chemical fires.

(2) Phase lines to define limits of advance or withdrawal required to avoid unacceptable effects for nuclear and chemical fires.

(3) Nuclear safety lines to indicate limits to which nuclear effects may be permitted to extend.

Section V. SUMMARY

8-18. SUMMARY. Proper employment of fire support resources is essential to success on the battlefield. At each echelon of command, certain principles of fire support coordination are used to insure effective use of all fire support. A fire support coordinator is designated at every level of command down to battalion. The FSCOORD is responsible for coordinating fires on surface targets regardless of their origin. He is further responsible for establishing and supervising operation of the fire support coordination agency. Fire support coordination agencies advise the commander on the most effective employment of fire support, resolve fire support conflicts, and insure prompt and effective attack of targets of opportunity.

CHAPTER 9
AIR-GROUND OPERATIONS

Section I. INTRODUCTION

9-1. Success on the battlefield depends on the degree of combat power a force can attain and is a combination of maneuver and fire. When closely integrated with the ground scheme of maneuver, tactical air power favorably influences the outcome of offensive and defensive operations.

9-2. The Army accomplishes its mission by employing forces to defeat land forces and seize, occupy, and defend land areas.

9-3. The Air Force accomplishes its mission by (1) gaining and maintaining air superiority, (2) interdicting the battle area, and (3) providing tactical air support to ground forces. The tactical air support consists of close air support, tactical air reconnaissance, and tactical airlift. Close air support is air action against hostile targets in proximity to friendly forces and which require integration with the fire and movement of these forces. Tactical air reconnaissance is the employment of Air Force aircraft to obtain by visual, optical, electronic, or sensor devices information about the disposition, composition, movement, and location of enemy forces, topographic and cultural features of the terrain, and weather conditions which affect military operations. Tactical airlift is the means by which personnel, supplies, and equipment are delivered by air on a sustained, selective, or emergency basis.

Section II. AIR-GROUND OPERATIONS

9-4. GENERAL. This chapter discusses air-ground operations in a Joint Task Force (JIF) of Army and Air Force elements. The Army Force is a corps. Emphasis is on the organization and communications of the Army Air-Ground System (AAGS) and the Air Force Tactical Air Control System (TACS). Methods used by ground commanders to employ tactical air support are also included.

9-5. ARMY AIR-GROUND SYSTEM.

a. *Concept.* The Army Air-Ground System consists of specially trained personnel with necessary communications equipment at all echelons to process air requests. Except for the S2 at battalion, personnel at each level occupy TOE positions identified for this purpose and perform their functions in the system as a primary duty. The general functions of the Army Air-Ground System are:

(1) Processing, evaluating, and consolidating Army requirements for close air and tactical air reconnaissance support (includes Army aviation support).

(2) Advising requesting agencies of action taken on requests.

(3) Securing and exchanging current information and intelligence obtained through Army and Air Force agencies.

b. *Description and Functions of Army Air-Ground System Elements.*

(1) Tactical Operations Center Center (TOC). A physical groupment of elements of the unit and special staff concerned with current tactical operations.

(2) Corps Tactical Operations Center (CTOC) and Division Tactical Opertion Center (DTOC) are agencies through which the corps and division commanders control tactical fire support available to the corps and division. The G2/G3 Air group operate as the Tactical Air Support Element (TASE) and perform the functions of air-ground operations.

(3) Ground Liaison Officers (GLO) are at Air Force fighter airfields providing close air support. Air Reconnaissance Liaison Officers (ARLO) are at Air Force reconnaissance airfields providing tactical air reconnaissance. They are advisors to air unit commanders to keep them abreast of the ground situation, assist in briefing and debriefing pilots, and disseminate information and intelligence.

(4) Military Intelligence Battalion Air Reconnaissance Support (MIBARS), discussed here is attached to the corps. MIBARS processes, develops, interprets, and provides ground units with aerial photos obtained by tactical air reconnaissance missions requested by Army units. Its major elements are located on an airstrip near the Army corps headquarters. To insure rapid interpretation and production of intelligence from aerial photos, Air Reconnaissance Support Detachments from MIBARS are located at each reconnaissance airfield. These detachments receive prints and negatives from the Air Force and perform immediate photo interpretation. The information is then flashed to the requesting unit. The Delivery Platoon organic to the MIBARs performs at least three daily deliveries from each reconnaissance airfield to the corps and each division of the JTF.

(5) Duties of personnel at battalion.

(a) The S3 Air:

1. Is an Assistant S3. He forwards preplanned requests for close air support to higher headquarters and immediate requests to the Forward Air Controller/Air Liaison Officer (FAC/ALO) after coordination with the Fire Support Coordinator (FSCOORD).

2. Prepares the portion of the unit SOP dealing with close air support.

3. Prepares the tactical air fire support appendix of the fire support annex to operations plans and orders.

4. Initiates and processes requests for immediate and preplanned close air support (see para 127).

5. Recommends and disseminates information concerning the Fire Coordination Line (FCL) (a line between two forces which fire may not be delivered with coordination with the other force) and the Fire Support Coordination Line (FSCL) (a no fire line between corps and higher echelons and as a bomb line for ground and air forces).

6. Supervises joint recognition and identification procedures.

7. Assists the Tactical Air Control Party in matters pertaining to orientation, security, and logistics.

(b) The S2:

1. Is responsible for preparation and processing of immediate and preplanned requests for tactical air reconnaissance.

2. Disseminates meteorological information received from the Division G2.

(c) The FSCOORD (Artillery Fire Support Officer), working under the staff supervision of the S3:

1. Coordinates employment of tactical aircraft with the unit fires.

2. Incorporates the air fire plan into the unit fire support plan.

3. Keeps supporting field artillery units informed of air missions.

(6) Duties of personnel at brigade.

(a) The S3 Air performs functions enumerated for the battalion S3 Air. Additionally he:

1. Coordinates, consolidates, assigns procedures, and forwards preplanned requests for tactical air reconnaissance initiated at brigade and subordinate units.

2. Monitors the Air Force net used by the ALO, thereby keeping informed of the status of immediate requests for close air support initiated by subordinate battalions.

(b) The Assistant S2 performs functions listed for the battalion S2. Additionally he:

1. Coordinates, consolidates, assigns procedures, and forward preplanned requests for tactical air reconnaissance initiated at brigade and subordinate units.

2. Monitors the Air Force net used by the ALO, thereby keeping informed of the status of immediate requests for tactical air reconnaissance initiated by subordinate battalions.

(c) The FSO (DS Artillery Battalion Commander) has the same responsibilities as the battalion FSO.

9-6. AIR FORCE TACTICAL AIR-CONTROL SYSTEM.

a. *Concept.* The Tactical Air Control System (TACS) controls counterair (air defense and air offense), interdiction, close air support, tactical air reconnaissance, and tactical airlift operations. By means of the control system, the Air Force component commander shifts, redeploys, or concentrates his forces to meet the most pressing requirements. TACS operates on the principles of centralized direction, decentralized execution, and coordination of effort.

b. *Description and Functions of TACS Element.* The following elements comprise TACS:

(1) The Tactical Air Control Center (TACC) is the Air Force commander's operations center. The TACC plans and coordinates tactical air operations and air control and warning functions in the area of operations. Through the TACC, the Air Force component commander directs the air effort to insure centralized control. Communications are established between higher and lateral headquarters, subordinate units, and agencies in the Tactical Air Control System.

(2) The Direct Air Support Center (DASC), a subordinate element of the TACC is a highly mobile, air transportable facility collocated with the Corps TOC. With sorties allocated by the TACC, the DASC receives and coordinates Army requests for immediate tactical air support and directs the air effort allocated to meet these requirements.

(3) The Tactical Air Coordinator Airborne (TAC(A)) coordinates from the air combat aircraft engaged in close support of ground or sea forces.

(4) The Tactical Air Control Party (TACP) at battalion and brigade consists of an ALO/FAC and communications personnel. At division and higher, the TACP consists of an ALO with several assistants representing close air support, tactical air reconnaissance, and tactical airlift.

(a) The ALO/FAC at battalion advises the battalion commander on air matters, transmits requests for immediate tactical air support to the DASC, and controls air support missions from ground or aerial observation posts.

(b) The FAC, from a forward position, directs combat aircraft engaged in offensive air support of land forces. He is a tactical fighter pilot who is trained in air-ground operations. He performs the following tasks:

1. Directs strike aircraft.

2. Coordinates with reconnaissance pilots overhead on missions in proximity to friendly forces.

3. Serves as tactical air advisor.

(c) The ALO at brigade advises the unit commander on air matters, monitors the Air Force Immediate Air Request Net, coordinates requests for immediate tactical air support with the S2/S3, and transmits immediate close air support and tactical air reconnaissance requests, initiated at brigade to the DASC.

(d) The Control and Reporting Center (CRC) is subordinate to TACC and controls airborne aircraft. It also provides radar control and surveillance in its assigned area.

(e) Control and Reporting Posts (CRP) are subordinate to CRC and extend its area coverage. The CRP's provide radar control and surveillance in an assigned area. They function in the same manner as the CRC.

(f) The Reporting Post (RP) is an unmanned radar facility employed to extend radar coverage of the CRC or CRP. It is used as a gap filler for low altitude surveillance or to extend early warning coverage.

(g) The Air Support Radar Team (ASRT) is a mobile unit equipped with high precision radar to provide all-weather guidance for tactical fighter aircraft on strikes against ground targets.

(h) Forward Air Contrtol Post (FACP) is a highly mobile facility to further extend radar coverage. FACP's have limited aircraft control capability in that they can position an aircraft over a particular point on the ground.

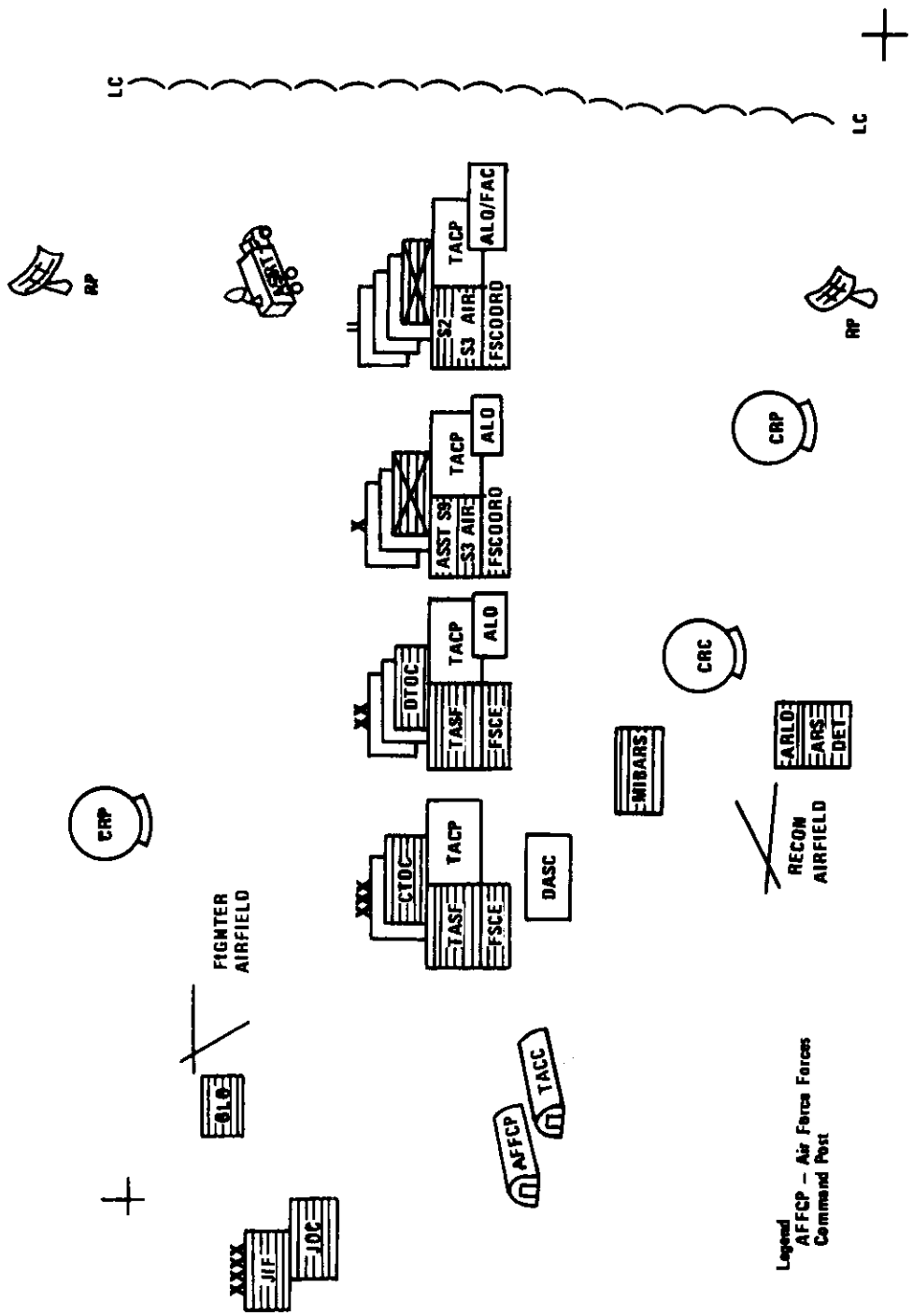


Figure 9-1. Air-Ground operations elements.

9-7. PLANNING AND ALLOCATION OF CLOSE AIR SUPPORT. Planning at army and tactical air force level is coordinated to insure maximum effective use of the tactical air for support of the ground forces. The TAF TACC, with liaison from army, provides the broad aspects of planning, controlling and coordinating theater tactical air support. The TAF commander, considering missions assigned, forces available and army requirements, determines the air effort for direct support of the army. When this determination is made, the army commander specifies the air effort to be allocated to each Direct Air Support Center (DASC) to support the corps. If it is necessary to concentrate the air effort in a particular area, the TAF reallocates it as the army commander directs.

9-8. TYPES OF CLOSE AIR SUPPORT.

a. *Preplanned missions.* Are for targets that have been selected in advance allowing complete planning and preparation prior to execution. The preplanned mission can be integrated into the fire support plan and scheduled for timely execution. Preplanned requests are processed through army channels to the TACC for sortie allocation. The tactical air unit receives the mission in time for detailed briefing of aircrews and loading of appropriate ordnance. Coordination with the requesting unit and its assigned Tactical Air Control Party (TACP) is effected in time to effectively integrate the air support with other fires. Ground or air alert sorties are requested using this method and are readily available should the need arise.

b. *Immediate missions* are for air support requirements that develop during the course of battle and which cannot be planned in advance. Immediate air requests initiated at any level of army command are relayed directly to the DASC by the local TACP. At each intermediate army echelon, the TACP monitors the request net, acknowledges the request, and coordinates the request with S3/S2 air officer for approval. Silence at intermediate echelons signifies approval. The DASC scrambles aircraft on alert. A FAC directs the strike when the aircraft arrive in the area.

9-9. COMMUNICATIONS FOR A PREPLANNED MISSION (ARMY).

Communication Nets (See Figure 9-2).

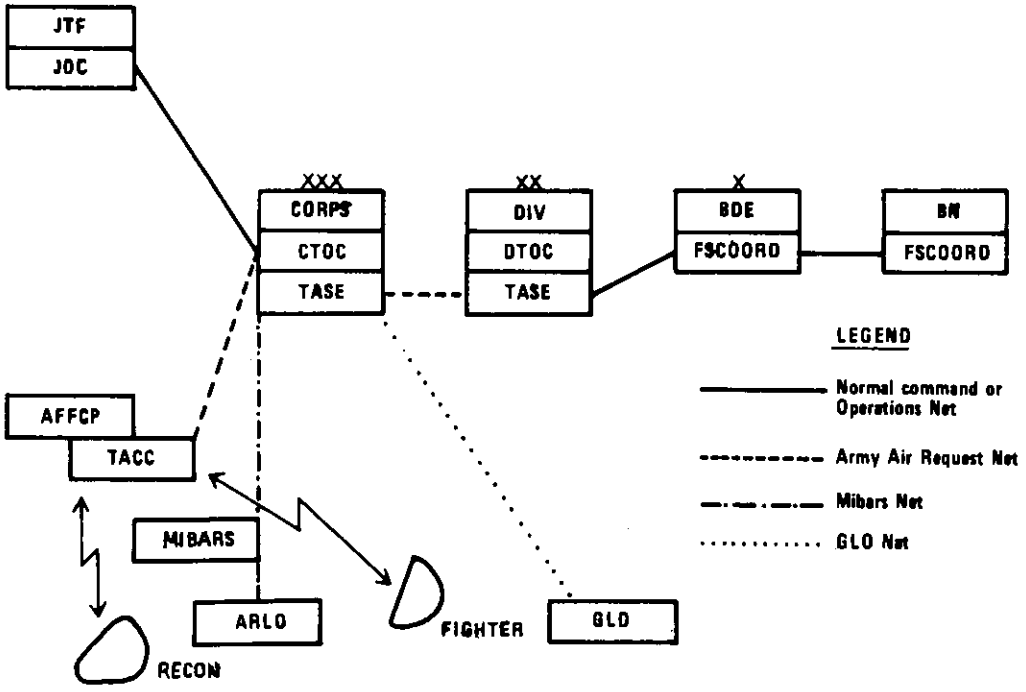


Figure 9-2. Army air-ground system (AAGS).

a. No special communications are required for handling preplanned air requests between battalion, brigade, and division. Command, operations, and common user systems are used.

b. Army Air Request Net, which provides communications between separate brigades, armored cavalry regiments, divisions, corps, and the army tactical operations center, is used to submit and receive preplanned air support requests and to coordinate the execution of approved request with ground operations.

c. Ground Liaison Officer Net AM(RATT), links the G3 Air at the highest Army component TOC with the ground liaison officers at the fighter air base.

d. Military Intelligence Battalion, Air Reconnaissance Support, Operations Net, links the military intelligence battalion air reconnaissance support command post to the air reconnaissance liaison officers stationed with the tactical air reconnaissance units and the G2 Air at the highest Army component TOC.

e. Corps Aerial Surveillance Company Operations Net, provides communications between the corps G2 Air at the CTOC and the corps aerial surveillance company.

9-10. COMMUNICATIONS FOR AN IMMEDIATE MISSION (AIR FORCE).

a. *Communiation Nets of the TACS.*

(1) Air Force Air Request Net, AM (SSB), links the DASC with the TACPS at battalion, brigade, division, and corps; the TACC; the CRCS; and the reconnaissance and fighter airfields. The net for forwarding and executing immediate requests for tactical air support and for transmitting routine air-ground information.

(2) Tactical Air Direction Net, AM (UHF), is used by TACPS to communicate with flight leaders. The battalion TACP's use this net to direct supporting aircraft to targets (See Figure 9-3).

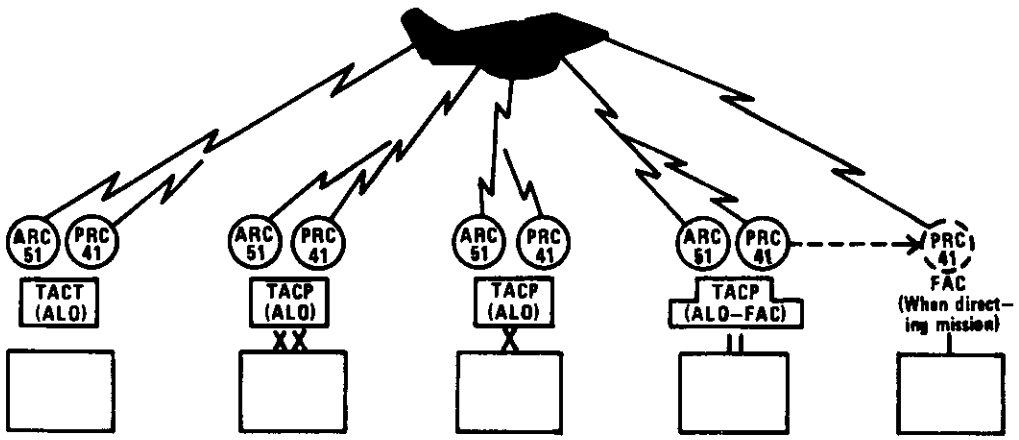


Figure 9-3. Tactical air direction net (Air Force) AM (UHF).

b. *Air Force Radios at Brigade and Battalion.* The battalion TACP has two MRC-107 (or MRC-108) vehicles. These are 1/4 ton trucks (counterpart to the Army's M151) with radios. The brigade TACP has only one vehicle. Each vehicle contains the following radios:

NUMBER	*TYPE*	*INTENDED USE*
GRC-106	HF-SSB-AM	AF Air Request Net
AN/ARC-51	UHF-AM	Air-Ground (control strikes)
PRC-47	HF-SSB-AM (portable)	AF Air Request Net
PRC-41 or 66	UHF-AM (portable)	Air-Ground (control strikes)
PRC-25 or 77*	VHF-FM (portable)	Army Unit Command Net

*Company commanders and platoon leaders communicate with the FAC on the ground or airborne with the PRC-25 or 77 VHF-FM radio.

9-11. PROCESSING TACTICAL AIR SUPPORT REQUESTS.

a. *Immediate close air support and tactical air reconnaissance requests* (See Figure 9-4) generated at platoon and company level are forwarded to the battalion CP via Army communications. The requests are validated by the battalion commander, S3 or S3 Air, and passed to the battalion ALO/FAC. The ALO/FAC submits requests directly to the DASC over the Air Force operated Immediate Air Request Net. The TACP's at higher echelons monitor the Air Force operated Immediate Air Request Net. The TACP's at higher echelons monitor and acknowledge these transmissions. If the Army echelon above the initiating level has organic firepower (i.e. artillery, missiles), which can do the job or desires to disapprove the request for other reasons, the ALO with the headquarters disapproving the request notifies the DASC to cancel the mission. Normally, disapproval is voiced within 5 minutes after acknowledgement of receipt; silence means approval. The initiating unit is notified how the mission is to be counsulted. While the Tactical Air Support Elements are researching their capabilities, the DASC prepares the mission data and plans to engage the target as soon as possible. The DASC scrambles the aircraft from ground alert or diverts air alert or preplanned air through the CRPS. The DASC then calls the TACP of the requesting unit and gives it the number of aircraft, their callsign, ordnance load (if appropriate), and the time the target for final control by the FAC. An immediate air request may be initiated at any level, but the request in each case will be forwarded direct to the DASC by the ALO at the requesting unit (See Figure 9-4). Superficially, this system appears superior to the preplanned. But hurried planning and corrdination frequently leads to confusion, aircraft armament loads may not be the most efficient for the target, and aircraft arriving on target without a specified time on target cannot be effectively integrated into the fire plan of the Army force. For these reasons and where time permits, the preplanned mission is the most effective and most responsive.

b. *Preplanned close air support and tactical air reconnaissance requests* are forwarded through Army channels to the senior TOC. They are then passed to the TACC as an Army requirement. (See Figure 9-4).

c. *Fire Support Coordination.* To insure coordination of all fire support, requests for preplanned or immediate close air support are coordinated with the FISCOORD at each level of command.

d. *Essential Element of a Close Air Support Request.* An immediate request for close air support contains sufficient detail to permit each Army echelon to determine the suitability of air or to select other means. Also, it enables the Air Force to determine the appropriate armament. As a minimum, it includes:

(1) Requesters Indentification. The requester must be identified by CEOI call sign.

(2) Request Type and Priority. Describe whether request is for a preplanned or immediate mission. Also designate priority of the request. Priority is essential when one or more requests have been submitted. There are three general priorities:

(a) Without close air support, the mission cannot be accomplished, and there will be heavy casualties.

(b) Without it accomplishment of the mission will be extremely difficult.

(c) Close air support will enhance the mission greatly.

(3) Target Type. Guns: site, open or closed positions, camouflage, strong points. Bunkers: size and type construction. Troops: bivouac, marching, in dugouts, number. Supply area: size, dispersed or concentrated, revetted or in the open, class of supply. If target is defended by antiaircraft weapons, so state. This information can be used by the Air Force to request flak suppression fires.

(4) Target Location: Coordinates, speed, and direction if moving, locate with respect to prominent landmarks.

(5) Target Time: In an immediate request, target time is ASAP. The target time in a preplanned request is set for a specific time at some point in the future. The latest acceptable time states that if the ordnance cannot be delivered by a given time, do not deliver it at all.

(6) Recommendations: Recommendations should include type of ordnance, location of Fire Coordination Line, direction of delivery.

(7) Final Control: Some considerations are: marking targets, control facilities to be used (FAC), whether or not flak suppression will be provided, artillery and naval gunfire maximum ordinate, FAC identification and location.

9-12. CLOSE AIR SUPPORT TARGETS.

a. In contrast with counterair and interdiction, close air support target selection is oriented towards short ranged and relatively impromptu operations. Targets are developed during the course of battle and selected for attack immediately or within 24 hours. The variety of close air support targets is infinite, and the effectiveness with which tactical air can strike them is contingent upon several variables, including target composition and disposition vis-a-vis the weapons systems available, weather conditions vis-a-vis the methods of target identification, time available, illumination, proximity to friendly forces, etc. Below are general categories of close air support targets:

(1) Vehicles are vulnerable to air attack by most nonnuclear weapons. Thin-skinned vehicles are easy prey for 20-mm cannon, bombs, rockets, frag bombs, or napalm. Rockets, napalm, general purpose bombs, 30-mm cannon, laser/optical guided bombs and missiles are all effective on armored vehicles and tanks.

(2) Anti-armor CBU, laser and optical guided bombs, 30-mm cannon, and missiles are the best tank killers.

(3) Troops in the open are good air targets. When dispersed and under cover, troops are difficult to locate and kill except with area weapons such as napalm or fragmentary bombs and anti-personnel CBU. However, close air attacks against troops have two secondary effects: a demoralizing effect on survivors and disruption of enemy effort through incidental destruction of communications and organic combat equipment.

(4) Smoke screens. The Air Force has the capability to lay thick smoke screens in support of Army units. The current primary screening smoke munition is a CBU dispenser pod containing WP bomblets. One pod dispensed at low altitude and high speed will cause a thick smoke pattern of 4,500 feet long, 75 feet wide and 250 feet high.

(5) Battlefield illumination. When artillery is insufficient, out of position, or required for other missions, tac air can provide effective night illumination. An F-4 can deliver–56 MK 24, two million candlepower flares, on one mission. Newer flares are even brighter and burn longer than three minutes.

(6) Aerial Delivered Target Activated Munitions (ADTAM). Air delivered mines may be sown defensively forward in order to harass or impede enemy filtration, as a barrier to enemy movement, or as a means to channel the enemy attack. ADTAM's may be used in close air support of offensive operations to deny the enemy the capability of moving in reinforcements by surface means, to block or channel his movements during periods of darkness or adverse weather, to block avenues of withdrawal, and to discourage or hinder a counterattack. If ground forces anticipate a need for ADTAM's during planned operations, they can request that aircraft with suitable ADTAM's be placed on alert.

(7) Fortifications. Very heavy fortifications, as in the Siegfried Line, are generally not vulnerable to air delivered weapons except for accurately placed armor piercing bombs. Less heavily constructed concrete shelters may be vulnerable to bombs and armor piercing rockets. Napalm may be effectively used for neutralization of these fortifications when accurately delivered against open gun ports of apertures. Field fortifications are vulnerable to air attack by rockets, HE bombs or napalm based on their construction but these must be struck individually and accurately. This type fortification is frequently well camouflaged; accuracy of an air strike may depend on effective target marking.

b. Effective close air support requires a very high degree of accuracy. "Guided bombs" and missiles are available and may be prescribed for greater accuracy.

c. Requests for immediate or preplanned tactical air reconnaissance are processed in the same manner as close air support requests (described in a and b above) except that coordination is effected with the S2 instead of the S3 Air representative.

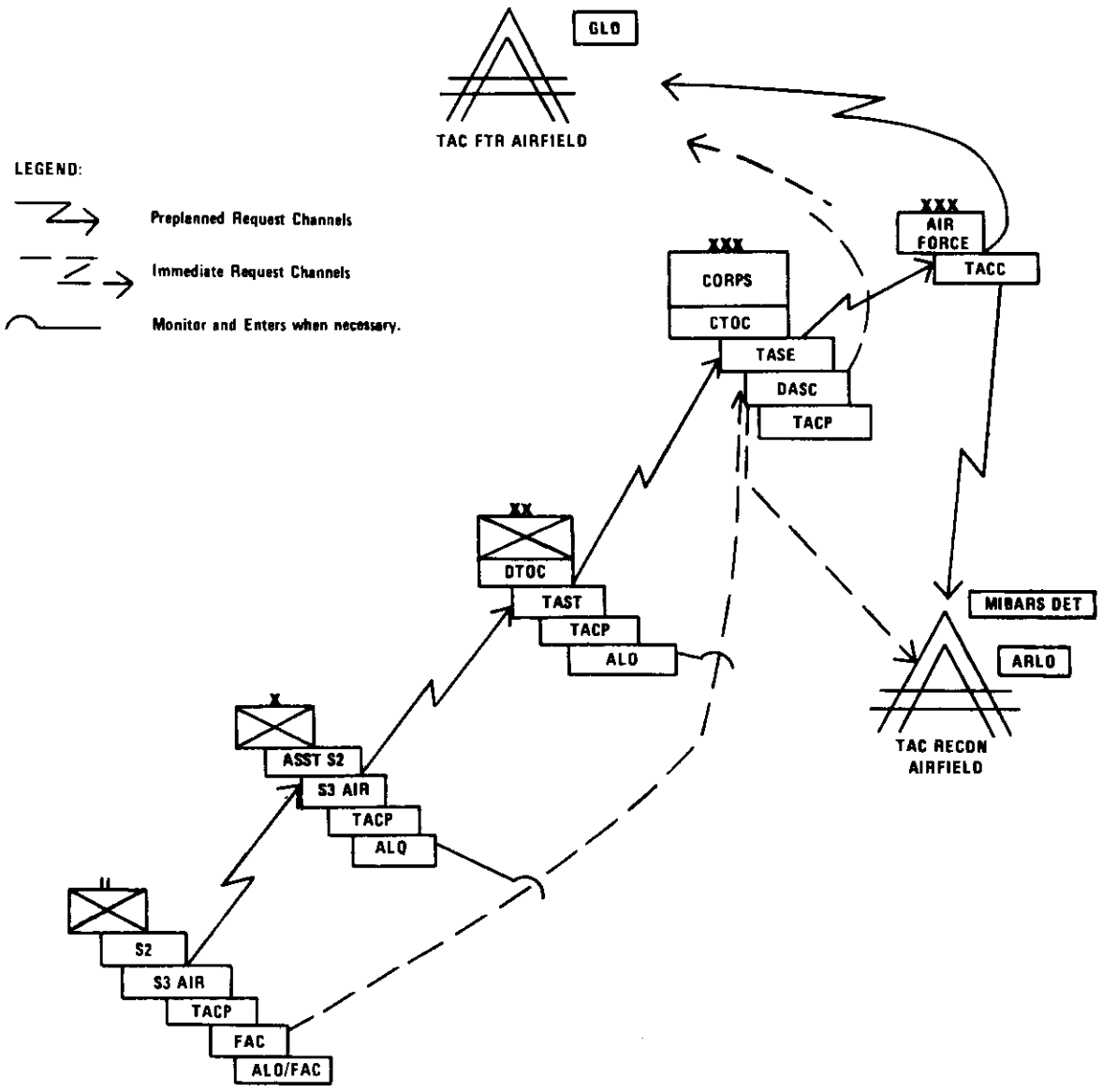


Figure 9-4. Air-ground operations.

9-13. TARGET SELECTION.

a. Selected targets for air strikes should be beyond the reasonable capability of available ground force weapons and may also be desirable to permit ground weapons to remain undetected.

b. To determine whether ground targets are suitable for air attack, consider the following:

(1) Capabilities of organic weapons. Ground targets are normally engaged at the lowest echelon with the capability to achieve effective results. Commanders must consider the capability of organic, attached and supporting weapons prior to requesting close air support.

(2) Armament capabilities. Armament capability of close air varies (napalm, CBU, bombs, missiles, etc.) and its effectiveness depends on tactical conditions and nature of the target. The ground commander considers the type of armament usually carried by tactical aircraft the the suitability of their employment for the target. The ground commander need not specify the armament. However, a detailed target description, location of friendly forces, and results desired are required for proper evaluation by higher echelons and determination by the Air Force of the actual armament load.

(3) Time. Time is an important factor. Considering the time it takes to get aircraft on target, the ground commander must determine if his mission, the tactical situation, and the nature of the target warrant the delay. Even when other conditions indicate the suitability of an air strike, time may preclude it and dictate employment of other means.

Target identification. To effectively attack a target, the air crew must identify the target visually or electronically. Visual identification is preferred because it is more accurate. However, the aircraft's on board equipment, ASRT, or a ground radar beacon can provide for effective close air support during periods of low clouds and visibility. If a target cannot adequately be identified from the air, other means of fire support may have to be used.

9-14. CONTROLLING TACTICAL AIRSTRIKES: To provide close air support accurately with maximum safety the FAC normally controls the mission. In an emergency when the ground commander requires close air support and a FAC is not available, an artillery forward observer or Army aviator controll the airstrike. The ground commander himself can perform this function as an emergency forward air guide. The requirements is to locate and describe the target and friendly positions for the fighter pilot. This information must be relayed to the pilot by radio. Fighter aircraft employ UHF radio equipment. The ground commander can use FM to contact FAC's ALO's, and Army aircraft, which have a UHF relay capability.

9-15. MARKING TARGETS AND LOCATING FRIENDLY POSITIONS.

a. *Control.* There is no single "best" way to mark targets and locate friendly positions. At a specific time and with a particular target one method may be satisfactory; for another time and target, if may not. A combination of methods may be required to provide quick and positive identification of the target to the attacking aircraft. The method selected further depends on the type of control; i.e., visual or electronic. Electronic control is used during periods of reduced visibility by Air Support Radar Teams using special radar equipment.

b. *Marking Targets.* The visually identified target and controlled strike requires patience, ingenuity, and a high degree of training. Following is a discussion of methods used in target identification.

(1) Map coordinates. A six-digit coordinate permits strike aircraft to locate the target vicinity but is not sufficient to identify the target for strike.

(2) Smoke fired by artillery, mortars, or rifle grenades is an excellent means of target identification. White phosphorous rounds are easily visible from the air. Colored smoke can be advantageous as a coordination signal. Colored smoke rounds are useful as field expedient markers.

(3) Colored panels can be used to identify friendly positions and to give the pilot a general direction of attack. Panels should be exposed to the pilot but not the enemy.

(4) Simulated attack runs on the target by the flight leader or airborne controller and subsequent verbal adjustments are effective. This method has the obvious disadvantage of alerting the enemy and exposes the aircraft to ground fire.

(5) Battlefield illumination is used to disclose target areas at night. Illumination may be produced by aircraft flares, artillery or mortar fires, or searchlight beams, after which, other techniques must be used to pinpoint the target. For example, targets may be pinpointed by crossing of two searchlight beams or cross tracer fires from automatic weapons over the target. If several beams are sweeping the area, artillery or mortars can fire a line of white phosphorus to mark the correct beam for the aircraft.

(6) Landmarks and prominent terrain features are excellent reference points from which targets may be designated to pilots. Rivers, roads, clearings, and some distinct types of vegetation are easily identifiable from the air. Changes in terrain elevation, unless abrupt, are not obvious from the air.

c. *Marking of Friendly Positions.* Friendly positions are identified for safety reasons and as another means of referencing the target location. Covert means should be employed. Friendly positions may be marked as follows:

(1) Flares.
(2) Colored smoke.
(3) Colored panels.
(4) Signal mirrors.
(5) Strobe lights.
(6) Obvious field expedients can be employed effectively (i.e., burning C-4 demolition, surplus propellent, or oil drums filled with diesel fuel and gravel, etc.).
(7) Electronic beacons.

d. *Directory of Delivery.* The direction of delivery is important. When possible, fighters should attack parallel to the front of friendly troops. Weather, terrain features, or enemy defenses could make this impossible. In this case, friendly troops should carefully mark their positions, seek protective cover, and increase separation distances.

9-16. THE AIR FIRE PLAN.

a. Close air support plans may be disseminated by:

(1) Verbal instructions.
(2) The Fire Support Annex to an operation order.
(3) The Air Fire Support Appendix to a Fire Support Annex.

b. When details of close air support are so great that they cannot be included appropriately in another portion of the order, an Air Fire Support Appendix to the Fire Support Annex is published. The S3 Air prepares this appendix.

9-17. REQUEST FORMS.

a. Request forms for close air support vary from command to command, but the essential information thereon is unchanged. Each block is numbered for ease of transmission.

b. Request forms for air reconnaissance varies from command to command, but the essential information thereon is unchanged.

c. Request forms for electronic warfare may vary from command to command, but the essential information thereon is unchanged.

d. Request forms for tactical airlift vary from command to command, but the essential information thereon is unchanged.

NOTE: Joint Tactical Air Request Forms (JCS Pub 12 Vol II) are specified in USAF Tactical Air Command Manual 55-46. For operations in the European (NATO) theater, reference FM 100-26.

(Classification)

(No change from verbal orders)

Copy No 6
1-66 Inf
GS606009
241600A Nov 1967
TJW

Appendix 1 (Air Fire Supply) to Annex D (Fire Support) to OPORD 3.

Reference: Map Series M535, Central Europe, Sheets 34 (HALLIE), Edition 2, 1:50,000.

Time Zone Used Throughout the Order: ALFA.

Task Organization

1. *SITUATION*
   a. *Enemy Forces.* OPORD 18.
   b. *Friendly Forces.* 1st Air Force supports.

* * * * * *

2. *MISSION*
   Elements of 1st Tactical Air Force support 1-66 Inf with preplanned and immediate close air support, commencing 250800 Nov, in zone.
3. *EXECUTION*
   a. *Preplanned Close Air Support:*
      (1) *A/1-66*

	Location	*TOT*	*Acft and Armament*
Bunkers	MA721691	250630 Nov	4 - Tac-Ftr GP bombs, rockets, napalm
Bunkers	MA725699	250630 Nov	8 - Tac-Ftr GP bombs, rockets, napalm

      (2) *B/1-66:*

Target	*Location*	*TOT*	*Acft and Armament*
Roadblock	MA783684	260700 Nov	4 - Tac-Ftr GP bombs, rockets, napalm

   b. *One TACP available 251800 Nov.*
   c. *Coordinating Instructions.*
      (1) Deadline for additional preplanned air requests--251800 Nov.
      (2) ASRT vicinity MA5614--FROGGY--Available for electronic control.
4. *SERVICE SUPPORT OPORD 18.*
5. *COMMAND AND SIGNAL*
   a. *Signal.*
      (1) CEOI, Index 1-8.
      (2) LC marked with panel code of day upon request of pilot.
      (3) Emergency signal lift air strike: Red star cluster.
      (4) Emergency code work lift air strike: JINGLES.
      (5) Mark targets: One round red smoke in combination with one round green smoke.
   b. *Command.* Annex A (Operation Overlay) to OPORD 18.

Acknowledge.

BOPP
LTC

OFFICIAL:

LOBO
S3

Distribution: A

(Classification)

CHAPTER 10

OPERATIONAL RECORDS AND REPORTS

10-1. GENERAL. Records and reports are maintained during training exercises and combat operations to aid present and future operations and to record unit activities for historical purposes. Records are essential for current information and for unit history.

10.2. RECORDS. Records are in two categories: (1) Those required permanently for record or policy purposes and (2) those required on a daily basis for current operations.

a. *Permanent.*

(1) Journal.

(a) Reference: Personnal Handbook.

(b) There are generally three methods of maintaining a journal: (1) The S1 maintains it for the headquarters, (2) each staff section maintains their own or (3) it is maintained as a combined staff journal such as the S1-S4 journal and the S2-S3 journal. When the S1 maintains the journal for the entire headquarters, he establishes a system for receipt of items for inclusion in the journal sheet and journal file from other staff members. The S3 must insure that operational items for inclusion in the journal are dispatched to the S1. Included are copies of or summary of messages received, copies of written orders or a summary of verbal orders, a summary of important events and other significant material.

(c) The combined staff section (S1-S4 Journal) is recommended for Brigade and Battalion since the S2 and S3 operate from the same facility and share a clerk typist, a combined staff journal is appropriate. Combined journal sheets and journal file are turned over to the S1 at the end of the reporting period for consolidation and filing. An example of a combined S2-S3 staff section journal sheet is shown at Figure 10-1.

(2) Policy file.

(a) A policy file contains current policies of the commander and of higher headquarters. It is based on orders, experience, and decisions of the commander.

(b) The policies may be notes, plans, studies directives, or sample orders. They are usually maintained in either a file folder or looseleaf book for ready reference. They should be kept up to date and tabbed or indexed.

(c) Although maintained informally, a good policy file speeds up operations and is a value in orienting new members of the headquarters.

b. *Current Operations.* Temporary records are used by the S3 on an informal day to day basis to assist in maintaining permanent records, completing required reports, and keeping the commander and staff informed. They are:

(1) Situation map.

(a) The situation map is a graphic representation of the known enemy situation, and the current tactical, administrative, and logistical situation. Normally at brigade/battalion it is a single acetate covered may in the S2-S3 section. Information placed on the situation map is the joint responsibility of all unit staff members and is maintained under the supervision of the S3. The situation map keeps the commader and subordinate commanders, the staff, and liaison officers abreast of the current situation. It also serves as a basis for preparing overlays. To be of value, posting must be accurate, information up to date, and all entries easily read. Coventional signs and symbols are used, and the time a particular situation existed is indicated by the six-digit date/time group in conjuntion with the graphis symbol. See Figure 10-2.

(b) Action of interest to the unit occuring off the map sheet, and information which cannot be represented graphically or is in consistent with brevity is posted on the margin with notes. This is shown by placing a circled number on the map at the place the action occurred and then explaining the number in the margin. See Figure 10-2.

(c) Minimum information that should be shown on the situation may is as follows:

1. Own situation to include disposition of units one echelon lower. Enemy information, to include disposition of units two echelons lower.

2. Friendly units to include the command post; location and size of reserves available to the next higher command, if known.

3. Adjacent friendly units of like size. (Disposition of their major subordinate elements when it is desirable).

(2) Workbook.

(a) The S3 continually receives and provides information, prepares and submits reports and recommendations, and prepares plans. In accomplishing these tasks, he is concerned with much detail. To keep abreast of these details, he and the members of his section make pertinent written notes.

(b) To insure that notes are organized and easily found, an S3 workbook is maintained. This workbook usually consists of a single pad or looseleaf notebook, indexed so that notes can be classified according to subject and easily retrieved.

(c) Type of information which might be entered in the workbook are:

1. Notes of things to accomplish.

2. Items to be included in next Situation Report.

3. Items to be included in the next Combat After Action Report or Operational Reports Lessons Learned.

4. Items required command emphasis.

(d) When an information entry in the workbook is obtained from the journal, it should be indicated by preceding the entry with the journal item number, source, and time for a ready cross reference.

(Classification)

DAILY STAFF JOURNAL OR DUTY OFFICER'S LOG
For use of this form, see AR 220-15; the proponent agency is Office of Deputy Chief of Staff for Military Operations.

PAGE NO. 2 | NO. OF PAGES 2

ORGANIZATION OR INSTALLATION	LOCATION	PERIOD COVERED			
		FROM		TO	
		HOUR	DATE	HOUR	DATE
S2/S3 1st Bn, 66th Inf	VIALAN (NA928153)	0001	04 Jan 71	2400	04 Jan 71

ITEM NO.	TIME IN	TIME OUT	INCIDENTS, MESSAGES, ORDERS, ETC.	ACTION TAKEN	INITIALS
7		1730	OPORD 6 issued 1730	T,F	RAS
8		1800	S3, 1st Bde notified – Tm A: Closed new assembly area vic NA938162 at 1755	M,S	PS
9		1800	S3, 1st Bde notified – Tm B: Closed new assembly area NA929150 at 1745	M,S	PS
10	1820		Bde S2 Air: Tac Air Recon reports trenches vic NA5242, and NA5143, and NA5244 prepared but unoccupied	M,S	PS
11	1825		S2 and S3 returned CP 1820		JC
12		1825	S3, 1st Bde notified – that all units TF 1–66 closed new assembly area vic NA932157 at 1820	M,S	JC
13	1915		S3, 1st Bde notified – 1–45th FA LO	M,S,Bde	JC
			4–100–mm AA guns located vic NA4747,4–100–mm AA guns located vic NA4843, 6–122–mm HOW		
			located vic NA4741. Increased aggressor counter–battery fire in brigade sector 1815–1915		
14		2340	Cdr Tm C: Cdr Tm C meet Cdr TF 1-66 at OP No. 2, 050530 Jan.	F	HMA
15	2355		S3,1st Bde notified – Time of Div attack changed to 050830 Jan.	Cdr,S,T,F	RAS
			Summary: TF moved to assembly area in preparation for attack 050830. For details see OPORD 6, Plans		
			for next period: TF will attack to carry out mission of seizing high ground south of LE BAIR (NA931204).		
			LEGEND M – Situation Map S – Staff Disposition		
			T – Distribution to Troops F – File		

TYPED NAME AND GRADE OF OFFICER OR OFFICIAL ON DUTY	SIGNATURE
GARY X. HALSTADT, LT	/s/ Jack X. Ferris

DA FORM 1 NOV 68 1594 PREVIOUS EDITION OF THIS FORM IS OBSOLETE. ☆ U.S. GOVERNMENT PRINTING OFFICE: 1970—376-748

(Classification)

Figure 10-1. S2-S3 daily staff journal

NOTES

ENEMY INFORMATION

(1) Aggressor units in contact preparing overhead cover on positions 151510.

(2) Dust cloud seen and track vehicles heard in this area 151530.

FRIENDLY INFORMATION

(1) Two tanks, Tm TRACK damaged by mines 151500.

2 Sqd 1/A/52d Engr to be attached effective 152200.

3 Scout Plt, rear area security 151600.

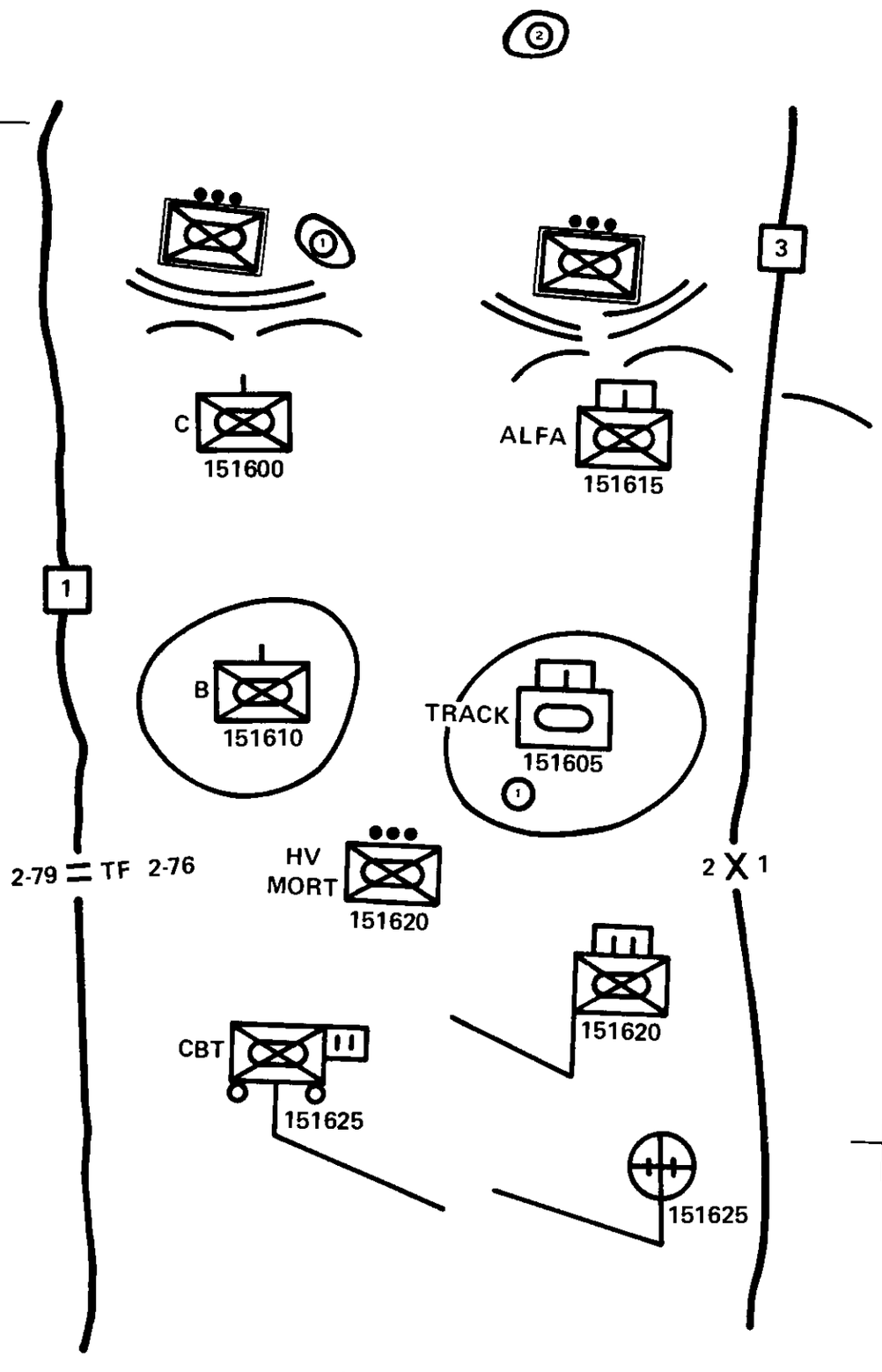
4 S4 Rpts resupply C1 III and V complete by 151800.

FIRE SUPPORT

1 Arty LO rpts 1-45th FA displacement complete by 151630.

Figure 2. Situation overlay.

(Classification)



TASK ORG.	RADIO	TEL	COMM CHECK
Tm ALFA A/2-76 1/A/2-4 AT Sqd	BLUE DOLPHIN	BUFFALO ALFA	151400
B/2-76	RED SNAPPER	BUFFALO BRAVO	151402
C/2-76 (–)	GRAY BONITA	BUFFALO CHARLIE	151405
Tm TRACK A/2-4 Armor (–) 1/C/2-76	GREEN CACTUS	BUFFALO 26	151408
Scout Plt	VIRTUE 12		
Hv Mort Plt	VIRTUE 14	BUFFALO 14	151410
AT Plt (–)	VIRTUE 13		

(Classification)

(e) The workbook is a temporary and informal record. When action is completed on an item, the entry is lined out. When a page of the workbook has been filled and all entries lined out, the page is destroyed.

(f) Figure 10-3 shows a sample workbook form indexed to facilitate preparation of the Situation Report and the Combat After Action Report or Operational Reports Lessons Learned.

(3) Troop list. The troop list shows the composition and organization of the command and includes for each element the strength and major items of equipment. The list normally includes a separate listing for each TOE unit down to and including battalions and separate companies, TOE detachments, and TDA units and detachments. It includes for each element entered the authorized strength, major items of equipment, and assignment.

10-3. REPORTS. Operation reports provide the commander with timely operational information. They are required by regulations, orders, and SOP (See Appendixes A, Bde SOP, and B, Bn SOP. These reports fall into two categories: (1) Recurring reports, which are required at prescribed intervals or occurrence of an event, and (2) Spot reports, which are submitted as changes occur.

a. Recurring Reports.

(1) Operational situation report (SITREP): The SITREP is the means of reporting the operational situation. It is a recurring report and is submitted one or more times daily in a prescribed format. (See Figures 10-4 and 10-5 for format). The S3 has primary staff responsibility for preparation of this report. Other staff officers contribute by providing the S3 with details from their areas of interest. For example, the S2 provides the enemy information (paragraph 1) and the S4 information pertaining to administration (paragraph 3). Requirements for submitting the SITREP are prescribed in higher headquarters SOP and specify an "as of time" and a time the report is due at higher headquarters. Traces/overlays should be used for clarity and brevity. If the SITREP is sent by radio (voice or RATT), it should be confirmed in writing.

(2) Operational reports - lessons learned: Army Regulations 525-15 requires separate battalion/brigades and larger units and commands engaged in combat operations to prepare this quarterly report. The report is a written report and is arranged as follows:

(a) Section 1, significant operations or unit activities. This portion is historical and includes a narrative report of the unit's operations, activities, and administrations. The number of days in training, troop movements, and operations is usually indicated. Other items included are subjects stressed in training; summary of administrative/tactical movements; POM experience (if applicable); and lessons learned to include tactical or technical innovations, expedients, and stratagems.

(b) Section 2, commander's observations, evaluations, and recommendations.

(c) Section 3, Headquarters, Department of the Army survey information (only if the reporting unit has been directed to report specific information).

(3) Combat after action reports. Combat after action reports are prepared as directed by unified/major army commanders controlling forces engaged in combat operations. These reports are usually required for all "significant" operations. The size of the force involved, results or unusual aspects of the operation, and joint or combined operations are considered in judging significance. Immediate commanders can direct preparation of after action reports (e.g., divisions may require brigades and battalions to prepare after action reports for use as feeder or supporting data for a division level report).

(a) The operations officer (S3) has primary staff responsibility for preparation of combat after action reports with other staff officers providing input. Journals, SITREPS, and situation overlays, and notes accumulated from various sources are used in preparing the S3 portion of the report.

(b) Combat after action reports are used to evaluate training and tactics, performance of leaders and suitability of equipment for a specific combat action. Additionally, these reports are sources for the "lessons learned" portion of Operational Reports - Lessons Learned Report and the unit historical program. They also provide information for unit training between operations and replacement training. Selected combat after action reports forwarded through channels to Department of the Army influence research and development, TOEs, development of doctrine, and conduct of instruction by service schools.

(c) A typical format (paragraph headings) for a combat after action report is:

1. Identity and type of operation.
2. Dates of operation.
3. Location.
4. Command headquarters.
5. Reporting officer (principal subordinate commanders and in some cases staff officers may be listed if desired).
6. Task organization.
7. Supporting forces.
8. Intelligence.
9. Mission.
10. Concept of operation.
11. Execution (narrative summary in chronological sequence with accompanying maps, diagrams, photos, or overlays if available).
12. Results (friendly and enemy losses).
13. Administrative matters.
14. Special equipment and techniques.
15. Civil-Military Operations (CA&PSYOPS).
16. Commanders analysis (lessons learned, accomplishments, conclusions, and recommendations).

(4) Unit readiness report: The Unit Readiness Report is a periodic report of a unit's operational readiness submitted monthly in accordance with Army Regulation 220-1. It provides objective information on actual readiness of units to accomplish their assigned TOE mission with regard to personnel, training, and logistics.

b. *Spot Reports*: These reports are submitted to higher headquarters as the operational situation changes. They keep the commander and staff abreast of changes as they occur. There is no specific format, time, or means for submitting spot reports other than as found in the SOP of the next higher headquarters (See Appendixes A, Bde SOP, and B, Bn SOP). Spot reports should include who-what-where-when to insure clear understanding and adequate content.

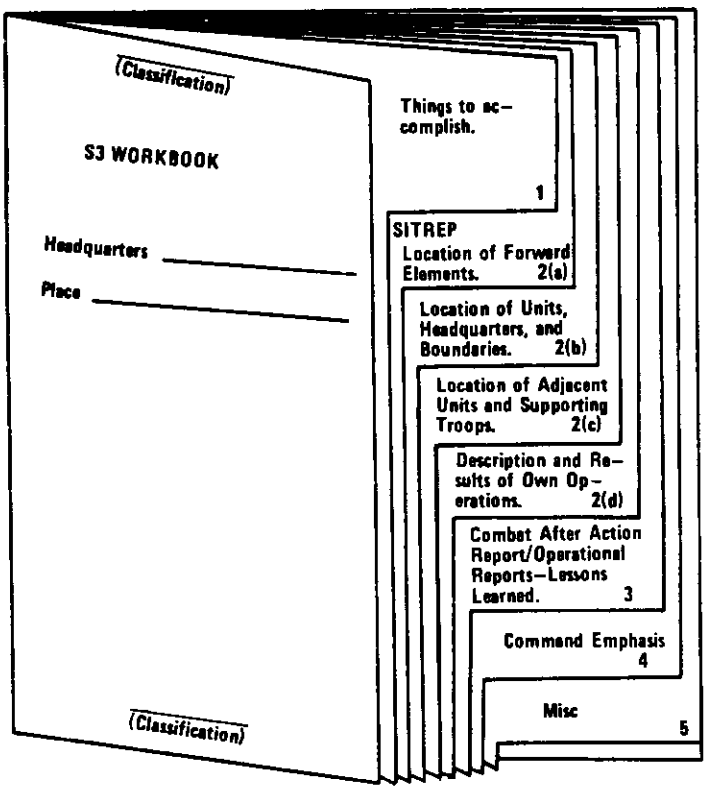


Figure 10-3. S3 Workbook

Sample Situation Report in Detailed Written Form

(Based on STANAG No 2020 "Operational Situation Reports")

(Note: Omit Subparagraphs Not Applicable)

Classification

Copy No _____
Issuing Headquarters
Place of Issue (may be in code)
Date/time group
Message Reference Number

Situation Report No. _____

Period covered: (date and time to date and time)

Reference: Map, Photo or sketch (country, series number, edition, scale, and sheet numbers of maps).

1. ENEMY
   a. Units in contact.
   b. Enemy reserves that can affect local situation.
   c. Brief description of enemy activity during period covered by report.
   d. Brief estimate of enemy strength, material means, morale, and his probable knowledge of our situation.
   e. Conclusions covered courses of action open to enemy.

2. OWN SITUATION
   a. Location of forward elements.
   b. Location of units, headquarters and boundaries.
   c. Location of adjacent units and supporting troops.
   d. Brief description and results of operations during period of report.
   e. Noneffective units.

3. ADMINISTRATION
   General statement of the administrative situation, if other than normal, as it directly affects the tactical situation.

4. GENERAL
   Information not covered elsewhere.

5. COMMANDER'S EVALUATION
   To be completed when directed by higher authority.

Acknowledge.

Authentication:

Commander's Last Name
Commander's Rank

Annexes:

Distribution:

Classification

Figure 10-4. SITREP.

Sample Situation Report in Message Form

(Based on STANAG No 2020, "Operational Situation Reports")

FROM: Cdr, 2d Bn (Mech), 76th Inf
TO: Cdr, 1st Bde, 52d Inf Div (Mech)

SITREP 15: Period 120600A to 121800A Jul. ENEMY. No change enemy locations or identifications. Periodic hostile shelling of Bn area. Patrol approximately 30 men attacked TM B at 121000A Jul. 3 enemy KIA, 3 WIA. Aggressor most probable course of action is to attack within 24 hours with present committed forces. OWN SITUATION: Bn continues defense MEAD River. No change in location and dispositions. Tm B repulsed enemy patrol with no casualties. Bn reconnaissance patrol returned 121700A Jul, negative contact. ADMINISTRATION: Normal. RADIATION STATUS: 70% RS-2, 30% RS-1.

Figure 10-5. SITREP.

CHAPTER 11

BRIGADE STANDING OPERATING PROCEDURES (SOP)

THIS BRIGADE SOP HAS BEEN WRITTEN IN GENERAL TERMS TO PERMIT THE WIDEST POSSIBLE USE IN SUPPORT OF USAIS INSTRUCTION. ALTHOUGH A SPECIFIC UNIT IS IDENTIFIED IN THE SOP HEADING, THIS ILLUSTRATION OF FORMAT HAS BEEN DEVELOPED BY USAIS INSTRUCTIONAL DEPARTMENT/GROUPS/ COMMITTEES TO MEET INSTRUCTIONAL REQUIREMENTS. THIS SOP IS DESIGNED TO SUPPLEMENT A DIVISION SOP, WHICH WOULD BE DISTRIBUTED DOWN TO, AND INCLUDING, BATTALIONS, SQUADRONS, AND SEPARATE COMPANIES.

STANDING OPERATING PROCEDURES (SOP), 1ST BRIGADE,
52D INFANTRY DIVISION (MECHANIZED)

Classification

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APO (city) , (number)
1 Jan 19 ____

STANDING OPERATION PROCEDURES
NO 1

COMBAT OPERATIONS*

I. GENERAL

A. Reference, SOP No , 52d Inf Div (Mech).

B. Purpose. This SOP is published to standardize routine recurring operational and combat service support procedures of the Bde not covered by Div SOP. All information applies except when modified by orders or directives.

C. Conformity. Subordinate unit SOP will conform. Commanders will insure that key personnel in his command become familiar with the provisions of this SOP.

D. Organization.

1. Support:
   a. FA spt will normally be provided to the bde by 7-50 FA (155-mm) (SP).
   b. Engr spt normally provided by Co A, 52d Engr Bn.
2. Bde major installations.
   a. Comd Gp, Annex G, Headquarters Management.
   b. Bde CP, Annex G, Headquarters Management.
   c. Bde Tns.
      (1) OIC is Asst S4, assisted by food svc tech.
      (2) Bde S4 designates general locations, and coordinates security and displacement for elements located in bde trains.

**This SOP, as the title implies, deals with combat operations, and is a tactical field SOP. Other SOPs would be published to announce administrative procedures.*

   d. Operations and Administration Centers. S2 and S3 establish TOC in CP to include the FSCC (Annex A), Asst S3 Air, Ave Off, ALO, and Cml Off. S1 and S4 establish ADMCEN in CP to include Ch and Surg.
   e. Alternate Command and Control Instructions.
      (1) In event the command post is rendered inoperative through loss of personnel and equipment, the following applies to insure continued command and control.
         (a) Senior surviving combat arms officer in the Bde will assume command. Seniority list for assumption of command to be published separately.
         (b) Bde CP will be reestablished at following locations in order of priority.
            1. Supporting Artillery Bn CP.
            2. Bde Tns.
            3. Reserve Bn CP.
      (2) Subordinate battalions whose CP becomes inoperative will be controlled by Bde or attached to operative units as directed by Bde.

E. Combat Orders.

1. Distribution A, when used:

Div	10
Attached units	3
Operational control units	3
Supporting units	3
Adjacent units	2
Each staff section	3
File	1

2. Each Bn deliver five copies of written OPORD/OPLAN to Bde S3.

II. COORDINATION OF TACTICAL OPERATIONS.

A. Command and Control.

1. Command Posts. Bn will report location and time of opening and closing to Bde.
2. Liaison and Coordination. Liaison officers from bn and sep co report to XO immediately upon arrival.
3. Signal Communications. Annex C, Communications-Electronics.

B. Intelligence.

1. Annex F, Reports.
2. Technical Intelligence. Capturing unit responsible for destruction of en material if recapture imminent.
3. Maps.
   a. Automatic issue of prescribed allowance.
   b. Units submit requests for additional maps and special map coverage direct to the Bde S4.
4. Annex H, STANO
5. Counterreconnaissance and Counterinfiltration. Responsibility will be from rear to front and from left to right.
6. Counterintelligence.
   a. Security of Classified Information. Bde OPORD not carried fwd of bn CP.
   b. Countersign. In effect for 24-hour period: 1200-1200. Not carried fwd of bn CP in written form.
   c. Miscellaneous. Escapees, evadees, and returnees who have returned to friendly control will be evacuated to Div medical facility. Notification to Bde S2, info, of immediate concern without prior clearance from this HQ.

C. Procedures.

1. Annex A, Fire Support Coordination.
2. Tactical Operations.
   a. Annex F, Reports.
   b. Regulation and coordination of air space over the combat zone. The Div commander has approving authority for establishment of flight corridor(s) provided the flight altitude does not exceed 500 feet above the terrain and the flight corridor(s) remains within div boundaries.
   c. Requests for preplanned close air spt to S3 Air by 1700 on day prior to desired spt.
   d. Unless otherwise stated, commander's guidance for the employment of nuclear weapons is as follows:
      (1) Damage criteria - at least .30 for destruction and .10 for neutralization (probable minimum).
      (2) Troop Safety - negligible risk to unwarned exposed friendly forces.
      (3) No fallout.
      (4) Report any creation of obstacles to friendly movement and other undesirable effects.
3. Field Artillery Response to Sensor Derived Information.
   a. Targets meeting the criteria for automatic engagement. Sensor monitoring team will initiate call for fire to the responsible FDC indicating direction, rate of movement, column length, and time the center of column left the sensor field.
   b. Targets not meeting the criteria for automatic engagement. S2 of Bn (TF) concerned will recommend targets considered suitable for attack to the FSO who will select an appropriate fire support means to engage the target.

D. Techniques.

1. Orders.
   a. Oral OPORD and Fragmentary Orders Normal. Maximum use of overlays.
   b. Copy of overlay and substance of oral OPORD in Unit Journal sufficient for record purposes.
2. Reports. Annex F, Reports.

E. Special Considerations.

1. Fallout, radiological monitoring, and survey.
   a. Annex F, Reports.
   b. Decontamination. Submit requirements for field decontamination and/or large area decontamination to Bde Cml Officer.
   c. S2 disseminates effective wind messages received from Div CBRE.
2. Radiation Exposure Guidance. Annex B, Nuclear, Riological and Chemical Considerations.
3. Annex D, Army Aviation.
4. Marches:
   a. March units and serials provide own security.
   b. Quartering Party. Annex G, Headquarters Management.
   c. Trail Party. Each serial provide trail party to perform following functions:
      (1) Inspect vacated area and correct deficiencies.
      (2) Prevent straggling.
      (3) Warn traffic approaching from rear.
      (4) Provide medical svc spt.
   d. Accidents. OIC trail party investigate and take necessary action.
   e. Foot Marches (walking elements).
      (1) Rates: Day--4 km per hour on road; 2.4 km per hour cross-country. Night--3.2 km per hour on road; 1.6 km per hour cross-country.
      (2) Halts: Lead unit of column will regulate halts. First halt 15 min after first 45 min marching; thereafter, 10 min after each 50 min. Meals--one hour.
      (3) Attachments: One helicopter OPCON each maneuver bn.
      (4) Column Gaps:
      Between bn--500 meters (day); 250 meters (night).
      Between co--100 meters (day); 50 meters (night).

(5) Formations: Column of single files on each side of road; distance between men--five meters (day); two meters (night).

(6) Motorized/Mechanized Elements: Integrated or follow main body by bounds.

f. Motor Marches.

(1) Average Rate:

(a) Wheel serials: Day, 40 km per hour (max 56); night or poor visibility, 16 km per hour (max 24) (blackout).

(b) Track serials: Day, 24 km per hour (max 32); night or poor visibility, 16 km per hour (max 24) (blackout).

(c) Infiltration: Units use irregular dispatch, two veh per km at 20 to 32 km per hour.

(2) Halts. First halt 15 minutes after first 45 minutes marching; thereafter, 10 minutes after each 110 minutes of movement. All units halt simultaneously. One man from each veh remains alert for march signals, relays signals, as appropriate, and provided acft warning.

(3) Organization. March units will consist of approximately 30 vehs. Use minimum number of march units.

(4) Attachments. One helicopter OPCON each maneuver bn.

(5) Column Gaps.

(a) Between co march units-3 minutes (which include 1 min EXTAL).

(b) Between bn serials--5 minutes.

(6) Formations.

Open column:
density of 7 to 30 vpk (veh distance - 155m to 24m)
density of 12/km is standard/normal (veh dis 80m)
Close column:
density of 30 vpk or more (veh dist - 24m or less)
density of 48 vpk is standard/normal (veh dis 11m)

5. Barriers and Obstacles.
   a. Bde barrier plan not fwd of bn CP.
   b. Close gaps or lanes on order this HQ.
   c. Boobytraps employed only on specific authority this HQ.
6. Air Defense, Annex E.

III. DISTRIBUTION OF COMBAT SERVICE SUPPORT OPERATIONS.

A. Techniques. All rept required to be submitted to bn, sqdn, and separate co will be in accordance with Div SOP and Annex F, Reports.

B. Detailed Considerations.

1. Logistics. Action of logistical units joining Bde. Rept the following info to Bde S4 by most expeditious means:
   a. Location.
   b. Veh status.
   c. Status of supply and maint.
   d. Pers strengths.
2 Personnel.
   a. Maintenance of Unit Strength.
      (1) Reports: Annex G, Division SOP and Annex F, Brigade SOP.
      (2) Requests for unit replacements submitted to S1.
      (3)Priority of assignment of individual and team replacements to be coordinated by S1 with S3 based on commander's guidance.
   b. Personnel Management.
      (1) U.S. personnel: Annex ___ Brigade Administrative SOP.
      (2) S1 will prepare and implement plans for handling of PW's.
      (3) Attached MP platoon will operate Division Forward PW Collecting Point in vicinity of Bde CP.
      (4) S1 will coordinate operations of PW collecting point with S2, S3, S4, and attached medical support:
      (5) PW's of field grade rank or higher will be immediately evacuated to Division Forward Collecting Point.
      (6) Civilians designated by competent authority to be interned will be evacuated through PW channels by segregated from PW's.
      (7) Requirements for civilian labor must be submitted to the S1 at least 48 hours in advance of needs.
   c. Health Services: Annex ___, Brigade Administrative SOP.
   d. Discipline, Law, and Order.
      (1) S1 continues to bear staff responsibility for administration of military justice within the command. Annex ___, Brigade Administrative SOP.
      (2) Custody and coordination of return of stragglers to units accomplished by headquarters commandant. Units will pick up their own stragglers when possible.
   e. Morale.
      (1) S1 will coordinate with Division Finance Officer to insure continuation of prompt payment of troops.
      (2) S1 will coordinate as necessary to insure exchange services are made available to subordiate units.
      (3) Recommendations for awards should reach this headquarters NLT 7 days from date of action.

(4) Division graves registration collecting point will be established in vicinity of bde trains. Units responsible for evacuation of this facility.

f. Headquarters Management: Annex G, Headquarters Management.

g. Miscellaneous: Radiation exposure records for individuals attached to a subordinate headquarters will be forwarded to Bde S1 upon detachment.

FARRIS
COL

OFFICIAL:

LEGARE
S3

Annexes: A - Fire Support Coordination.
B - Nuclear, Biological, and Chemical Considerations.
C - Communications-Electronics.
D - Army Aviation.
E - Air Defense.
F - Reports.
G - Headquarters Management.
H - STANO.

Distribution: Special

Copy No___ of___ copies
1st Bde, 52d Inf Div (Mech)
APO (city) , (number)
1 Jan 19

Annex A (Fire Support Coordination) to SOP No 1.

1. GENERAL.

This annex prescribes general procedures and techniques for planning, coordinating, and integrating all fire support means available to the Bde.

2. FSCC

a. Personnel. The chief of the FSCC is the DS Arty Bn Commander (FSCOORD). Other personnel who will normally work in the FSCC include:

(1) Fire Support Officer.
(2) Representatives of each fire support agency supporting the Brigade (e.g., ALO, NGLO, etc.).
(3) Other representatives as required (e.g., Cml Off, Engr Off, etc.).
(4) Operations assistants and communications personnel as determined by FSCOORD.

b. Functions.

(1) Perform the details of coordinating all fires on surface targets.
(2) If other fire support agencies, in addition to DS FA, are available and time permits, FSCC will prepare a fire support plan and supervise its execution.
(3) FSCOORD will coordinate fire support plan and/or fire plans with Bde S3 prior to approval by Bde CO.
(4) FSCOORD is delegated authority to make decisions on furnishing fire support requested by subordinate units of the Bde.
(5) FSCOORD will recommend assignment and allocation of nuclear weapons.
(6) In nuclear environments FSCOORD will provide assistance as required by the S3 for target analysis.
(7) Requests for preplanned air support will be forwarded through command channels to S3 Air.
(8) Prepare program of fires to engage sensor acquired targets for fields which are designed for engagement for fire.
(9) Establish allocation of rounds and ammunition mix for firing at various sensor acquired targets.

c. Communications.

(1) Communications equipment and operating personnel for FSCC will be furnished by each fire support agency and each staff section represented in the FSCC.
(2) Communications will be established with Div FSE, DS FA Bn FDC, and other fire support agencies supporting the Bde.
(3) FSCOORD is responsible for internal arrangement of communications equipment within the FSCC.

d. Location.

(1) Unless otherwise specified, FSCC will be located in the main Bde CP, co-located with or adjacent to S3, S2 operations in the TOC.
(2) FSCOORD must provide for continuous coordination of fire support during displacements.

3. TARGET DESIGNATION SYSTEM (DIV SOP)

a. Div prefix. The letter 'C' is the first letter designation for targets planned by division agencies.

b. Subordinate unit prefixes. The following second letter prefixes are assigned to the Bde and supporting fire support agencies.

Unit or Agency	*Second Letter*
Bde	A
Div Arty TOC	X
Div TAC FSE	Y
Div Main FSE	Z

c. 1st Bde target numbers are assigned as follows:

Unit	*Number*
Bde FSO	001-050
Lowest numbered Bn of TF FSO	051-200
Next higher	201-350
Next higher	351-500
Next higher	501-650
Next higher numbered Bn	651-800
FA FDC (DS Bn)	801-999

4. SAFETY

a. Bde Cdr will establish location of the coordinated fire line (CFL) in coordination with the DS Bn Co.

b. 4.2 Inch mortars will abide by the CFL.

c. Required nuclear safety criteria is negligible risk to unwarned exposed troops unless otherwise stated in operation orders.

d. Committed companies will mark frontline positions with panels and/or smoke when required during air strikes.

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Annex B (Nuclear, Biological, and Chemical Considerations) to SOP No 1

1. GENERAL

The annex prescribes considerations for friendly employment of nuclear and chemical weapons, and enemy employment of nuclear, biological, and chemical weapons.

2. PLANNING

a. Emergency or moderate risk will be used only on approval this HQ. Operation exposure guide will be determined for each operation. Bde Surg provides commander technical advice as to operational exposure guidance for Bde, within limits prescribed by div.

b. Actions to minimize effects of enemy nuclear, biological, and chemical attack.

(1) Bde organizes one control and assessment team (CAT) as follows:

Personnel	*Vehicles*	*Radios*
XO - (Commander)	1/4-Ton Truck	AN/VRC-47
Surg	1/4-Ton Truck	AN/VRC-46
S4	1/4-Ton Truck	AN/VRC-47
C-E Off	1/4-Ton Truck	AN/VRC-47
Cml Off	Rides with XO or S4	None
Engr Rep (when available)	Organic	Organic
One Radl Survey Team from HHC	1/4-Ton Truck	AN/VRC-47
One Wire Team	1/4-Ton Truck	None
Rotary Wing Pilot	Obsn Helicopter	Organic to Acft
PM Rep (when available)	Organic	Organic

(2) Each attached battalion size unit will organize and train one control and assessment team (CAT).

3. OPERATIONS

a. Radiation exposure records.

(1) Battalions maintain exposure records down to and including organic and attached platoons.

(2) Reporting procedures.

(a) Bn/TF report precentage of command in each category of exposure in SITREP. Information will be reported separately for organic and attached units. Units attached to Bde (which have detached elements) will be informed of radiation status of these detached elements by Bde.

(b) Supporting units report directly to parent units, with information copy to Bde.

(c) Reports received from bn/TF and other units attached to Bde will be sorted and consolidated and submitted thru channels to Div chemical, biological, and radiological element (CBRE) daily or as required in organic unit structure.

b. Responsibilities for action to minimize effects of enemy weapons.

(1) Units.

(a) Upon receipt of intelligence that enemy forces plan to use chemical or biological weapons, or upon actual initiation of CB warfare, units will assume the mission oriented protective posture (MOPP).

(b) Report all movement.

(c) Aviation section prep to dispatch aircraft to observe and/or survey monitor burst area.

(d) Each bn prepare to establish one refugee control point per company. Execution on order this HQ only.

4. EVACUATION AND HOSPITALIZATION

a. Continuing mission takes priority over medical care and nuclear casualties.

b. Pers who have minor injuries and are physicaliy capable of performing their mission will be returned to duty.

c. Surviving medical pers organize sorting station to screen casualties.

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Annex C (Communications-Electronic) to SOP No 1

1. REFERENCES
   a. Div CEOI.
   b. Div SOP.
2. COMSEC
   a. Rept loss or compromise of CEOI, codes, or crypto material to bde immediately through signal chennels; written report within 48 hours through command channels.
   b. Identical msg or parts thereof not sent in both clear text and encrypted text.
   c. Complete Div CEOI will not be taken fwd of bn CP. When necessary for subordinate units to have CEOI info, extracts will be used.
3. COMM CENTER
   a. Fwd Area Sig Cen Plt provides multichannel terminal equipment in the CP area for entry into the Div area comm system.
   b. Fwd Area Sig Cent Plt vicinity Bde trains.
   c. Displacement of comm elements coordinated by Bde CE Off.
   d. Incoming and outgoing written msgs normally routed through msg center. Officers who send or receive msg that do not pass through msg center must see that a synopsis of each msg is made available without delay fro entry in unit journal. Staff agency receiving and sending msg maintain sec logs of outgoing and incoming msg.
4. MSGR SERVICE
   a. Scheduled motor msgr service to all attached and organic units three times daily.
   b. Special msgr available at msg cen. Requests through chief wire and msg cen sec.
   c. Air msgr available for high priority msg. Requests through Comm Plt Ldr.
5. WIRE COMM
   a. Priority installation of tel:
      (1) Msg Cen.
      (2) Bde S2S3 op cen.
      (3) CO.
      (4) S1 and S4.
      (5) XO.
      (6) Others as rapidly as possible.
   b. Authentication will be used for telephone transmissions in accordance with Div CEOI.
6. RDO COMM
   Units attached to or placed in DS of Bde will enter Bde nets at time of attachment, except during periods of imposed radio or listening silence.
7. RDO RETRANSMISSION
   a. Request acft for relay purposes through Bde CE Off.
   b. Use ground rdo retransmission section when possible.
8. VISUAL AND SOUND COMM
   Subordinate units employ only those pyrotechnics specifically authorized by the CEOI.
9. ELECTRONIC WARFARE
   Rept, by a secure means, jamming or attempts to enter nets by unknown station to Bde without delay, giving time, freq, type of jamming, signal strength, readability, and identification (if obtainable) of interfering station.
10. FREQ CONTROL
   a. Request for add freq to Bde C-E Off.
   b. Station changing from primary freq to alternate freq change from callsign to their alternate callsign. NCS orders subordinate station to change freq.
11. MISCELLANEOUS
   a. One copy of circuit diagram, and line route map fwd to the Bde C-E Off by subordinate units.
   b. General alarms sounded over the comm systems of all units.

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Annex D (Army Adviation) to SOP No 1

1. GENERAL

a. Purpose. This annex prescribes normal procedures for employment of Army aviation within the Bde. It does not apply to air spt from other services.

b. Guidance. Bde Avn Sec provides avn spt for Bde HHC and attached units. Attached bns will routinely receive OPCON of one observation helicopter for comd and control. Specific allocation of Army avn announced, as required.

2. AVIATION SECTION ORGANIZATION FOR COMBAT

a. Sec HQ: Bde CP (S3, operations sec).

b. Flight elements: When supporting bde unit(s), elements will satellite on supported unit. Bde tn when not committed.

c. See (): Bde tn.

3. REQUESTS FOR ARMY AVIATION SUPPORT

a. Normal

(1) Tactical requests to Bde S3.

(2) Requests for battlefield surveillance and photo missions to Bde S2.

(3) Request for logistical support missions to Bde S4.

b. Emmergency. To avn sec directly using any means available, including spt avn element comm facilities.

c. Information required. Requests will include; proposed mission and purpose; probable duration of mission; date, time and location for reporting of acft; lift fire or other special requirements (if applicable); and person to contact for coordination. Requests will not normally specify numbers, types, and/or sources of acft.

4. OPERATIONS

a. Security.

(1) Local security of Bde CP helicopter pad responsibility of CO, HHC. Security of Bde tn helicopter pad responsibility of Bde S4.

(2) Supported unit responsible for security of supporting avn element.

b. Combat.

(1) Request for lifting of friendly fires to permit avn employment submitted to S3.

(2) Rept location all airstrips/helicopter pads to S3. Marking will be acomplished in accordance with current SOI.

(3) Airspace coordination and regulation:

(a) When in the bn/bde area, coordinate with the bde airspace control element (BACE) if established.

(b) When destination is unit other than this bde, the BACE will coordinate with the airspace control element (ACE) at division to hand off, control, and regulate traffic.

(c) All acft monitor current flight operations center (FOC) frequencies as shown in CEOI.

(d) Under conditions of CVR, 50% of the aircraft crews wear protective masks whenever landing in an unoccupied area.

(4) Defense against nuclear attack. Avn Plt be prepared to:

(a) Provide instrument survey and monitoring of blast and fallout areas on 15 minutes notice.

(b) Provide emergency, supplementary, aeromedical evac on order.

(5) Annex C, Communications-Electronics.

5. REPORTS

a. Daily acft status report submitted with combat veh status rept by:

(1) Spt units for spt acft.

(2) Avn Sec for all other acft, including nonorganic spt acft.

b. Post mission rept submitted to Bde S3 as requested.

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Annex E (Air Defense) to SOP No 1

1. GENERAL

This annex establishes procedures for active and passive air defense measures to reduce the effectiveness of enemy low altitude tactical air operations over or adjacent to the Brigade area. Subordinate unit SOP's will conform.

2. REFERENCES

FM 23-17, Redeye Guided Missile System
FM 23-17A (C), Redeye Guided Missile System
TM's pertinent to Redeye Weapons System
FM 30-30, Aircraft Identification
FM 44-1, US Army Air Defense Artillery Employment
FM 44-2, Air Defense Artillery Employment (Automatic Weapons)
DA, TC 23-15, Engagement of Aerial Targets with Non-Air Defense Weapons
Annex ____ (Air Defense) Div SOP No ____

3. OBJECTIVES

a. Passive air defense measures (cover, concealment, camouflage, dispersion, fire discipline, protective construction) will receive added emphasis at all levels whenever the enemy has a significant capability to conduct tactical air operations over the Brigade area.

b. Bde active air defense objectives are achieved by engaging low altitude hostile aircraft to reduce interference with tactical operations; protect vital areas, units, or installations; and inflict maximum attrition or force hostile aircraft to higher altitudes.

4. ORGANIZATION AND RESPONSIBILITIES

a. Bde S3 has staff responsibility for air defense planning to include:

(1) Recommending Bde air defense priorities and positioning of any Forward Area ADA Bn elements or Redeye sections under Bde control.

(2) Coordination of position areas within the Bde area for Forward Area ADA Bn elements under Division control.

(3) Preparation; of the Bde air defense overlay to include any coverage provided by ADA elements under division control.

(4) Coordinate positioning of subordinate unit Redeye Sections to increase effectiveness of over-all air defense coverage.

(5) Dissemination of air defense warnings, changes in weapon control status, rules for engagement, hostile identification criteria, and special flight information.

b. The commander of any Division Forward Area AdA Bn elements attached to or supporting the bde acts as Bde ADA special staff officer (ADO). A redeye Section Leader may be designated to assist Bde S3 in air defense planning and operations, if subordinate unit Redeye Sections are placed under centralized Bde control.

c. Considerations in bde air defense planning:

(1) Low altitude air defense coverage over the Bde area is provided by varying combinations of division Forward Area ADA Bn elements (Vulcan/Chapparral) under division or bde control; Redeye Sections organic to infantry, tank, armored cavalry, or field artillery units located within the Bde area; and non-air defense weapons (cal. 50 MG, M60, small arms) used in the air defense role.

(2) When no elements of the division Forward Area ADA Bn are supporting the bde, special consideration will be given to locating the Bde CP and trains to take advantage of existing air defense coverage provided by Forward Area ADA Bn elements under Division control or subordinate unit Redeye Sections. Local air defense of subordinate units is provided by Redeye Sections supplemented by non-air defense weapons. In special circumstances all or a portion of subordinate unit Redeye Sections may be placed under Bde control.

(3) One Redeye team will normally accompany each company/battery size unit detached from organizations having organic Redeye Sections.

5. AIR DEFENSE WARNINGS*

RED - Attack imminent or in progress.
YELLOW - Attack probable.
WHITE - Attack not immediately probable or imminent.

6. CONTROL OF AIR DEFENSE FIRES*

a. Weapon control status (definitions):

(1) WEAPONS HOLD - do not fire except in self-defense.
(2) WEAPONS TIGHT - fire only at aircraft positively identified as hostile (refer to "b" below).
(3) WEAPONS FREE - fire at any aircraft not identified as friendly.

NOTE: STATUS OF WEAPONS TIGHT IS APPLICABLE UNLESS SPECIFICALLY DIRECTED OTHERWISE.

b. Hostile criteria. Aircraft will be judged *hostile* based on the following detailed visual criteria:

(1) Attacking friendly elements.

(2) Bearing the military insignia or having the configuration of an aircraft employed by a known enemy nation.

(3) Spraying or smoking friendly units without prior coordination.

(4) Dropping flares or EGM devices over friendly territory without prior coordination.

(5) Discharging parachutists or unloading troops in numbers in excess of normal crew without prior coordination.

(6) Engaging in mine laying without prior coordination.

(7) Improper or unauthorized entry into an area designated as restricted.

c. Rules for engagement.

(1) Changes to the weapon control status and hostile identification creteria will be made only:

(a) On order of higher headquarters.

(b) By subordinate commanders imposing a *more restrictive* status or criteria. This HQ will be notified whenever a more restrictive status or criteria has been improved except for short duration restrictions on non-air defense weapons.

(c) *Individual operation.* Individual gunners and fire unit commanders do NOT have authority to deviate from the established weapon control status or hostile identification criteria during individual operation except that the rule of self-defense may be exercised.

(2) Use of non-air defense weapons (cal .50 MG, M60 MG, small arms).

(a) Individuals under direct attack by hostile aircraft may engage such aircraft without awaiting orders (self-defense).

(b) Individuals not under direct attack will engage low-flying, positively identified, hostile aircraft only after fire is authorized by competent authority (platoon leader or equivalent level). Company commanders may delegate this authority to squad leader level under *special* operational circumstances.

(c) Div SOP directs maximum engagement of hostile aircraft provided the trajectory or impact of these fires do not constitute a significant hazard to friendly aircraft or ground elements.

7. COMMUNICATION

a. Warning nets. Forward Area ADA Bn elements and subordinate unit Redeye Sections monitor the division Forward Area ADA Bn intelligence (warning) net. These warning nets are the primary means for disseminating air defense warnings to bn level and an emergency means of disseminating changes in weapons control status, hostile identification criteria, and special flight information (friendly aircraft). Air defense warnings monitored on these nets will be retransmitted to subordinate elements using bde command, bn command, and bn Redeye control nets; changes to weapons control status, hostile identification criteria, and special flight information (friendly aircraft) monitored on warning nets will be verified by Bde TOC using Div OP-Intel/Command nets prior to retransmission to subordinate units over bde command, bn command, and bn redeye control nets.

b. Div Op-Intel net. This net is the primary means for receipt of changes in weapons control status, hostile identification criteria, and special flight information (friendly aircraft). Bde TOC will retransmit information received on the Division OP-Tel net over the Bde command net; battalions will retransmit the same information on bn command and redeye control nets.

NOTE: SPECIAL FLIGHT INFORMATION PERTAINING TO USAF AIRCRAFT MAY BE RECEIVED ON SPECIAL NETS MONITORED BY S3 AIR/USAF ALO - PROCEDURES APPLICABLE TO THE DIV OP-INTEL NET WILL BE FOLLOWED.

c. Redeye teams will operate primarily in Redeye control nets.

**INSTRUCTIONAL NOTE*: THESE PORTIONS OF THE SOP WILL BE BASED ON HIGHER HEADQUARTERS/THEATER AIR DEFENSE *RULES OF ENGAGEMENT AND SOP.*

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Annex F (Reports) to SOP No 1

1. PURPOSE

To outline recurring reports required by this HQ and higher HQ, and to establish procedures for their preparation and submission.

2. REPORTS SCHEDULE

TITLE OF REPORT	SUBMITTING UNIT	RECOMMENDED METHOD OF TRANSMISSION	NORMAL PRECEDENCE	REMARKS
a. S1 REPORTS				
(1) Daily strength msg	Bn, TF, Sqdn Sep Co, incl Team.	Radio/RATT/ teleplone/msgr.	ROUTINE	Submitted by attached Bn/Sep Co daily as of 1800 by 2100 to Bde S1. DSM will reflect strength data of organic unit plus attachments.
(2) Casualty feeder report with witness statement.	"	Msgr.	"	Daily as of 1800 by 2400 to Div AG. Missing/Missing in Action reports held max 6 days at Bn for verification.
(3) Self-inflicted wounds.	"	Telephone	"	As required.
(4) Following nuclear or chemical attack estimate of casualties and loss of commanders.	"	Most expedi- tious means.	FLASH	As required.
b. S2 REPORTS				
(1) Recurring reports				
(a) Surveillance plans.	Bn, TF, Sqdn Sep Co, incl Team.	Msgr.	ROUTINE	Rept as established.
(b) Patrol plans.	"	"	"	Submitted NLT three hours before EENT.
(c) INTSUM.	"	Radio/RATT/ telephone/msgr.	"	As of 0600, 1200, 1800, 2400 daily within 30 mins of close of rept period.
(2) Hot Reports include info of immediatre tac- tical value such as: capture of en air crews, guided missile crews, cml, biological, and nuc wpns pers; new or unusual cap- tured en equip; approach of armor, acft, naval, or amphibious landing craft, abn trp, or en nuc or NBC atk; loss of compromise of CEOI or classified mater ial; suspected en agents;	Bn, TF, Sqd Sep Co, incl	Fastest means available.	As appropriate.	

TITLE OF REPORT	SUBMITTING UNIT	RECOMMENDED METHOD OF TRANSMISSION	NORMAL PRECEDENCE	REMARKS
US/Allied escapees; capture of friendly pers specially trained in nuc opns; surrender of sizeable number of en pers or marked decrease in combat effectiveness; and significant en act of immediate interest; direction and speed of movement, length of column, and number of vehicles.				
(3) Intelligence Report. (INTREP),	"	Fastest means appropriate to content.	"	
(4) Shelling, Mortaring, Bombing. (SHELREP, MORTREP, BOMREP.)	"	Radio/RATT/ telephone/msgr.	IMMEDIATE	
(5) NBC 1.	Bn, TF, Sqdn Sep Co, incl Team.	Fastest means available.	FLASH or IMMEDIATE as appropriate.	Format. App C, Fm 3-13 NBC 1.
(6) NBC 4.	"	"	"	Format: App C, FM 3-12 NBC 4.
(7) Sensor Emplant Report. Time, location, type, sensor emplaced.	Bn, TF, Sqdn Sep Co, incl Team.	Secure radio.	IMMEDIATE	Report as emplacment occurs.
c. S3 REPORTS				
(1) Recurring reports.				
(a) SITREP.	"	Msgr. Formal written report	ROUTINE.	As of 1800 daily, reach bde HQ by 2000 daily.
(b) Operational Report-Lessons Learned.			"	As of 2400 end of each quarterly period ending in Jan, Apr, Jul, and Oct by 3d of following month.
(2) Spot reports.				
(a) CP location time open time closed, location alternate CP, CP helicopter/acft pad location.	"	Telephone/ Radio.	PRIORITY.	
(b) Time SP, RP, phase line, LD, obj reached.	"	Radio.	IMMEDIATE.	
(c) Loss or establishment of contact w/units.	"	"	"	
(d) When approaching allowable dose.	"	"	"	
(e) Unit Progress	"	"	"	Every 2 hrs on the

TITLE OF REPORT	SUBMITTING UNIT	RECOMMENDED METHOD OF TRANSMISSION	NORMAL PRECEDENCE	REMARKS
Report.				even hours.
(f) Location, type, and progress of obstacles.	Bn, TF, Sqdn Sep Co, incl Team.	Msgr (overlay)	ROUTINE	As of 1200 and daily within one hour following close of rept period.
(g) Elements isolated behind en lines.	"	Radio	IMMEDIATE	
(h) Minefield Rept.	Bn, TF, Sqdn Sep Co, incl Team.	Msgr (DA Form 1355).	ROUTINE	
(i) Jamming	"	Telephone/msgr.	IMMEDIATE	As required.
(j) Post mission aircraft rept.	Units with aircraft supporting.	Telephone/msgr.	PRIORITY	"
d. S4 REPORTS				
(1) Special logistic repts status of major items of equip minus combat veh.	Bn, TF, Sqdn Sep Co, incl Team.	Radio/Telephone phone/RATT	ROUTINE	When called for as of 1800 by 2200 to DISCOM with info by to G4 and Bde Cdr.
(2) Combat veh status rept.	"	"	"	Daily as of 1800 by 2200 to DISCOM with info cy to G4 and Bde S4.
(3) POL status rept.	"	"	PRIORITY	When required. 1400 to DISCOM Comd with info by to G4 and Bde S4.
(4) Location of combat tn.	"	"	PRIORITY	When required.
(5) Availability of area damage control squads.	"	"	"	As appropriate.

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Annex G (Headquarters Management) to SOP No 1

1. GENERAL

This annex is applicable for field and combat operations.

2. COMMAND GROUP

The following personnel will normally comprise the command group and will accompany the Bde Cdr during periods when he operates away from the Brigade CP.

a. Bde S3.
b. Bde S2.
c. FSCOORD or Arty LO.
d. Air Laison Officer (when available)
e. Security element, operating personnel, and others as designated by Bde Cdr, such as LO, Avn Off, and Spt Unit Representative.

3. COMMAND POST COMPOSITION

a. Includes Command Group when not operating separately.
b. Bde XO.*
c. S1 Section.*
d. S2 Section.
e. S3 Section.
f. S4 Section.*

*NOTE: May be at the trains location.

g. HQ Co Cdr.
h. Avn Officer.
i. Cml Officer.
j. Surgeon.
k. Comm Plt.
l. Security Element (if augmented).
m. Combat Support Unit Representatives.
n. Elements of M1 Det (Div) and ASA DISCOM (when attached).
o. Forward Command Terminal Team
p. CA personnel (when attached).

4. LOCATION AND INTERNAL ARRANGEMENT

a. The S3 will select the general location of the CP based on guidance from the Bde Cdr. The Headquarters Commandant and CE Officer will select the specific location.

b. Internal Arrangement of the CP: Appendix 1, CP Installation and Security Diagram. The Bde S3/S3 operations center (TOC) will govern the location of other elements.

5. SECURITY

a. Appendix 1, CP Installation and Security Diagram.

b. During the establishment of the new CP, the clock method will be used to designate section security responsibilities. Each section will station sentinels in sector of responsibility to provide local security and to provide early warning. Sentinels will be posted approximately 300 meters from the center of the CP and, if possible, on dominant terrain. Sentinels will remain on post until properly relieved.

c. HHC Cdr will plan and implement continuous security. Necessary coordination will be made with S2, S3, and S4.

6. DISPLACEMENT

a. General. To facilitate displacement operations, a quartering party will be used whenever the situation permits. The command post will displace by one of the three methods indicated in paragraph c below.

b. Quartering Party.

(1) The quartering party is headed by the S1 or Headquarters Commandant and will consist of the following elements:

(a) Quartering Officer (S1) (HQ Comdt).
(b) Headquarters Commandant (will assume duties of Quartering Officer in absence of S1).
(c) Representative from S1-S4.
(d) C-E Officer (or Comm Plt Ldr).
(e) Representatives from Comm Plt (must include swbd and operator, message center representative and sufficient wirement and equipment to "wire-in" the new CP).
(f) Representatives from S2-S3.
(g) Representatives from Fwd Comd Terminal Team (1-MRC 69).
(h) Security Element.
(i) Elements from Headquarters Company.
(j) Representative from Aviation Section.

(2) Duties of the quartering party.

(a) Select and mark the specific location of each section and the HQ Co elements.

(b) Mark the route to the new site and provide guides as required at critical points on the route.

(c) Provide guides at the new site. These guides will be briefed by the Quartering Officer regarding the location of their sections and posted at the entrance to the CP to meet and direct their sections to the new location.

(d) Establish initial communication within the CP.

(e) Secure the new CP site.

(3) S1 will coordinate necessary transportation with the S4.

c. Methods of Displacement.

(1) *Method ALFA*: Time is not critical. Sufficient personnel accompany quartering party to set up and operate new CP. Cdr accompanies the quartering party. When the new CP is rady; simultaneously the old CP closes and the new CP opens.

(2) *Method BRAVO*: Time is critical and the Command Group is operating away from the Bde Op, The CP displaces before the quartering party has established the new CP and the Command Group becomes the NCS and assumes control of command post operations.

(3) *Method CHARLIE*: No quartering party is used because of time and/or distance. The entire CP displaced as a unit and remains operational during the move.

d. Displacement Procedures.

(1) Permanent records and files, to include the unit journal, remain with the rear element.

(2) Senior officer at the new site, in coordination with the C-E Officer, determines when the new CP is ready for operation and notifies the Bde Cdr.

(3) The Bde Cdr will designate th time that the old CP will be closed and the new CP open. This will be done by using a code word and designating the time that the change is to be effective.

(4) The Bde XO designates the time for movement of the rear element of the main CP.

7. MISCELLANEOUS

a. Helicopter site selection and marking is responsibilty of Aviation Officer.

b. Priority of work:

(1) Establish communications as 1st priority concurrently with one efforts.

(2) Security.

(3) Dispersion.

(4) Camouflage.

(5) Cover.

Appendix: 1 - CP Installations and Security Diagram. (To be published.)

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Annex H (Surveillance, Target Acquisition, Night Observation (STANO)) to SOP No 1.

1. This annex prescribes the general procedures for employment of STANO assets.
2. GENERAL RECONNAISSANCE.
   a. Annex F, Reports.
   b. Report immediately:
      (1) Enemy chemical operations.
         (a) Issue to enemy soldiers and/or wearing of protective masks and clothing.
         (b) Special training of enemy soldiers in chemical defense.
         (c) Smokes and mists sprayed from aircraft.
         (d) Actual use of chemical agents.
      (2) Enemy biological operations.
         (a) Appearance of crop, animal, and human diseases unusual for location or time of year.
         (b) Records of unusual or intensive immunization of captured PW.
         (c) Unusual types of weapons; smoke or mists sprayed from aircraft; unusual types of shell and bombs, particularly those which appear to have little or no immediate effect.
         (d) Unusual appearance and/or taste of food and water.
         (e) Unexplained deaths or wide and sudden outbreak of disease.
3. GROUND RECONNAISSANCE.
   a. Annex F, Reports.
   b. Units initiate and rept ground recon as required without orders from this HQ.
   c. Recon patrolling coordinated by S2. Night patrol plans to S2 as initiated but NLT three hours before EENT.
   d. Patrol routes emphasize areas not covered by sensors or radar.
4. AIR RECONNAISSANCE.
   a. Automatic issue of prescribed allowance of aerial photos.
   b. Preplanned request for visual and photo recon to asst S2 by 1700 of the day prior to the day the apt is desired. Subordinate units provide serial observes of call.
   c. Minimum of one SLAR flight per day to be requested during period of greatest enemy activity. Army aircraft using a range gate of 50 km will be requested when the Bde is in an attack posture; a range gate of 25 km will be requested when the Bde is in a defense posture.
   d. IR missions will be requested daily. Missions will be requested for the hours of darkness.
   e. If Army aircraft are not available or if the enemy threat precludes their use, requests for USAR SLAR and IR coverage will be coordinated with Corps Reconnaissance Duty Officer.
5. UNATTENDED GROUND SENSORS.
   a. Monitoring stations and manned relay stations.
      (1) Monitoring station or manned relay station personnel operating within Bn area will be attached to the Bn for rations. Security for personnel and equipment will be provided by the Bn at each monitoring site location within the Bn area.
      (2) Terminal stations for airborne or ground relays will be with Bde HQ, line of sight restrictions permitting.
   b. Requests for sensor implants.
      (1) Submit according to appropriate schedule.
         (a) For sensors on the shelf (Bde assets).
            1. NLT 1700 on day prior to emplacement date desired for hand or mortar emplacement missions if fields are in line of sight form currently operational monitoring stations (submit 24 hours earlier for air delivery).
            2. NLT 1700 2 days prior to implant date desired (24 hours earlier than *1* above) if a new monitoring station must be established to monitor a field.
         (b) For sensors not on the shelf, NLT 1700 4 days prior to emplacement date desired.
      (2) Appendix 1, Sensor Implant Request Format.
   c. Emplacements of radio frequency data link sensors (except patrol sensors) will be accomplished by personnel from Bde Ground Surveillance Section.
      (1) Security for hand emplacement missions will be provided by the Bn in whose area the implant will take place.
      (2) Helicopters for air delivery missions will be requested from Division assets.
   d. Annex A, Fire Support Coordination.
   e. Annex F, Reports.
   f. Patrol sensors.
      (1) One set on each frequency allocated to each subordinate unit.
      (2) When detectors are to be used within 1 km of Bn (or TF) boundary with adjacent units, coordination with the adjacent units will be accomplished to prevent frequency duplication.
   g. Bde S2 will provide a sensor status update to subordinate commands by 2400 each Wednesday to include currently active sensors in each field and sensors available on the shelf (Bde assets).

6. RADAR.

a. Radars will be operational during periods of limited visibility as a minimum for area surveillance.

b. Radar sites will include sensor fields or range cards to facilitate rapid tracking of sensor acquired targets. Communications will be set up to facilitate collaboration between sensor monitoring sites and radar sites.

c. Radar will be used to vector patrols.

7. NIGHT OBSERVATION DEVICES (NOD).

a. TVS-4 will be used on conjunction with radar for target indentification.

b. Maximum utilization of weapon mounted NOD will be used in the defense and during patrolling in hours of darkness. Sight alignment will be checked at least once a week.

Appendix I (Sensor Emlplacement Request Format) to Annex H (STANO) to SOP No 1.

1. Monitoring station location _____ (six digit coordinate).

2. Type delivery _____ (hand, mortar, air).

3. Date emplacement requested _____.

4. Field I.

   a. Mission of field and activity or traffic to be detected.

   b. Preferred sensor date.

TYPE	LOCATION	TIME SETTING	OTHER SPECIFICATIONS
(1)			
(2)			
(3)			
(4)			
(5)			
(6)			

Paragraph 5 and subsequent paragraphs will contain information for additional fields to be emplaced under this request.

CHAPTER 12

STANDING OPERATING PROCEDURES BATTALION (SOP)

THIS BATTALION SOP HAS BEEN WRITTEN IN GENERAL TERMS TO PERMIT THE WIDEST POSSIBLE USE IN SUPPORT OF USAIS INSTRUCTION. ALTHOUGH A SPECIFIC UNIT IS IDENTIFIED IN THE SOP HEADING, THIS ILLUSTRATION OF FORMAT, HAS BEEN DEVELOPED BY USAIS INSTRUCTIONAL DEPARTMENT/GROUPS/ COMMITTEES TO MEET INSTRUCTIONAL REQUIREMENTS. THIS SOP SUPPLEMENTS A DIVISION SOP, WHICH WOULD BE DISTRIBUTED DOWN TO, AND INCLUDING, BATTALIONS, SQUADRONS, AND SEPARATE COMPANIES.

(Classification)

Copy No ___ of ___ copies
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1 Jan 19___

STANDING OPERATION PROCEDURES
NO 1

COMBAT OPERATIONS*

I. GENERAL

A. Purpose. This SOP is published to standardize routine recurring operational and combat service support procedures of the Battalion and applies except when modified by Battalion orders.

B. Conformity. Staff section and subordinate unit SOPs will conform. Each commanders will insure that all officers and key enlisted men in his command have read and understood the provisions of this SOP.

C. Organization.

1. Battalion Major Installations.

a. Command Group. Appendix 1 (Command Group Composition and Operation) to Annex K (Headquarters Management).

b. Battalion CP, Annex K, Headquarters Management.

c. S2 and S3 adjacent to each other in CP to include FSO, S3 Air, Chemical NCO (if augmented). S1 and S4 adjacent to each other in CP, to include med plt ldr during planning.

d. Alternate Command and Control Instructions.

(1) In event the command post is rendered inoperative through loss of personnel and equipment, the following provisions apply to insure continued command and control.

(a) Senior surviving combat arms officer in the battalion will assume command. Seniority list for assumption of command to be published separately.

(b) Battalion Command Post will be reestablished at following locations in order of priority.

*This SOP, as the title implies, deals with combat operations, and is a tactical field SOP. Other SOPs would be published to announce administrative procedures.

1. Combat Support Company.
2. Reserve Company
3. Heavy Mortar Platoon.
4. Another Rifle Company.

(2) Subordinate unit whose CP becomes inoperative will be controlled by Battalion or attached to an operative unit as directed by Battalion.

D. Combat Orders. Combat orders limited in distribution to brigade headquarters, organic and attached companies and platoons, units under operational control, supporting units, and adjacent units informed by CO or LO.

II. COORDINATION OF TACTICAL OPERATIONS.

A. Command and Control.

1. All units select CP and report location and time of opening and closing. Report location of CP helicopter pad with each change in CP location.

2. When a headquarters facility has been destroyed or neutralized, the senior surviving combat arms officer within the command affected will assume command.

3. Signal Communications. Annex G, Communications-Electronic.

B. Intelligence.

1. PW.

a. Interrogation of PW (to include wounded) will be brief and confined to matters of immediate tactical concern.

b. The enemy aircrews and PW found to have knowledge of enemy guided missile, nuclear, chemical, or biological activity will be segregated and reported to S2 immediately.

c. Enemy officers of field grade or higher and captured aircrews will be delivered to PW collecting point without delay.

d. PW will be segregated.

2. Captured Documents. Crypto material and documents containing information on nuclear, chemical and biological weapons are to be delivered immediately to Battalion S2. Documents found on PW will be carried by escort to Battalion collecting point. Technical documents found with captured equipment will be kept with equipment. All documents should be tagged or marked with date, time, place, circumstances of capture, capturing unit, and name and rank of PW on whom found, if appropriate.

3. Technical Intelligence.

a. Captured enemy material will be promptly reported to Battalion. Weapons that appear to be of new or unusual design are to be evacuated after inspection by Technical Service Intelligence Team through intelligence channels by maintenance battalion; other items evacuated by unit to salvage collecting point. Capturing unit is responsible for destruction of enemy material if recapture imminent.

b. Reports of new or unusual enemy equipment, armament, nuclear materiel, missiles, or CB agents will be forwarded immediately to S2 and guarded by discovered unit.

4. Weather. S2 disseminates weather forecasts to battalion staff and major subordinate units. Normal weather forecasts twice daily or as deemed necessary for operation.

5. Reconnaissance.

a. General.

(1) Flash Reports. Use flash message report (highest priority on all transmission means) to S2 for approach of enemy armor, aircraft, airborne troops, missiles, naval or amphibious landing craft, or enemy nuclear, CB attack or initial enemy contact. For nuclear flash message report, see Annex C (Actions to Minimize Effects of Enemy Nuclear, Biological, and Chemical Attack).

(2) Hot Reports. Subordinate units report information of immediate interest as obtained by most expedious means available.

(3) Type of Information to be Reported. The following types of information will be reported, as outlined in paragraph (1) and (2) above.

(a) Enemy Chemical Operations.

1. Issue to enemy troops and/or wearing of protective masks and clothing.
2. Special training of enemy troops in chemical defense.
3. Smokes and mists sprayed from aircraft.
4. Actual use of chemical agents.

(b) Enemy Biological Operations.

1. Appearance of disease unusual for location or time of year (crop and animal disease, as well as human).
2. Records of unusual or intensive immunization of captured PW.
3. Unusual types of weapons; smoke or mists sprayed from aircraft; unusual types of shell and bombs, particularly those which appear to have little or no immediate effect.
4. Issue to enemy troops and/or wearing of protective mask and clothing.
5. Special training of enemy troops in biological defense.
6. Unusual appearance and/or taste of food and water.
7. Unexplained deaths or wide and sudden outbreak of disease.

(c) Enemy Nuclear Operations.

1. Appearance of unusual aircraft, weapons, or instruments (very heavy artillery, missile launchers, survey meters, etc.).
2. Other indications of possible enemy use of nuclear weapons such as:
   a. Presence of special troop units in area.
   b. Limited withdrawal of forward units without any apparent tactical reason.
   c. Use of missiles with HE warheads.
   d. Registration of very heavy artillery.
   e. Use of smoke cover on own forward troops.
   f. Construction of covered foxholes or shelters defiladed in rear or forward positions.

(d) Other Enemy Activity.

1. Known or suspected enemy troop concentrations suitable for nuclear attack.
2. First contact with enemy and changes in enemy dispositions (platoon or larger units).
3. Counterattack indications and change in enemy combat attitude.
4. Loss of contact.
5. Initiation of enemy attack.
6. Identification of new enemy units.
7. Location of enemy barriers, minefields, demolitions, obstacles, and other defensive works.
8. Known or suspected espionage, sabotage, or subversion.
9. Initial enemy artillery fire and marked change in volumne of artillery fire.

(e) Effect of Our Nuclear Weapons.

1. Enemy casualties and enemy forces remaining.
2. Enemy equipment, weapons, and vehicles rendered unusable and those remaining.
3. Obstacles (tree blowdown, rubble) to movement created.
4. Fires caused by nuclear weapons.
5. Air or surface burst and actual or estimated GZ.

b. Ground Reconnaissance.

(1) Reconnaissance patrolling coordinated by S2. Patrol plans to S2 as initiated by NLT 4 hours before EENT.

(2) S2 coordinates observation in Battalion area of interest. Subordinate, attached, and supporting units report OP location as established.

(3) S2 coordinates employment of ground surveillance radar. Units report location of ground radar sets and send coverage diagrams to S2.

(4) SHELREP, MORTREP, BOMREP, AND TOXREP (Format: Appendix 1 to Annex J (Reports) to S2 immediately by radio or telephone (precedence: immediate).

c. Air Reconnaissance:

(1) Automatic issue of prescribed allowance of aerial photos.

(2) Preplanned request for visual and photo recon to S2 by 1600 of the day before spt is desired.

6. Counterreconnaissance and Counterinfiltration.

a. Civilians. Civilians infiltrating through Battalion area to or from enemy occupied territory will be apprehended and this headquarters notified immediately.

b. Unoccupied areas. Units will reconnoiter periodically and make maximum use of surveillance means. Responsibility is from rear to front and from left to right.

7. Counterintelligence.

a. Security of Classified Information.

(1) Battalion OPORD not carried forward of company CP. Brigade OPORD and countersign in written form not forward of battalion CP.

(2) S2 notified immediately of: compromise or suspected compromise of the countersign; loss, capture of OPORD or other classified material; capture of friendly personnel specially trained in nuclear operations.

b. Challenge and password. Issued daily and effective for 24 hour period: 1200 to 1159. Not forward of Battalion in written form.

c. Miscellaneous.

(1) Communications-electronics security as per CEOI. Violations reported to S2 and C-E Officer immediately.

(2) Escapees, evadees, and returnees evacuated to Battalion aid station and reported to S2 for interrogation on priority basis. Personnel who have returned to friendly control may be debriefed for tactical information of immediate concern to the command. Questioning will not include means of routes of escaping or evading.

(3) CP and directional signs use assigned code titles.

8. Elements Isolated Behind Enemy Lines. Units will not assign stay-behind missions without prior clearance from this headquarters.

C. Procedures. Annex A, Fire Support Coordination; Annex E, Airmobile Operations; and Annex H, Mine Warfare.

D. Security.

1. Assembly Areas.

a. Major deviation from prescribed areas only with prior approval of this headquarters.

b. Each unit is responsible for local security.

2. Standard Warning and Measures to be Taken.

a. Air Attack. Three short blasts on vehicle horn, whistle or three rifle shots; repeat several times.

b. CB Attack.

(1) Voice (Radio) - "GAS" or "SPRAY" (Aircraft only) in the clear, on all communication channels.

(2) Voice - Shout "GAS" or "SPRAY."

(3) Sound alarm by striking improvised metallic alarm.

c. Nuclear Attack Imminent.

(1) Voice (Radio) - "NUCLEAR" in the clear by all communication channels.

(2) Voice - Shout "NUCLEAR."

d. Ground Attack.

(1) Shout "GROUND ATTACK."

(2) Execute defense plans as required or ordered.

3. Tactical Operations.

a. Contact maintained from left to right and from supporting to supported units.

b. After contact with enemy, hourly reports submitted on local of major elements (precedence: immediate).

c. Requests for preplanned close air support to S3 Air by 1600 on day prior to desired support. Requests for immediate close air support to FAC or S3 Air at anytime.

d. Units mark and report location of duds. Use flash message report for suspected dud nuclear weapons.

e. Appropriate field fortifications will be constructed as time permits. All personnel should have overhead cover if possible.

f. Unless otherwise stated, commanders guidance for the employment of nuclear weapons is as follows:

(1) Troop Safety - negligible risk, to unwarned, exposed friendly troops.

(2) No fallout.

(3) Target coverage - at least .30 for destruction and .10 for neutralization.

(4) Report any obstacle to movement or occupation of areas planned to be utilized.

g. Maximum use of camouflage for positions, individuals, vehicles and installations will be maintained all times.

E. Techniques.

1. Orders.

a. Oral operation orders and fragmentary orders normally during operations.

b. Distribution A, when used:

Brigade/Higher Headquarters	5
Each Rifle Company	1
Combat Spt Co	1
HHC	1
Scout Platoon	1
Hv Mort Platoon	1
AT Platoon	1
Redeye Section	1
Attached Units	1
OPCON Units	1
Direct Support Units	1
S1, S2, S4 1 S3	5
C-E Officer	1
FSO	1
File	1

c. Dissemination of Early Warning.(Strike warn)

(1) When tactically feasible, notification of all friendly troops and aircraft within or liable to enter the area of effects of a nuclear burst is required.

(2) Scheduled Nuclear or Chemical Fires.

(a) If Battalion attached to brigade, brigade headquarters notified, if Battalion not attached to brigade, fire support element (FSE) of the division tactical operations center (DTOC) notified of the DGZ and time of attack.

(b) Warning of planned fires will be transmitted to all subordinate units to include forward air controllers (FAC), air liaison officers (ALO), representatives of Air and Naval Gunfire Liaison Company (ANGLICO), etc., through all radio and fire nets. Code word for this warning will be as prescribed in CEOI.

(c) All Army and other service aircraft of the Battalion using same air-ground communication nets to control their mission. Other aircraft notified through air request channels.

(3) On call Nuclear or Chemical Fires. If tactically feasible, above system of notification will be used. As a minimum notification of the following elements is necessary:

(a) Any adjacent unit whose safety may be affected. Use telephone or enter adjacent unit command net.

(b) All subordinate elements.

(c) All Army and other service aircraft in support of the Battalion utilizing same air-ground communication nets used to control their mission.

(d) Higher headquarters for information and dissemination as possible.

(4) Nuclear weapons warning message will include:

(a) Special weapons code word (CEOI).

(b) Prearranged message directing the protective measures to be taken (SOI).

(c) Date and time of burst.

(d) Orders for protective measures to be implemented by units.

(e) Acknowledgement and confirmation instructions.

d. If a nuclear or chemical attack is postponed, unit responsible for postponement transmit in clear by fastest communication means available the message, "Tarry, target number instructions later," followed by transmission of appropriate instructions.

(1) Annex B, Methods of Reporting Location of Unit.

(2) Annex J, Reports.

(3) The S3 will monitor all reports and transmit to higher headquarters as necessary.

e. Situation Report (SITREP).

(1) Periodic situation reports. All companies report situation every hour on the hour to S3.

(2) Spot Situation Reports. Direct to Cdr as follows:

(a) Initial contact or loss of contact with the enemy.

(b) Time attack (cross LD) or move (cross SP) is started or completed, and closing assembly area or defense position.

(c) Time phase lines crossed or objective reached or seized except during movement when immediate enemy contact not anticipated.

(d) Establishment or loss of contact with adjacent unit.

(e) Major damage to bridges or routes of communication.

(f) Location and extent of obstacles such as minefields or contaminated areas.

(g) During river crossings.

1. Movement and closing of units into attack position.
2. Completion of crossing by platoon-size units.
3. Completion of crossing by company.

F. Special Considerations.

1. Annex D, Prediction of Fallout, Radiological Monitoring and Survey.
2. Radiation Exposure.
   a. Platoons report average dosimeter readings (10 rad increments) daily as directed to company.
   b. Companies report platoon average dosimeter readings daily as directed to Battalion/TF. Line companies report platoon-size elements only. Combat Support Company will report average readings of five increments as follows:
      (1) Scout Platoon.
      (2) Heavy Mortar Platoon.
      (3) AT Platoon (when not attached).
      (4) Redeye Section.
      (5) Ground Surveillance Section.
   c. Battalion HHC will report the average readings of three increments as follows:
      (1) Battalion CP Area. Reported to headquarters Commandant by leaders concerned to include Battalion HQ section, company headquarters, and elements of Battalion communication platoon.
      (2) Battalion Combat Trains. Reported to headquarters commandant by OIC, and includes elements of Medical Platoon and other elements within combat trains area.
      (3) Battalion Field Trains. Reported to headquarters commandant by OIC, and includes elements of support platoon, maintenance platoon, and other elements within field trains.
3. Annex F, Chemical, Bioligical, and Radiological Defense.
4. Marches.
   a. March Organization.
      (1) Each company moves as a march unit.
      (2) Normal order of march.
         (a) cout Platoon.
         (b) Designated letter company.
         (c) Command Group.
         (d) Battalion Heavy Mortar Platoon.
         (e) Other lettered company.
         (f) CP.
         (g) Battalion trains.
         (h) Other lettered company.
   b. Quartering Party. Annex K, Headquarters Management.
   c. Trail Party. This headquarters will designate a trail party to perform following functions:
      (1) Inspect vacated area and correct deficiencies.
      (2) Prevent straggling.
      (3) Warn traffic approaching from rear.
      (4) Pick up guides and route markers.
      (5) Dispose of disabled vehicles and their loads.
      (6) Provide medical service.
      (7) Investigate accidents.
   d. Priority. Nuclear delivery units on tactical missions; tactical troop movements; medical vehicles; ammunition vehicles; construction crews; command, staff, and messenger vehicles.
   e. Lights. Blackout forward of army light line. Use of infrared authorized unless prohibited.
   f. Passing. Only when column is halted, except control, reconnaissance, general officers, messengers, medical vehicles, and vehicles displaying red emergency flags. March units of serials pass each other on order this headquarters only.
   g. Vehicle Marking. Lead vehicle of serial carry blue flag. Rear vehicles in serial carries a green flag.
   h. Accidents. OIC trail party investigate and take necessary action.
   i. Guards. Air guards in all vehicles. Traffic guards will be posted at head and tail of each halted march unit.
   j. Foot Marches (walking elements).
      (1) Rates: Day – 4 kmph on road; 2.4 kmph cross-country.
      Night – 3.2 kmph on road; 1.6 kmph cross-country.
      (2) Halts: Lead unit of column will regulate halts. First halt 15 minutes after first 45 minutes marching; thereafter, 10 minutes after each 50 minutes. Meals – one hour.
      (3) Organization: Battalion will be organized as follows, depending on attachments and detachments: One Serial – each lettered company comprises a march unit with Battalion HHC marching with other units.
      (4) Column Gaps: Between companies – 100 meters (day); 50 meters (night).
      (5) Formations: Column of single files on each side of road; distance between men – 5 meters (day); 2 meters (night).
      (6) Motorized/Mechanized elements: Integrated or follow main body by bounds.
   k. Motor Marches.
      (1) Vehicle tops and windshields down unless otherwise directed by this headquarters.
      (2) Rates: Wheeled serials: Day 40 kmph (maximum 56); night or poor visibility, 16 kmph (maximum 24) (Blackout). Tracked serials: Day, 24 kmph (maximum 32); night or poor visibility 16 kmph (maximum 24) (Blackout). Infiltration: Units use irregular dispatch, 2 vehicles per km, at 20 to 32 kmph.
      (3) Halts:

(a) First halt 15 minutes after first 45 minutes marching; thereafter, 10 minutes after each 110 minutes of movement.

(b) All units halt simultaneously. Vehicles clear roadway during halt. One man from each vehicle remains alert for march signals and another man provides aircraft warning and monitors radio. Command determines cause of all unscheduled halts aircraft warning and monitors radio. Commander determines cause of all unscheduled halts and takes appropriate action.

(c) Refueling halts prescribed. Crews make maintenance check. Disabled vehicles display yellow flag.

(4) Organization. The basic march unit is a company. Insofar as possible, march units will consist of 30 vehicles.

(5) Column Gap between company march units -- 3 minutes (which includes 1 min EXTAL).

(6) Formations.

Open column:
density of 7 to 30 vpk (veh distance - 155m to 24m).
density of 12/km is standard/normal (veh dis 80m).
Close column:
density of 30 vpk or more (veh dist - 24m or less).
density of 48 vpk is standard/normal (veh dis 11m).

5. Obstacles.

a. Responsible units submit obstacle plan and overlays, to S3. Report location, type, and progress as of 1200 and 2400 daily within 30 minutes following close of report period. Minefields reported on DA Form 1355 (five copies) to S3.

b. Units assume responsibility for all obstacles, lanes, and gaps in sector unless otherwise specified. Close gaps or lanes on order this headquarters or to prevent enemy entry.

c. Booby traps not employed without specific authority.

6. Annex I, Air Defense.

III. COORDINATION OF COMBAT SERVICE SUPPORT OPERATIONS.

A. Reports. Annex J, Reports.

B. Detailed Considerations.

1. Company detached from battalion to be accompanied by:
   a. Two Class V vehicle (Support Platoon).
   b. One Class III vehicle with trailer (Support Platoon).
   c. One medical evacuation team with evacuation vehicle (Medical Platoon).
   d. One mess team (Support Platoon).

2. Logistics. a. Material (Supply).

(1) Class I. Super ration cycle. Breakfast and supper hot meal whenever practicable. Company request exemption to this from support platoon when required. Each battalion vehicle carries three individual combat rations for each assigned occupant; mess section carries minimum of one combat ration for each individual of the battalion.

(2) Class II. Informal requests for replacement to bn section, field trains.

(3) Class III. Provided one-call to company, on request to combat trains.

(4) Class IV.

(a) Fortification material.

1. Submit informal requests for replenishment of unit load to field trains.

2. Submit estimates of requirements in support of Battalion/TF approved barrier/defense plans to the S4.

3. All other requests to S4 with justification.

(b) Construction materials.

1. Allocations in support of Battalion/TF approved construction/base development plans disseminated by this HQ.

2. All other requests to S4 with justification.

(5) Class V. Company maintain individual and vehicle portion of basic load. Informal request for replacement to combat trains.

(6) Class VI. Resale facility established on order of this headquarters. Special orders through Battalion exchange officer.

(7) Class VII. Company submit informal request for replacement to Division Property Book team, field trains.

(8) Class VIII. Informal request to aid station. Distribution by evaluation section.

(9) Class IX.

(a) Company storage of organizational repair parts as directed by this HQ.

(b) Requests for: 1. Signal repair parts to comm platoon.

2. Automotive repair parts to maint platoon.

3. All others to supply section.

(10) Class X. When authorized, instructions will be issued by this HQ.

(11) All classes. Requests for items in excess of authorized allowances to S4 with justification.

(12) Salvage. Company evacuate to collecting point, field trains. If beyond capability to evacuate, report quantity and location to S4.

(13) Water. Obtain only from sources approved by this headquarters. All personnel carry water purification tablets.

(14) Maps. Distributed by support platoon in accordance with allocation instruction from S2.

b. Service.

(1) Organization of combat trains (controlled by S4).

(a) Class III distribution point.

(b) Class V distribution point.

(c) Aid Station.

(d) Maintenance element.

(2) Field trains. Remainder of Battalion logistical facilities; controlled by support platoon leader.

(3) Maintenance. Company request contact teams from OIC combat trains.

(4) Bath. S4 notified companies when avialable.

3. Medical Evacuation and Hospitalization. a. Each company supported by one medical evacuation team and four aidmen.

b. Combat troops will not accompany casualties to Battalion aid station.

4. Personnel.

a. Maintenance of Unit Strength.

(1) Annex J. Reports.

(2) Replacements:

(a) Battalion will deliver replacements to company.

(b) All replacements welcomed, oriented, and indoctrinated by commanders, when feasible.

b. Personnel Management.

(1) Personnel Procedures. Personnel receiving battlefield commissions will normally remain with the battalion.

(2) PW.

(a) Headquarters Commandant selects and supervises Battalion collecting point vicinity of Aid Station.

(b) Units evacuate PW and civilian internees to battalion PW collecting point. Guards released to unit or aid station by headquarters commandant.

(c) PW and civilian internees in need of medical treatment evacuated to Battalion aid station.

(3) Civilian Personnel. No civilians employed without approval this headquarters. Requirements for civilian employees submitted to S1.

c. Discipline, Law and Order.

(1) Personnel awaiting trial, except those requiring physical restraint, remain with parent unit while in combat.

(2) Report serious incidents without delay including a brief resume with principles involved, description of incident, casualties, material damage, and action taken.

(3) Custody and return of stragglers to units supervised by headquarters commandant.

d. Morale.

(1) Graves Registration.

(a) Units accomplish battlefield search for all dead (friendly and enemy).

(b) Isolated and mass burials only when directed by this headquarters.

(c) Units evacuate dead by supply and ammunition vehicles returning to rear.

(d) Noncontaminated personal effects found on the body will remain with body. Unit commanders promptly indentify, screen, inventory, safeguard, and forward to battalion S4 all other noncontaminated personal effects. Contaminated remains and personal effects decontaminated prior to evacuation.

(e) Civilian dead interred *only* by local civilians in accordance with local customs.

(2) Awards and Decorations. Recommendations in rough form to this headquarters within 48 hours of event for final draft for individual's signature.

(3) Personnel Services. Leave and rest camp quotas will be filled.

e. Annex K, Headquarters Management.

f. Miscellaneous. Separate staff journals will be maintained by the S1-S4 and S2-S3.

BILLS
LTC

OFFICIAL:

LEGARE
S3

ANNEXES: A - Fire Support Coordination.
B - Methods of Reporting Location of Units.
C - Actions to Minimize Effects of Enemy Nuclear, Biological, and Chemical Attack.
D - rediction of Fallout, Radiological Monitoring and Survey.
E - Airmobile Operations (Omitted)
F - Nuclear, Biological, and Chemical Defense.
G - Communications-Electronics.
H - Mine Warfare.
I - Air Defense.
J - Reports.
K - Headquarters Management.

Distribution: Special

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Annex A (Fire Support Coordination) to SOP No 1

1. GENERAL

Purpose. This annex prescribed precedures of techniques for planning, coordinating, and integrating Army, Navy, and Air Force fire support.

2. ORGANIZATION

a. FSO, DS Artillery Battalion is FSCOORD. If not available, the S3 is responsible for fire support coordination assisted by the heavy mortar platoon leader.

b. Other personnel who participate in fire support coordination is determined by type of operation and fire support means available. They may include:

(1) Heavy Mortar Platoon Leader.
(2) Representative of other army fire support agencies.
(3) S3 Air.
(4) ALO and FAC.
(5) NGFLO.

3. PLAN ING PROCEDURES Details of fire support plan disseminated as developed.

4. OPERATION

a. Command designation system.

(1) Field artillery and other non-organic combat support: Brigade SOP.
(2) Bn TRP designation system:

Bn HQ	CA 051-100
Hv Mort Plt	CA 101-120
Co A	CA 121-140
Co B	CA 141-160
Co C	CA 161-180
Additional unit	CA 181-200

The second letter prefix of each TRP number will change dependent upon brigade to which assigned. This example is based on 2d Bn (Mech), 76th Inf being the lowest number Bn under the 1st Bde.

b. FSCOORD recommends safety measures for nuclear weapons.

c. Tactical air support. Preplanned requests for close air support direct to battalion S3 Air. Immediate request for close air support to FAC or battalion S3 Air.

d. Safety precautions during friendly air strike. Supporting fires not placed on immediate vicinity of target that is under attack by friendly aircraft without approval this headquarters. e. Naval support.

(1) NGF controlled by shore fire control party; by airtillery FO when naval spotter not available.
(2) Preplanned requests for naval air support to battalion S3 Air. Immediate request for naval air support to battalion S3 Air or Marine/Naval Tactical Air Control Party.

f. Smoke. The use of smoke which might interfere with another unit must be approved by this headquarters.

g. Illumination. No restriction on illumination by organic weapons unless effect will cross battalion boundaries. Request for additional illumination and use of organic weapons near boundaries will be forwarded to this headquarters.

h. Toxic Chemicals. All toxic chemical fires will be coordinated with this headquarters.

i. Subordinate units responsible for feeding observer personnel operating in zone of action.

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Annex B (Methods of Reporting Location of Units) to SOP No 1

1. GENERAL
   Standard method, normal use. Alternate methods, as directed or in emergency.
2. STANDARD METHOD Checkpoint report.
   a. Consecutive numbers will not be used. Area covered will normally extend at least 2,000 meters beyond battalion objectives or most forward location of battalion units in defense or retrograde operations.
   b. New numbered checkpoints will be issued each time a complete OPORD or OPLAN is prepared, or as directed.
3. ALTERNATE METHODS
   a. Coded map coordinates. Numerical coordinates are encoded to letters (see CEOI).
   b. Terrain code name. Similar to standard checkpoint method, except that code names instead of numbers are used to designated terrain features.
   c. Polar coordinate system.
4. SECURITY
   a. If standard checkpoints overlay compromised, take following action:
      (1) Report to battalion S2 without delay.
      (2) S3 will direct one or more of following be adopted:
         (a) Prearrenged number be added to or subtracted from number on checkpoint overlay.
         (b) Issue new checkpoint overlay with checkpoints renumbered.
         (c) Use one of alternate methods.
   b. If one of alternate methods compromised, report to Battalion S2 without delay. S3 will issue new code names of reference point(s), as applicable, or initiate use of another method.

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Annex C (Actions to Minimize Effects of Enemy Nuclear, Biological, and Chemical Attack) to SOP No 1

1. GENERAL
   a. This annex prescribes procedures for defense against and action following nuclear attack.
   b. Annex F, Nuclear, Biological, and Chemical Defense.
2. PLANNING
   a. Control and Assessment. This unit organizes as a minimum one control and assessment team (CAT). Appendix 1 (Control and Assessment Teams).
   b. Subordinate units organize and designate personnel for light rescue and decontamination squads. Appendix 2 (Rescue and Decontamination Squads).
   c. Orders.
      (1) Operation orders in sufficient detail to permit continuing and independent action by subordinate units.
      (2) Battalion designates company rally points. Subordinate headquarers select and report additional rally points.
      (3) Battalion designates emergency assembly areas and/or alternate positions only on battalion orders.
   d. Plans for Radioactive Fallout.
      (1) This headquarters responsible for analyzing predicted dispositions to determine the effects of enemy surface burst on our own troops and OPLAN.
      (2) Actions to offset effects of enemy surface burst attack will be announced by this headquarters and will include:
         (a) Warning order.
            1. Location of GZ and time of burst.
            2. Probable fallout area and arrival time.
            3. Immediate action to be taken.
         (b) Decontamination plan.
         (c) Displacement plan.
      (3) Actions to be taken by company when battalion headquarters is destroyed or when contact is lost with battalion headquarters.
         (a) Determine nuclear burst data using appropriate NBC reports to Appendix 1 to Annex D, if possible. Normally, the user of the M5A2 fallout predictor will have to estimate the yield and GZ from organic nuclear burst reports.
         (b) Make an immediate prediction of fallout using Simplified Fallout Area Predictor M5A1 and most recent "Effective Wind Message."
         (c) Implement actions to minimize exposure consistent with accomplishment of mission.
3. OPERATIONS
   a. General.
      (1) Priority of tasks subsequent to nuclear or CB attack. Primary tasks are:
         (a) Continue mission,.
         (b) Re-establish command and communication.
         (c) Implement monitoring plan.
         (d) Determine and report status.
         (e) Reorganize.
      (2) Alternate plans. Brigade headquarters responsible for preparation of alternate tactical plans, including displacement and decontamination plans. This headquarters prepares implementing plans, when required.
      (3) Passive protective measures.
   b. Battlefield Decontamination. TM 3-220.
   c. Civil Affairs.
      (1) Plan developed and maintained by this headquarters for control of civilian population in event of nuclear attack.
      (2) Each rifle company prepare to establish one refugee control point. Execution on order this headquarters only.
4. UNIT ACTIONS

When radioactive contamination is initially detected, the unit commander will make a report and direct the following action:

a. In bivouac, defense positions, or administrative installations: Within the limits of mission, take shelter in prepared positions, existing buildings, inside vehicles, etc. If no shelter is available, begin construction of hasty field fortifications with overhead cover. Upon movement into an area, the preparation of shelters will be habitual, within limits of the mission.

b. During offensive action:

(1) If movement is not toward higher dose rate, continue mission unit a unit (or major portion of the unit) has accumulated one-half the operational exposure guidance (OEG). Then contact this headquarters for a decision on future actions. In absence of communication with battalion, continue the mission. The mission should be accomplished so as to keep radiation exposure to a manimum.

(2) If movement is toward higher dose rates continue the advance until the turnback dose rate is detected. Report location to this headquarters and take all available shelter. In absence of communication with this headquarters, the OEG will govern unit actions.

c. During administrative movement (motorized):

(1) Even if the detonation of a weapon is observed, continue the movement until dose rate of 1 rad/hr is detected.

(2) At any time a dose rate of 1 rad/hr is detected, take advantage of available shelter and send a motorized or mechanized radiological survey party forward to survey the route.

d. Report on nuclear attack. When an enemy nuclear attack occurs, all units equipped with aiming circles, transits, theodolites, will immediately orient the instrument on the burst. An azimuth reading to the center of the stem will be taken and reported as soon as possible after each detonation. Readings of the elevation to the cloud top, cloud bottom, and azimuth to the edges of the cloud at its widest point will be taken 7-10 minutes after detonation.

5. LOGISTICS
   a. Support. Priority of supplies to units operating in damaged area.
   b. Service.
      (1) Initial decontamination limited to operationally essential.
      (2) Priorities for repair and/or reconstruction.
         (a) Signal communication facilities.
         (b) Medical facilities.
         (c) Supply and vehicle maintenance facilities.
      (3) Priority for engineer decontamination, when available.
         (a) Command and communication installations.
         (b) Routes.
         (c) Logistical installations (includes medical).
         (d) Combat areas.

6. PERSONNEL
   a. Uncommitted units prepare to establish straggler line in rear of affected units on order this headquarters.
   b. Uncommitted units prepare to establish emergency refugee control points on battalion order.
   c. Evacuation and Hospitalization.
      (1) Continuing mission takes priority over medical care and evacuation of nuclear casualties.
      (2) Nonmedical personnel assist in routine medical care on order this headquarters only.
      (3) Surviving medical personnel organize sorting station to screen casualties.

7. COMMAND
   a. Damage Control. All units withint the battalion area may be assigned to damage control missions.

Appendixes: 1 - Control and Assessment Teams
2 - Rescue and Decontamination Squads
3 - Area Damage Control

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Appendix 1 (Control and Assessment Teams) to Annex C (Actions to Minimize Effects of Enemy Nuclear, Biological, and Chemical Attack) to SOP No 1

1. MISSION

Re-establish military control over elements by enemy nuclear, biological, and chemical attack. This is accomplished by:

a. Re-establishing command and communications.
b. Assessment of damage to units.
c. Rehabilitation of unit to continue mission.
d. Evacuation of casualties.

2. ORGANIZATION

Personnel	*Vehicles*	*Radios*
XO - (Commander)	1/4-Ton Truck	AN/VRC-47
Bn Med Plt Ldr	1/4-Ton Truck	AN/VRC-46
S4	1/4-Ton Truck	AN/VRC-47
C-E Officer	1/4-Ton Truck	AN/VRC-47
Engineer Representative (when available)	Organic	Organic
One Radl Survey Team from HHC	3/4-Ton Truck	AN/VRC-47
One Wire Team	1/4-Ton Truck	None
Security Personnel as required	Organic	Organic
Battalion Chemical NCO (when augmented)	Rides with XO or S4	None

(2) Each attached battalion size unit will organize and train one control and assessment team (CAT).

3. DUTIES

In priority:

a. Move to damaged area on order.
b. Report remaining effectiveness of damaged unit.
c. If necessary, assume command of damaged unit(s) and restore control.
d. Take action to resume unit's mission as soon as possible.
e. Determine medical, engineer, aviation, and GRREG assistance required.
f. As soon as practicable, report in code, utilizing Battalion command net, the following:
   (1) Number and type of casualties.
   (2) Combat effectiveness of damaged unit.
   (3) Loss of commander(s) if applicable.
   (4) Location of CAT CP.
   (5) Report (location, dose rate, time of reading) on first encountering of reading of 1 rad/hr. Thereafter report readings of 10 rads/hr up to 50 rads/hr and increase of 25 rads/hr over 50 rads/hr.
   (6) Report chemical contamination (location and type of contamination) and mark areas when necessary.

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Appendix 2 (Rescue and Decontamination Squads) to Annex C (Action to Minimize Effects of Enemy Nuclear, Biological, and Chemical Attack) to SOP No 1

1. LIGHT RESCUE SQUADS

a. Each company organize and have available one light rescue squad consisting of at least one NCO or specilist and six EM. Functions of squad include rescue of casualties (when removal does not involve use of heavy equipment) and administration of first aid when necessary. Medical items required to be furnished by medical battalion.

b. Equipment for each light rescue squad will include:

(1) Two trucks, 1/4-ton; or one truck, 3/4-ton; or one carr pers FTRAC.
(2) One pick.
(3) Two shovels.
(4) Two axes.
(5) Two cutters, wire.
(6) Radiacmeters, dosimeters, and chemical agent detection kit as available.

2. DECONTAMINATION SQUADS

a Each company will train and have available an emergency decontamination squad consisting of at least one CBR trained NCO or specialist and nine EM. Functions of squad include emergency decontamination of rescue personnel and equipment which may become contaminated from residual radioactive materials, chemical, chemical, or biological agents.

b. Equipment and supply for emergency decontamination squad should include following items: Equipment and supply, if not organic, will be furnished by division as required.

(1) Shovels.
(2) Radiation detection instruments (survey meter and personnel dosimeter).
(3) Chemical agent detection kit.
(4) Brushes, scrubbing.
(5) Two pair gloves, rubber.
(6) Two cans, corrugated, 16 and 32 gallon.
(7) Four each M11 decontamination apparatus.
(8) Bandage scissors.
(9) One rake.
(10) Four brooms.
(11) Rags, 20 pounds.
(12) Two buckets, 14 luart.
(13) One heater, immersion type.
(14) One ax, single bit.
(15) Four each decontamination agent, STB, 50-pound can.
(16) Soap, issue, 5 pounds.
(17) Leather dressing, vesicant gas resistant, M2, 10 cans.
(18) Four each decontamination agent, DS-2, 5 gal can.

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Appendix 3 (Area Damage Control) to Annex C (Action to Minimize Effects of Enemy Nuclear, Biological, and Chemical Attack) to SOP No 1

1. APPLICATION

a. The provisions of this appendix apply to all units and installations in the battalion area except as modified by current area damage control and OPLAN.

b. Passive defensive measures habitually employed. Mutual assistance between units in the conduct of area damage control limited only by the requirement of the tactical situation.

2. GENERAL

All unit commanders prepare plans to minimize damage occurring in their areas. Battalion S4 is responsible for coordination, supervision, and execution of damage control in battalion rear area. Each unit furnishes damage control teams or support to other units in the battalion area as directed by S4.

3. RESPONSIBILITIES

a. S4 is responsible for staff supervision of damage control in battalion area. He coordinates overall plan and its implementation with S3 (including planned movement of units within battalion area) and with S2.

b. S4 is responsible for:

(1) Preparation of area damage control plans. Plans include provision for:

(a) Communications.

(b) Training and equipping of light rescue squads and decontamination squads by units within battalion rear area, including specific instructions on where and when squads report, when plan is implemented.

(c) Employment of area damage control personnel including those from other units or installations in the battalion area.

(d) Emergency food, clothing, and water.

(e) First aid and evacuation of patients.

(f) Transportation.

1. Control measures to prohibit nonessential movement and to provide for rerouting of traffic to restrict access into damage control areas except essential damage control personnel and units.

2. Traffic will be controlled in the damage area by MP units if available; coordinate with S3 for assistance if MP units not available.

(g) Instruments to survey, mark, and report all contaminated areas, utilizing trained personnel from Battalion units.

(h) Be prepared to assist other affected areas when directed by this HQ.

(2) Supervision and coordination of damage control when the area damage control plan is implemented.

4. PERSONNEL

PW and civilian personnel in battalion area will be provided protection facilities and will be oriented as to procedures to be followed in case of nuclear, biological, or chemical attack.

5. CIVIL AFFAIRS

a. Maximum utilization will be made of civilian personnel, supplies, and facilities to support area damage control operations. Military support of civil defense provided on Battalion order only.

b. Coordination with civil authorities will be affected by division CA units when available; if not available, S3 effects coordination.

6. RECORDS AND REPORTS

a. Personnel entering damaged area to assist in re-establishing control will report to CAT.

b. Reports on availability of area damage control squads will be made by each unit when the possiblity exists that squads will not be available for area damage control missions.

7. SIGNAL COMMUNICATIONS

Current CEOI in effect.

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Annex D (Prediction of Fallout, Radiological Monitoring and Survey) to SOP 1

1. APPLICATION

Battalion SOP applies except as modified by battalion orders. Subordinate unit SOPs will conform and include procedures and techniques prescribed in FM 3-12 and TM 3-22.

2. ORGANIZATION

Current organization for combat.

3. DUTIES AND RESPONSIBILITIES

a. The Battalion Chemical NCO (when augmented) renders technical assistance to unit staff officers in the areas of responsibility indicated below:

(1) S1. Maintains records of radiation exposure status of individuals for loss estimates, if appropriate.

(2) S2.

(a) Disseminates fallout predictions resulting from employment of enemy nuclear weapons; disseminates radiological contamination overlay; and plans radiological survey parties and radiological monitoring (RADLMON).

(b) Disseminates the effective wind message for fallout prediction.

(c) Coordinates and supervises radiological and chemical surveys within the Battalion.

(d) Maintains radiological and chemical contamination maps.

(3) S3.

(a) Prepares and disseminates radiological fallout predictions for planned friendly nuclear detonations.

(b) Maintains records of radiation exposure status of subordinate units (FM 3-12 and Annex J).

(4) S4. Supervises radiological decontamination activities.

b. ADLMON.

(1) Periodic RADLMON. All subordinate units maintain a monitor on duty within their CP on a continuous basis. The monitor will make a routine check of the unit area every 12 hours and check a designated point within the CP area each hour.

(2) Continuous RADLMON.

(a) Monitors note and report the following information to the next higher headquarters:

1. The location, dose rate, and time of the initial reading 1 rad/hr or higher.

2. The dose rate, location, and time an increase or decrease of 10 rads/hr is recorded until the dose rate reaches 50 rads/hr. Above 50 rads/hr report in 25 rads/hr increments until continuous monitoring is ordered to stop by this HQ.

3. The shielding factor for the shelter or vehicle of the monitor. Shielding factor used to compute the outside (unshielded) dose rate.

4. The highest dose rate recorded.

5. Summary report on direction this HQ.

(b) Continuous monitoring will stop:

1. On instructions from higher headquarters.

2. When the dose rate level falls below 1 rad/hr (except for units on the move).

c. Reporting procedures.

(1) Contact report. Contact reports will be submitted with IMMEDIATE precedence whenever an initial ground dose rate of 1 rad/hr or more is detected.

(2) Subsequent reports. These reports will include the general level of radioactivity and location and time of highest dose rate detected in the area. Report will be submitted while the dose rate in the area is rising, at the first indication the dose rate begins to decline, and thereafter as directed by this HQ. Report with IMMEDIATE precedence the time and location when peak dose rate has been reached and when a total dose of 50 rads has been received in less than 30 minutes outside of shelter. Other reports will be as directed by this HQ.

(3) Communication. Reports will be submitted by radio over the command net. Units temporarily out of contact use messenger as an alternate means to insure timely receipt of report.

d. Training.

(1) Unit commanders train a minimum of two monitors to operate each organic survey meter. All qualified aerial observers will be trained to perform aerial RADLMON and RADLSV duties.

(2) Units train a control party and a minimum of two survey parties for each RADLSV meter authorized. Each party will consist of one radio operator, one driver and one monitor.

e. Radiological survey party: A radiological survey party is conducted only when essential radiological information cannot be obtained by RADLMON.

(1) Brigade Controlled Ground RADLSV. Battalion will participate in brigade controlled survey. RADLSV parties report the location, dose rate, and time of reading at points designated by the brigade chemical officer of the control party. Mounted monitors using a survey meter without an external probe will determine the shielding correlation factor and include this factor in the first survey report. Readings will be recorded on DA Form 1971-R (ground). Reports submitted as directed by this HQ.

(2) Upon completion of the survey, forward results to the brigade chemical officer.

f. Communications. Command nets used to report monitoring and survey information.

4. DECONTAMINATION

Annex F (Chemical, Biological, and Radiological Defense) and Paragraph 2, Appendix 2 (Rescue and Decontamination Squads) to Annex C (Actions to Minimize Effects of Enemy Nuclear, Biological, and Chemical Attack). Actions that can be taken by individuals to minimize the effects of fallout are outlined below. Indivisuals will be directed to take the following actions as consistent with the mission.

a. Obtain the following protection in the order listed; remain in the shelter until the area has been determined safe or exit is required for urgent reasons.

(1) Underground shelters.

(2) Foxholes with overhead cover.

(3) Armored vehicles.

(4) Buildings. Buildings of masonry construction will be used in preference to those constructed of wood or other materials. Cellars are preferable to ground floor.

(5) Sandbags in vehicles. Vehicles operating in contaminated areas will be sandbagged on the floors and sides to shield occupants from radioactivity emitted from the ground. b. When fallout has ceased, individuals will, where practicable, decontaminate. c. Maintain a full canteen of water and sufficient sealed rations to permit individual to remain in a protected area for at least 24 hours.

d. Reduce stay time in contaminated areas. Only tasks vital to accomplishment of the mission should be performed in radiologically contaminated areas.

e. Use vehicles to minimize exposure in crossing contaminated areas.

Appendix: 1 - Standardized Report Formats for Reporting Enemy Nuclear, Biological, and Chemical Attacks.

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Appendix 1 (Standardized Report Format for Reporting Enemy Nuclear, Biological, and Chemical Attacks) to Annex D (Prediction of Fallout, Radiological Monitoring and Survey) to SOP No 1

1. PURPOSE

This appendix is based on STNAG 2103 (Reporting Nuclear Detonations, Radioactive Fallout, and Biological and Chemical Attacks) and outlines precedures for the following:

a. The reporting of enemy or unidentified nuclear detonations.
b. The reporting of radioactive contamination.
c. The reporting of enemy or unidentified biological or chemical attacks and the resulting contamination.

2. UNIT FUNCTIONS

a. Report immediately the initial use of enemy or unidentified nuclear, biological, or chemical (NBC) weapons using NBC reports by the most expeditious means available.

b. Report subsequent NBC data as received using NBC 1 to assist division or corps in evaluating initial data. (Higher headquarters use NBC 2 for disseminating evaluated data.)

c. Disseminate, immediately, warnings of expected contamination using NBC 3 so that monitoring or survey efforts may be conducted as necessary within capabilities.

d. Report radiation measurements as may be required using NBC 4.
e. Report areas of NBC contamination within capabilities using NBC 5.

3. Procedures for predicting fallout are prescribed in TM 3-22, Fallout Prediction.

4. Format for NBC reports are contained in FM 3-12 and FM 21-40.

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Annex F (Nuclear, Biological, and Chemical Defense) to SOP No 1

1. GENERAL
   a. Purpose. To establish precedures for protection against nuclear, biological or chemical attack.
   b. Unit procedure. Subordinate unit SOPs will conform.
2. REFERENCE
   FM 21-40, Small Unit Procedures in Chemical, Biological, and Radiological (CBR).
   FM 21-41, Soldiers' Handbook for Nuclear, Biological, and Chemical Warfare.
   AR 220-58, Organization and Training for Chemical, Biological, and Radiological Operations.
3. ORGANIZATION
   a. CBR monitor and survey teams will be organized in company-size units with trained personnel.
   b. All assigned and attached company-size units appoint at least one school-trained chemical NCO and Officer.
4. RESPONSIBILITIES
   a. The normal command and staff structure is used to implement CBR defense measures.
   b. Every commander is responsible for the readiness of his is CBR operations.
5. TYPES OF ALERTS
   a. Possible or imminent CB attack: alert given by this HQ.
   b. Actual attack: voice alarm ("GAS" or "SPRAY") or percussion type alarm given by first individual detecting the attack.
6. PROTECTION
   The following operation instructions apply to all organic and attached units and will be incorporated in Unit SOP.
   a. When CBR operations have been initiated, or are imminent, the following procedures will be followed:
      (1) Individual Defense:
         (a) Individuals will have protective masks available at all times.
         (b) All low-flying enemy aircraft (below 200 meters) will be suspected of CBR attack, until determined otherwise. Personnel will mask.
         (c) Artillery, rocket or mortar concentrations placed directly on your unit position will be assumed to include CB agents until determined otherwise. Personnel will mask.
         (d) The following protective equipment will be carried in the protective mask carrier:
            1. 1 each - M13 Decontamination and Reimpregnation Kit.
            2. 2 each - Nerve Agent Antidote.
            3. 1 each - M258 Decontamination Kit.
         (e) Boots will be treated with leather dressing, vesicant resistant as presecribed by FM 21-40.
         (f) Where time permits, all individuals dig foxholes (with firing steps) to a minimum depth of 5 feet and provide overhead cover as feasible.
         (g) Guidance on radiation exposure announced in OPORD.
      (2) Collective Protection.
         (a) Detector paper will be stacked on the ground, in the open, in static situations.
         (b) Unit CBR Survey Personnel will have available at all times, in operating condition, the Chemical Agent Detector Kit, and Radiation Survey Meter and Dosimeter.
         (c) Sentinels will awaken all sleeping personnel when CBR attack is detected.
         (d) Decontamination apparatus and materials will be at unit CPs.
         (e) Supplies kept under cover whenever possible.
         (f) Establishment of personnel and equipment decontamination stations announced in current ADMINO.
         (g) Gas proof shelters erected in static situations as required.
         (h) Battalion S2 disseminates all effective wind messages received from CBRE or brigade.
   b. Procedures during CBR attack.
      (1) Individual Defense:
         (a) All individuals except those in gas-proof shelters will wear protective masks.
         (b) The protective mask will not be removed from the face except upon order of the unit commander.
         (c) At the cry "Spray," or when spray from aircraft is observed or suspected, the poncho will be worn, the protective mask will be adjusted to the face, and the percussion alarm sounded. When spray ceases, discard the poncho.
         (d) Any individual detecting a chemical attack will mask and then sound the alarm.
         (e) Casualties showing symptoms of G-Agents poisoning treated with an injector of Nerve Agent antidote IMMEDIATELY.
      (2) Collective Protection:
         (a) All CBR survey personnel give priority to CBR duties.
         (b) Unit CBR survey personnel identify any chemical agent(s) present with the Chemical Agent Detector Kit, and determine when it is safe to remove masks.

c. Procedures after CBR Attack.

(1) Senior survivor of each unit affected by CBR attack take immediate action to reorganize the unit and continue the assigned or alternate mission as directed.

(2) Unit CBR survey personnel determine degree and extent of chemical/radiological contamination, and post contaminated areas when appropriate.

(3) Where CBR contamination has been detected:

(a) All personnel will be checked and monitored.

(b) Contaminated personnel will receive first aid and be sent to nearest personnel decontamination stations, when necessary.

(c) Contaminated clothing will be shipped to collecting points as announced by this HQ.

(d) Priority of decontamination within units determined by unit commanders.

(e) Vehicle and equipment grossly contaminated brought to decontamination points as established by this HQ.

(f) Food and water contaminated or suspected of being contaminated will not be consumed until checked by unit CBR survey personnel. Food and water contained in closed metal containers may be consumed after decontamination of outer surfaces of containers.

(g) Open food and water suspected of biological contamination will either be destroyed or boiled a minimum of 15 minutes prior to use. Contaminated closed containers will be washed with soap and water, or boiled 15 minutes prior to opening.

(4) Battalion S2 maintain chemical situation map; disseminate detailed enemy fallout predictions; coordinate ground radiological surveys by major subordinate units; and coordinate aerial surveys with S3 Air.

7. LOGISTICS

Supply. Storage of Materiel.

a. When available, covered storage facilities will be used.

b. Open storage will make use of revetments and canvas or other cover.

c. Dispersion practiced to the maximum extent consistent with efficient operations.

8. REPORTS

Communication from unit monitors concerning CB matters through command chanels. Designated CBR survey personnel report information to Battalion by most direct means available.

9. MISSION ORIENTED PROTECTED POSTURE (MOPP)

a. The primary staff will be required to give recommendations to the commander as to the appropriate MOPP for a particular mission. The commander will execute the order to increase/decrease MOPP levels.

b. In an absence of command guidance, the senior ranking individual will execute MOPP.

c. In determining what MOPP to recommend, these factors must be considered:

(1) Work rate

(2) Temperature

(3) Enemy threat

d. The flexibility of MOPP in providing for varying levels of individual protection is limited by these factors:

(1) Heat Exhaustion

(2) Fatigue

(3) Senses

(4) Personal needs

(a) Feeding

(b) Sleeping

(c) Defecating/urinating

(d) Shaving/bathing

e. When some compromise becomes necessary, MISSION ACCOMPLISHMENT COMES FIRST.

f. The following MOPP levels have been established by the commander:

MOPP LEVEL #1: Fatigues with protective mask slung around the waist.

MOPP LEVEL #2: Fatigues/don protective mask w/hood.

MOPP LEVEL #3: Protective mask w/hood, protective clothing, jacket open, gloves and rubber boots.

MOPP LEVEL #4: Protective mask w/hood, protective clothing, closed, gloves and rubber boots.

g. When there is no danger from chemical contamination, verified by the use of the units chemical agent detector kits, the commander may authorize them to progressively reduce their protection by:

(1) Opening the zipper of the hood for ventilation.

(2) Remove the protective gloves.

(3) Remove the protective mask and hood.

(4) Open the protective clothing for ventilation.

(5) Remove some or all of the protective clothing.

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Annex G (Communications-Electronic) to SOP No 1

1. REFERENCES
   a. Division CEOI.
   b. Division SOP.
   c. Brigade SOP.

2. COMMUNICATION SECURITY

a. Authenticate when opening or closing a net, imposing or ligting listening silence, during frequency changes, suspension of fraudulent transmissions, initial enemy contact, movement of tactical units, and any other time operation deems necessary.

b. Classified message to be sent in clear text must be authorized by the Bn Cdr or his rep.

c. Battalion communication/electronics (C-E) Officer inspects CP for messages, carbons, cipher tapes, and copies of maps or orders prior to displacement.

d. Report loss or compromise of CEOI, codes, or crypto material without delay to CE Officer and S2.

e. Identical message or parts thereof not sent in both clear text and encrypted text.

f. Complete Division CEOI will not be taken forward of battalion CP. When necessary for subordinate units to have CEOI information, extracts will be used.

3. COMMUNICATION CENTER

a. Displacement of communication elements coordinated by the CE Officer. Communications will be continuous throughout displacement. Communicatin facility closed at old CP same time communication facility new CP opened. When tactical situation permits, C-E Officer stations guide at old CP to direct messager to new location.

b. Message center normally located vicinity CP entrance.
   (1) Incoming and outgoing messages routed through message center.
   (2) Message Center.
      (a) Notify higher, lower, and adjacent message center chief of CP location and time of opening and closing.
      (b) Maintain official time.
      (c) Maintain complete and current CEOI and prepare pertinent extracts for subordinate unit use.

4. MESSENGER SERVICE
   a. Scheduled motor messenger service to all attached and organic units three times daily.
   b. Special messenger available at messenger center. Requests as required.

5. WIRE COMMUNICATION
   a. Request for aircraft for laying wire to C-E Officer.
   b. Priority installation of telephone.
      (1) Message Center.
      (2) S2/S3.
      (3) Cdr.
      (4) Others as rapidly as possible.
   c. Authentication will be used for telephone transmissions in accordance with Division CEOI.
   d. Communication facilities not used without prior approval of this HQ.

6. RADIO COMMUNICATIONS
   a. Battalion and company radio nets conform to those prescribed in CEOI.
   b. Listening silence lifted only on orders of headquarters imposing the silence or as stated in OPORD.
   c. All radio restrictions lifted when enemy contact is made unless otherwise specified.
   d. Radio signal strength and readibility checks will be exchanged once every 4 hours if not traffic has been passed.

7. RADIO RETRANSMISSION COMMUNICATION

Subordinate units establish radio retransmission as required. Request additional equipment for retransmission to C-E Officer.

8. RADIO/WIRE INTEGRATION

a. Only personnel and agencies assigned callsigns and frequencies in division CEOI authorized to use radio/wire integration.

b. Requests for additional personnel and agency to use radio/wire integration to C-E Officer.

9. VISUAL AND SOUND COMMUNICATION
   a. Use as required and prescribed by CEOI and as modified by OPORD (OPLAN) in effect.
   b. Subordinate units employ only those pyrotechnics specifically authorized by OPORD (OPLAN) in effect.

10. ELECTRONIC WARFARE

a. Radio station will not attempt to enter, jam, or otherwise interfere with unknown radio stations without prior approval this headquarters.

b. Reports, by a secure means, jamming or attempts to enter nets by unknown station to communication officer without delay, giving time, freqency, type of jamming, signal strength, readability, and identity (if obtainable) of interfering station.

11. FREQUENCY CONTROL

a. Request for additional frequency to C-E Officer.

b. Use only frequencies and callsigns assigned.

c. Stations changing from primary to alternate frequency must change from primary to alternate callsign. NCS orders subordinate station to change frequency.

d. Forward report of interference to C-E Officer without delay. Include following information if available.

(1) Callsign or other identification.

(2) Frequency.

(3) Type emission (voice FM, AM, CW).

(4) Signal strength of interfering signal.

(5) Severity of interference.

12. SUPPLY AND MAINTENANCE

a. User maintenance performed activity and continually. Communication equipment requiring organizational maintenance to communication platoon.

b. Requests for signal mobile repair teams to C-E Officer.

13. PICTORIAL SUPPORT

a. Requests for ground still and motion picture coverage to C-E Officer.

b. Requests for aerial photographs submitted to S2.

12. MISCELLANEOUS

General alarms will be sounded over the communication systems of all units.

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Annex H (Mine Warfare) to SOP No 1

1. PURPOSE
   a. Specify unit and command precedures.
   b. Provide adequate training, operational, and technical reference.
   c. Assign positional and individual duties.
2. EMPLOYEMENT
   a. Authority to employ.
      (1) Protective:
      (a) Hasty Protective: Battalion Cdr or higher may be delegated to company commander, and, on specific occasions to a platoon leader. Delegated on one time or one minefield basis.
      (b) Deliberate Protective: Cannot be delegated lower than company commander.
      (c) Phony Protective: Battalion Cdr.
      (2) Defensive and barrier minefields employed when directed by brigade commander. Defensive is authorized by division CG. May be delegated to the Brigade Cdr. Barrier fields are authorized by Corps Cdr. May be delegated to Division Cdr.
      (3) Nuisance minefields – elements of this command are prohibited from employing nuisance minefields, and uncontrolled mines not included in a minefield (grenades with trip wires, boobytraps, uncontrolled claymores).
   b. Manner of employment.
      (1) Hasty protective minefields will be used for temporary protection in forward and rear areas or in isolated locations. Examples: outpost, working parties, and road blocks.
      (2) Deliberate protective minefields will be used for static installation protection as part of perimeter security of depots, airfields, static missile sites, and other installations. Pattern and density will be determined by installing unit based on threat and mines available.
   c. Mines difficult to detect (e.g., nonmetallic) and chemical and antihandling devices are not used in protective minefields. Mines will come from basic loads. Metallic mines, antitank, antipersonnel, claymore, and flame mines of detectable type may be used in protective fields.
   d. Use of basic load and supplied mines, and supervision of attached or direct support mine laying parties will be coordinated with the S3 for each mining operation.
   e. Defensive, barrier, and nuisance minefields will be employed as directed by Bde and conform to Bde SOP.
   f. The platoon is the basic unit for installing a standard pattern or deliberate minefield. It will be organized into four working parties and supervisory personnel.

PLATOON ORGANIZATION AND EQUIPMENT FOR MINEFIELD LAYING

Personnel	Officer	NCO	EM	Equipment
Supervisory Personnel-----	1	1	--	Officer: Map lensatic compass, notebook and DA Form 1355. NCO: Map, notebook, and lensatic compass.
Setting Party----------	--	1	3	Stakes or pickets, sledges, hammers, tracing tape on reels, and nails to peg tape.
Marking Party----------	--	1	2	Barbed wire on reels, pickets, marking signs, lane signs, wire cutters, gloves, and sledges.
Recording Party----------	--	1	2	Sketching equipment, lensatic compass, DA Form 1355, map, and metric tape.
1st Laying Party----------	--	1	6 to 8	Notebook for squad leader, picks, shovels, and sandbags.
2d Laying Party----------	--	1	6 to 8	Same as 1st laying party.
3d Laying Party----------	--	1	6 to 8	Same as 1st laying party.
Totals ---------	1	7	25 to 31	

(1) The OIC is responsible for operations of the laying unit. When laying begins, he makes a report of initiation to this HQ. At the site, the OIC indicates mine strips and marking fences, location of dumps for mines and material, landmarks, and location and marking of lanes. He indicates the cluster composition to each laying party NCO, verifies the completed minefield record, and reports completion. The OIC submits progress reports required by his HQ.

(2) The platoon sergeant acts as the second in command of the laying unit. He tells each laying party NCO where to lay mines with antihandling devices, if applicable, and establishes traffic tapes between strips. He keeps a record of mines initially placed in dumps or abroad trucks and verifies the arming by collecting the safety pins and clips for laying party NCOs. He has these safety devices buried to the rear and within 1/3 meter (13 inches) of either the left or right strip marking. He reassigns additional duties to siting, marking, recording, and laying personnel. He supervises removal of safety line tapes and laying of traffic tapes and has excess spoil and other indications of mine laying removed.

(3) As directed, the setting party places boundary stakes or pickets at the beginning and end of each mine strip and additional stakes at points where strips change direction. It lays tracing tapes between boundary stakes and stakes out the centerline of each strip. The party tapes lanes, safety lines, and traffic paths. Upon completion, the setting party augments other parties.

(4) Each laying party is assigned installation, arming, and camouflaging of all mines on a strip or portion of a strip. Upon completing initial task, each party is assigned additional strips or portions of strips. As directed by the OIC or platoon sergeant, laying parties establish mine dumps and unload mines from trucks.

(5) The recording party obtains necessary reference data and completes DA Form 1355. The party also installs intermediate markers when used. The recording party records important distances in meters, i.e., distance from lane and strip workers to land marks, distances between strip workers, and extent of field. When this is not possible, such distances may be expressed in paces.

(6) As directed, the marking party erects marking fences and signs and marks lanes. Upon completion of assigned tasks, it augments other parties.

3. MINEFIELD MARKING

a. All rear area minefields will be completely enclosed. In forward areas, friendly side will always be marked. Markings will be placed on the flanks when friendly tactical units are in proximity to the field. Markings will be removed if the field is abandoned to the enemy.

b. In rear areas, the standard marking fences will be used. Marking sets are available at S4. In forward areas, fields will be marked by two strands of barbed sire, rope, commo wire, tracing tape, or other available material. Without such material, guards will be placed around the field to alert friendly personnel.

c. In rear areas, lanes will be marked with standard red and white markers and guards will be posted to assist friendly personnel in passing through mined areas. In forward areas lanes will be marked with three turns of fencing material placed around a stake 4 to 8 inches in height. Guides will be used for passage of all friendly personnel.

d. A unit encountering an enemy minefield will erect temporary warning signs pending installation of standard markings.

4. MINEFIELD REPORTS

Reports of intention, initiation, and completion are required for every friendly mining operation.

a. A report of intention to lay will be forwarded to Bde prior to any element of this command conducting a mining operation.

REPORT OF INTENTION TO LAY

Explanation	Letter designation	(1) a	(2) b	(3) b
Tactical Objective (Temporary Security, Roadblock or Other).	ALFA			
Types of Mines ----------	BRAVO			
Number of Type of Lanes, if Known----	CHARLIE			
Coordinates of Minefield----------	DELTA			
Estimated Starting and Completion and Dates	ECHO			

a First minefield in report.
b Additional minefields in report.

b. Report of initiation - the commander of the laying unit will inform S3 when he begins laying a field.

c. Immediately after completion, the laying unit commander will inform S3 by secure means. Report of completion will be followed by DA Form 1355 for deliverate mining operations and by DA Form 1355-1 for hasty operations.

REPORT OF COMPLETION OF MINEFIELD

Explanation	Letter designation	(1) a	(2) b	(3) b
Changes in Information Submitted in Intention to Lay Report.	ALFA			
Total Number and Type of AT and Apers Mines Laid.	BRAVO			
Date and Time of Completion----------	CHARLIE			
Method of Laying Mines (Buried, by Hand, by Machine).	DELTA			
Details of Lanes and Gaps Including Their Marking.				
Details of Perimeter Marking---------	FOXTROT			
Overlay Showing Perimeter, Lanes and Gaps.----------	GOLF			
Laying Unit and Signature of Individual Authorizing Laying of the Field.	HOTEL			

a First minefield in report.
b Additional minefields in report.

d. Reports of progress will be submitted by the OIC to S3 upon request.

e. A written Report of Transfer will be forwarded to this headquarters when the unit responsible fo a minefield is relieved. This report must be signed by the relieved and relieving commanders.

f. Report of Change – an immediate report will be forwarded this HQ as changes occur. This report will be initiated by the commander responsible for surveillance and maintenance of the minefield. A new minefield record DA Form 1355 must be prepared. This record will be marked REVISED and show the minefield as it is after alterations. Changes or alterations which require the preparation of a new record are: relocating mines in safe lanes, relocating safe lanes, changes in minefield or lane markings, incorporating the field into a larger minefield, mine removal or addition.

g. All mining reports are classified SECRET. Current CEOI will prevail. One copy of all reports will be sent through 1st Bde Army Headquarters except for protective minefields. Protective mining reports will be sent through 1st Bde to Division G3.

5. MINEFIELD RECORDS

a. DA Form 1355-1 will be prepared for hasty protective minefields. One copy will be maintained at the mining site and one forwarded to this headquarters. A DA Form 1355, standard recording form, with at least minimum information will be prepared for all other minefields. One copy of this record will be maintained at this HQ and one copy forwarded through S3 Bde for defensive, barrier fields.

b. Minefield recording forms DA 1355 will be maintained no lower than this HQ.

c. Information concerning location, safe lanes, gaps, general trace, and marking system used will be extracted from mining records and furnished to the tactical units in immediate proximity to the minefield.

d. The S2 is responsible for disposal of all mining reports and records. He will perform these duties on order from the Battalion Cdr.

6. HANDLING OF MINING MATERIALS

a. The S4 is responsible for storage and transportation of mines and minefield materials. Captured enemy mines and explosives will be stored in dumps at least 1/4 mile from the nearest friendly dump. Handling will be as prescribed in TM 9-1300-206.

b. Improvised mines and boobytraps will be employed only when authroized by this HQ. Authority will be granted on a one-time basis only. Improvised mines will be employed only when standard mines are not available.

7. EMPLOYMENT CONTROLS

a. Securing unit is responsible for closing gaps and lanes. Mines for this purpose will be stockpiled on the friendly side of the field at the entrance to the safe lane.

b. Controlled mines will be manned 24 hours per day. These mines will only be fired on order from the local unit commander. A visual signal will be used to order firing of controlled mines.

c. Local unit commanders will employ organic weapons to cover minefields. Coordination will be made with attached FO's for indirect fire support. Only rounds equipped with proximity or variable time fuzes will be fired into the minefield.

d. Only mine symbols found in FM 20-32 will be used on situation maps and overlays.

8. MINEFIELD BREACHING

a. Enemy Minefields - Any knowledge or suspicion of the existence of any enemy minefield must be reported to this command, ATTN: S2. A report will be forwarded this HQ upon completion of removal of enemy mines.

b. Organization of breaching parties will be supervised by the S3. All breaching equipment (electrical, demolition, and special breaching devices) will be required through the S3.

9. REFERENCES

FM 20-32, Landmine Warfare.
FM 5-31, Boobytraps.
FM 5-29, Passage of Mass Obstacles.
TM 9-1345-200, Landmines.
SM 9-5-1345, Landmines.

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Annex I (Air Defense) to SOP No 1

1. REFERENCES
   FM 23-17, Redeye Guided Missile System
   FM 23-17A (C), Redeye Guided Missile System
   TM's pertinent to Redeye Weapons System
   FM 30-30, Aircraft Identification
   FM 44-1, US Army Air Defense Artillery Employment
   FM 44-2, Air Defense Artillery Employment (Automatic Weapons)
   DA, TC 23-15, Engagement of Aerial Targets with Non-Air Defense Weapons
   Annex ____ (Air Defense) Div SOP No ____

2. GENERAL
   This annex establishes procedures for active and passive air defense measures to reduce the effectiveness of enemy low altitude tactical air operations over or adjacent to the Brigade area. Subordinate unit SOP's will conform.

3. OBJECTIVES
   a. Passive air defense measures (cover, concealment, camouflage, dispersion, protective construction, fire discipline, movement) will receive added emphasis when the enemy has a significant capability.
   b. The Bn active air defense mission is accomplished by engaging low altitude hostile aircraft to reduce interference with tactical operations, protecting units and vital installations; and inflicting maximum attrition or forcing hostile aircraft to higher altitudes.

4. ORGANIZATION AND RESPONSIBILITIES
   a. Bn S3 has primary staff responsibility for air defense planning. The Redeye Section Leader commands the Redeye Section and is the Bn AD special staff officer (ADO) under staff supervision of the S3.
   b. Bn active air defense resources consist of the Redeye Section supplemented by non-air defense weapons (cal .50 MG, M60 MG, small arms) in the air defense role.
   c. Bn S3 (Redeye Section Leader) staff responsibility for air defense planning includes:
      (1) Recommending air defense priorities.
      (2) Planning Redeye section/team development and operational command status.
      (3) Coordination of positions in the Bn area for air defense weapons under higher HQ control.
      (4) Preparation of the air defense overlay to include Redeye primary, alternate, and future positions; Redeye team sectors of responsibility and observation; coverage by bn cal .50 MGs employed in the air defense role; and coverage by higher HQ air defense weapons.
      (5) Coordinate positioning of Redeye teams under control of subordinate units to increase effectiveness of overall air defense coverage.
      (6) Disseminate air defense warnings and changes in weapon control status, rules for engagement, and hostile identification criteria.
   d. Redeye Section HQ normally collocated with S2-3 Op (Bn CP). The Redeye Section and its subordinate teams may be assigned a GS mission under battalion control; attached to, OPCON to, or in DS of companies; or any combination of battalion or company control.
   e. Redeye teams will normally be deployed under company control (attached/OPCON) during offensive or retrograde operations and during movement by separate company columns.
      (1) Redeye team associated for task organization purposes will be:
         Team A - Co A
         Team B - Co B
         Team C - Co C
         Team D - Additional maneuver unit or Bn HHC.
      (2) One Redeye team will normally accompany each company detached from Bn.
      (3) Subordinate unit commanders having attached/OPCON Redeye team(s) will submit information for Bn air defense overlay on request.

5. AIR DEFENSE WARNINGS*
   RED - Attack imminent or in progress.
   YELLOW - Attack probable.
   WHITE - Attack not immediately probable or imminent.

6. CONTROL OF AIR DEFENSE FIRES*
   a. Weapon control status (definitions):
      (1) WEAPONS HOLD - do not fire except in self-defense.
      (2) WEAPONS TIGHT - fire only at aircraft positively identified as hostile (refer to subparagraph "b" below).
      (3) WEAPONS FREE - fire at any aircraft not identified as friendly.

NOTE: STATUS OF WEAPONS TIGHT IS APPLICABLE UNLESS SPECIFICALLY DIRECTED OTHERWISE.

   b. Hostile criteria. Aircraft will be judged hostile based on the following visual criteria:
      (1) Attacking friendly elements.

(2) Bearing military insignia or having the configuration of an aircraft employed by a known enemy nation.
(3) Spraying or smoking friendly units without prior coordination.
(4) Dropping flares or ECM devices over friendly territory without prior coordination.
(5) Discharging parachutists or unloading troops in numbers in excess of normal crew without prior coordination.
(6) Engaging in mine laying without prior coordination.
(7) Improper or unauthorized entry into an area designated as restricted.

c. Rules for engagement.

(1) The Bn Redeye Section and non-air defense weapons will operate in accordance with this SOP. Added instructions are issued only when deviation from this SOP is required. Individual air defense weapons/teams operate under SOP of *antonomous* operations whenever a loss of communications occurs.

(2) Changes to the weapon control status and hostile identification creteria will be made only:

(a) On order of higher headquarters.

(b) By subordinate commanders imposing a *more restrictive* status or criteria. This HQ will be notified whenever a more restrictive status or criteria has been improved except for short duration restrictions on non-air defense weapons.

(c) Individual operation. Individual gunners and fire unit commanders do NOT have authority to deviate from the established weapon control status or hostile identification criteria during autonomous operation except that the rule of self-defense may be exercised.

(3) Use of non-air defense weapons (cal .50 MG, M60 MG, small arms).

(a) Individuals under direct attack by hostile aircraft may engage such aircraft without awaiting orders (self-defense).

(b) Individual NOT under direct attack will engage low-flying, positively identified, hostile aircraft only after fire is authorized by competent authority (platoon leader or equivalent level). Company commanders may delegate this authority to squad leader level under *special* operational circumstances.

(c) Div SOP directs maximum engagement of hostile aircraft with non-air defense weapons whenever such action will not seriously conflict with the primary mission.

(d) Special consideration will be given to air defense positions for cal .50 and M60 MG during foot and motor movements; secondary consideration will be given to the suitability of MG positions for air defense fires when units are in a normal defensive posture.

(e) Firing techniques. Cal .50 MG - tracer observation, FM 44-2. M60 MG and small arms engage high speed aircraft (over 200 knots) using the pattern-of-fire technique and engage low speed aircraft (200 knots and under) using the TRACER OBSERVATION technique, TC 23-15.

(4) Air defense fires may be directed across unit boundaries or fire coordination lines without prior clearance when necessary for timely engagement of hostile aircraft provided the trajectory of impact of these fires do not constitute a significant hazard to friendly aircraft or ground elements.

7. COMMUNICATION

a. General. Annex H, Communications.

b. S2-S3 Op (Bn OP) monitors Division warning net (AN/GRR-5).

c. AD (Redeye) Section monitors the Divsion Forward Area AD Bn intelligence (warning) net.

d. Redeye teams will operate primarily in the Bn Redeye control net.

e. Air defense warnings, changes in weapon control control status or rules for engagement, and special flight information monitored on the Division warning or Division AD Bn intelligence nets will be retransmitted over the Bn command and Redeye control nets.

*INTSTRUCTIONAL NOTE: THESE PORTIONS OF THE SOP DEPEND UPON HIGHER HEADQUARTERS/THEATER AD RULES OF ENGAGEMENT AND SOP.

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Annex J (Reports) to SOP No 1

1. PURPOSE

To outline recurring reports required by this HQ and higher HQ, and to establish procedures for their preparation and submission.

2. REPORTS SCHEDULE

TITLE OF REPORT	SUBMITTING UNIT	RECOMMENDED METHOD OF TRANSMISSION	NORMAL PRECEDENCE	REMARKS
a. S1 REPORTS				
(1) Daily Strength Message (DSM).	Organic co, attached units or Tm.	Radio/Telephone Msgr.	ROUTINE	Daily as of 1800 by 2000 to Bn S1. DSM will reflect strength data organic unit plus attachment.
(2) Casualty feeder Rept (DA 1156) and Witness Statement DA 1155).	"	Msgr.	"	Daily as of 1800 by 2200 to Bn S1.
(3) Feeder Morning Rept.	"	Msgr.	"	Daily as of 2400 by 0800 to Bn S1.
(4) Self-inflicted wounds.	"	Telephone	ROUTINE	As required.
(5) Following nuclear cml atk estimate of casualties and loss of commanders.	"	Most expeditious means.	FLASH	As required.
(6) On-Line Strength Report.	"	Radio/Telephone/Msgr	ROUTINE	Daily as of 0600 by 0800.
b. S2 REPORTS				
(1) Recurring reports				
(a) Location of OPs and radard (include coverage diagrams).	Organic co, attached units Team.	Msgr. (overlay).	ROUTINE	Rept as established.
(b) Patrol Plan.	"	"	"	Submitted NLT 4 hours before EENT.
(2) Hot Reports.	"			
(a) Any info of en activity of immediate interest (Para IIB5a (3) SOP 1).		Most expeditious means.	IMMEDIATE.	
(b) Approach of en armor, acft, naval or amphibious landing craft, abn trp, or en nuclear or CB atk (APP 1 to Annex D).	"	"	FLASH.	
(c) Capture of en air crews and guided missile, cml, biological, and nuclear wpn pers.	"	Radio/Telephone.	PRIORITY.	
(d) New or unusual en equip.	"	Radio/Msgr.	ROUTINE.	

TITLE OF REPORT	SUBMITTING UNIT	RECOMMENDED METHOD OF TRANSMISSION	NORMAL PRECEDENCE	REMARKS
(e) Captured en equip.	"	Radio/Telephone/Msgr.	"	
(f) Loss or compromise of extracts CEOI or any other classified material.	"	Radio/Telephone.	PRIORITY	S2 disseminatss to staff.
(g) Suspected en agents.	"	"	"	
(h) Recorded US/Allied military pers who escaped from the en.	"	"	"	
(i) Capture of friendly pers specially trained in nuclear op.	"	"	IMMEDIATE.	
(j) Surrender of aizable number of en pers or marked decrease in cbt effectivenees.	"	Radio/Telephone.	"	S2 disseminates to staff.
(3) BOMREP, SHELREP, MORTREP, and TOXREP (Format, App 1).	Organic co, attached units.	Radio/Telephone/Msgr.	IMMEDIATE.	
(5) NBC 1.	"	Fastest means available.	AS APPROPRIATE.	Format. App C, Fm 3-12 NBC 1.
(6) NBC 4.	"	"	"	Format: App C, FM 3-12 NBC 4.
c. S3 REPORTS				
(1) Recurring reports. (a) SITREP.	"	Radio/Telephone/Msgr.	"	Every hour or as situation develops.
(2) Spot reports.				
(a) CP locstion time open, time closed; CP helicopter pad.	"	Radio/Telephone.	PRIORITY.	S3 disseminates to
(b) Time SP, RP, phase line, LD, or obj reached; close assembly area, defense positions; when unit is ready for present/future mission.	"	Radio.	FLASH.	
(c) Loss or establishment of contact w/units.	"	"	"	
(d) When approaching allowable dose.	"	"	"	
(e) Location type and progress of own obstacles.	"	Msgr/Radio/Telephone.	ROUTINE	As of 1200 and 2400 daily within 30 min following close of rept period.
(f) Elements isolated behind en lines.	"	Radio.	IMMEDIATE.	
(g) Minefield rept (Annex I).	"	Msgr (DA Form 1355)	ROUTINE	
(h) Jamming.		Telephone/Msgr.	IMMEDIATE	As required.
(i) Nuclear radiation exposure report.		Msgr.	ROUTINE	Submit with SITREP Indicate radiation dose received by plt/plt size unit.
d. S4 REPORTS				
(1) Equipment status repts (atstus of major items of equipment).	"	Radio/Telephone/Msgr	ROUTINE	Daily as of 1800 by 2100.

TITLE OF REPORT	SUBMITTING UNIT	RECOMMENDED METHOD OF TRANSMISSION	NORMAL PRECEDENCE	REMARKS
(2) POL status rept.	"	"	ROUTINE	Daily as of 1200 by 1300.
(3) Availability of light rescue and decontamination sqds.	"	"	"	Aa required.

Appendix: 1 - SHELREP, MORTREP, BOMREP, and TOXREP

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Appendix 1 (SHELREP, MORTREP, BOMREP, and TOXREP) to Annex J (Reports) to SOP No 1

1. Item A - FROM (ORIGINATOR).

2. Item B - POSITION OF OBSERVER.

3. Item C - GRID OF MAGNETIC BEARING AZIMUTH OF FLASH, SOUND, ORIGIN OF FLIGHT PATH, OR FLIGHT PA PATH, OR GROOVE OF SHELL IN MILS OR DEGREES (OBSERVER TO ENEMY WEAPON).

4. Item D - TIME FROM (SHELLING BEGINS).

5. Item E - TIME TO (SHELLING ENDS).

6. Item F - AREA SHELLED OR BOMBED.

7. Item G - NUMBER, SIZE, AND TYPE OF CANNON, MISSILES, OR AIRCRAFT.

8. Item H - NATURE OF FIRE (OMITTED FOR BOMREP).

9. Item I - NUMBER AND TYPE OF SHELLS, MISSILES, BOMB, ETC.

10. Item J - TIME OF FLASH TO BANG (OMITTED IN BOMREP).

11. Item K - DAMAGE.

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Annex K (Headquarters Management) to SOP No 1

1. GENERAL
This annex is applies to field and combat operations. These instructions will govern unless changed by oral orders.

2. COMMAND POST COMPOSITION
   a. Includes Command Group when not operating separately.
   b. Battalion XO.*
   c. S1 Section.*
   d. S2 Section.
   e. S3 Section.
   f. S4 Section.*
   g. HHC.
   h. Chemical NCO.
   i. Communications Platoon.
   j. Security Element.
   k. Combat Support Unit Representatives.

**NOTE*: May be located at the combat trains.

3. LOCATION AND INTERNAL ARRANGEMENT
   a. The S3 will select the general location of the CP based on guidance from the Battalion Cdr. The Headquarters Commandant and CE Officer will select the specific location.
   b. Internal Arrangement of the CP: Appendix 2, CP Installation and Security Diagram.
      (1) The Battalion S2/S3 operations center (TOC) will govern the location of other elements.
      (2) Terrain will dictate necessary adjustment

4. SECURITY
   a. Appendix 2.
   b. The Hq Cmdt has staff responsibility for local security of the Main CP and will plan and implement necessary security measures for the CP and will control and supervise security personnel.
   c. During the establishment of the new CP, the clock method will be used to designate section security responsibilities. Each section will station sentinels in sector of responsibility to provide local security. Sentinels will be posted on dominant terrain around CP to provide early warning. Sentinels will remain on post until properly relieved.

5. DISPLACEMENT
   a. General. The command post will displace by one of the three methods indicated in paragraph c below.
   b. Quartering Party.
      (1) The quartering party is headed by the Headquarters Commandant and will consist of the following elements:
         (a) Quartering Officer (Hq Comdt).
         (b) Command Sergeant Major (will assume duties of quartering officer in absence of Hq Comdt).
         (c) Communication-Electronics Officer or Communications Chief.
         (d) Representative from:
            1. Headquarters Company Headquarters.
            2. S2-S3.
            3. Each organic or attached unit operating from within the CP.
         (e) Sufficient personnel and equipment from Communications Platoon to "wire-in" CP and set up a switchboard.
         (f) Chemical Detection Team to survey area before occupation.
         (g) Security Element.
      (2) Duties of the quartering party.
         (a) Select and mark the specific location of each section and the general location of the Headquarters Company elements.
         (b) Mark the route to the new site and provide guides as required at critical points on the route.
         (c) Provide guides at the new site to direct each section and subordinate organic and attached unit to their locations. These guides will be briefed by the quartering officer regarding the location of their sections/unit, and posted at the RP or the entrance to the CP to meet and direct their sections/unit to the new location.
         (d) Establish initial communication within the CP.
         (e) Secure the new CP site.
   c. Displacement Methods.
      (1) *Method ALFA*: Time is not critical. Sufficient personnel accompany quartering party to completely set-up and operate new CP, tentage included. When new CP is operational, old CP closes and the new CP opens simultaneously.
      (2) *Method BRAVO*: Time is short and old CP must break down before new CP is open. Command Group takes over functions of CP until new CP is operational.
      (3) *Method CHARLIE*: Because of time and/or distance, the entire CP displaces in one unit, operating on the move.

6. MISCELLANEOUS
   a. Helicopter site selection and marking is responsibility of C-E Officer.
   b. Priority of work:
      (1) Establish communications as first priority concurrently with other efforts.
      (2) Security.
      (3) Dispersion.
      (4) Camouflage.
      (5) Cover.
   c. Division standard warning signals will be used.

Appendix: 1 - Command Group Composition and Operation.
2 - CP Installations and Security Diagram. (To be issued.)

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Appendix 1 (Command Group Composition and Operation) to Annex K (Headquarters Management) to SOP No 1

1. GENERAL

This appendix prescribes the composition and precedures for the Command Group.

2. COMPOSITION

The following personnel will comprise the command group and accompany the Battalion Cdr when he operates away from the CP. Composition will be as follows unless changed by verbal orders.

a. Battalion S3 or representative.
b. Battalion S2.
c. Artillery FSO.
d. C-E Officer.
e. ALO or FAC.
f. Security Element, operating personnel, and others as designated by battalion cdr, such as LO and Support Unit representative.

3. OPERATION

a. Headquarters Company Commander is responsible for designating a security element for the Command Group. This will be coordinated with the Battalion S3 who has staff responsibility for local security of the Command Group when it is in operation.

b. Sufficient communications personnel and equipment as directed by the C-E Officer will accompany the Command Group to provide uninterrupted communications to higher, lower, and adjacent units.

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Annex L (Airmobile Operations) to SOP No 1

1. GENERAL.

a. Purpose. This annex prescribes the organization and procedures to be followed in preparing for and executing ambl op's. Only procedures peculiar to ambl op's are included herein; otherwise basic SOP applies.

b. Application. Applies to all organic and supporting units under control of 2-76 Infantry Battalion. Unit SOP's will conform.

2. PERSONNEL.

a. Strength, Records, and Reports.

(1) Units will be organized into assault, followup, and rear echelons to facilitate employment on airmobile operations. Upon receipt of warning order submit strengths through S1 to S3 by echelons, using the Basic Planning Guide (INCLOSURE 1).

(2) Confirm assault echelon strengths upon closing into LZ(s) to forward CP by radio.

b. Discipline, Law, and Order.

(1) S1 will establish a straggler control point in the PZ in coordination with S3 and the officer in charge of loading. All units will have a representative (from rear echelon) located at this point. Personnel 'bumped' from assigned aircraft report immediately to this point for rescheduling into objective area.

(2) Straggler control is company responsibility upon landing.

(3) Personnel landed in other than assigned LZ to report to unit commander (representative) immediately. Personnel are attached until ordered returned to parent unit by this headquarters.

(4) Gaining unit will report stragglers to S1 by number and unit. (Do not include stragglers in unit strength reports.)

c. Prisoners of War. Reported immediately to S2 for evacuation instructions. Indicate available PZ location for withdrawl by air in initial report.

d. Graves Registration. Deceased personnel will be reported by number only (use SOI code) for evacuation. Indicate PZ location for evacuation. Burial only on specific authorization.

e. Medical Evacuation. For evacuation instructions report all casualties for evacuation by priority code immediately. Direct contact with aeromedical evacuation helicopter authorized for serious WIA. Med evac frequency to be published for each operation, written or verbally. Make maximum use of 'back haul' by utilizing transport helicopters; however, *do not interrupt air landing operations - use last helicopters in.*

3. INTELLIGENCE.

a. Current enemy situation provided upon notification of mission.

b. Weather.

(1) Long-period forecast immediately after receipt of mission.

(2) Short-period forecasts up to H-2 hours.

(3) Command weather reconnaissance one hour prior to take-off.

(4) Operations executed only on order of this headquarters when weather is below 1/2 mile visibility and 100 feet ceiling.

c. Terrain.

(1) Maximum utilization of command aerial reconnaissance down to platoon leaders consistent with aviation resources and available time.

(2) Use sand table briefing techniques when possible in conjunction with maps and aerial photographs.

(3) Maps issued immediately after receipt of warning order.

(4) Aerial photographs available upon receipt. S2 will automatically process all requests. Priority of issue to assault echelon.

d. Counterintelligence.

(1) Maximum security will be exercised in control of maps and aerial photographs. Issued below company level only on order this headquarters.

(2) Marked maps, aerial photographs, written orders, etc., will not be carried into objective area.

(3) Conduct all planning and briefing under maximum security. Planned operations will not be discussed in the clear over radio and telephone.

(4) S1 will announce security pass policies immediately.

e. Evasion and Escape. Personnel in aircraft forced to land en route to the objective will:

(1) Establish immediate security in vicinity of downed aircraft. Remain in that location, utilizing aircraft radios to contact recovery aircraft. Mark and clear suitable landing points for recovery and withdrawl helicopters.

(2) If the above is not possible due to enemy pressure, evade capture and attempt to join friendly units by infiltration. If casualties cannot be evacuated, medical supplies and medical personnel, if available, will be left with them. The decision to abandon casualties is the responsibility of the senior ground force individual present. Continuous attempts will be made to locate suitable landing points for withdrawl by helicopter.

4. OPERATIONS.

a. Planning Phase.

(1) Except when accomplished by higher headquarters, this headquarters will prepare plans in coordination with the supporting aviation commander.

(2) Preparation of plans will be conducted continuously. The following information will be given subordinate commanders as soon as determined.

(a) The size and composition of the force required to execute the mission.

(b) Allocation of assault and logistical aircraft, and troop and cargo ACL's based on recommendations of supporting aviation commander.

(c) Designated PZ's and helicopter formation.

(d) Current SOI in effect to include frequencies and callsigns of participating units not assigned to the major command.

(3) Coordination between the supported and supporting commanders must include as a minimum:

(a) Enemy and friendly situation.
(b) Mission.
(c) Fire support plan.
(d) Abort and alternate plans.
(e) Weather to include minimums and delays.
(f) Type, number, and ACL of helicopters.
(g) Helicopter formations in PZ, en route and LZ.
(h) Air movement data and timing for the operations.
(i) Communication (primary and alternate frequency).
(j) Location and callsign of second in command.
(k) Required command reconnaissance by the ambl TF and supporting aviation commanders.
(l) Time synchronization.

b. Landing Phase.

(1) The aviator will notify each aircraft troop commander of any changes to the order and when the helicopter is over the RP. The troop commander then alerts his personnel to prepare to unload.

(2) No movement is made in the cabin until clearance has been obtained from the aircraft commander. After the aircraft commander gives the clearance signal troops and equipment unload as rapidly as possible.

(3) Personnel will not depart helicopters to the rear. Departure will be straight away in the direction of exit.

(4) The troop commander insures that members of his aircraft clear the LZ in a safe, expeditious manner to prevent exposing personnel to unnecessary danger and to prevent any delay in take-off and landing of subsequent helicopters.

(5) Individual weapons will be fired only on order upon off loading unless enemy contact is made, or planned as part of the overall fire plan.

(6) Actions when enemy contact is not made:

(a) Move by helicopter load to nearest covered and concealed position in direction of assembly area.
(b) Establish LZ security for succeeding lifts (if applicable).
(c) Organize and account for all personnel.
(d) Report.

(7) Action when enemy contact is made:

(a) Return fire immediately upon off loading with all available firepower to gain fire superiority.
(b) Fight by helicopter loads using battle drill until platoon/company can be formed.
(c) Secure the LZ for succeeding lifts.
(d) Report.

(8) Keep the ambl TF commander informed during all actions.

c. Air Movement Phase.

(1) Radio listening silence in effect report only to preplane time. Inability to comply with control times. (PZ, CP, RP, LZ time)

(2) Troop leaders remain oriented by continuous map-terrain comparisons.

d. Loading Plan.

(1) PZ designated by this headquarters.

(2) Aviation serial commander or aviation liaison officer will arrive prior to helicopoter column and reports to PZ control officer (PZCO) for last minute briefing and coordination, notify the aviation commander of any changes, and along with pathfinders will control aircraft operations.

(3) Serials organized into flights to support the ground tactical plan.

(4) Helicopters will land in a specified formation. Units brief troops on the markings and location of their helicopter in the formation prior to arrival at PZ.

(5) Helicopters arrive at the latest possible time. Helicopters are marked according to loading plan prior to arrival. Marking is the responsibility of the aviation commander.

(6) During a battalion move the battalion executive officer or designated representative will act as PZCO, Co XO's will so act during company-size operations and platoon sergeants during platoon-size operations. PZCO will maintain contact with supporting aviation commander on designated frequency. Each unit to be moved will have a representative present with the PZCO with radio contact to their unit on company frequency. These personnel will contact the PZCO 15

minutes prior to arrival of aircraft. Unit must be prepared to alter loads based on change of helicopter availabilty and ACL's. Within each company, platoon and squad, a priority of loading must be established. Priority of personnel on each aircraft to be "bumped" will be designated. Personnel "bumpted" report to straggler control point.

(7) Supporting aviation unit assists in the planning for the execution of loading by providing technical advice, supervision, and pathfinder support.

(8) Aircraft commander supervises aircraft loading.

(9) Cargo or equipment to be transported externally are secured in cargo nets or on pallets for sling loading by helicopters. Hoopup of these loads will be accomplished by PZ Control Group (PZCG). Unit code panels will be placed on each load.

(10) Preparation of individual. Prior to any ambl op, the following individual preparation will be accomplished.

(a) Fasten chin straps.
(b) Collapse bipods on M60's and M16's.
(c) Tie down loose equipment.
(d) Put all weapons on "SAFE".
(e) Unfix bayonets.
(f) Wear identification tags.
(g) Radio telephone operator (RATELO) will depress antenna to avoid breakage and reduce the safety hazard; check communications with TOC; insure the radio remains "on" during flight and insure he has a minimum of two (2) extra batteries.
(h) Manifest - furnish an accurate list by name, grade, and unit, to the Bn Sl, through officer in charge of loading.

(11) Execution. The following sequence should be followed during the loading phase:

(a) Secure PZ.
(b) Approach aircraft only after landing is complete.
(c) Do not load until station time.
(d) Load at double time.
(e) Aircraft troop commander establish and maintain communication with parent headquarters upon loading and while in flight for changes in mission, LZ's, or last minute intelligence dissemination. If a radio is not available, maintain communications throught the aviator.

(12) When loading personnel or cargo into helicopter, the aircraft troop commander insures that:

(a) All of the safety measures prescribed for movement in and about the helicopter are observed.
(b) All personnel approach the helicopter in the prescribed manner.
(c) No person will go near the tail rotor.
(d) All personnel and equipment will stay below the arc of the main rotor. Personnel should be especially watchful when loading on the slope of a hill. Approach/depart helicopter on down slope/side. Personnel with back-packed radios will physically hold antennas down during any movement around aircraft.
(e) In loading fixed wing aircraft, personnel approach from the rear.

(13) Briefing on emergencies is conducted by aviation representative prior to loading.

(14) After all equipment and personnel have been loaded, the aircraft troop commander determines that:

(a) Equipment and cargo are in the proper places.
(b) Cargo or equipment is properly secured.
(c) Each man is seated and has his safety belt fastened.
(d) Weapons are placed between legs, muzzle up.

(15) When the aircraft troop commander has checked to insure that all cargo, and personnel are secured, he will notify the aircraft commander.

(16) During flight the aviator commands the aircraft. Aircraft troop commander insures that:

(a) Cargo lashings (if applicable) are checked frequently to determine that cargo is properly secured.
(b) Troops keep safety belts secured and do not smoke unless authorized.
(c) Troops stay seated and do not move around in the cabin without authorization.

(17) In the event more than one lift is required, the XO will remain with the LZCO until the last lift to insure control and continuous communications.

(18) General Aircraft Load Planning.

(a) All units will formulate load plans to facilitate movement on short notice.
(b) Necessary equipment for aircraft loading and movement will be maintained on hand.
(c) Organize and train personnel in loading equipment to include sling loads.
(d) Bn S3 Air will prepare air loading tables for Air Force movements. Companies will maintain air loading tables for ambl op's (Inclosure 2, Appendix 1).
(e) Vehicles and equipment will be prepared at all times to facilitate ambl op's, e.g., center of gravity marked on vehicles hooks on M274 carriers, unit, weight and "chalk number" predetermined for vehicles and trailers. Equipment to be transported into objective area will be reported on the Basic Planning Guide with strength figures.
(f) A-22 Containers: Max ht 40'; max wt, 1200 lbs for all helicopter operations. This will allow lift by UH-1D/H's and if CH-47's are available two or more A-22's can be rigged together.

e. Subsequent Operations.

(1) Withdrawl by air. Withdrawl by air from an AO requries thorough planning, close coordination, and controlled execution. The following are considered minimum for any withdrawl by air:

(a) Primary and alternate PZ's, flight routes, etc., must be planned.

(b) Plan defensive concentration around the PZ. The security force will protect the loading force and return fire if engaged. When last elements are ready to load, security force will call in required withdrawl fires and use their own fire to cover their loading.

(c) Maintain all around security until the first helicopter is on the ground (never assemble too early).

(d) Plan the loads so that a force capable of defending itself consitutes the last lift (never leave less than platoon size force). A platoon leader/sergeant or squad leader, with radio, will be the last man out of a PZ. He will report to his commander that the PZ is clear of all personnel and equipment, and immediately notify the aviator of the helicopter he boards. Plans for two spare helicopters to go into PZ for lift out of last unit, when possible.

(e) Supporting attack or scout helicopter teams will be in direct communication with the ground force commander.

(2) Displacement of Command Post.

(a) Quartering Party:

1. Composed of Sl or Headquarters Commandant, Commo Officer or representative, company guides, security, commo personnel, and necessary personnel.

2. Quartering party selects exact location and lays out CP.

(b) C&C helicpter will be utilized as Jump CP during movement.

(c) Advance party duties:

1. Laying out new CP.
2. Notify main CP when new CP is set up and ready to assume duties.
3. Insure timely and orderly arrival and displacement of main CP elements.
4. Open new CP. OIC notifies Cdr or S3 when CP has closed and is operational in the new location.
5. Control Responsibilities. C&C helicopter will be used as tactical CP to control and direct subordinate elements during active oprations. Main CP responsible for the dissemination of information and reports to higher and adjacent headquarters.

(3) Security of Aircraft in Unit Areas.

(a) Passive Measures:

1. Logger Areas (Occupancy l-12 hours):

a. Select proper terrain for logger areas where access by enemy ground forces is difficult (i.e., logger areas surrounded by water, swamps, etc).

b. Site aircraft to blend with terrain and vegetation (i.e., locating parking areas in shadows, near trees, etc.).

c. Park aircraft in logger areas so that attack helicopters can provide counter-ground fire along avenues of apprach. Take-off of aircraft is the responsibility of the aviation commander when under attack.

d. Utilize troops in or near the logger areas to provide perimeter security. Aviation unit will augment security.

2. Semi-permanent facilities (occupancy one to several weeks).

a. Use camouflage nets and native materials to provide concealment.

b. Provide perimeter troop security around airfields and heliports.

c. Construct individual and helicopter bunkers and continue progressive construction as time permits.

(b) Security of supporting aviation is the responsibility of the unit commander in whose area they are laagered.

5. LOGISTICS.

a. Supply.

(1) Accompanying supplies - all classes. Prescribed load established by this headquarters for each airmobile operation.

(a) Class I. Each person will carry one combat ration meal to be eaten on order.

(b) Class II & IV. Units take in one day supply of required combat essential expendables.

(c) Class III.

1. Vehicle fuel tank, three-fourths full; gas cans, filled to the weld.
2. Units take in one day supply of oil and lubricants on vehicles.

(d) Class V.

1. Units maintain basic load at all times.
2. ASR & priority of delivery specified in operations order.

(e) Class IX. Units carry one day supply of batteries for AN/PRC-77s and squad radios.

(f) Repair Parts. Units take combat essential prescribed load list (PLL).

(g) Water. Individuals carry 2 full canteens and one bottle of purification tablets.

(2) All classes of supply delivered using unit distribution.

(3) Supplies will be prepackaged to maximum extent by Bn S4.

b. Salvage.

(1) Expedite recovery of aerial delivery containers, parachutes, cargo nets, and pallets. Commanders insure against damage or destruction.

(2) Units in objective area establish salvage collecting points when appropriate and practicable.

(3) Salvage reported to this headquarters for disposition instructions.

c. Captured Materiel. Captured materiel may be used on approval this headquarters.

d. Medical Service Support.
   (1) Aeromedical evacuation of patients until linkup or withdrawal by air.
   (2) Aid station location per battallion order.
   (3) Units report capture of medical supplies to battalion surgeon.
   (4) Requests for evacuation to battalion surgeon or battalion SI.
   (5) PW casualties evacuated thru normal channels.
   (6) Hospital locations announced for each operations.

e. Transportation and Troop Movement.
   (1) Vehicular:
      (a) Allocation of accompanying organic transport by this headquarters.
      (b) Maximum use of captured vehicles to meet transportation requirements.
   (2) Aircraft: Allocation of supporting aircraft by this headquarters.

f. Service.
   (1) When required, technical service teams will be provided participating units on request.
   (2) On linkup, nearest supporting units provide necessary service.

OFFICIAL:

/s/Caldwell
CALDWELL
S3

Distribution: A

Inclosure 1 (BASIC PLANNING GUIDE) Annex E (AIRMOBILE OPERATIONS) to 7-76th Infantry Battalion, Field Standing Operating Procedures.

Reports required by inclosures to this appendix will be submitted as indicated.

Figure H-1. Basic Planning Guide.

Inclosure 2 (AIRLOADING TABLE) Annex E (AIRMOBILE OPERATIONS) to 2-76th Infantry Battalion, Field Standing Operating Procedure.

Figure H-2, Airloading Table

Appendix 2 (AIRMOBILE/FORCE COMMANDER'S CHECKLIST) to Annex E (AIRMOBILE OPERATIONS) to 1-66th Infantry Battalion, 21st Infantry Division Standing Operating Procedure.

1. GROUND TACTICAL PLAN:
   a. Mission(s).
   b. Objective(s).
   c. Alternate objective(s).
   d. Distance to objective(s) form LZ(s).
   e. D-day and H-hour.
   f. Special tasks.
   g. Means available:
      (1) Organic troops.
      (2) Helicopter resources.
         (a) Troop lift.
         (b) Combat support lift.
         (c) Combat service support lift.
      (3) Engineer.
      (4) Signal to include aerial radio relay.
      (5) Medical.
      (6) Air Force support.
         (a) TAC air.
         (b) Troop/supply lift.
   h. Fire support.
      (1) Tactical air support.
      (2) Naval gunfire.
      (3) Tube arty.
      (4) Attack helicopters.
      (5) Mortars.
   i. Control measures.
   j. Assault plan.
   k. Subsequent operations (i.e., defense, linkup, withdrawal, etc.).
   l. Rehearsals desired.
2. INTELLIGENCE REQUIREMENTS:
   a. Enemy locations.
   b. Comd aerial recon of objective area.
   c. Aerial photos.
   d. SLAR readouts.
   e. Personnel detector reports.
   f. Terrain study.
   g. Weather forecast.
   h. Latest INTSUM.
   i. CEOI.
   j. PW handling procedures.
   k. Known or suspected enemy antiarcraft positions.
3. LANDING PLAN:
   a. Selection of primary and alternate LZ(s).
   b. LZ identification for landing sites.
      (1) Colored smoke.
      (2) Panels.
      (3) Flares.
   c. Use of pathfinders.
   d. Landing formation.
   e. Approach and departure direction.
   f. LZ preparation.
      (1) Use of TAC air.
      (2) Use of naval gunfire.
      (3) Use of tube artillery.
      (4) Use of attack helicopters.
      (5) Use of mortars.
   g. Other fire support.
      (1) Shifting of fires.
      (2) Lifting of fires.
4. AIR MOVEMENT PLAN:
   a. Flight routes (primary - alternate - return).
      (1) RP's - direction and distance to LZ's.
      (2) En route formation.

(3) SP, ACP's, CCP's, and RP.
(4) Phase lines (if used).
(5) Leg distance and times.
(6) Estimate time en route.
(7) Altitude.
(8) Airspeed.
(9) Orbit areas for Eagle Flights, escort aircraft, and TAC air if applicable.
(10) Logger areas, to include mission and security.

b. Air Movement Table:
(1) Unit to be lifted.
(2) Number and type lift helicopters.
(3) Avn units.
(4) Take-off times.
(5) Routes.
(6) Unit LZ's.
(7) H-hour (landing time).

c. Alternate Communications Plan.
(1) FM.
(2) UHF.
(3) VHF.

d. Loading Plan.
(1) Staging airfields.
(2) PZ assignment by unit (primary - alternate).
(3) Assembly areas.

e. Attack helicopter utilization.
(1) En route to PZ.
(2) En route to LZ.
(3) Armed Recon of LZ.
(4) Objective area support.

5. SUPPORTING PLANS:
a. Alternate plans and procedures due to weather.
b. Downed helicopter procedures.
(1) Crew passenger duties.
(2) Aircraft disposition.
c. Rally points.
d. Escape and evasion instructions.
e. Eagle filghts.
f. Logger areas.
g. Rules of engagement.
h. Deception plans.
i. Spare aircraft.
j. CBR.
k. Reconnaissance (Air-Ground).
l. Straggler control.
m. Reporting (en route, take-off, touchdown, intelligence and contact).
n. Aircraft disposition after assault.

6. OPERATIONS REQUIREMENTS.
a. Warning orders.
b. LNO's (receive and dispatch).
c. Attachments and detachments.
d. Briefings (time and place).
e. Preparation of OPORD.

7. LOGISTICS REQUIREMENTS.
a. Class V resupply.
b. Feeding plan.
c. Water.
d. Med evac.
e. Refueling.

8. DEBRIEFING:
a. Lessons learned.
(1) Ground units.
(2) Aviation units.
b. Actions taken for correction.

9. ADVANCE PLANNING FOR SUBSEQUENT OPERATIONS.

CHAPTER 13

STANDING OPERATING PROCEDURES (SOP)

THIS SOP HAS BEEN WRITTEN AS A SAMPLE FOR A MECHANIZED INFANTRY COMPANY, OPERATING IN THE EUROPEAN THREATER, AND IS ADAPTABLE TO ALL TYPES OF COMPANIES WITH MINOR CHANGES.

MODIFICATIONS TO THIS SAMPLE SOP WILL BE NECESSARY TO CONFORM TO LOCAL CONDITIONS AND GROUND RULES, SOP'S OF HIGHER HEADQUARTERS, AND THE DESIRES OF THE COMMANDER.

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STANDING OPERATION PROCEDURES
NO 1

COMBAT OPERATIONS

I. GENERAL

A. Purpose. This SOP is published to standardize routine recurring operational and combat service support procedures of the company and applies except when modified by company orders.

B. Conformity. This SOP applies to all assigned and attached elements when operating in the field. Each platoon leader will insure that the men of his platoon understand the provisions of the SOP. The executive officer will insure that all headquarters personnel understand the provisions of the SOP.

C. Organization:

1. Company Command Group: The company command group will consist of the company commander, artillery forward observer, radio-telephone operator, and others as designated by the commander.

2. Company Command Post (CP): The CP including the command group, when not operating separately, consists of the executive officer, communications chief, attached unit commanders, senior medic, and others as designated.

3. Company Trains: The company trains consist of supply, maintenance, and any attached combat service support elements.

4. Alternate Command and Control Instructions:

a. In event the CP is rendered inoperative through loss of personnel and equipment, the following provisions apply to insure continued command and control.

(1) Senior surviving officer will assume command.

(2) Company CP will be reestablished in the following locations in order of priority.

(a) Mortar platoon.
(b) Reserve platoon.
(c) One of the rifle platoons.
(d) Company trains.

D. Combat Orders:

1. Normally, the mortar platoon leader, artillery forward observer, and radio-telephone operator will accompany the Cdr to receive orders from higher headquarters.

2. Complete operation orders will be issued when time permits. Warning orders and frag orders issued as required.

II. COORDINATION OF TACTICAL OPERATIONS

A. Reports made to the CP (NCS): (Written or Oral)

See Annexes:
A - Spot Reports
B - NBC Defense
C - Daily Strength Report
D - Casualty Feeder Report
E - Situation Report
F - Shell Report

B. Reports made directly to the Cdr: (Radio or Messenger)

1. Establishment or loss of contact with adjacent units.
2. Contact or loss of contact with the enemy.
3. Major damage or obstacles which would necessitate a change in plans or mission, e.g., briges out, road impassabale, minefield.
4. Enemy aircraft sightings.
5. 50% or more loss of personnel or equipment.
6. Any request which necessitatesa a command decision.

C. Standard Warning and Alarms for NBC Attacks:

1. Air Attack: Three short blasts on vehicle horn or whistle; repeat several times.
2. CB Attack:
   a. Voice - Shout "GAS" or "SPRAY".
   b. Sound alarm by striking improvised metallic alarm.
   c. Radio, in the Clear "GAS" or "SPRAY".
3. Nuclear Attack Imminent:
   a. Voice - Shout "NUCLEAR".

b. Radio, in the clear "NUCLEAR".

4. Communications:

a. Company radio nets:

(1) Command Net: Cdr, (NCS) XO, three rifle platoon leaders, and the mortar platoon leader.

(2) Fire direction net: FDC and three mortar FO's.

b. Communications Security:

(1) Authentication required when entering or leaving the nets.

(2) Change frequency on order of NCS only.

(3) Listening silence imposed on order of Cdr thru NCS.

(4) Read-back of messages only when requested.

(5) During the hours of darkness, the NCS will conduct hourly comm checks with subordinate elements.

(6) Suspected jamming or attempts to enter a net by unknown stations will be reported to the NCS by the most expeditious alternate means.

(7) When in static position, wire systems will be established as follows:

(a) Left to right.

(b) Superior to subordinate.

(c) Supporting to supported.

E. Intelligence:

1. Handling and reporting PW's, captured weapons and safeguard documents.

a. The five "S" (SEARCH, SILENCE, SEGREGATE, SPEED, AND SAFEGUARD) will be followed in all cases when handling PW's.

b. Reports of new or unusual enemy equipment, armament, nuclear material, missiles or CB agents will be forwarded immediately to company CP.

c. When reporting enemy activity use the key work (SALUTE). See Annex "A", (Spot Report).

F. Counter-Intelligence:

1. Bn OPORDS will not be carried forward of company CP.

2. Report all security compromises to Cde, ASAP.

3. Challenge and password issued daily at 1200.

4. Password will never be carried in written form.

5. All areas occupied by an element of the company will be policed prior to departure.

G. Law and Land Warfare:

1. The law and land warfare and the rules of engagement, as directed by higher headquarters and as covered in FM 27-10, will be complied with at all times. In addition, the following rules will apply:

a. Noncombatants will not be made the object of an attack directed exclusively against them. If it is apparent that engagement of the enemy will cause civilian casualties, all reasonable steps will be taken to minimize those casualties and to insure that they are proportionate to the military advantage to be gained.

b. Pillage or purposeless destruction will not be tolerated.

c. All apparent war crimes whether committed by the enemy or by own forces, will be reported immediately to next higher headquarters.

d. All unit personnel will receive instruction on the Geneva Convention and this training will be reflected on personnel records.

H. Air assult Operations:

1. Air assult operations will be conducted to exploit enemy weakness, achieve surprise and overcome obstacles during the conduct of all types of combat operations.

2. Detailed instructions for individual actions are at Annex K.

I. Stand To:

1. A daily Stand To will be conducted at BMNT minus 30 minutes. All LP's and OP's will be alerted.

2. Platoons will execute a daily Stand TO: (BMNT - 30 unit released by the Cdr). All personnel will be up and in their fighting positions. Troops will be 100% alert, radios on listening silence. Vehicle engines will not be started nor routine radio reports transmitted, during Stand To.

a. Twenty minutes prior to Stand To, CP will notify all elements to awaken troops.

b. All platoons and sections will render appropriate reports within 5 minutes *after* Stand To (Messenger or Telephone).

3. Modified Stand To: Same as full Stand To except only 50% of personnel will be alert.

4. Stand To's will only be terminated upon order fo the Cdr or senior officer present.

J. Light Rescue Squad:

1. The light rescue squad will be composed of the supply sergeant (NCOIC) and one EM from each platoon in the company. On order from CP, all designated personnel will report to the supply sergeant.

2. The function of the squad includes rescue of casualties (when removal does not involve the use of heavy equipment) and administration of first aid. (See Annex "F", Light Rescue Squad).

K. Decontamination Squad:

1. The CBR NCO and two men per platoon will comprise the company's Decontamination Squad. The function of the squad includes emergency decontamination of personnel and equipment that becomes contaminated from enemy NBC attacks. (See Annex "G", Decontamination Squad's Equipment).

L. Road Marches, Vehicles:

1. All road marches will be considered tactical marches unless designated as administrative by the company commander.

2. Tactical movement rate (KMPH).

TYPE	*DAY*	*NIGHT*	*CATCH-UP*
Tracked	24	16	35
Wheel	40	16	45
Mixed	24	16	35

*Max rate thru built-up areas and defile will be 20 KMPH.

Intervals

TYPE	*OPEN*	*CLOSE*
All	100m	50m

Interval will be maintained between vehicles. Intervals between march units and serials will be 2 to 5 minutes respectively.

3. All vehicles will maintain the prescribed rate of march if mechanically possible. Vehicles will not exceed 5 KMPH more than the prescribed cat-up rate at any time.

4. Vehicles that cannot maintain the rate of march will immediately drop out of the column, motion all succeeding vehicles to bypass, and fall in at the rear of that march unit.

5. If after falling back to the rear, a vehicle cannot stay ahead of other units, the vehicle commander will pull the vehicle to the side of the road, motion the next unit by, notify the platoon leader, and wait for the trail party while attempting to repair the vehicle. A yellow flag will be displayed on disabled vehicles.

6. Once a vehicle has dropped out of the column, the vehicle commander will post local security and immediately switch to the company frequency and contact NCS (unless listening silence is in effect).

7. During marches the lead platoon leader is responsible for security to the front and will see that the rate of march is maintained over the distance of the route.

8. The second vehicle in column is responsible for the security to the right.

9. The third vehicle in column is responsible for the left flank security. The last vehicle in column will provide security to the rear.

10. All vehicle commanders will face in the direction of their sector of responsibility.

M. Halts:

1. Proper interval will be maintained during halts except when ordered to close up.

2. During the hours of darkness, one man per vehicle will move forward to the next vehicle in column and remain there until the column starts to move again.

3. Each platoon is responsible for its own security during halts.

4. Air guards and radio watch will be maintained at all times during halts.

5. Halts will not be made in built-up areas.

6. Vehicles rejoining the column may move to proper position at scheduled halts only.

7. Mean and fuel halts will be combined with maintenance halts if possible.

N. Quaratering Party:

1. Time and situation permitting, a quartering party will be dispatched to organize a company assembly area prior to movement of the main body.

2. The quartering party will be composed of the XO, 1SG, and one man from each platoon.

3. The quartering party will provide road guides and insure orderly and continuous movement from the release point to the assembly area.

4. The quartering party will select platoon sectors and the general location of crew-served weapons and vehicles.

O. Assembly Area:

1. Tactical assembly areas will be occupied using the clock system of platoon positioning. The direction of movement into the assembly area will be from 6 to 12 o'clock.

2. The emergency evacuation of an assembly area will be conducted upon receipt of the code word *COMO* (Cease Operations-March Order). (See Annex "L", Cease Operations-March Order Report).

3. During the hours of darkness vehicles will be guided by personnel using filters on flashlights as follows:

RED .....1st Platoon
GREEN .....2d Platoon
BLUE .....3d Platoon
YELLOW .....Hqs & Mortar Plt

P. Duties upon occupation of either a defensive position or assembly area:

1. All platoons will dispatch a runner to the Co CP; the runner will remain there until released by the XO or 1SG. Runners will have their weapons, protective mask, mess kit, and sleeping bag with them.

2. All platoons will immediately establish local security in their areas of responsibility (OP's or LP's).

3. Each platoon will submit a status report and overlay of platoon area within 1 hour of closing into position.

4. Platoons will prepare sector sketch.

5. Vehicles and positions will be camouflaged ASAP.

6. Each platoon will coordinate the tie-in with the platoon on their right.
7. Each platoon nearest the entrance road to the CP will establish a road guard. All vehicles entering the area will have one person dismount as a guide.
8. All personnel will wear helmets and carry protective mask and weapons at all times. The crash helmet will only be used when individual is inside of track or listening to the vehicle's radio.
9. No one will sleep in or near a vehicle.
10. Priority of work:
    a. Local security (OP's and LP's)
    b. Placement of tracks and crew-served weapons.
    c. Fields of fire and fire support.
    d. Camouflage positions.
    e. Development of positions and barriers.
    f. Employment of night observation devices.

Q. Medical Evacuation:
1. Walking wounded will be sent to battalion aid station.
2. Seriously wounded personnel will be air evacuated (See Annex "H", Medical Evacuation Request) or by fastest means available.

R. Situation Reports:
1. Situation reports will be given hourly from 1800 hours thru 0600 daily to (NCS), or hourly when platoon in operating independently.
2. Closing reports will be submitted immediately upon arrival into a new area.
3. Contact situation reports will be given directly to the Cdr, as soon as possible after contact starts, along with updates as required. (See Annex I Situation Report).

S. Shell Reports:
1. Shell reports will be submitted directly to the CP, any time platoons receive indirect fire. (See Annex "J", Shell Report).

III. ADMINISTRATIVE SUPPORT

A. Class I:
1. All feeding in the field will be conducted tactically unless otherwise directed by the company commander.
2. When feeding "A" rations tactically, platoons will send not more than 50% of their personnel to the designated area at a time.
3. Breakfast and supper will be hot meals when possible.
4. Water points will be set up by the mess section.

B. Class II and IV:
1. Class II and IV will be issued only during actual combat under special authorization.
2. Request for class II and IV is made to the CP.

C. Class III:
1. Platoons will submit status reports for POL upon completion of any move or any time vehicle fuel tanks are below half full.
2. Upon notification, platoons will provide a guide who will remain with POL truck until it has completed refueling all platoon vehicles.
3. Platoons will have portable fire extinguishers manned and pointed at the filler opening during all refueling operations.
4. Platoons will report to the Cdr when refueling is completed.

D. Class V:
1. Platoons will submit request for resupply of munitions upon the completion of any phase of operation or any time the authorized basic load drops below 50%. (See Annex "E", Request for Resupply).
2. When notified, platoons will provide a guide and personnel to assist with the unloading of ammo vehicles in their platoon area.
3. When resupply is completed, all empty cases and boxes will be neatly stacked up for pick up.
4. Company Commander will be notified when ammo resupply is completed.

E. Loading Plan: (See Company Admin SOP).

F. Personnel:
1. Replacements will be oriented by the lSG and picked up by the CP by either the platoon leader or sergeant.
2. Daily strength report submitted at Stand To and 1600 hours daily. (See Annex "C", Daily Strength Report).
3. All serious incidents will be reported to the Cdr, giving all pertinent facts and names of witnesses, ASAP.
4. The supply sergeant is responsible for the collection and evacuation of U.S. and enemy dead to the battalion collection point.
5. Recommendation for awards and decorations will be submitted to the CP in draft form as soon as possible after the action.

G. Field Sanitation: Leaders assisted by the company medics will insure that all personnel maintain high personal hygiene standards and adhere to the field sanitation measures listed below.
1. Water:
    a. Select water source which is free as possible from known contamination.
    b. Use water purification tablets at all times when safe water not available.
        (1) Clear water - 1 iodine tablet per canteen.
        (2) Clouded water - 2 iodine tablets per canteen.

2. Waste Disposal:
   a. Human:
      (1) On the march - individual cat holes.
      (2) Overnight bivouac - Squad straddle trenches.
   b. Rubbish - avoid littering the battlefield.
      (1) On the March; carry it or bury it.
      (2) Overnight bivouac - burn/bury in pits of individual positions as areas are closed out.

BRAUN
CPT

ANNEXES: A - Spot Reports
B - CBR Defense
C - Daily Strength Report
D - Casualty Feeder Report
E - Request for Resupply
F - Light Rescue Squad Equipment
G - Decontamination Squad Equipment
H - Medical Evacuation Request
I - Situation Report
J - Shell Report
K - Air Assult Operations
L - Cease Operations-March Order

Annex "A", (Spot Report), to SOP No 1, Co "A", 2d Bn (Mech), 76th Inf

1. SPOT REPORT FORMAT:

a. An abbreviated, prearranged message outline for reporting enemy information:

ALFA .....Report Number
BRAVO .....What observed and how many
CHARLIE .....When (coordinates)
DELTA .....When (Time and Date)
ECHO .....What doing
FOXTROT .....Who observed
GOLF .....Who reported

NOTE: ALFA, FOXTROT, AND GOLF WIL BE OMITTED IN REPORTS TO CO CP; CP WILL USE ALL ITEMS WHEN RELAYING INFORMATION TO BATTALION.

b. Use the keyword "SALUTE"

S .....SIZE
A ..... ACTIVITY
L .....LOCATION
U .....UNIT
T .....TIME
E .....EQUIPMENT

Annex "B", (CBR Defense), to SOP No 1, Co "A", 2d Bn (Mech), 76th Inf

1. PURPOSE: To establish procedures for protection of the individual soldier against CBR attacks.

2. RESPONSIBILITIES: Each platoon leader is responsible for the readiness of his platoon to participate in CBR operations with maximum individual effectiveness.

3. TYPES OF ALERTS:
   a. Possible or imminent attack; alert given to Co CP.
   b. Actual attack; alert given by first person detecting it.

4. PROTECTION AGAINST CBR ATTACKS:
   a. Artillery and mortar fire (enemy) will be treated as a CBR attack until determined otherwise.
   b. Individual will carry protective mask at all times.
   c. Sentinels will awaken all sleeping personnel.
   d. If attack is spray; poncho will be worn until attack is over.
   e. When alarm is given, mask, given voice alarm and continue mission.
   f. The following equipment will be in the mask carrier:
      (1) 1 - each Decontamination and Reimpregnation Kit M13.
      (2) 3 - each Atropine Auto-injector.

5. PRIOR TO NUCLEAR ATTACK:
   a. Tie down equipment or place it inside of vehicle or foxhole.
   b. Face vehicle away from anticipated location of burst.
   c. Place all personnel in underground shelter, foxholes with cover, or armored vehicles.
   d. Be ready to decontaminate personnel, equipment, and continue mission.

6. NUCLEAR ATTACK WITHOUT WARNING:
   a. Hit the ground, cover exposed parts of the body, and close eyes.

Appendix: 1 - Standard Report Format for reporting nuclear, biological, and chemical attacks.

Appendix 1 (Standard Report Format for reporting NBC attacks), to Annex "B" (CBR Defense), No 1, Co "A", 2d Bn (Mech), 76th Inf

1. PURPOSE: This appendix gives the formats for reporting NBC attacks.
   a. NBC (NUCLEAR) 1 Report (Radio or Telephone)

ALFA	Strike Serial Number (if known)
BRAVO	Position of observer
CHARLIE	Azimuth of attack from observer (State GRID or Magnetic) (State MILS or DEGREES)
DELTA	Date and Time of Attack (LOCAL or ZULU state which)
ECHO	Illumination time (Report in seconds)
FOXTROT	Location of attack (Estimated or actual state which)
GOLF	Means of delivery (If known)
HOTEL	Type of burst (air, surface, or unknown)
JULIETT	Flash-to-bang time (Report in seconds)
KILO	Crater present or absent (Diameter if known)
LIMA (MEASURED AT H + 10 min	Nuclear Burst Cloud width (State MILS or DEGREES)
MIKE (MEASURED AT H + 10 min)	CT angle and/or CB angle (Report TOP or BOTTOM) (State MILS or DEGREES)
NOVEMBER	Estimated Yield (KT)

   b. NBC 4, (NUCLEAR) Monitoring Report

QUEBEC	LOCATION OF READING (Coord)
ROMEO	DOSE RATE (RAD/HR) Descriptive terms if required are contact shielded, peak, special, etc.
SIERRA	DATE AND TIME OF READING.

NOTE: REPEAT LINES, Q, R, AND S AS MANY TIMES AS NECESSARY.

Annex "C", (Daily Strength Report), to SOP No 1, Co "A", 2d Bn (Mech), 76th Inf

1. This report is given twice daily, during Stand To and at 1600 hours.
   a. Written Form:

DAILY STRENGTH REPORT

1. Assigned _____
2. Attached _____
3. Evacuated _____
4. Special Missions _____

Total on Line

   b. When reporting by radio:

Callsign:	Line 1
Assigned:	Line 2
Attached:	Line 3
Evacuated:	Line 4
Sp Mis:	Line 5
Total:	Line 6

Annex "D", (Casualty Feeder Report), to SOP No 1, Co "A", 2d Bn (Mech), 76th Inf

1. The casualty feeder report will be sent to the CP as soon as possible after action:
   a. (Example of completed DA Form 1156).
   b. This report must be correct and submitted on time.

Annex "E", (Resupply Request), to SOP No 1, Co "A", 2d Bn (Mech), 76th Inf

1. When platoons are operating as a separate element the following format will be used when requesting aerial resupply by radio, through NCS.

ITEM 1. ARROW (Alert for Aerial Resupply Mission)

ITEM 2. _____(Radio Callsign)
(Unit requesting supplies)

ITEM 3. _____(Callsign)
(Callsign of element on LZ if different from requester)

ITEM 4. _____(Coordinates of LZ)

ITEM 5. _____(Date, Time group of delivery)

ITEM 6. (A) ROUTINE (Type of resupply mission)
(B) EMERGENCY

ITEM 7. (A) LZ (If LZ is small give number of aircraft will take)
(B) Free Drop

ITEM 8. _____ (Security of LZ or DZ)

ITEM 9. _____ (List of Items)

(CODE) (QTY)

2. When company is in a static position, platoons will request resupply from CP at 1700 hours daily or when supplies of below 50% authorized basic load.

Appendix 1 - Example of code for resupply items.

Appendix 1 (List and Code of resupply items), to Annex "E" Resupply Request to No 1, Co "A", 2d Bn (Mech), 76th Inf

(This is only a partial example. Your unit will direct if a code is to be used).

CODE	ITEM	QTY
ABA	RATIONS "A"	
ABB	RATIONS "C"	5 cases
ABD	WATER 5 GAL	10 CANS
**********	**********	**********
FHA	HEAT TABS	BOX
**********	**********	**********
JLA	TROUSERS	SMALL
**********	**********	**********
PZB	MG M60	
PZD	RIFLE 5.56	
**********	**********	**********
UQA	60MM	HE
UQB	106MM	HE

NOTE: THE ABOVE BREVITY CODE IS NOT SECURE. EMPLOY THE CIRCE WHEEL OR OTHER AUTHORIZED CODE WHENEVER ENCODED TRANSMISSION IS REQUIRED.

Annex "F", (Light Rescue Squad Equipment), to SOP No 1, Co "A", 2d Bn (Mech), 76th Inf

1. Equipment for the light rescue squad will include:
   a. One carrier personnel FTRAC (Maintenance Section).
   b. One pick.
   c. Two shovels.
   d. Two axes.
   e. Two cutters, wire.
   f. Radiacmeters, dosimeters, and chemical agent detection kit as available.
   g. Medical Kit, First Aid.

NOTE: EQUIPMENT NOT AVAILABLE IN COMPANY SUPPLY WILL BE DRAWN FROM BN S4.

Annex "G", (Decontamination Squad Equipment), to SOP No 1, Co "A", 2d Bn (Mech), 76th Inf

1. Decontamination squad's equipment will consist of the following items:
   a. Four shovels.
   b. Radiation detection instruments (survey meter and personnel dosimeters).
   c. Chemical agent detection kit.
   d. Brushes, scrubbing.
   e. Two pairs of gloves, rubber.
   f. Two cans, corrugated, 16 and 32 gallons.
   g. Four each decontamination units.
   h. Bandage scissors, three pairs.
   i. One rake.
   j. Four brooms.
   k. Rags, 10 pounds.
   l. Two buckets, 14 quarts.
   m. One heater, immersion type.
   n. One ax, single bit.
   o. Soap, issue five pounds.
   p. Leather dressing, vesicant gas resistant, M2, 10 cans.
   q. Four each decontamination agent kits, STB, 50 pound can.

NOTE: EQUIPMENT NOT AVAILABLE IN COMPANY SUPPLY WILL BE DRAWN BN S4.

Annex "H", (Medical Evacuation Request), to SOP No 1, Co "A", 2d Bn (Mech), 76th Inf

1. When platoons need medical evacuation they will submit their request to NCS; NCS will request the Medical Evacuation and notify the requester of time of arrival. When requesting Medical Evacuation, the following information is needed.

LINE ALFA . . . . . Platoon Callsign

LINE BRAVO. . . . . Location (Coordinates)

LINE CHARLIE. . . . . Number of wounded

LINE DELTA. . . . . Type personnel; US, CIV, ENEMY

LINE ECHO . . . . . Number of wounds

LINE FOXTROT. . . . . Number of litter and ambulatory

LINE GOLF . . . . . Tactical Situation

2. Helicopter Medical Evacuation: When chopper arrives via LZ, it may request additional information: Smoke or light to mark LZ, direction of approach into LZ, direction of enemy movement from your location. CP (NCS) will give your air evacuation's callsign and ETA.

Annex "I", (Situation Report), to SOP No 1, Co "A", 2d Bn (Mech), 76th Inf

Situation Report Format:

1. Normal situation reports:

ALPHA **********Callsign

BRAVO **********Location (When making first report

CHARLIE.**********Situation

2. Contact SITREP

ALFA **********Callsign + IN CONTACT

BRAVO **********Location

CHARLIE **********Size Force (Enemy)

DELTA **********Type of Fire

ECHO **********Direction and distance (Fire coming from)

FOXTROT **********Casualties (Friendly)

GOLF **********Action being taken

HOTEL **********Support needed (Artillery, Gunships, Flareship, Dust-Off)

3. Closing SITREP:

(Closing Report)

Codeword SOUTHWIND

Personnel

ITEM 1. Officer _____

ITEM 2. Enlisted _____

EQUIPMENT		PRESENT A	OPERATIONAL B
ITEM 3.	M113	_____	_____
ITEM 4.	M114	_____	_____
ITEM 5.	M106	_____	_____
ITEM 6.	1/4T TK	_____	_____
ITEM 7.	3/4T TK	_____	_____
ITEM 8.	2 1/2T TK	_____	_____
ITEM 9.	2 1/2T TK w/wn	_____	_____
ITEM 10.	81mm	_____	_____
ITEM 11.	Radios (Veh)	_____	_____
ITEM 12.	Radios (Port)	_____	_____

Annex "J", (Shell Report), to SOP No 1, Co "A", 2d Bn (Mech), 76th Inf

1. Shell Report (SHELREP) will be submitted to CP each time platoons receive incoming rocket, mortar, or artillery rounds.

a. Shell Report Format:

ALFA. . . . . Callsign

BRAVO . . . . . Coordinates of observer

CHARLIE . . . . . AZ to Flash or Sound

DELTA . . . . . Time shelling started

ECHO. . . . . Coordinates of shelled area

FOXTROT . . . . . Type of sound

HOTEL . . . . . Nature of Fire

INDIA . . . . . (Harassment or Destruction)

JULIET. . . . . Damage

Annex "K", (Airmobile Operation), to SOP No 1, Co "A", 2d Bn (Mech), 76th Inf

1. Vehicles:
   a. XO remains with vehicles and drivers.
   b. Drivers maintain security and perform maintenance.
   c. Vehicles will be brought froward on order.
2. Conduct of pickup zone:
   a. Enter pickup zone on order only.
   b. Do not leave loose equipment lying on ground.
   c. Securely tie down marking panels.
3. Entering and exiting aircraft:
   a. Never approach rotary wing aircraft from the rear, always from the side or front, except CH47 which must be approached from the rear.
   b. When approaching a chopper, while rotor blades are in motion, keep the body in a crouching position.
   c. When approaching a formation of aircraft use a route that will clear tail rotors or props.
   d. Keep weapons/antennae from coming in contact with airframe or rotor/tail blades.
   e. Personnel who are bumped report to XO.
   f. Exit choppers on downhill side.
   g. Weapons will be held between legs, muzzle up with no round in chamber/safety on. If LZ is hot, commanders may direct that rounds be chambered as the lift begins final approach.
4. Mortars, base plates, and bipods will be placed on the floor of the aircraft.
5. Troop Tips:
   a. Seat belts will be worn.
   b. Shirt sleeves will be rolled down.
   c. Aircraft loads will be spotted on LZ in accordance with the planned aircraft landing formation.
   d. Helmets fastened.
   e. Seat automatic weapons outboard to have gunners first out on LZ's.
   f. Unfix bayonets.
   g. Carry M60's, M16's, with bipods folded.
   h. Hold down radio antennas.

Annex "L" (Cease Operations-March Order) to SOP No 1, Co "A", 2d Bn (Mech), 76th Inf

Code Word	COMO
Line 1	Order of March
*Line 2	SP/Time (Coordinates & DTG)
*Line 3	RP coordinates (Omit if not applicable)
*Line 4	Objective/LD/PL/Assembly Area/Attack Position
*Encode	

CHAPTER 14

INTRODUCTION TO THE MILITARY BRIEFING

The formal, oral exchange of information between the commander and his staff is accomplished through the military briefing. All military officers must be effective briefers.

The military briefing is a specialized type of military speech that is designed to present *selected* and *compressed* information to commanders, staffs, or other designated audiences. The techniques are dictated by the purpose of the briefing, the required response, and the role of the briefer. Like the staff study, staff estimate, and operations order, the military briefing is an effective operational tool of every officer.

There are four types of military briefings: The *information* briefing, the *decision* briefing, *staff* briefing, and the *mission* briefing. Although there are elements which are common to all four, each is distinct in that it is designed to accomplish a specific purpose: To impart information, to obtain a decision, to exchange information, or to review important details. The common feature of every briefing, regardless of type, is to present information.

The principles and techniques of effective speaking assume a special importance in the military briefing. Compared to other forms of speeches, the briefing is designed to be brief. Frequently, a commander or staff officer will be required to brief a very broad subject in a limited period of time. The military briefing is a "one-time-only" presentation with reference to only enough background information to orient listeners on the scope and content of the briefing. There are not "attention-getters"--only essentials delivered in an objective manner. This is the difference between public speaking and the military briefing. However, briefing requires the highest development of speech skills.

Effective speaking does not just happen. It is the result of an orderly thought process, a knowledge of how to get people to listen, and an objective appraisal of your performance as a speaker. The following are suggestions to help you develop competence in the preparation and presentation of an effective briefing.

HOW TO PREPARE A BRIEFING

STEP 1. MAKE AN ANALYSIS

1. Ask who and what.

a. Ask these questions about your listeners. Purpose of the briefing? Who will attend? Will some persons need basic or updated background information.

b. Identify your purpose. You might sum up the procedure this way: To whom am I talking, about what, and why? Ask yourself whether you intend to: Inform, explain, interpret, amplify, expand a previous report, or trace progress. Are you going to propose or recommend a course of action? Do you need to obtain a decision?

c. Of course, there are other purposes and combinations of purposes. Once you have determined that your briefing has more than one purpose, list them in order of their relative importance and begin to think of your briefing in relation to its targets.

STEP 2. RESEARCH THE TOPIC.

2. Write the outline.

a. Normally, you will be required to narrow your subject to a topic that can be covered in a given time limit.

b. Gather authoritative material to support your views. Statistics, examples, and results of surveys or interviews can support your views more effectively.

c. Considering your previous analysis of the speaking situation, select main ideas or points from your research. These points become the basis for your briefing.

d. The next step in preparation is to put these main ideas into a logical sequence.

STEP 3. ORGANIZE THE BRIEFING.

3. Emphasize key points.

a. Remember: The purpose of the briefing is to impart information. Presenting a briefing is not an opportunity to demonstrate how much you know about a subject; it is an attempt to help others grasp your points or ideas.

b. Keep in mind that the emphasis is not on what you want to *say* but on what your audience must *hear*.

c. If you fail to properly organize your material, your audience will fail to relate to what is said.

d. Basically, all briefings can be organized into three main parts: An *introduction*, a *body*, and a *conclusion*.

THE INFORMATIVE BREIFING

It is imperative that the techniques of the information briefing be mastered first because of the mental discipline required of the briefer to present objectively only the essential facts, without drawing conclusions. Further, the information briefing forms an essential part of each of the other briefings.

FORMAT FOR THE INFORMATION BRIEFING

1. INTRODUCTION

a. *Greeting*. Following protocol, recognize the senior members of the audience. Follow up with "gentlemen" in recognition of others present. Identify yourself.

b. *Purpose*. Explain the purpose and scope of the briefing.

c. *Procedure*. Indicate procedure if a demonstration, display, or tour is involved.

2. BODY

a. *Organization.* The body should follow the organization that best provides for arranging, supporting, and presenting the main ideas of the briefing in a logical sequence. Presenting these main ideas requires clarity and conciseness. The sequence varies, depending on the subject. The sequence may be chronological, such as what *has* happened, what is happening *now*, and what *is projected to occur*; or it may be presented in a cause-and-effect sequence, such as an after-action report. The point to remember is that regardless of the sequence used, it should be tailored to the subject.

b. Use visual aids correctly. First, ask yourself if the aid you plan to use is necessary. Will it help your audience understand the main ideas of your presentation? Or will it confuse them by clouding the issue?

c. Plan for effective, smoothly executed transitions.

d. Be prepared to answer questions at any time.

3. CONCLUSION

a. Ask for questions.

b. Concluding statement. The close will normally consist of the statement: "Sir, this concludes my briefing. Do you have any (further) questions?"

c. Announce the next briefer, if any.

THE DECISION BRIEFING

Although the decision briefing contains the essential elements of the information briefing, it is much broader, more comprehensive, and more importantly, is presented for a different purpose. The specific purpose of the decision briefing is to obtain an answer or a decision from the commander on a proposed course of action. At the outset of the briefing, the briefer must state clearly that he is seeking a decision. At the conclusion, if he does not receive a decision, he must ask for one. The briefer must insure that he thoroughly understands the decision when it is rendered by the decision-maker. If he is uncertain, he should request clarification.

FORMAT FOR THE DECISION BRIEFING

1. INTRODUCTION

a. *Greeting.* Address the person(s) being briefed and identify yourself.

b. *Purpose.* State that the purpose of the briefing is to obtain a decision. Announce the problem statement(s). This is usually stated in the same manner as the problem is phrased in the staff study.

c. *Procedure.* Explain any special procedures or introduction of additional briefer(s).

d. *Coordination.* State what coordination has been accomplished.

e. *Classification.* Identify the security classification of the briefing.

2. BODY

a. *Assumptions.* They must be valid, relevant, and necessary.

b. *Facts Bearing on the Problem.* These should be stated concisely and accurately. They must be supportable.

c. *Discussion.* Analyze courses of action. Plan for smooth transitions. The initial statement should indicate the origin of the problem and point out any command guidance given. *No other phase of the briefing reveals so critically the quality of the preparation.*

d. *Conclusions.* State those reached as a result of your research. Discuss the degree of acceptance or the order of merit of each course of action. These courses of action should be limited to the ones identified during the discussion. Do not introduce any new courses of action at this point. This phase should be restricted to only the logical conclusions derived from the discussion phase of the briefing.

e. *Recommendation(s).* State action(s) recommended. Read these actions to insure accuracy and phrase them so that the decision-maker can mentally decide either "yes" or "no." These recommendations must be specific and not a solicitation of opinion.

3. CONCLUSION

a. Ask for questions.

b. Request a decision or ask if your recommendation is approved or disapproved.

THE STAFF BRIEFING

The staff briefing is the most widely used military briefing and is used at every level of command, from battalion up. It is used to secure a coordinated or unified effort. The staff briefing is designed for the rapid, oral dissemination of information to a group of people and is in a sense similar to the information briefing. In peacetime, staff briefings are normally conducted on a scheduled basis. In combat, they are held as often as the situation requires.

The chief of staff or executive officer usually presides over the staff briefing, but the commander may elect to do so if he desires. The individual presiding normally begins by identifying the purpose of the briefing and reviewing the mission of the next higher headquarters. He then restates the unit's mission and gives the commander's concept, if applicable. He may highlight the briefing and then call on staff officers to brief their areas of responsibility. These staff representatives should avoid presenting a rehash of the entire staff estimate but should tailor their presentation to specific areas that will assist the commander in the execution of the mission. For example, the S2 should refrain from reciting verbatim the *entire* weather forecast. Specifically, he should focus only on the effects of weather on mission accomplishment.

Staff representatives present matters that might pertain to, be of interest to, or require coordinated action by other staff sections. The normal sequence of briefings is S2, S3, S1, S4, and S5. Special staff officer participation varies with local policy. The commander usually concludes the briefing but may take an active part throughout the presentation.

The format followed for presentation by each staff officer during the staff briefing varies and is dependent upon the commander's guidance. The format may be elaborate, using visual aids to depict the activities of each staff representative; or it may be less formal, with the emphasis on each staff officer briefing only those items or areas the commander feels are appropriate.

THE MISSION BRIEFING

Mission briefings are used under operational conditions to impart information or to give specific instructions for accomplishment of the mission.

In an operational situation or when the mission of a specific unit is critical, it may be necessary to provide individuals or smaller units with more data than written orders provide. This may be done by means of the mission briefing. The mission briefing reinforces written orders and provides more detailed requirements and instructions. The mission briefing is normally conducted as a joint staff effort, with the commander stating the mission the unit has received and each staff officer presenting information on his area.

There is no prescribed format for the mission briefing, but it should be tailored to achieve the specific purpose of the briefing. In most cases, the operation order (OPORD) format can be used if it is not unnecessarily repetitious.

The purpose of the mission briefing can be summarized as the final review of a forthcoming military action to insure those taking part are certain of their mission, understand the intent of the commander, and grasp his concept of the operation. For these reasons, the commander actively participates throughout the mission briefing.

FORMAT FOR THE MISSION BRIEFING

1. *MISSION* — Stated by the commander
2. *INTELLIGENCE* — Presented by the S2

a. *Weather* (oriented on how it will affect friendly and enemy units in the area of operations and how it will affect the mission to be accomplished).

b. *Terrain* (oriented on terrain in the area of operations that is key to mission accomplishment).

c. *Enemy*

(1) Current disposition

(2) Recent significant activities

(3) Probable enemy courses of action

d. *Essential elements of information*

(1) Significant indicators of enemy courses of action.

(2) Particular enemy strengths or vulnerabilities.

3. SITUATION — Presented by the S3

a. *Task organization to accomplish the mission* (normally shown on a chart, chalk-board, etc. to save time and to facilitate understanding).

b. *Orders to subordinates*

c. *Coordinating instructions*

4. *FIRE SUPPORT* — *Presented by the Fire Support Coordinator*

a. *Mission*

b. *Assets available*

(1) Direct Support, Reinforcing

(2) General Support Reinforcing, General Support

(3) Ammunition Supply Rate

c. Locations (oriented to best support the commander's concept of the operation).

SUMMARY

Before you can conduct a briefing, you must have thorough knowledge of your subject. This knowledge is gained by research. Effective research and knowledge of the subject, however, does not guarantee a good briefing. Effective planning is also important. You prepare for a briefing by using knowledge, research, and planning.

The following checklists are designed to aid in preparing and presenting an effective briefing.

CHECKLIST FOR BRIEFERS

1. *Analyuze the situation.*

a. First, determine the purpose of the briefing. Ask for guidance in order to inform accurately—your purpose is not to sell or entertain.

b. Secondly, consider your audience. Know the size and composition, including names and grades. Learn the interests, desires, and traits of the senior member.

c. Next, consider the time and schedule contingencies. Know, in advance, how much time you have and how flexible the schedule or itinerary is.

CHAPTER 15
GLOSSARY

Active Defense - The method or system of flexibile and elestic defense on the mechanized battlefield designed to fight successfully against numerically superior attacking armored formations. The concept of active defense is to wear down the attacker by confronting him aggressively and continually from successive positions with strong combined arms teams and task forces fighting from mutually supporting battle positions in depth throughout the battle area. (See Chap 5, FM 71-1, and Chap 5, FM 71-2).

Advance Guard - The lead element of an advancing force. Its primary mission is to insure the uninterrupted advance of the main body. It has the following functions:

a. To find and exploit gaps in the enemy's defensive system.

b. To prevent the main body of the advancing force from running blindly into enemy positions.

c. To clear away minor opposition or, if major opposition is met, to cover the deployment of the main body.

Alternate Position - The position given a weapon unit, or individual to be occupied when the primary position becomes untenabale or unsuitable for carrying out its task. The alternative position is so located that the weapon or unit can continue to accomplish the same mission as from the primary position.

Area of Operation/Battle Area - A control measure. This type of area is used in the defense to concentrate forces against the enemy's main efforts. Normally, the area is used for battalion task forces and encompass company and platoon sized battle positions. They are used to control fire and maneuver and are normally contiguous when several task forces are being concentrated against a major enemy effort. Outside the boundaries a unit:

a. Does not fire artillery, call air strikes or employ scatterable mines without first coordinating with the adjacent units.

b. Does fire its direct fire weapons against clearly identifiable enemy targets. Prior coordination is desirable but not required.

Assault Position - Position between LD and the objective where the assault echelon completes final deployment and from which it moves onto the objective to close with the enemy.

Assembly Area - A control measure. Area in which the unit is assembled to prepare for operations, normally, the following activities are accomplished in assembly areas: issuance of orders, organization for combat, maintenance and supply.

Attack - The placement of units or personnel in an organization where such placement is relatively temporary. Subject to limitations imposed by the attachment order, the command of the formation, unit or organization receiving the attachment will exercise the same degree of control over attached units as he does over units and persons organic to his command. However, the responsibility for transfer and promotion of personnel will normally be retained by the parent formation, unit or organization.

Attack Position - Area behind the LD where units leading the attack deploy, without halting if possible. If occupied it should be defensible, offering cover and concealment for the attacking unit.

Axis of Advance - Indicates general direction of movement of leading unit in the attack. Requires unit to maneuver the majority of its elements generally along the axis.

Battle Position - A control measure. A location selected as a result of terrain and weapon analysis from which units are told to fire from, retain, strongpoint or counterattack. They can be selected for occupation by commanders of elements as large as battalion task forces and as small as platoons. The defending commander directs the fight by specifying which battle positions his units will occupy and what they will do there. Normally, the TF commander selects the company team battle positions and the team commander selects platoon battle positions.

Boundary - Boundaries mark sectors of responsibility. With coordination, units may move across boundaries. Whenever possible, coordination should be made prior to firing across boundaries. If an enemy target on the other side of a boundary can be clearly identified, it should be engaged with direct fire weapons regardless of boundaries.

Checkpoints - A position reference system which provides a means of reporting rapidly specific information pertaining to the location or control of maneuver of friendly units. Information concerning enemy units should *not* be reported using reference to the checkpoint.

Close Air Support - Air action against hostile targets which are in close proximity to friendly forces and which require detailed integration of each mission with the fire and movement of those forces.

Combat Information - Raw data which can be used for fire or maneuver decisions *as received*, with no interpretation or integration with other data. Once the combat engagement begins, nearly all of the intelligence acquired by modern armies is a by-product of combat information. Much of the data can be used *IMMEDIATELY* to bring combat power to bear against the enemy.

Concept of Operation - A verbal and/or graphic statement of a commander's intent in regard to an operation or series of operations. The concept of operations frequency is enbodied in campaign plans, operation plans and orders. The concept is designed to give an overall picture of the operation. It is included in plans and orders primarily to describe how the commander intends to accomplish his assigned mission. It contains as much detail as possible. Frequently it is referred to as "commander's concept."

Contact Point - Points on the ground where two or more units *are required* to make physical contact.

Coordinated Fire Line (CFL) - A line beyond which FA NGF and mortars can fire at any time within the zones of the establishing headquarters with no further need for coordination (FM 6-20, Page I-66).

Coordinating Point - Designated points at which adjacent units or formations must make contact for purposes of control and coordination. They may be used anywhere that coordination may be needed between two forces.

Counter-Attack - Attack by a part or all of a defending force against an enemy attacking force, for such specific purposes as regaining lost ground, cutting off or destroying enemy advance units, and with the general objective of denying the enemy's ability to achieve his aim.

Covering Force -

a. A covering force provides the main body early warning, reaction time, maneuver space, and information about the enemy. A covering force is a tactically self-contained security force which operates at a considerable distance to the front, flank, or rear of a moving or stationary force. Its mission is to develop the situation early and defeat the enemy, if possible. If the latter is not possible, then the covering force deceives, delays, and disorganizes the enemy until the covered force can effectively react.

b. In defensive operations, a covering force operating apart from the main body has four basic tasks:

(1) Force the enemy into revealing the strength, location, and general direction of his main attack.

(2) Deceive the enemy, or prevent the enemy from determining the strength, dispositions, and locations of friendly forces, especially those in the main battle area.

(3) Divert the enemy of his air defense unbrella and first echelon artillery or require him to displace his air defenses & artillery before attacking the main battle area.

(4) Gain time for the main body, enabling it to deploy, move or prepare defenses within the main battle area.

Covering Force Area (CFA) - In defensive operations the covering force area starts at the line of contact and ends at the forward edge of the MBA. Forces in this area are deployed to find the enemy and fight him with sufficient force to cause him to reveal the location of his main thrust. There is no specially delineated covering force area for offensive operations.

Deception - Those measures designed to mislead the enemy by manipulation, distortion or falsification of evidence (intelligence) thus concealing the deceivers true intentions and revealing the false. The overall aim being to achieve surprise.

Defend - A mission assigned to a unit which requires it to destroy or stop an attacking enemy force from penetrating through its assigned area of responsibility, i.e., sector, battle area, area of operations, battle position (i.e., strongpoint). Subunits of the defending unit may have different missions from its parent unit depending on control measures and defensive concept used.

Delay - A mission assigned to a unit which requires a force to trade space and/or risk for time by slowing down the enemy's momentum and inflicting maximum damage on him. Subunits of the delay force may conduct any or all types of combat operations to gain time, i.e., fire from, retain, strongpoint, counterattack.

Deliberate Attack - A type of attack characterized by detailed preplanning and coordination of firepower and maneuver.

Deliberate Crossing - A crossing of a river or stream that requires extensive planning and detailed preparation.

Direct Support (DS) - In a tactical field artillery mission, the supporting unit responds directly to requests of the supported unit and furnishes priority of effort. A field artillery battalion in direct support of a brigade, for example, provides a fire support officer to each battalion task force and forward observer parties to each company team. It provides its own communications, and gives priority of effort to brigade units while still under control of its own (Div Arty) headquarters.

Direction of Attack - A direction of attack is used when the commander considers it essential to designate a specific direction of attack. The direction of attack is used principally in the conduct of night attacks or in counterattacks.

Disengagement - The act of breaking contact with an enemy force.

Disposition in Depth - Normally will be used when enemy has greater mobility than the defender such as if he attacks mounted. Every effort will be made to have mutually supporting antiarmor positions.

Envelopment - An offensive maneuver in which the main attacking force passes around the enemy's principal defensive positions to secure objectives to the enemy's rear.

Essential Elements of Information (Intelligence) - The critical items of information regarding the enemy and the environment which a commander needs to know in order to make timely decisions.

Estimate of the Situation - A logical process of reasoning by which a commander considers all the circumstances affecting the military situation and arrives at a decision as to the course of action to be taken in order to accomplish his mission.

Exploitation - An offensive operation that usually follows a successful attack and is designated to disorganize the enemy in depth.

Fire From - A mission frequently assigned to a unit conducting an active defense. It requires the unit to destroy by fire as much of the attacking enemy force as possible. This mission does not require the unit to hold or retain specific terrain. Specific guidance needs to be given to a unit concerning fire control and displacement.

Final Protective Fires - Preplanned immediatly available indirect fires designed to stop an enemy's final assault by dismounted infantry.

Fire Support Coordination Line (FSCL) - A line beyond which all targets may be attacked by any weapon system (including aircraft, nuclear & chemical) without endangering friendly troops or requiring additional coordination with the establishing HQs.

Flank Guard - A security element operating to the flank of a moving or stationary force to protect its flanks.

Forward Edge of the Battle Area - The foremost limit of the area where the main battle is to be fought. It excludes the areas in which the covering forces are operating. It is designated to coordinate fire support, the positioning of forces or the maneuver of units. Also known as "FEBA."

General Support (GS) - In a tactical field artillery mission. GS units provide support to the entire force within their range capabilities. They remain under the control of the parent FA headquarters and are not committed to any subordinate maneuver element of the force.

General Support - Reinforcing (GSR) - Units assigned this mission furnish fires for the entire force within their range capabilities. Additionally, they augment the fires of the reinforced artillery unit when they are not actively engaged in GS fires.

Hasty Attack - A type of attack characterized by immediate fire and maneuver against an enemy force utilizing speed and momentum to achieve success.

Infiltration Lane - Indicates terrain over which infiltrating unit will follow. Used to coordinate movement of units and control fires. Requires unit to move with maximum feasible stealth. Must avoid OPFOR positions. Delineated by boundaries.

Intelligence - The product resulting from the collection, analysis, integration and interpretation of all available information which concerns one or more aspects of foreign nations or of areas of operations and which is immediately or potentially significant to military planning and operations.

Key Terrain - Any locality, or area, the seizure or retention of which affords a marked advantage to either combatant.

Killing Area/Zone - An area in which a commander concentrates fires on an enemy force.

Limit of Advance - Indicates how far beyond the objective the attacking unit may maneuver or place security, once the objective has been secured. Used in night attacks.

Line of Contact (LC) - A general trace delineating the location where friendly and OPFOR units are in visual contact.

Line of Departure - Used to coordinate the commitment of units to the attack at a specified time and place. Ideally, it is held by friendly forces, and it ideally is an easily identifiable terrain feature.

Linear Dispositions - Normally will be used when enemy is dismounted infantry, or the terrain has greatly restricted enemy movement, i.e., built-up areas, water obstacles or mountain.

Main Battle Area - That area extending rearwards from the FEBA to the rear boundaries of the subordinate elements of the unit. It is in this area the decisive defensive battle for that unit will be fought.

Movement to Contact - An offensive operation designed to gain or reestablish contact with the enemy.

Meeting Engagement - A combat action that occurs when a moving force engage a moving or stationary enemy at an unexpected time and place.

Not Under Enemy Pressure - An operation in which friendly units are in contact with the enemy, but the enemy is not expected to attack during the displacement.

Objectives - May be terrain features, localities, or hostile forces. Assignment of an objective normally requires the unit to secure and control terrain or killing enemy forces.

Objective Rally Point - Rally point near objective. May be located short of, to flank, or beyond the objective. Can be used as the start point for the leaders recon of the objective. Should offer good cover/concealment and be defensible.

Operational Control - A unit under *OPCON* of a battalion task force is assigned missions by the task force commander. The task force exercises tactical control of an OPCON unit but assumes no administrative or logistical responsibility.

Passage Lanes - Areas along which a passing unit moves to avoid stationary unit and obstacles. (See appendix E of FM 71-2).

Penetration - A form of offensive maneuver which seeks to break through the enemy's defensive position at a weak point, widen the gap created, and destroy the continuity of his defense.

Phase Lines - Establish to control progress of units and for reference in issuing orders or receiving reports.

Point of Departure (PD) - Specific point (grid coordinate) on the line of departure. Where unit conducting a attack crosses the LD.

Position Defense - The method of system of defense oriented toward the retention of specific terrain. Very little movement is expected after a fight begins either due to terrain or the enemy having greater mobility than the defender. It can be conducted by all type units with a defend mission. Position defense has two variations: linear dispositions and dispositions in depth. (See chapter 5, FM 7-20).

Positions - Location of a gun, unit, or individual from which fire is delivered upon a given target.

Primary Position - The best location given a weapon, individual, or unit from which to deliver fire upon a given target.

Probable Line of Deployment (PLD) - A designated line where attacking units deploy prior to beginning assault under conditions of limited visibility. Should be identifiable on the ground.

Pursuit - An offensive operation designed to catch, cut off or annihilate a hostile force attempting to escape.

Raid - An operation, usually small scale, involving a swift penetration of hostile territory to secure information, confuse the enemy, or destroy his installations. It ends with a planned withdrawal upon completion of he assigned mission.

Rally Point - An area, usually predesignated, where members of a unit who have become separated or dispersed reassemble.

Reconnaissance in Force - An offensive operation designed to discover and/or test the enemy's strength or to obtain other information.

Reinforcing -

a. A tactical FA mission in which one artillery unit augments the fires of another artillery unit the cannot provide sufficient fires for the supported forces.

b. Attack helicopter units may be given this mission to reinforce the fires of armored/mechanized task forces or company teams. (See FM 17-50, Attack Helicopter Operations.)

Release Point (RP) - A location where the route ends. Units moving along a route area free to change their formation, and movement technique after reaching the release point.

Restrictive Fire Area - A area in which specific restrictions are imposed and into which fires that exceed the restrictions will not be delivered without coordinating with the establishing headquarters. Established by battalion or higher.

Restrictive Fire Line (RFL) - A line established between converging friendly forces that prohibits fires or effects of fires across the line without coordination with the affected force. Establish by the common commander of converging forces.

Retain - A mission assigned to a unit which requires it to defend and hold a specified terrain feature against an enemy assault. Retain missions in the active defense, may be assigned when the terrain feature is critical to the overall defensive plan of the larger unit.

Route (RT) - Provides strict control of movement from one point to another. Used for tactical road march. Indicates units are moving in column; i.e., a single unit leads, units are not abreast on the route.

Sector - A control measure. A defense area designated by boundaries within which a unit operates and for which it is responsible for fire and maneuver.

Start Point (SP) - A location where the route begins. Units must arrive at the start point at the designated time in the proper formation, interval, and speed.

Strongpoint - A mission assigned to a unit which requires it to strongly fortify a battle position usually located on key terrain which is critical to the defense; or which must be denied to the enemy. A strongpoint must be held against all assaults. Strongpoints require extensive preparation time and engineer support. (See Chapter 5, FM 71-2 and Chapter 5, FM 71-1.)

Supplementary Position - Are positions that provide the best location for accomplishment of a task that cannot be accomplished from the primary or alternate position, e.g., defense against an attack from flanks and rear.

Support - A unit *in support* of a battalion task force provides a specific service only and remains under the command of its parent headquarters. The task force assumes no command, administrative, or logical responsibility for the unit. A supporting unit is however, required to respond to the task forces' request for assistance.

Suppression - Fires, direct and indirect, brought to bear on known or likely enemy locations to degrade the enemy's ability to place effective fires on friendly elements.

Target Reference Point - An easily recognizable point on the ground, either natural or manmade. It is used as a reference point for controlling direct fires and is given a numbered designator. (See FM 71-1, Appendix C.)

Tentative Dismount Point (TDP) - A location where mounted infantry dismounts from trucks or armored personnel carriers to continued movement forward by foot. Normally selected through map reconnaissance. Exact location to dismount selected during the attack when the commander sees the terrain.

Troop Leading - The process by which a commander issues the necessary instructions to his subordinates so that the unit can accomplish its assigned mission.

Under Enemy Pressure - An operation in which the force withdrawing is either being attacked by the enemy or an attack is expected prior to the completion of the displacement.

Withdrawal - An operation whereby a force disengages from an enemy force and moves to a specified area.

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