

CHAPTER 2

COMMAND AND CONTROL

A company commander uses the command-and-control (C) process to ensure that his company accomplishes its missions. Many tools are available to assist him in planning and executing tactical missions. This chapter provides the TTP needed to command and control the engineer company and to make sound tactical decisions.

COMMAND AND CONTROL RESPONSIBILITIES

A leader's fundamental responsibility is to understand both the boundaries and distances of C². He must provide the proper level of command while exercising the appropriate level of control to be effective. Both are critical to the engineer company's success.

COMMAND

Command is the art of military leadership. As part of commanding, leaders weigh the mission requirements and the soldiers' welfare. The company commander demonstrates concern for the soldiers' well-being and leads by example to inspire their confidence. A commander often delegates authority to subordinates. This reinforces and strengthens the chain of command. Responsibility, however, can never be delegated. When subordinates succeed, it is their success; when they fail, it is the commander's responsibility to accept that failure and to initiate corrective action.

CONTROL

Control is inherent in C². The commander uses control to monitor the company's status and to identify and correct deviations from set standards. The commander provides a means to measure, report, and correct performance. Control allows him the freedom to operate, to delegate authority, to lead from any critical point on the battlefield, and to synchronize actions across his AO.

COMMAND/SUPPORT RELATIONSHIPS

Engineer companies are organic to engineer battalions (except numbered separate companies). The engineer company can be task-organized to support maneuver TFs, other engineer battalions, or cavalry squadrons based on mission requirements. However, these task organizations are relatively short in duration. The engineer company commander has the challenging task of keeping his parent engineer battalion apprised of his status regardless of the command/support relationship the company enjoys with another unit. This is a critical concept that facilitates future planning and the use of the engineer force in subsequent operations.

Engineer companies are frequently task-organized in a variety of ways, depending on the mission and its requirements. The command/support relationship with other units establishes the lines of authority and support. Figure 2-1, page 2-2, illustrates a decision graphic for command/support relationships. A company may be organized under any of the following relationships:

Attached

An attached relationship is the temporary placement of the company in an organization. The commander of the supported organization exercises the same degree of C as he does over his organic units. When attached, the engineer company receives all

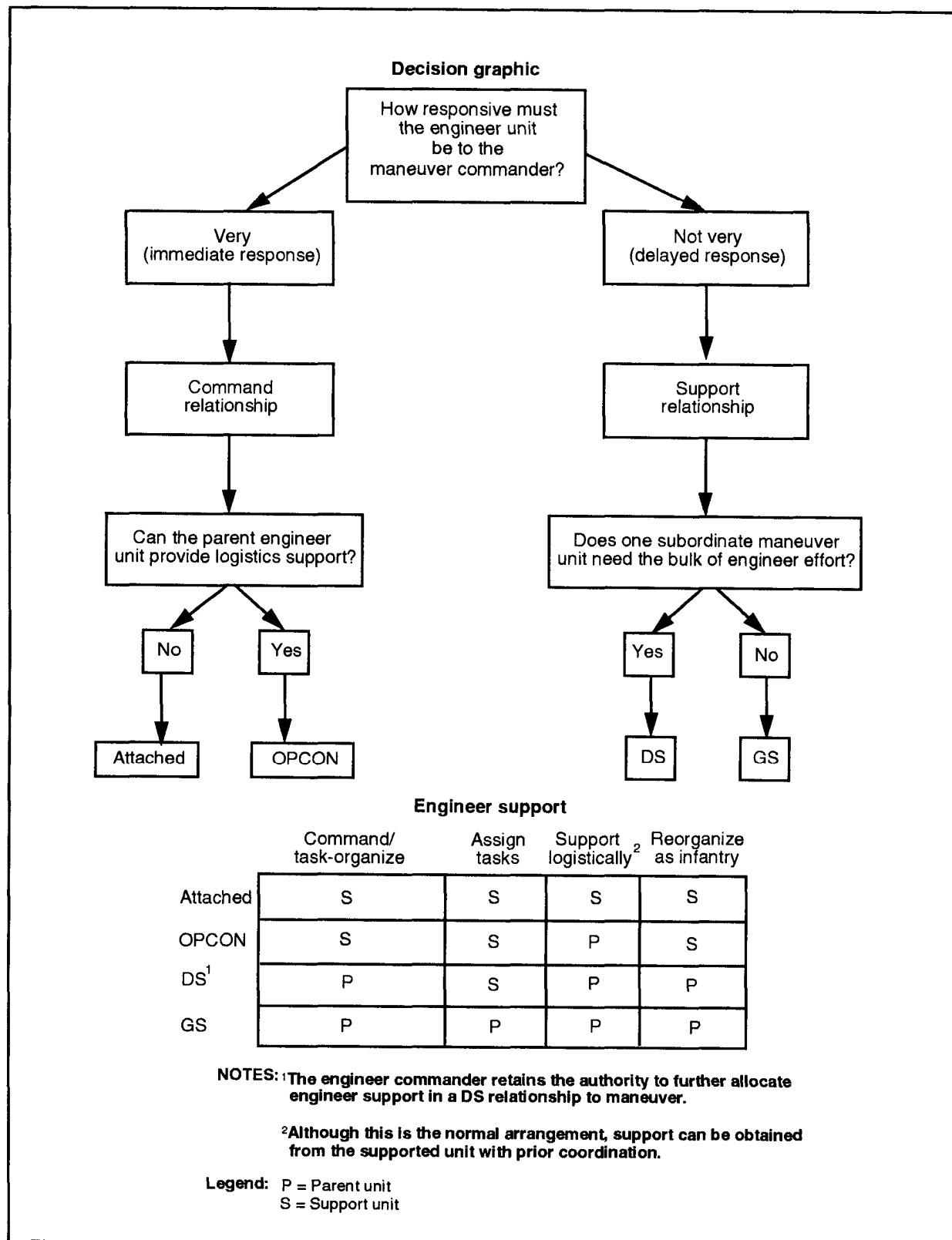


Figure 2-1. Decision graphic and engineer support

of its missions and support from the supported TF, not the engineer battalion.

Operational Control

In an operational control (OPCON) relationship, the company receives all of its taskings and missions from the supported TF. The supported commander retains the same authority over the engineer company as over his organic units. Logistical support normally comes from the parent engineer battalion. However, the supported unit provides Class IV/V barrier materials to the engineer company. Additionally, engineer units under OPCON can receive Class I, III, V, and IX support to the maximum extent possible. This support is coordinated through the engineer battalion and the supported unit before the OPCON directive becomes effective.

Direct Support

In a DS relationship, the company answers directly to the TF's request for support. Logistical support is provided by the parent engineer battalion. The engineer company is commanded by the engineer battalion commander. Normally, the engineer company will be in DS when the supported commander does not require immediate engineer responsiveness or a higher-level commander requires a flexible engineer force structure.

General Support

In a general support (GS) relationship, the company supports the TF or supported unit as a whole, not as any particular part or subdivision of the force. The company receives missions and all support from the engineer

battalion. Usually, the supported commander does not require the bulk of the engineer effort. Table 2-1, page 2-4, details the specifics of each command/support relationship.

Other Considerations

In certain extreme situations, the engineer battalion may not be able to provide all of the CSS the engineer company requires, but an attached relationship with the TF may not be appropriate. With proper coordination (between the engineer battalion, the maneuver brigade, and the TF) the TF can provide additional CSS to the engineer company even though the engineer company is not attached. This additional CSS may be only partial support. For example, the TF may supply Class I, II, III, and V (small arms) supplies and medical support, while the engineer battalion provides all other classes of supply and maintenance support.

UNIT COOPERATION

Cooperation is essential to the mission's overall success, even when formal relationships have not been determined. Cooperation normally occurs when units—

- Are adjacent to each other.
- Occupy the same area.
- Maneuver through the same area.
- Are given parts of the same task to accomplish.

Close cooperation requires coordination. Close communication between units improves cooperation and synchronization.

ENGINEER COMPANY ORGANIZATION AND RESPONSIBILITIES

The engineer company commander normally has dual responsibilities as both a commander and TF staff officer. He is responsible for all engineer missions within the TF's AO. He is the primary engineer advisor to the TF commander on mobility, survivability, and countermobility. His leadership is

vital to the engineer company's C². He provides the purpose, direction, and motivation necessary for his company to accomplish the many missions that the TF requires.

The XO is normally the primary engineer staff officer on the TF staff. He assists the

Table 2-1. Command/support relationships

	Support Relationships		Command Relationships	
	GS	DS	OPCON	Attached
An engineer element with a relationship of—				
Is commanded by—	Parent unit (note 2)	Parent unit (note 2)	Supported unit	Supported unit
Maintains liaison and communications with—	Supported and parent units	Supported and parent units	Supported and parent units	Supported unit
May be task-organized by—	Parent unit	Parent unit	Supported unit	Supported unit
Can be—	Used only to support the parent force as a whole; may be given task or area assignments	Dedicated support to a particular unit; may be given task or area assignments	Placed OPCON to other engineer/ maneuver units; made DS to divisions, brigades, or TFs; or retained GS	Further attached, OPCON, or DS to divisions, brigades, or TFs or retained GS
Responds to support requests from—	Parent unit	Supported unit	Supported unit	Supported unit
Has work priority established by—	Supported unit	Supported unit	Supported unit	Supported unit
Has spare work effort available to—	Parent unit	Parent unit	Supported unit	Supported unit
Forwards requests for additional support through—	Parent unit	Parent unit	Supported unit	Supported unit
Receives logistical support from—	Parent unit	Parent unit	Parent unit (note 1)	Supported unit (note 1)
Sends reports to—	Parent unit	Supported unit; information to parent unit	Supported unit; information to parent unit	Supported unit; information to parent unit

NOTES:

1. When attached, the engineer element is provided administrative/logistics support. When placed under OPCON, the supporting unit provides support in the common classes of supply to the maximum extent possible.
2. It is possible that units will receive additional engineer support without a command relationship (for example, the DS relationship to the division).
3. Regardless of the type of relationship, activities of engineer units working in an area are under the staff supervision of the area engineer.
4. The supported unit, regardless of the command/support relationship, is to furnish engineer materials to support engineer operations.

engineer company commander in his special staff-officer responsibilities and collocates the engineer CP with the TF tactical operations center (TOC) throughout the planning, preparation, and execution phases of the operation. The CP remains an integral part of the TOC for monitoring the engineer preparation and execution status during the operation. The XO is responsible for the initial development of the engineer battlefield assessment (EBA). He receives guidance and direction from the company commander and information from the TF and engineer battalion S3s and the assistant brigade engineer to assist him in this task. He also supervises the company headquarters section. The XO, along with the TF S2, develops the TF's situation template (SITEMP). The XO ensures that the terrain analysis and the analysis of the enemy's engineer capabilities are incorporated into the SITEMP. He analyzes the friendly engineer capability and assists the company commander in integrating engineers into the TF's scheme of maneuver and in developing the TF engineer annex and the company operation orders (OPORDs). The XO is the logistics planner for the engineers in the TF's sector.

The 1SG is the primary company logistics executor. He coordinates with either the TF or engineer battalion S4, the support platoon leader, the company supply sergeant, and the A&O platoon leader to ensure that the engineer company is logistically prepared for its next mission. He develops the company's CSS plan and ensures that it is integrated into the engineer battalion or TF CSS plan. He is the company commander's senior enlisted advisor, his primary agent for the welfare of the company's soldiers, and his quality-control agent. The 1SG is the driving force behind the company's prebattle preparation. He directly supervises the company's NCOs as they inspect their platoons before the company commander performs his precombat inspections. He is also the key coordinator for additional medical support for the company.

The engineer platoon leader has dual responsibilities as both a platoon leader and as the senior engineer advisor to the maneuver company/team. He is the company/team commander's expert on mobility and countermobility.

The A&O platoon leader is the survivability expert in the engineer company. In the offense, he may lead the company's mobility reserve. He may also act as the company's maintenance officer to assist in this critical combat function.

The company operations NCO is critical to the company's ability to maintain 24-hours-per-day operations. He must be able to prepare the initial EBA in the XO's absence. He is pivotal to the company's ability to perform sustained planning.

The engineer company CP provides the TF's TOC with information about current engineer operations that are required for making timely decisions. The company CP should have the same command, control, communications, computers, and intelligence (C4I) capabilities as the company commander, the supported TF, and the engineer battalion in order to interface digitally with these elements. The engineer company CP—

- Tracks friendly and enemy obstacles.
- Coordinates the execution of the scheme of engineer operations (SOEO) within the TF.
- Synchronizes the engineer effort among the maneuver companies/teams.
- Provides engineer expertise to the TF staff.
- Receives, posts, and analyzes combat information affecting current engineer operations and provides input to the TF intelligence preparation of the battlefield (IPB).

- Coordinates reports and information with the engineer battalion CP.
- Provides engineer expertise to the TF FSE.

ENGINEER TACTICAL PLANNING

Engineer tactical planning is an integral part of the TF's decision-making process. It is imperative that the engineer be fully integrated in TF planning and also an expert at engineer planning.

PLANNING AND DECISION MAKING

Commanders at all levels are responsible for planning tactical operations and making sound decisions. The tactical decision-making process, troop-leading procedures (TLPs), and the engineer-estimate process are all tools available for decision making. These processes are integrated and accomplished concurrently rather than sequentially. The engineer estimate and the TF and engineer company OPORDs are covered in greater detail in Appendixes A and B. The engineer estimate is prepared as part of the TF's tactical decision-making process and follows the basic format of the TLPs. The engineer company OPORD is based on the SOEO from the engineer estimate.

The engineer estimate is the primary tool that engineers use to facilitate planning in the TF. The estimate allows the TF engineer to integrate his company's capabilities as a combat multiplier into the TF's plan. The estimate allows the timely development of an SOEO and facilitates the early employment of engineers.

The tactical decision-making process provides the framework for focusing the TF staff as they develop the TF plan. The engineer estimate is an extension of the tactical decision-making process and is integral in developing a successful plan. Figure 2-2 illustrates the relationships between the engineer estimate, the tactical decision-making process, and the TLPs.

The TF plan dominates the development of the engineer estimate. The engineer must

understand the TF plan in order to plan for engineer support properly. He must thoroughly understand the TF commander's intent and concept for maneuver, engineers, and fire support. The engineer estimate should be a continuous process, with each step or consideration refined based on changes in the current situation and any changes to future missions.

The engineer battalion is a principal provider of intent. The engineer battalion commander may also provide important information, intent, guidance, and direction to assist the company commander's development of his plan, regardless of the command/support relationship. The company commander should seek the brigade engineer's guidance whenever possible.

The TF engineer ensures that required engineer missions and instructions and constraints or limitations are included in the appropriate part of the TF OPORD. Information related to engineers is not solely compiled in an engineer annex. Doing so can obscure information that is critical to all elements of the TF. For example, the enemy's use of scatterable mines (SCATMINES) during his preparatory fires should be included in the enemy situation subparagraph of the OPORD. Likewise, if Team A is required to breach two lanes to allow the TF to envelop the enemy, then this should be a task specified in the subunit instructions to Team A, not hidden in an engineer annex.

The SOEO is another example of engineer information contained in the base TF OPORD. It describes the general concept for how the engineer company will support the TF operation. The engineer-estimate process enables the TF engineer to identify critical engineer-specific information and mission-essential tasks for inclusion into the

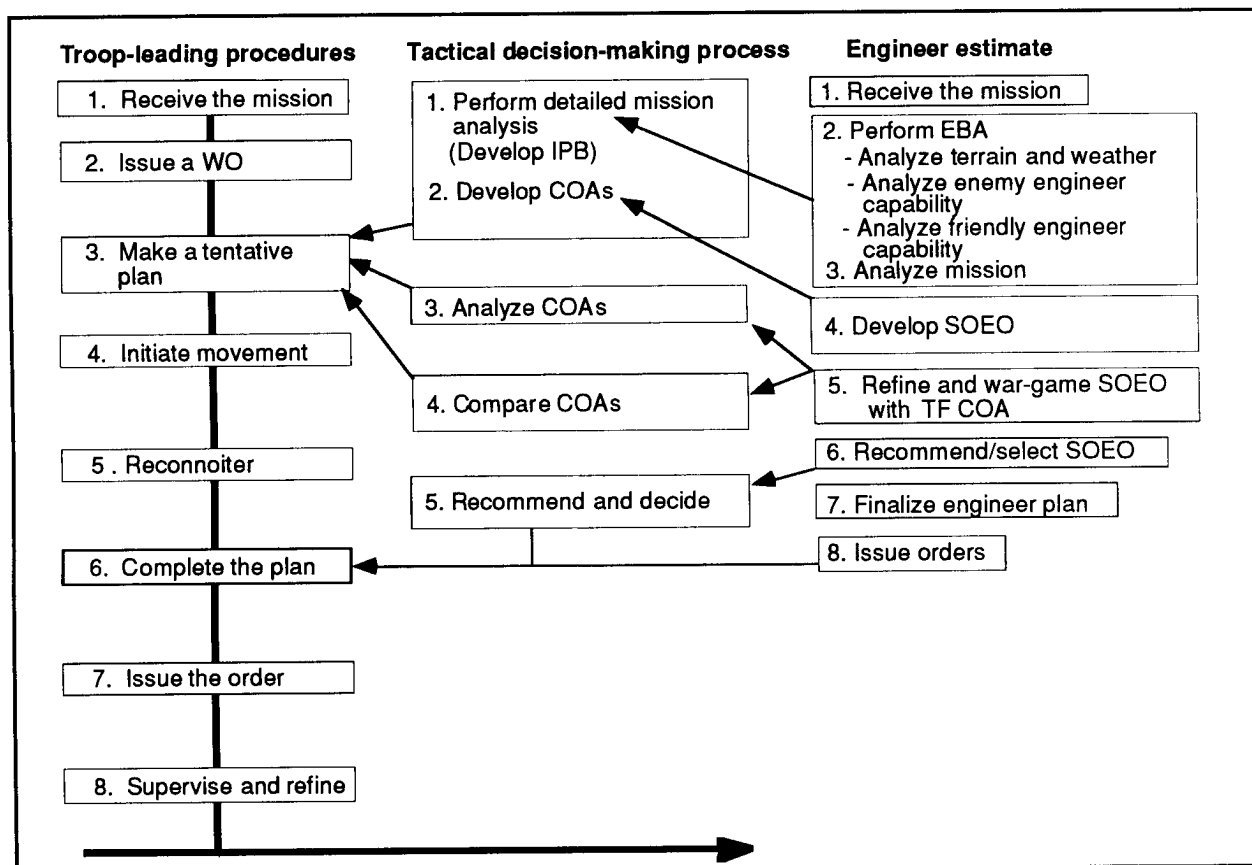


Figure 2-2. Relationship between TLPs, the tactical decision-making process, and the engineer estimate

base TF order. Table 2-2, page 2-8, illustrates how key components of the engineer-estimate process drive engineer input into the TF order.

FINALIZED ENGINEER PLAN

The SOEO is refined during war gaming as part of the TF's course of action (COA). The final SOEO is the basis for the engineer order.

ORDERS

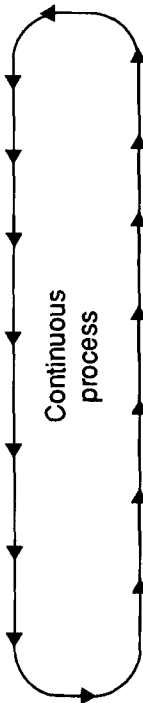
Commanders issue timely, clear, and concise orders to give purpose and direction to their subordinates. The engineer company commander translates the TF's SOEO into clear, concise engineer missions. The company order combines the concept of engineer support for the TF with the engineer-company-

specific plans required to accomplish specific engineer tasks identified during mission analysis. The engineer company order ensures unity of engineer effort.

The engineer company commander uses the OPORD to command the engineers remaining under his control for the operation. The engineer company commander, as the TF engineer, uses the combination of the TF order and his company order to exercise the appropriate level of C² of the engineers in the TF. The TLPs provide the format for developing the company order and supervising the engineer company's preparation for the operation.

TROOP-LEADING PROCEDURES

TLPs begin when the mission is received, and they end when the mission is completed.

Table 2-2. Engineer estimate/Input Into the OPORD


Engineer Estimate	Input	OPORD Paragraph
Conduct IPB/EBA	Critical aspects of the terrain and enemy engineer activity that impact the TF plan	1. Situation a. Enemy Intelligence annex
Analyze the engineer mission	Mission-essential M/S tasks assigned to the TF or engineer company	3. Execution e. Subunit missions • Maneuver • Engineer
Develop the SOEO	Concept of engineer operations to support the TF Task organization of engineer forces and command/support relationships Allocation of M/S mission resources to companies/teams Graphic control measures needed for obstacle control or breaching	3. Execution d. SOEO Task organization 4. Service support Overlays: Operations Engineer CSS
War-game and refine the engineer plan	Additional coordinating instructions to companies/teams that are needed to synchronize the engineer effort	3. Execution f. Coordinating instructions
Recommend a COA	Finalize the SOEO	2. Mission 3. Execution d. SOEO

These procedures consist of a series of actions used for planning, coordinating, executing, and supervising tactical operations. The exact sequence and timing of each TLP depend on the time and information available to the leader. A warning order (WO) may be issued immediately after the receipt of the mission or later as more information is available. Reconnaissance should be ongoing throughout the preparations, but should be completed before the order is issued. The following are the steps involved in TLPs:

1. Receive the mission.
2. Issue the WO.
3. Make a tentative plan.
 - Estimate the situation.
 - Analyze the mission in detail.
 - Analyze the terrain and enemy.
 - Develop a COA (plan).
 - Analyze the COA (war-game).

— Make a decision.

- Expand the COA into a tentative plan.
4. Initiate movement.
 5. Reconnoiter.
 6. Complete the order.
 7. Issue the order.
 8. Supervise the execution.
 - Rehearse.
 - Inspect.
 - Coordinate.

Receive the Mission

The mission is received either in writing or as an oral order. Normally, the order will be preceded by a WO from the engineer battalion. The company commander starts planning upon receipt of the WO with the information available. He plans backwards to ensure that key parts of the mission are adequately planned and that planning time is well-spent. He tries to use one-third of the time available to provide two-thirds of the time to his subordinates for planning at their levels. The engineer commander will have advanced warning of the mission because of his role as the TF engineer. He can then begin his TLPs with the receipt of the TF's WO. This gives him a head start on the other company commanders within the TF.

Issue the Warning Order

The WO should include, as a minimum, the following information:

- The situation and the mission type (attack, defend, or delay).
- The time the operation starts (start-point [SP] time, line-of-departure [LD] time, or no later time to defend).

- The time and place of the company OPORD.

Any other available information should also be part of the WO (such as information needed to begin preparation and required precombat inspections); however, the order should be issued as soon as possible to allow planning to start. Subsequent WOs may be issued as more information becomes available. See page B-5 for additional information on the WO.

Make a Tentative Plan

A tentative plan requires a substantial amount of information and generally follows the development of the SITEMP. During this planning step, the commander seeks to understand the enemy he will face and the terrain on which he will fight. The tentative plan focuses his understanding of the engineer company's contribution to the TF fight. The EBA process of the engineer estimate will provide the company commander the information he needs to develop the SOEO, which is the basis for his company's tentative plan.

Initiate Movement

Based on the commander's tentative plan, it may be necessary to move the company or task-organize engineer platoons to other companies/teams in the TF. The company SOP should allow the company to move to its new location. When attaching or detaching platoons, the following should be considered:

- The time and place of linkup.
- Recognition signals.
- Call signs, frequencies, and communications security (COMSEC) variables.
- The tactical situation (why the platoon is being task-organized).
- The CSS status and requirements.

Reconnoiter

The commander, platoon leaders, and a security element reconnoiter the terrain where the operation will be conducted. The 1SG and platoon sergeants will supervise the company's preparation for combat concurrently with the leader's reconnaissance. The reconnaissance should be as extensive and detailed as possible within the time limits available. If time is short, a thorough map reconnaissance should be done. The reconnaissance effort should be organized and focused on the company's mission. The following are normally reconnoitered in the company's AO:

- Observation and fields of fire, cover and concealment, obstacles, key terrain, and avenues of approach (OCOKA).
- Vehicle positions.
- Routes the company will use.
- Fire-control references, including target reference points (TRPs) and EAs.
- LDs and phase lines (PLs), if they can be seen.
- Terrain to the company's flanks and rear, especially along the flanks.
- Danger areas.
- Known or suspected enemy locations.

Complete the Order

With the information gained from the reconnaissance, the engineer commander and XO finalize the SOEO and the company's scheme of maneuver. The plan should be simple, with enough information to complete the mission without further instructions. It should also be flexible to allow the company to react to changing situations quickly. It is critical that the platoon leaders understand their purpose during the operation.

The execution matrix is used to help complete and execute the plan. The matrix is not designed to replace a verbal order with an overlay, a terrain model, or an operational sketch; it is designed to help the company commander develop and execute the order. During the operation, the company leaders refer to the matrix for C² information. Figure 2-3 shows an example of an execution matrix.

Issue the Order

The commander issues the order at the time and place specified in the WO. Normally, the order is issued on terrain overlooking the battlefield prior to the TF OPOD, if possible. This allows the platoon leaders the maximum planning and coordination time if they are task-organized to a maneuver company/team. This is an especially effective technique during defensive operations. If this is not possible, then the use of terrain models, sketches, maps with overlays, and sand tables can be very effective in helping the platoon leaders visualize the operation.

Before starting the company order, the commander ensures that his subordinate leaders have their overlays attached to their maps. He then orients everyone to the terrain. The order normally covers the commander's intent and concept of the operation by ensuring that the platoon leaders are able to visualize the operation and understand their unique contributions to the operation. Possible contingencies and the company's reactions to those contingencies are also covered. The commander ensures that the platoon leaders understand how their missions fit into the overall scheme of maneuver. Before concluding the order, subordinates repeat the critical instructions they have received. Figure 2-4, page 2-12, illustrates examples of TF, engineer company, and engineer platoon time lines for orders preparation.

Mission: Same as briefed					
Intent: Same as briefed					
Engr Unit: CS/Freq	1/A/45 F41/45:45	2/A/45 B41/58:35	A&O/A/45 D41/64:00	1SG/A/45 Z33/56:20	TOC/A/45 C87/56:20
Spt'd Unit CS/Freq	PH III D/3-39 G32/71:20	CO (Cont)			
Task org sub units					
Spec equip	2 MICLIC	7 ACE, 2 CEV 2 MICLIC, 2 SEE 2 Volcano			
I-C-Recon Prep	GPs A1A, A1D Prep Obst GPs & BPs	GPs A1B, A1C See obst execution matrix	Prep BPs, 1,2,3	Track def prep report to bde Collocate TF TOC	LOGPAC Vic plt work sites
II-Defeat Lead MRBs PL Dog	Link up w/ D/3-39 AA 485275	Consolidate 475295	Consolidate 475295	Track battle Collocate TF TOC	Consolidate 475295
III-CATK EA Ball	Breach 2 lanes Dir of ATK D/3-39			Track battle Collocate TF TOC	Spt CAS EVAC Dir of ATK D/3-39
IV-Consoli- date screen PL Cat	Consolidate O/O spt Cont DIS 458288	Consolidate O/O spt Cont DIS 458288	Consolidate O/O spt Cont DIS 458288	Track battle Collocate TF TOC	Consolidate O/O spt Cont DIS 458288

Coord instructions:MOPP 0 1 2 3 4 time O/OOEG 70 CGY

ADA

PCI: After order, A&O 2 hr,
1/A 4 hr, 2/A 5 hrRehearsals: TF EAs rehearsal
in EA strike 1400__199__PIR: Enemy recon sitings,
obst type/loc/comp during
CATKOTHER: Plts est/operate plt
mine dumps. select/report
loc to A&O ASAP. All obst
marked IAW SOP.**Service support:**Cbt Trns 479291 W/TF cbt trainsFld Trns 640261 W/BSAUMCP w/cbt trainsCL IV/V Sup pt 460271MAS 508275FAS w/cbt trainsCL I: M-M-M, plts keep 3-day
supply.CL III: A&O 1 HEMTT to spt surv.
1SG 1 HEMTT for LOGPAC

CL IV/V Obst: See obst matrix

CL V: Basic load, resupply thru
LOGPACPers Replacement priority 1/A,
2/A, A&O. EPW to cbt trains.

Trans Plts cont 1 HEMTT ea.

Command & signal:Ldr loc: CO vic AA, XO w/
TOC, 1SG w/cbt trns

TOC loc: 475295

Succession of cmd: CO, XO
A&O, 2/A, 1/AListening silence: In effect
at end of PH I until contactSignals/code words:
See obst matrix.**Reports:**All contact, obst initia-
tion, obst at 50%, completion,
and turnover IAW SOP. Survey
by BP by position
completion.**Figure 2-3. Sample execution matrix**

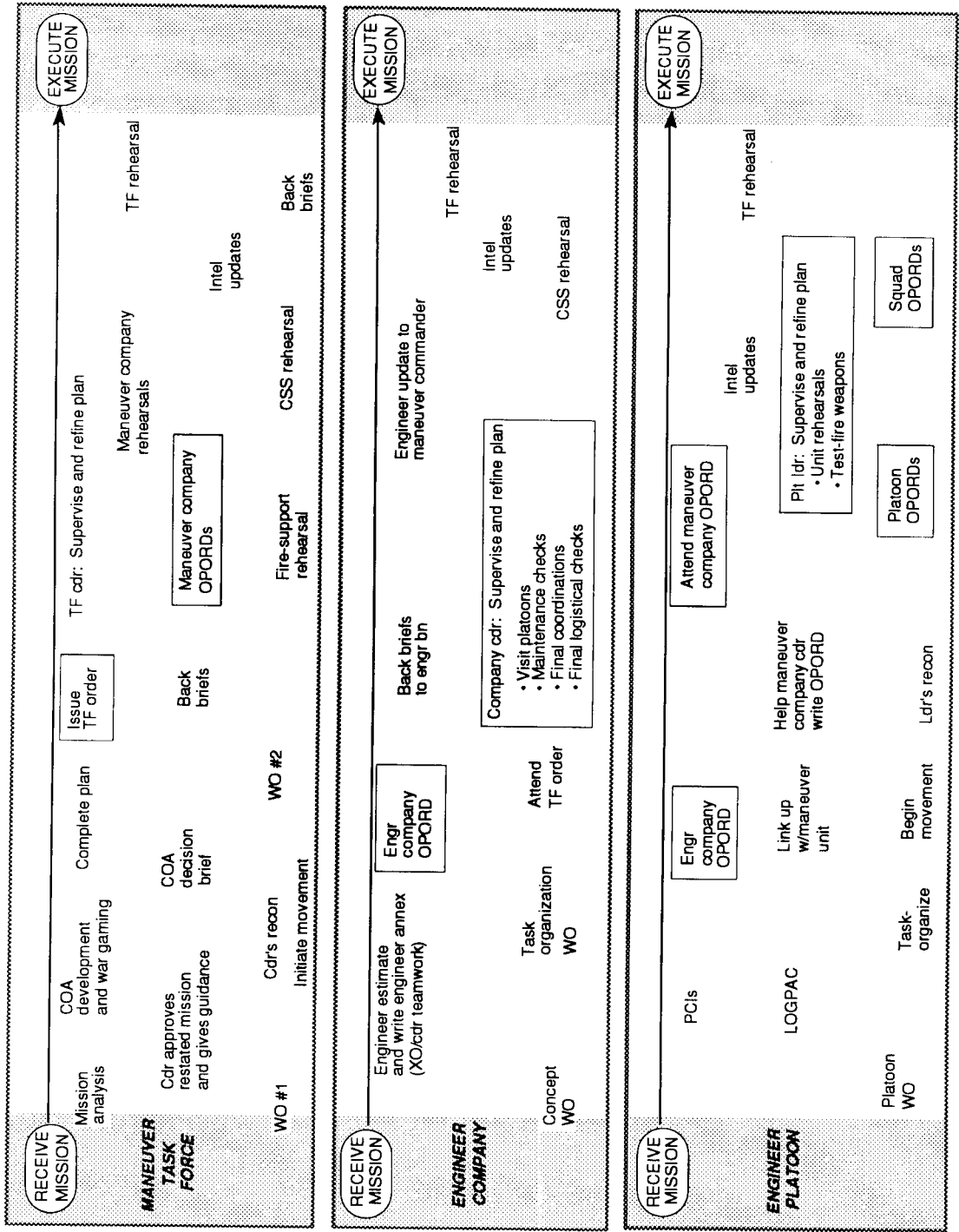


Figure 2-4. Time lines for orders preparation

Supervise the Execution

After the order is issued, subordinates use the remaining time to plan their own platoon or section plans. The commander supervises the subordinates as they prepare their platoons. He gives the platoons a reasonable amount of time to execute their orders and then inspects them through a combination of confirmation briefs, rehearsals, and inspections.

Confirmation briefs are subordinates' briefings to the commander on their plans after their reconnaissance and estimate of the situation. The platoon leaders brief back to the commander before they give their orders. This allows the commander to make corrections or make recommendations to his leaders *before* they give conflicting orders to their platoons.

Generally, it is better to have all subordinate leaders brief back at the same time. This provides a chance to make changes to the operation and to coordinate a final time with all key leaders. The A&O platoon leader and the 1SG are included in this process.

Rehearse. The company rehearses actions critical to mission accomplishment. This ensures that the unit can accomplish these actions given its training level, the orders issued, and the terrain and weather conditions expected.

There are many rehearsal techniques, including—

- **Full rehearsal.** This rehearsal produces the most detailed understanding of the mission within the command. A full rehearsal involves the entire company. It is time-intensive and requires detailed planning to ensure that all key events are synchronized (for example, a deliberate breach and marking of a complex obstacle). The full rehearsal is the preferred technique

because it allows all elements to practice their individual tasks for the mission. Full rehearsals, especially when working with elements or TFs that the commander has not worked with before, are the best preparation.

- **Key leader.** This rehearsal places the key leaders in their combat vehicles and rehearses on terrain similar to the battlefield. These rehearsals are more involved and allow the commander to rehearse movement techniques and synchronize communication procedures at critical times in the operation.
- **Terrain model.** This type of rehearsal is done with a terrain model. It rehearses key leaders on critical events. A terrain-model rehearsal is done when there is not enough time for a more involved rehearsal. When possible, the commander should place the terrain model where it overlooks the actual battlefield. The commander and the platoon leaders walk through the terrain model and rehearse their respective plans and how they are synchronized.
- **Sketch map.** The sketch-map rehearsal uses the same procedures as a terrain model, but is used when time restricts the construction of a terrain model. The commander uses a sketch instead of a model, and the platoon leaders walk through their respective plans. This type of rehearsal is done when there is little time available. When possible, the commander should rehearse at a location overlooking the actual battlefield.
- **Map.** The map rehearsal is used when time is very short. The commander and the platoon leaders use

their maps and graphic overlays to rehearse the plan. Where possible, the map rehearsal should be done on terrain overlooking the actual battlefield. The map rehearsal uses the same procedures as the terrain-model and sketch-map rehearsals.

- **Radio.** The commander and the platoon leaders rehearse by interactively and verbally executing critical portions of the plan over established communication networks. This rehearsal must be carefully supervised to ensure proper OPSEC procedures are followed.

Rehearsals should emphasize events that trigger different contingencies. This helps subordinates understand the intent. The rehearsal should cover critical elements of the maneuver. The engineer company should practice what actions will be done, where these actions are required, who will do them, and who will be the backup. Backup procedures are rehearsed in case the key leader responsible is incapacitated. See FM 101-5 for more information on rehearsals.

Inspect. The company commander inspects by physically checking to see what the unit has done for preparation. A precombat checklist may be helpful as a guide and memory cue of what to inspect. The company precombat checklist should follow the same format as the platoon list (Appendix C gives an example of a company precombat checklist). The platoon leaders should finish their inspections at a certain time to give the commander an overall look at the company.

A report halfway through the preparation phase will allow the commander to check the company's progress and give him time to redirect the priority of tasks. A filled-in copy of the checklist does not substitute for a personal inspection. It is not necessary to conduct a formal inspection; the commander just needs to see what his soldiers are doing.

Often, the commander can tell how well NCOs have performed the precombat preparation by walking through the company position. The commander should talk to his soldiers and leaders to gauge how well they have prepared and to what extent they understand the upcoming mission.

Deficiencies are corrected when they are observed. On-the-spot corrections provide a chance for the commander to train soldiers and reinforce the chain of command. The following list may help the commander inspect the company's preparations:

- Do soldiers know what the company is doing and where they fit into the platoon leader's plan?
- Do soldiers know the visual signs, call signs, and frequencies being used? Do they know the challenge word and password?
- How well are vehicles prepared to move? Are soldiers using preventive maintenance checklists and technical manuals (TMs) to perform before-operations checks?
- Have the company's weapons been cleaned, properly assembled, and test-fired?
- Has the ammunition received at resupply been broken down and distributed? Have the ammunition containers been properly disposed of?
- Are vehicle load plans to the unit standard?
- Are soldiers in the proper uniform?

Coordinate. Coordinating is a part of supervising the company's preparation for combat. The XO, the 1SG, and other leaders help complete coordination. Coordination is critical during the following functions:

- To tie in flanks and to provide mutual support to adjacent units.

- For overwatch, obstacle handover, and passage of lines (lane closure) with the companies/teams.
- For obstacle location, siting, and construction standards with the TF.
- For CSS plans (including logistics release points [LRPs], unit maintenance collection points [UMCPs], aid stations, prestocks, Class IV/V supply-point locations, combat trains, and decontamination sites) with the TF or battalion S4.
- For field-fortification location and construction standards with the companies/teams.
- For reconnaissance and surveillance (R&S) plans with the TF S3/S2.
- Obstacle locations for adjacent units.

TASK-FORCE INTEGRATION

The company CP normally collocates with the TF TOC during the operation's planning phase. The company CP serves an important function within the TF. It allows the company commander the freedom to command and supplies a dedicated engineer planning section to the TF battle staff. The company commander must provide direction, guidance, and intent to the company operations section in the CP. This facilitates TF integration.

The company XO leads the company CP. He works closely with the TF S2 to develop the SITEMP, particularly in the arenas of terrain analysis and enemy engineer capability. The XO works with the S3 during the COA development and analysis processes. He recommends where obstacles, fortifications, and other engineer efforts can support the TF during the defense. In addition, the XO works closely with the TF FSO during defensive operations for integration of fire-support planning into the obstacle plan. In the offense, he must ensure integration of fire-support planning into breaching operations.

During the offense, the XO recommends where breaching assets should be task-organized and which type of breaching system would be best employed. The engineer company commander will normally provide

the engineer XO with planning guidance and engineer company status. The commander will make his own recommendations on which engineer assets should be task-organized and where.

The XO is assisted by the company operations sergeant, the NBC NCO, the communications chief, and the CP-vehicle operator. The engineer CP's vehicle must be a dedicated vehicle with the same C4I capability as the engineer commander's combat vehicle and with the same survivability and mobility as the TF TOC. This allows the CP to operate 24 hours a day and provides for continuous planning and reporting.

The commander gives the XO guidance on using the engineer company. Task-organization recommendations, current equipment availability, and the training level are the commander's to assess, and he provides this guidance to the XO for the planning cell to effectively contribute to the TF planning process.

The engineer company commander frequently accompanies the TF commander during the leader's reconnaissance and assists in the TF commander's development of the command estimate. The company commander's ground reconnaissance can provide pertinent information to the XO and assist him in developing the SOEO.

COMMAND AND CONTROL OF OPERATIONS

The planning process provides the engineer company with the framework for executing the operation. However, the realities of combat demand that leaders be prepared for the unexpected. They must be able to read the terrain, enemy, and friendly situations and understand how these factors might require changes to the plan. They must be capable of making modifications to the original plan and issuing fragmentary orders (FRAGOs) to implement those modifications. They must be capable of exercising their personal influence on the outcome of the battle. The following paragraphs provide techniques to help achieve success. The engineer company commander provides a unique and capable C² resource to the TF to facilitate operations.

The engineer company commander places himself so that he can see the most critical engineer company mission. Terrain and weather should be used to conceal movements from the enemy, but the commander must maintain either visual or radio contact with the platoons. **NOTE: If the most critical engineer platoon is not under engineer company control, a good technique is for the company commander to eavesdrop on that platoon's or the attached company's/team's net to keep current on the situation.**

The company commander synchronizes actions with the other company commanders. When something critical happens, he quickly sends the TF commander a situation report (SITREP). If contact is lost, he makes every effort to reestablish communications short of abandoning the mission. Until communications can be reestablished, he continues to take actions that best accomplish the TF commander's intent.

The engineer company commander must see the battlefield. He prepares to change and update his estimate of the situation at any time. He uses initiative and understanding of the company's purpose to see ahead and to

identify potential problems before they arise. When it is clear that the original plan will not work or a better opportunity presents itself, he modifies the plan quickly and aggressively to meet the changing situation. The commander should seek to lead engineer soldiers rather than task-organize all of his forces to other elements.

The commander demands that subordinates maintain contact with him and keep him informed of their situations. If the commander cannot communicate with subordinate leaders, he has lost control of the company and failed in his primary mission on the battlefield.

The commander issues timely and clear FRAGOs. He tells platoon leaders what he wants them to do and why. He issues WOs, giving the platoons time to react to all possible upcoming missions. He continually updates subordinates on the enemy situation as well as the situations of the TF's other elements.

The commander encourages the company's key leaders to cross-talk on the company command net to coordinate their actions and to ensure that the company has a clear picture of what is happening. The commander uses SOPs and tactical techniques that can be executed quickly with a brief message. He uses checkpoints and terrain features to orient the company and to control its movement from one position to another.

The commander can quickly lose control if the entire company is operating on the command net. The A&O platoon net can be used as the company administrative and logistical (A&L) net if the signal operating instructions (SOI) provides none. The XO, the A&O platoon leader, and the 1SG can use this tactical frequency to synchronize the company logistics operation without crowding the company command net.

The commander ensures that the company has 360-degree security to have the time and space to react to enemy contact. He establishes observation posts (OPs) at each stop. Elements maintain dispersion both laterally and in depth. The armored combat vehicles in the A&O platoon cannot maintain the same cross-country speed as the engineer squad carriers. To compensate for this, the commander moves the unit in quick dashes over short distances. This allows him to keep the entire unit together and prevents the company from becoming strung out in a disorganized column.

All leaders take every reasonable precaution to avoid fratricide. They understand and enforce vehicle and dismounted recognition signals. They ensure that subordinate leaders maintain a high level of situational awareness and keep the TF notified of engineer work locations forward of the TF's main body. They establish obstacle-marking SOPs to ensure that friendly forces do not stray into tactical obstacles. They ensure that lanes are clearly marked and the standard marking is known to all in the TF, especially the support units operating in the area.

SUCCESSION OF COMMAND

Subordinate leaders must understand the succession of command and the company's mission so that if the situation arises they can take command and accomplish the mission.

The succession of command should be explained in paragraph 5 of the OPORD as well as the location of each key leader. An example of a succession of command follows:

- Commander.
- A&O platoon leader.
- First platoon leader.

- Second platoon leader.
- 1SG.

If a platoon leader is in a command relationship to a company/team, he should not be included in the succession of command. For example, if the second platoon leader was attached to a company/team, the 1SG would follow the first platoon leader in the company's succession of command. Also, the XO and 1SG are generally not positioned on the battlefield to assume command of the company rapidly. A possible solution is for the commander to designate a platoon leader as the follow-on commander until the XO can come forward and assume command.