

## Chapter 4

# Command and Control

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### GENERAL

Organization and traffic control are fundamental to successful river crossing operations. They enable the commander to apply the tactics discussed in Chapters 3 and 5. This chapter covers techniques and procedures to establish the crossing organization, maintain control of forces, and hand off responsibilities between echelons as the operation progresses.

### ORGANIZATION

Division and brigade commanders organize their forces into bridgehead, support, and breakout forces for river crossing operations. Bridgehead forces seize and secure the bridgehead. Support forces consist of corps combat engineers, bridge companies, MPs, and chemical units, which provide crossing means, traffic control, and obscuration. Breakout forces cross the river behind bridgehead forces and attack out of the bridgehead.

### CONTROL ELEMENTS

Division and brigade commanders are responsible for crossing their formations. They organize their staffs and subordinate commanders to help them control the crossing. See *Figure 4-1, page 4-2*.

Division and brigade headquarters operate from echeloned CPs. They are the tactical, main, and rear CPs and provide the staff and communications support for planning and executing river crossings. They may need some temporary augmentation or realignment of internal staff elements for the crossing.

*Figures 4-2 and 4-3, pages 4-3 and 4-4*, show the necessary control elements for deliberate and retrograde river crossing operations. Each of the control elements is discussed below.

#### Division Headquarters

The division tactical CP controls the lead brigades' (bridgehead force) attack across the river, since this is the division's close fight. It may reallocate crossing means or movement routes to the river between brigades as the battle develops. For division crossings, a traffic-control cell schedules, routes, and monitors traffic behind the assault brigades. The cell collocates with the division main CP. The Assistant Chief of Staff (Logistics) (G4) provides the cell nucleus. The tactical CP controls the fight and is the crossing force HQ.

The division main CP prepares the river crossing plan. It also directs the division's deep operations to isolate the bridgehead from threat reinforcements and counterattacking formations. As a guide, the main CP displaces across the river after the division reserve.

The division rear CP sustains the crossing as for other division operations. Once the main CP displaces across the river, the crossing becomes a rear operation controlled by the rear CP.

#### Crossing Force Commander (CFC)

The division commander normally designates an assistant division commander (ADC) as the CFC to take charge of controlling the division crossing.

#### Crossing Force Engineer (CFE)

A crossing division receives support from a CFE, who is normally the commander of an engineer group from the corps engineer brigade. He provides additional staff planners for the CFC and coordinates engineer support to the crossing area commanders (CACs). The division engineer and division engineer battalions will focus on the fight.

#### Brigade Headquarters

Brigade headquarters operate from echeloned CPs, the BTAC, and the brigade main CP. The brigade tactical CP controls the advance to and attack across the river. It displaces across the river as soon as practical after the assault across the river phase to control the fight for exit-bank, intermediate, and bridgehead objectives.

The main CP controls the crossing of the rest of the brigade. It prepares the brigade crossing plan and provides the staff nucleus to coordinate it. For brigade crossings, the Supply Officer (US Army) (S4), assisted by the supporting MP unit leader, organizes a small, temporary traffic-control cell collocated with the brigade main CP. The brigade main controls the support force consisting of corps engineers, bridge companies, MPs and chemical units.

#### Crossing Area Commander

Once the lead battalions assault across the river and secure the far-shore lodgement, the crossing area is activated. The CAC, normally the brigade executive officer (XO), controls the movement of forces inside the crossing area. This leaves the brigade commander

Phases CPs	ADVANCE TO THE RIVER	ASSAULT ACROSS THE RIVER	ADVANCE FROM THE EXIT BANK	SECURE THE BRIDGEHEAD LINE	CONTINUE THE ATTACK
DTAC (CROSSING FORCE HQ)	Coordinates lead brigade's seizing of near-shore objectives	Coordinates lead brigades conducting dismounted assault of the river to seize far-shore lodgement	Coordinates lead brigades seizure of exit-bank and intermediate objectives	Coordinates lead brigades seizure and securing of bridgehead objectives and prepares to cross the reserve brigade (breakout forces)	Controls breakout force's attack out of the bridgehead and passes crossing force responsibilities to DREAR
DMAIN	Coordinates deep operations to isolate division advance to the river	Coordinates deep operations to isolate crossing area and far-shore lodgement	Coordinates deep operations to isolate exit-bank and intermediate objectives	Coordinates deep operations to isolate bridgehead	Coordinates deep operations to isolate enemy attack against corps objectives
DREAR	Sustain the fight	Sustain the fight	Sustain the fight	Sustain the fight	Assume crossing force HQ role
BRIGADE TAC CP	Coordinates lead task forces seizing and securing near-shore objectives	Coordinates the dismounted assault crossing of the river to secure far-shore lodgement	Coordinates TF's attack to seize and secure exit-bank and intermediate objectives	Coordinates TF's seizure and securing of bridgehead objectives	Prepares to reorganize and follow the breakout force attack out of the bridgehead toward division deep objectives
BRIGADE MAIN CP (CROSSING AREA HQ)	Moves and prepares into crossing area to provide traffic control, crossing means, and obscuration	Coordinates assault crossing means for TF dismounts and controls obscuration of crossing sites	Controls follow-on TF's pass-through crossing area into attack positions within far-shore lodgement	Controls passage of brigade units through crossing and prepares to cross breakout force	Brigade CPs pass crossing area control to supporting corps engineer battalion

*Figure 4-1. CP tasks (deliberate crossing)*

free to direct key activities while an officer directly responsive to him runs the crossing.

The CAC controls –

- Movement and positioning of all elements transiting or occupying positions within the crossing area,
- Security elements at crossing sites.
- Support forces such as engineer, MP, and chemical units within the crossing area.

#### **Crossing Area Engineer (CAE)**

Each forward brigade normally has a direct-support engineer battalion from corps. The engineer battalion commander is responsible to the CAC for the engineer crossing means and sites. He informs the CAC of changes, due to technical difficulties or enemy action, that render a crossing means inoperable or reduce its capacity. He commands those engineers tasked to move the force across the river obstacle; they remain at the river as the attack proceeds beyond the exit-bank objectives. The division engineer battalion focuses on

supporting the lead brigades at exit-bank, intermediate, and bridgehead objectives and is not normally involved in the river crossing.

#### **Crossing Site Commander (CSC)**

Each crossing site has an engineer, either a company commander or platoon leader, who is responsible for crossing units sent to the site. Normally, the CSC is the company commander for the bridging unit operating the site. He commands the engineers operating the crossing means and the ERPs at the call-forward areas for that site. He maintains the site and decides on the immediate action needed to remove broken-down or damaged fighting vehicles that interfere with activities at the site. He is responsible to the CAE and keeps him informed of site status.

#### **Unit Movement Control Officer**

Each battalion and separate unit commander designates a movement control officer, who coordinates the

## **4-2 Command and Control**

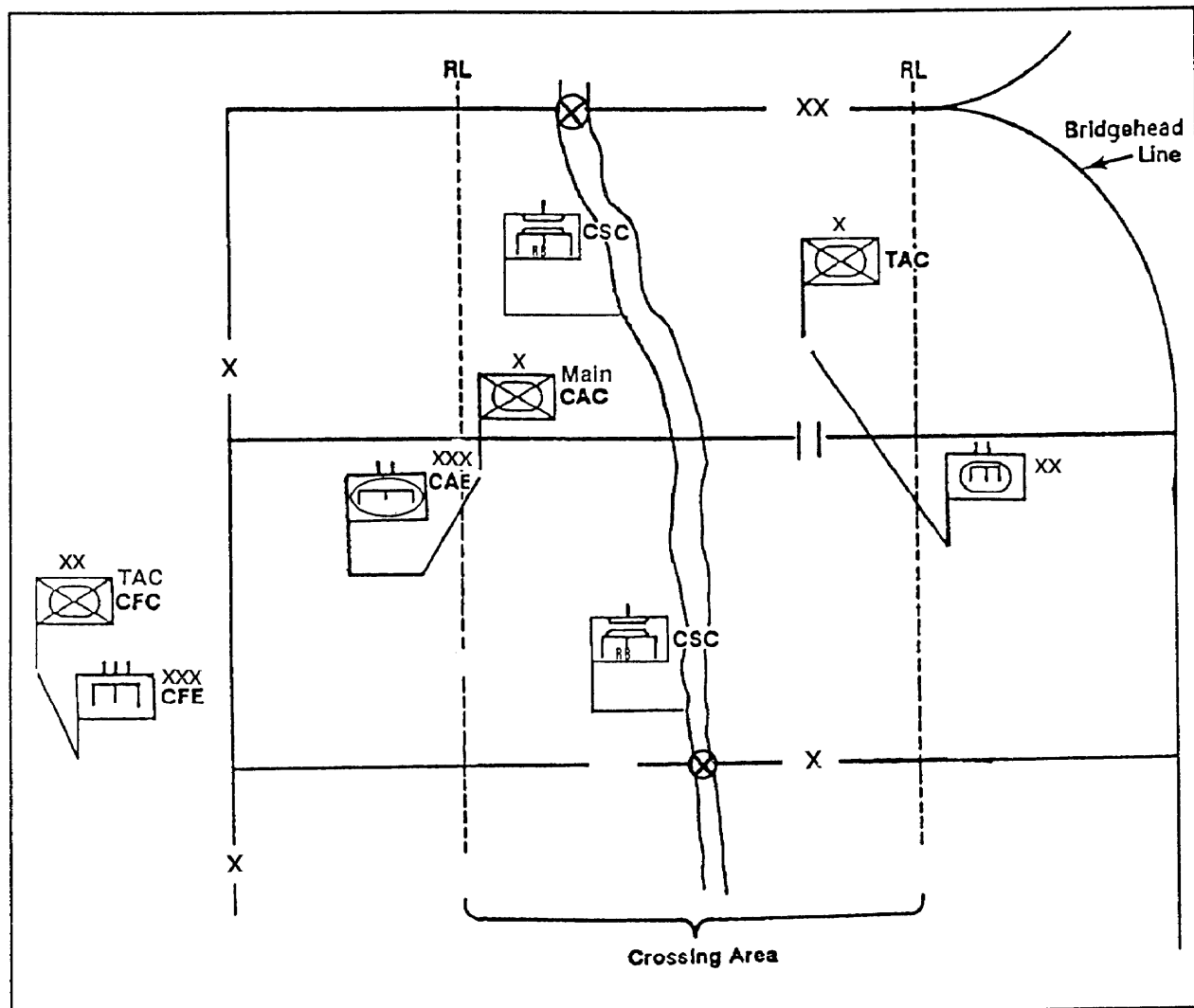


Figure 4-2. Control elements for deliberate crossing

unit's movement according to the movement control plan. He provides staff planners detailed information on the unit's vehicle types and numbers.

### COMMUNICATIONS

Figures 4-4 and 4-5, pages 4-5 and 4-6, depict the communications networks for a crossing area after the assault across the river (Phase II). In the hasty crossing example, a brigade making a supporting attack conducts a crossing with its normal slice of combat support forces plus a corps bridge company. More assets are available from division and corps in the deliberate crossing example. Wire is the preferred means of

communications in a river crossing when there is sufficient time to prepare it.

### CONTROL MEASURES

The commander uses control measures to delineate areas of responsibility for subordinates and to ease traffic control. Figure 4-6, page 4-7 illustrates the control measures described below. A crossing overlay showing the control measures is on page 6-5.

#### Release Lines (RLs)

As used in river crossing operations, RLs are used to delineate the crossing area. RLs are located on both the

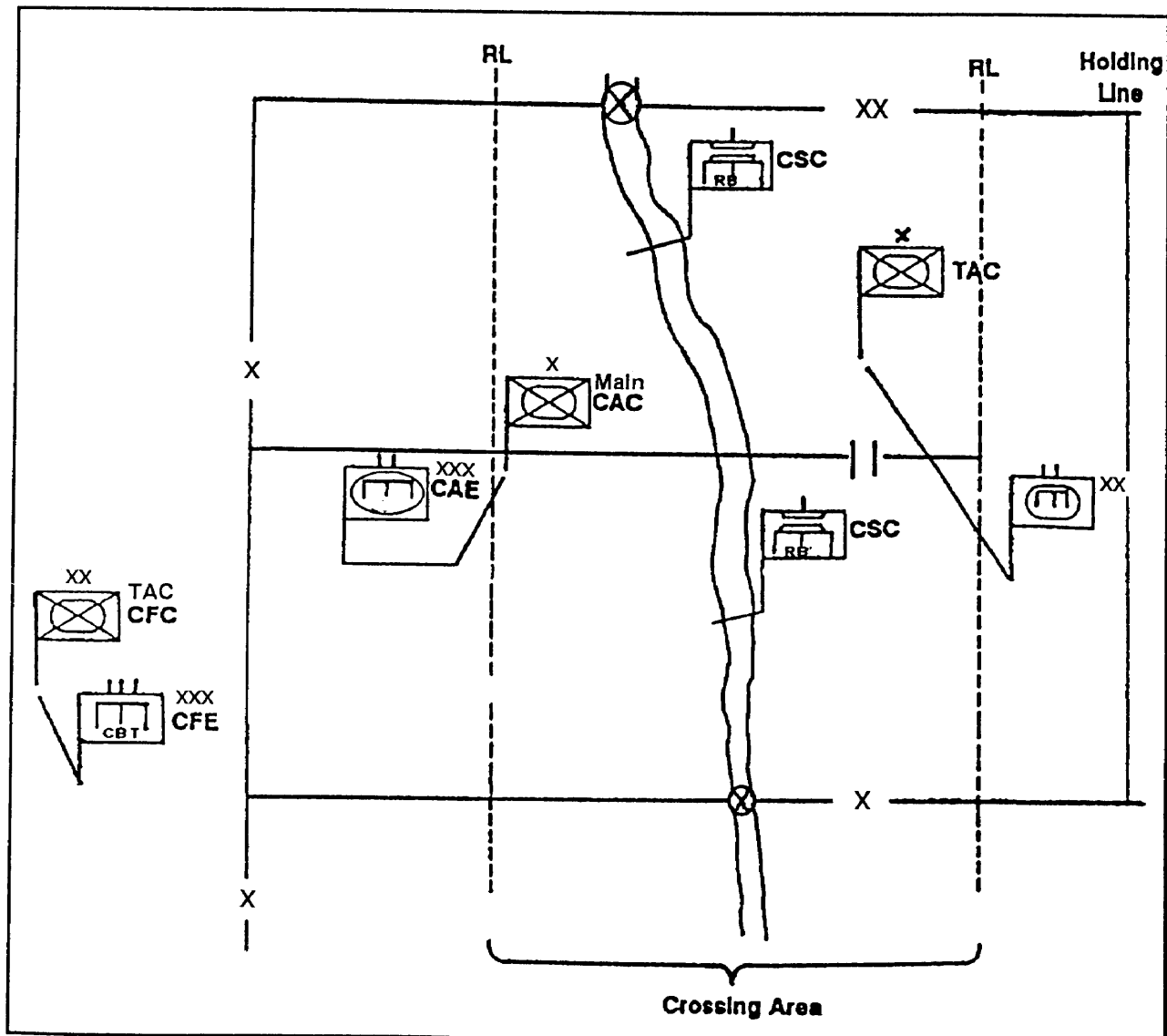


Figure 4-3. Control elements for retrograde crossing

far and near shores and indicate a change in the HQ controlling movement. RLs are normally located within 3 to 4 kilometers of the river and on easily identifiable terrain features, if possible.

#### Crossing Areas

Crossing areas are controlled access areas that decrease congestion at the river. This permits swift movement of follow-on units. Each lead brigade has a crossing area, defined by brigade boundaries and phase lines (RLs) on both sides of the river. Crossing areas normally extend 3 to 4 kilometers on each side of the river, depending on the terrain and anticipated battle.

#### Waiting Areas

Waiting areas are located adjacent to the routes or axes of advance. Commanders use them to conceal vehicles, troops, and equipment while waiting to resume movement or for making final crossing preparations. River crossings use the following waiting areas:

- Staging areas
- Call-forward areas
- Holding areas
- Attack positions
- Assembly areas

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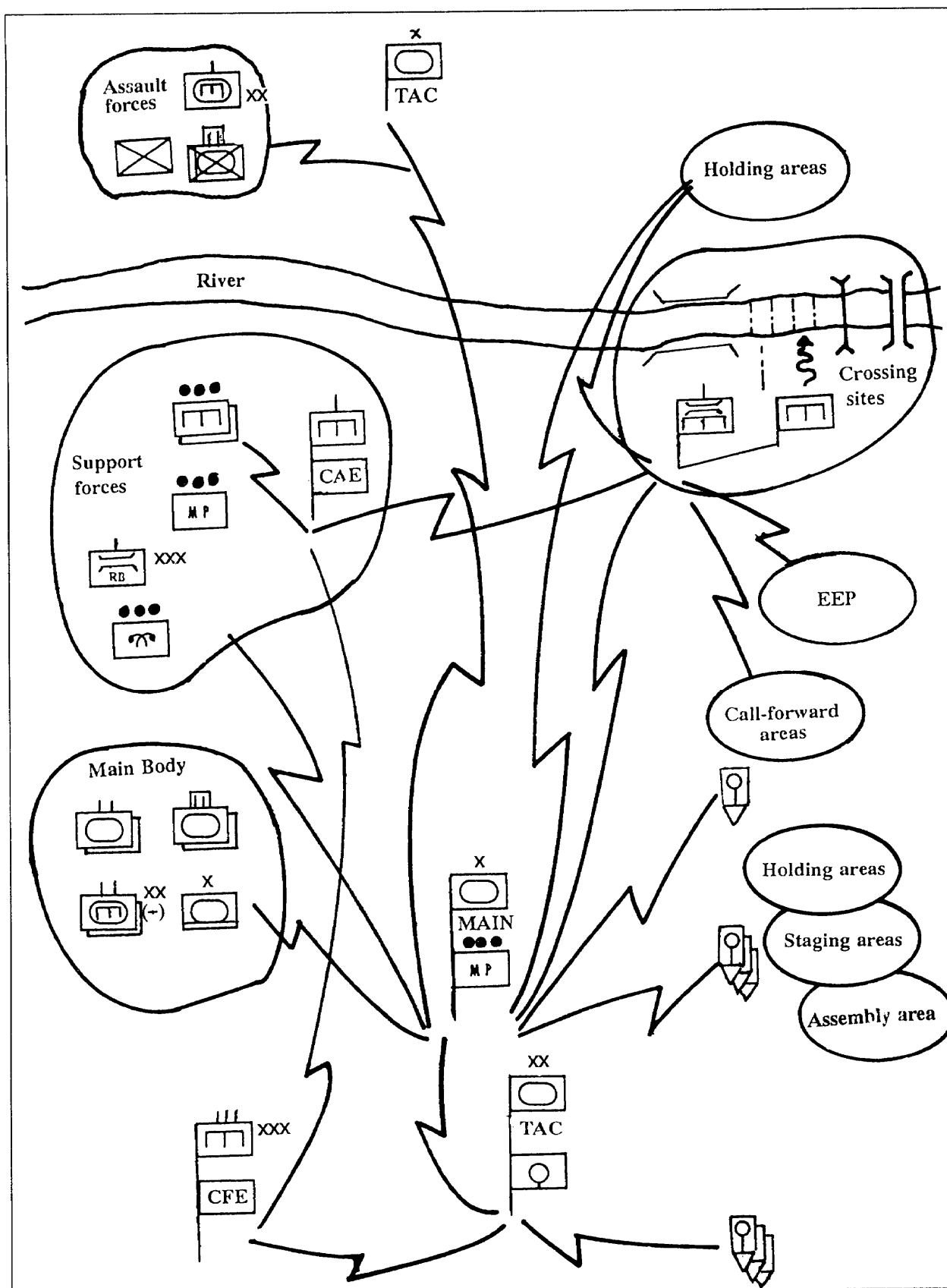


Figure 4-4. Communications for deliberate crossing

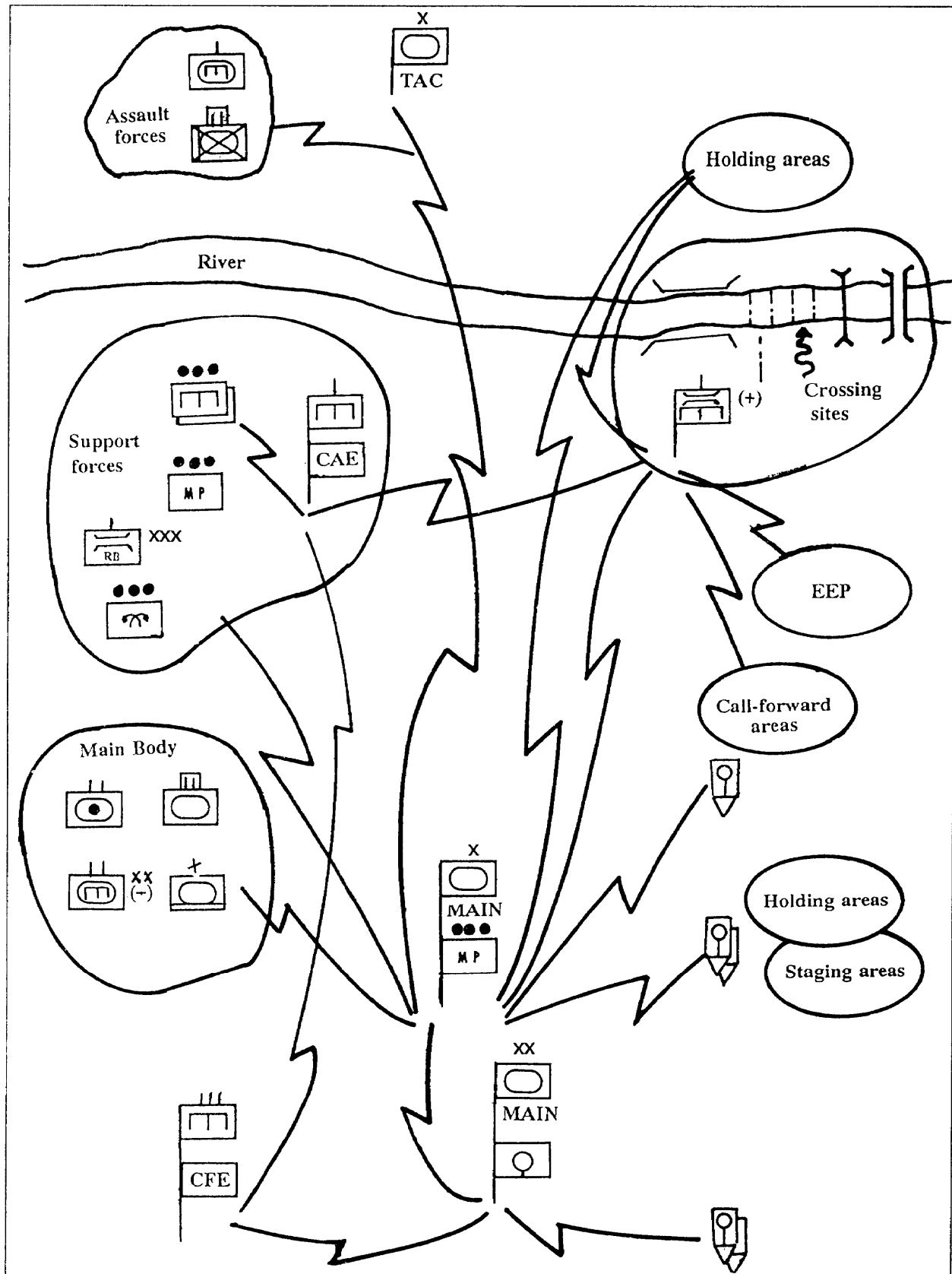


Figure 4-5. Communications for hasty crossing

#### 4-6 Command and Control

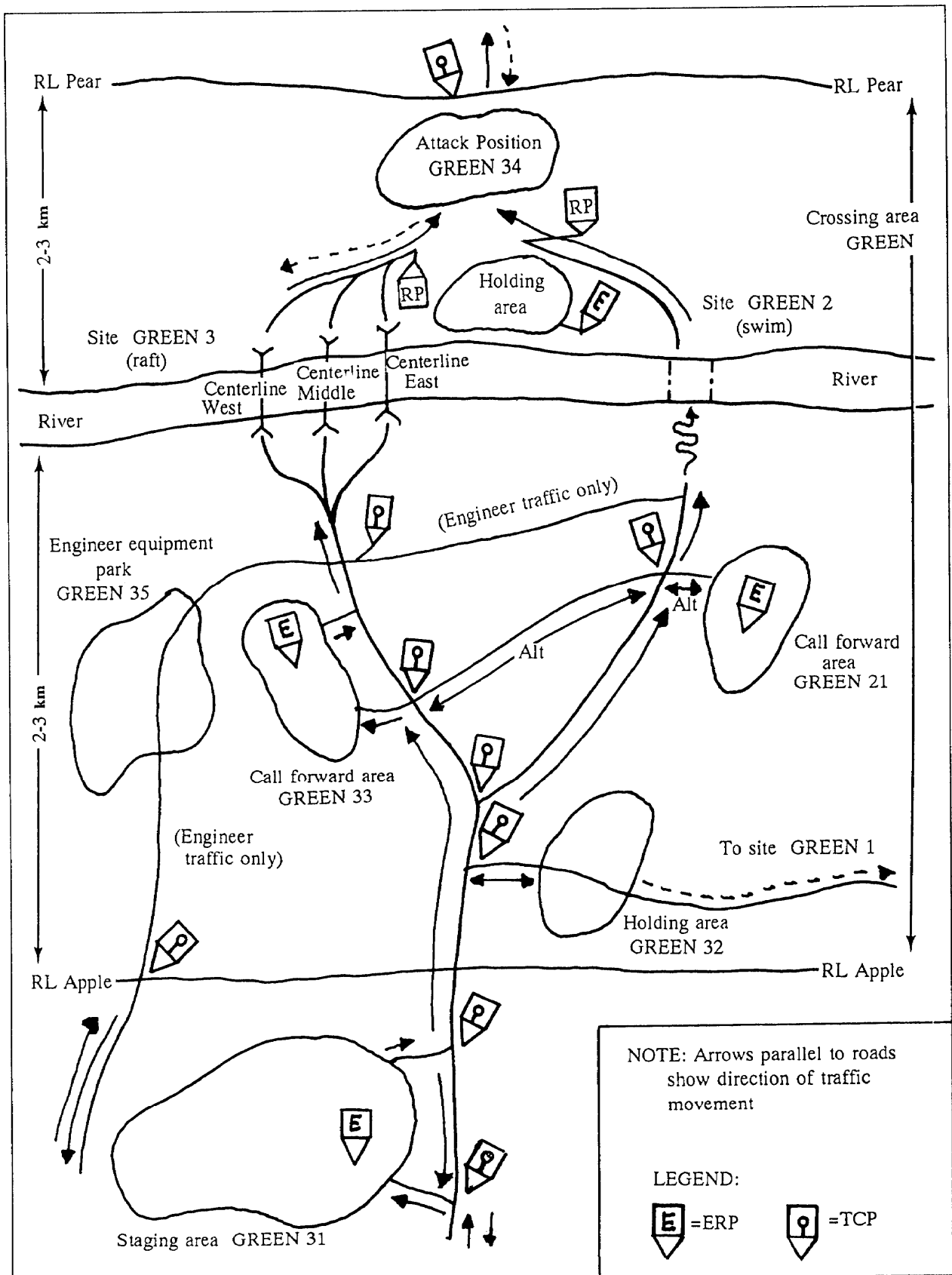


Figure 4-6. Control measures

Staging areas are battalion-size waiting areas outside the crossing area where forces wait to enter the crossing area. The brigade traffic control cell handles unit movement into staging areas. The CAC controls movement from staging areas into crossing areas. MPs operate TCPs at staging areas according to the crossing and traffic circulation plan. MPs emplace temporary signs along the route from the staging area through the crossing area to guide convoys. Units make crossing preparations and receive briefings on vehicle speed and spacing in the staging areas. Staging areas —

- Are located to support the crossing concept.
- Are far enough back to permit rerouting the battalion along other roads or to alternate crossing sites.
- Are easily accessible from major routes.
- Have sufficient area for dispersion of a battalion-size unit.
- Provide concealment.

Call-forward areas are company-size waiting areas located within the crossing area. Engineers use them to organize units into raft loads, or crews use them to make final vehicle swimming preparation. The CAC controls movement from the staging area to the call-forward area. The CSC directs movement from the call-forward area to the crossing site and on to the far-shore attack position. As a minimum, each raft or swim site has its own call-forward area. Call-forward areas —

- Are located to support the crossing plan.
- Are company size within the crossing area.
- Are easily accessible from routes.
- Are planned with a minimum of one per site.
- Are collocated with ERPs.
- Are used to organize units into raft loads.
- Are the final preparation areas before going to the crossing site.
- Are normally operated by an engineer squad.

Holding areas are waiting areas that forces use during traffic interruptions. Units move into these areas when directed by TCPs and disperse rather than stand on roads. They are battalion-size outside of the crossing area and company-size within it. Far-shore holding areas are used to organize return traffic. MPs operate holding areas according to the crossing and traffic circulation plans. Established as needed on both sides of the river, holding areas —

- Are used as call-forward areas for return traffic from the far shore.
- Are located to support the crossing plan.
- Are easily accessible from routes.
- Have sufficient area for dispersion.
- Provide cover and concealment.

- Are defensible.
- Maximize traffic flow with minimum control.

Attack positions are the last positions occupied or passed through by the assault echelon or attacking force before crossing the line of departure. Within the bridgehead, the attack position is the last position before leaving the crossing area or bridgehead line.

Assembly areas are areas in which a force prepares or regroups for further action.

### **Engineer Equipment Parks (EEPs)**

EEPs are areas located a convenient distance from bridge and raft sites for the assembly and preparation of bridge equipment and materiel. They are at least 1 kilometer from the river and hold spare equipment and empty bridge trucks not required at the crossing sites. The CAE places EEPs to avoid traffic congestion at crossing sites and to conceal and disperse equipment. Ideally, routes leading from EEPs to the crossing sites are not the same routes used by units crossing the river.

### **Traffic Control Posts**

TCPs are established to control traffic movement while providing information and directions. In river crossings, TCPs assist the crossing-area HQ in traffic control by reporting movement of units and convoys. TCPs relay messages between the crossing-area headquarters and moving units. The provost marshal identifies locations that need or require TCPs. MPs operate TCPs on both banks of the river to control traffic moving toward or away from the river. MPs operate TCPs at major or critical crossroads and road junctions, staging areas, holding areas, and ERPs.

### **Engineer Regulating Points**

ERPs are technical checkpoints to ensure that vehicles do not exceed the capacity of the crossing means. They help maintain traffic flow. MPs collocate TCPs with ERPs to ensure that all vehicles clear the call-forward areas. An additional ERP role is to give drivers final instructions on site-specific procedures and other information such as speed and vehicle interval. As a minimum, each crossing site requires an ERP at its own call-forward area. If sufficient engineer assets are available, ERPs may be established at far-shore holding areas to regulate rearward traffic. Engineers man the ERPs and report to the CSC.

### **CROSSING PLAN**

The crossing plan is integrated throughout the division and brigade operation orders (OPORDs) and is as detailed as time permits. The crossing annex to the



OPORD contains much but not all of the plan. It has the crossing overlay and the crossing synchronization matrix.

The crossing overlay shows the crossing areas, crossing sites, routes leading up to them from assembly areas, and all control measures necessary for the crossing. See the example in Chapter 6 for a brigade crossing overlay.

The crossing synchronization matrix is a tool to adjust the crossing plan as the battle develops. It shows crossing units in relation to their planned crossing times and locations. See Appendix A for an example matrix.

The task organization and paragraph 5 of the OPOD contain the organization and command portions of the crossing plan. Chapter 6 discusses further development of the crossing plan.

### **CROSSING CONTROL**

#### **Assault Across The River**

Battalions task forces (TFs) conducting the assault across the river phase move to the river under the direct control of their brigade commanders. The assaulting battalions using RB15s follow the procedures in Chapter 8. The brigade commander keeps the remainder of the brigade back from the river to avoid congestion. Elements not engaged in security or supporting the crossing occupy assembly areas and prepare for movement across the river.

#### **Crossing Area Operations**

After the assault across the river phase, the brigade has an initial lodgement on the far shore and is no longer fighting to seize the exit bank. It now needs its follow-up battalions across as quickly as possible, and it can cross without engaging in combat at the river. The brigade commander activates the crossing area to move forces rapidly and efficiently. The urgent need to get tanks across the river means the raft stage often begins before the secure terrain on the far shore extends clear to the planned release line. Therefore, the crossing area is initially limited to the near shore. The first fighting vehicles swimming or rafting across under this circumstance have limited space to regroup before commitment to the fight.

As the initial battalions across gain terrain to the necessary depth, and as control elements cross to the far shore, the brigade commander extends the crossing area out to the planned release line. Thereafter, units move completely through the crossing area under the CAC's control and exit it in a tactical move.

When rafting, the crossing flow for the follow-up units is generally from a staging area, through the call-forward area and crossing site into an attack position, then onto the subsequent objective. While bridging, the flow is from a staging area, through the crossing site, then out of the crossing area.

*Figure 4-7, page 4-10*, illustrates the traffic flow for a battalion TF follow-up unit during the rafting. This procedure avoids congestion close to the crossing site and helps maintain unit integrity while the battalion rafts. The battalion occupies staging area GREEN 31 and organizes an internal unit crossing order based on its mission on the far shore. When concurrently swimming and rafting vehicles of the same battalion, the swimming ones form up separate from nonswimming ones for movement to the crossing sites, but they remain within their company teams. The ERP at the call-forward area checks vehicles to determine correct load classification and proper loading. When instructed by the CAC, the battalion sends one company team (or the equivalent) from the staging area at a time. TCPs guide their movement en route to a call-forward area, where the company comes under movement control of the CSC.

In the call-forward area at site GREEN 33, engineers manning an ERP organize individual vehicles into raft loads. They guide raft loads down to raft centerlines as directed by the CSC. In the call-forward area GREEN 21, vehicle crews make final swim preparations. The ERP sends them down to the swim site when directed by the CSC.

Vehicles remain under control of the CSC until they are on the far shore. There they proceed to attack position 6, where they regroup as a company team. When ready, they move as directed by the TF commander under the tactical control of the brigade commander.

During the bridging operations, the CAC normally directs the follow-up battalions to move in company serials from the staging area. Each serial moves down to the bridge site, crosses the river, and continues clear through to the attack position. The CAC directs an interval between serials that keeps continuous traffic across the bridge without gaps or traffic jams. A call-forward area remains established in the event the bridge becomes damaged and rafting operations resume.

Units in the attack-by-fire position on the near shore are already inside the crossing area when it starts to function. They remain in position until the CAC directs them to cross the river. Those units move by company

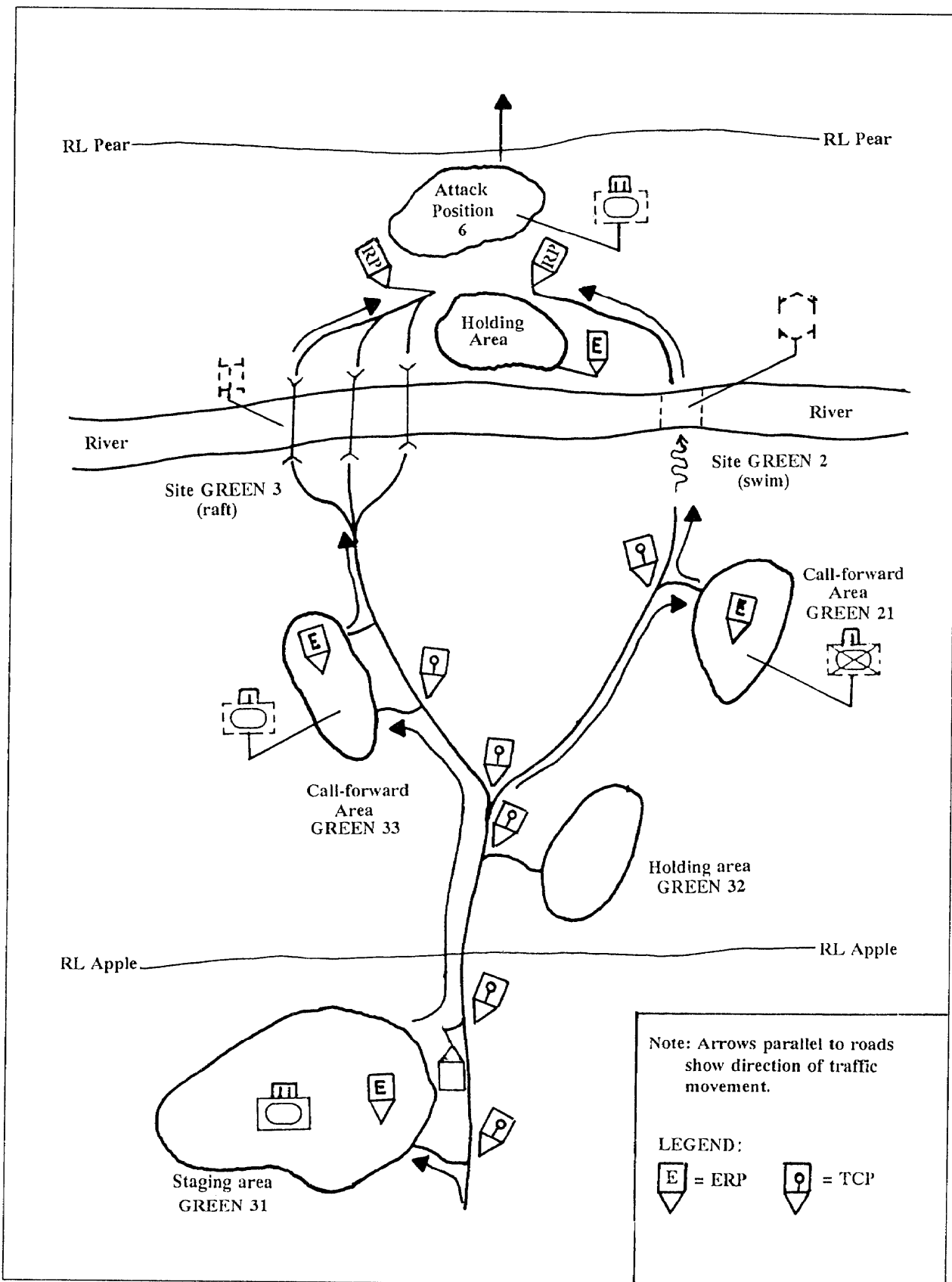


Figure 4-7. Follow-on TF crossing during raft phase

or platoon directly to previously selected call-forward areas or start points (SPs).

### Variants of Brigade Crossings

Division has several ways, described below, to allocate the support force and assign responsibility for running the crossing area.

**Example 1.** The lead brigades, (bridgehead brigade) which is at the river, has its own support force. This is the usual condition for a hasty crossing. The brigade controls all aspects of its crossing. The commander designates the CAC to control the crossing after the lead battalions secure the far-shore lodgement. This leaves the commander free to concentrate on the fight on the far shore, while his own staff and units respond to him to cross the remainder of the brigade. The brigade main CP is the crossing-area headquarters.

**Example 2.** The attacking brigades (bridgehead), which pass through an in-place force at the river, contain the support force. The bridgehead force coordinates a forward passage of lines with the in-place force at the river. The bridgehead force commander designates the brigade XO to control the crossing. The two brigade commanders mutually agree on when the CAC assumes control of the crossing area from the in-place brigade. The bridgehead force brigade main CPs are the crossing-area headquarters. The CPs of both brigades collocate, as necessary, for the passage of lines.

**Example 3.** The attacking force brigade (bridgehead) passes through an in-place force at the river, which contains the support force. The bridgehead force brigade commander coordinates a forward passage of lines with the in-place force. The in-place brigade commander designates his XO to control the crossing. The main CP of the in-place brigade is the crossing headquarters. Initially, the CAC controls movement within the near-shore side of the crossing area. The two brigade commanders agree on when the CAC extends movement control to the planned limit of the crossing area on the far shore. The CPs of both brigades collocate as necessary for the passage of lines.

**Example 4.** Breakout forces move across the river behind bridgehead force brigades. Another unit commander is responsible for the crossing area and the support force. The breakout force moves forward to the crossing area as directed by the division traffic control cell. It moves through the crossing area as directed by the commander responsible for the crossing area.

### Transfer of

#### Support Forces to Division

Once the bridgehead forces are across the river, the crossing sites are relatively secure. Since ground

maneuver is no longer close to the crossing area, the operation at the river becomes predominantly a bridging and traffic-scheduling problem. Division HQ moves the release line at the rear of the bridgehead force to the far shore. The crossing areas come under direct division control. As directed by the ADC, the brigade commander turns over his crossing area to another officer, normally the CAE, who becomes responsible for the crossing area. He then reports through the CFE to the ADC at the division rear CP. His unit headquarters becomes the crossing area headquarters. *Figure 4-8, page 4-13* shows the change in control headquarters.

### MOVEMENT CONTROL

Movement control is vital to efficiently move units and materiel up to the crossing area in the sequence needed by the commander. The traffic control cells at division and brigade headquarters exercise movement control through TCPs. The division controls movement from its rear boundary up to the brigade rear. Brigade controls movement from the rear boundary up to the bridgehead line.

The G4 develops the division movement plan according to the movement priorities established by the Assistant Chief of Staff, G3 (Operations and Plans) and provost marshal. The S4 prepares the brigade movement plan according to the priorities established by the Operations and Training Officer (S3). Each unit movement control officer, normally the battalion S4, provides unit vehicle information to the planning headquarters.

The movement plan normally consists of a traffic circulation overlay and a road movement table found in the movement annex to the division or brigade order.

### RETROGRADE CROSSINGS

A retrograde river crossing has most of the same control features as an offensive crossing. The rearward passage of lines by friendly units under enemy pressure stress them more severely in the retrograde.

The commander responsible for a crossing area has the same authority as he does in an offensive crossing, but because a brigade establishes a defense along the river concurrent with the crossing, he coordinates crossing activities to avoid conflicts with defensive preparations. For this reason, the responsible officer and his staff should be familiar with both the delaying and defending commanders' tactical plans. He coordinates optimum use of crossing sites by delaying units. As they disengage, they must rapidly pass through the defending force at the holding line and cross the river. The commander responsible for the crossing area reports to the division CP controlling the operation. If

the main CP is forward of the river, this is usually the division rear CP until the main CP displaces behind the river.

When the river is in the division rear area at the start of the retrograde, the crossing begins as a rear operation. The senior corps engineer commander supporting the division becomes the CFE and establishes division crossing areas with corps engineer and MP units. He identifies engineer commanders, as directed by the commanding general, to quickly organize the crossing areas and initiate crossing control. These crossing areas correspond to the brigade boundaries planned by the G3 for the defense along the river.

Each brigade commander establishing a defense at the river appoints an XO to control the crossing area in his sector. When the river is in the brigade's sector at the start of the retrograde, this officer can immediately take charge and organize the crossing area. If the division initially organizes the crossing area through the CFE, it directs the defending brigade to take charge of the crossing area once the brigade has established its hasty defense at the river. Then, the engineer who had

been responsible for the crossing area becomes the CAE. The brigade XO coordinates with the division main CP, which retains centralized control of the crossing until only the defending brigade's units remain to cross in that area. The crossing area operates until the commander directs the bridges to be destroyed or removed. At that time, the crossing area ceases to exist.

Turnover of sites from the CAC to defending battalion commanders is by mutual agreement or when directed by the brigade commander. Simultaneous hand-off between or within defensive sectors is not essential. Depending on the tactical situation, the division commander may not allow crossing equipment to remain in place, even though the defending brigade commander desires its retention. Normally, the CAC retains control of the crossing means until delaying units cross the river. He then orders removal of tactical bridge assets. Control of remaining freed bridges then passes to the defending commanders. They are responsible for their defense and ultimate destruction, as discussed in Chapter 5.

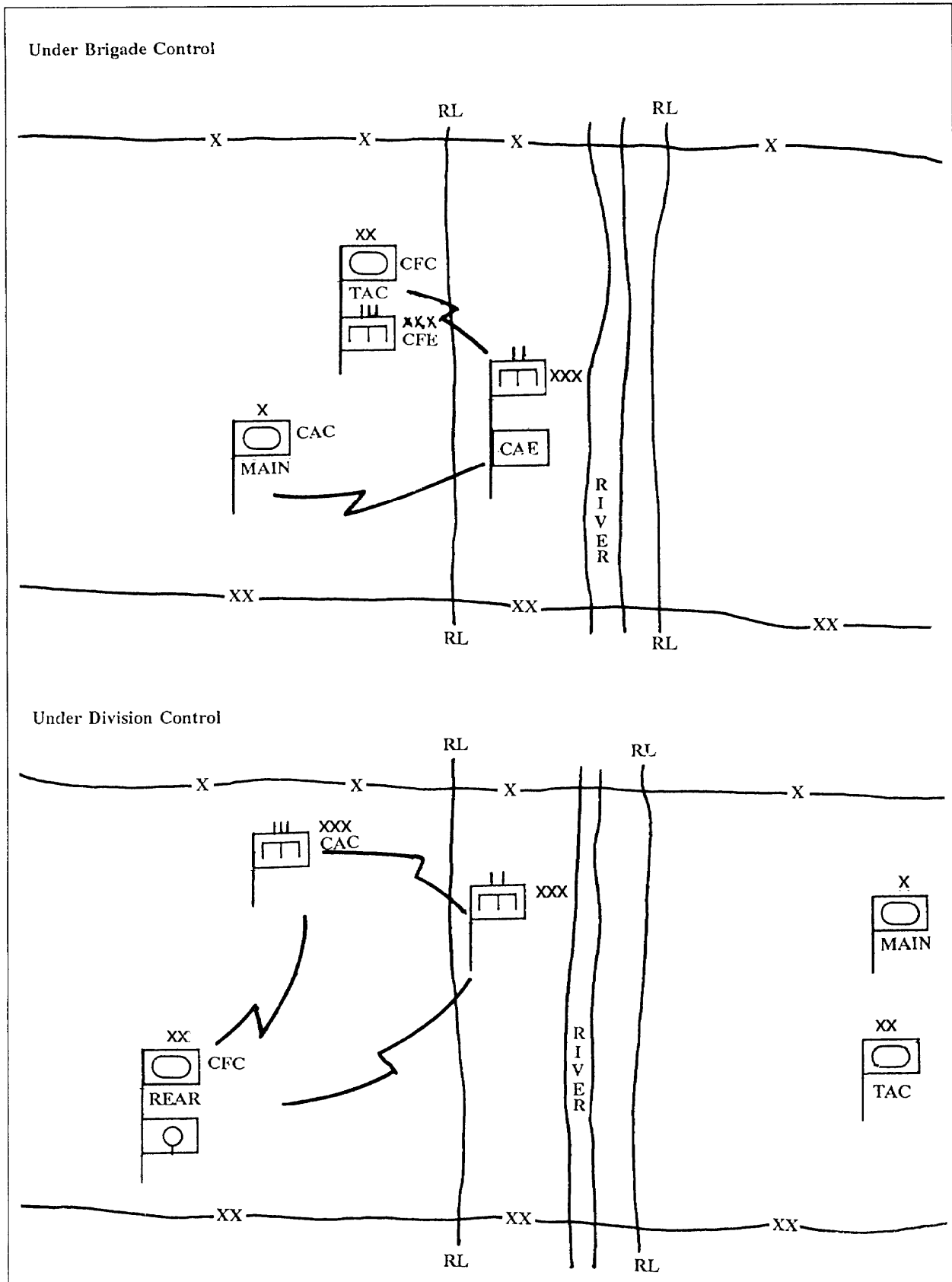


Figure 4-8. Transfer of crossing support