

CHAPTER 4

COMBAT HEALTH SUPPORT OPERATIONS**4-1. Combat Health Support for Reconnaissance Operations**

Reconnaissance precedes all military operations and verifies or refutes analyzed information in IPB products. The RECON information may require that the initial plans or COA be modified or discarded. The R&S systems are used to see the enemy, terrain, and other aspects of the battle space that will affect operations. As advanced warfighting systems are fielded, the R&S capabilities at all levels will be significantly enhanced but will never completely replace human collection requirements. The scout platoon is the primary R&S asset for the battalion/TF. This unit is specifically designed and equipped to conduct R&S operations and can do some limited intelligence analysis. It is the only element in the battalion/TF specifically trained in reconnaissance and can work up to 30 kilometers across the forward line of own troops (FLOT) forward of the battalion/TF. The key to synchronizing this asset is predicated on each member of the platoon understanding the battalion/TF commander's operational intent and concept. Members should understand their roles in obtaining the major decision point criteria. Detailed plans and orders are key to effective employment of the scout platoon. The continuous nature of the R&S process requires the commander to manage the employment of the scout platoon for R&S requirements tied to critical decision points. Reconnaissance missions require a detail list of exactly what is being tasked and a clear priority for collection. If RECON assets could find and report only one piece of information, what does the commander want it to be? For example, the answer to this questions is reflected in the instructions to the scouts. "Execute zone RECON forward of the battalion/TF, beginning at 0345 hours. Collect and report the following in priority. Phase I: Number 1, confirm or deny enemy antitank minefield at grid FT 456689; Number 2, determine enemy unit and type and disposition of hill 413, grid FT535731." This allows the scout platoon leader to collect vital information first and focus his efforts, enhancing the battalion/TF's planning process. Reconnaissance assets should not be launched without determining the initial RECON plan. The medical platoon leader will be involved with developing the CHS portion of the RECON plan. The RECON plan can be issued as a FRAGO and should include—

- Composition/task organization for RECON.
- Key facts (priority intelligence requirements) to be gathered by the RECON party and expected results.
- Movement routes/formations to the RECON location.
- Actions on reaching the location.
- Special instructions to members of the RECON party. Collection task should be specified.
- Any special equipment required (chemical detection kits, expedient or directional antennas, and so on).
- Contingency plans.
- Requirements for continued surveillance after the RECON.

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- Indirect fire support for RECON.
- Security arrangements.
- Communications arrangements (nets, retransmission sites, and so on).
- Withdrawal, linkup, and dissemination plans.

Combat service support considerations for RECON include—

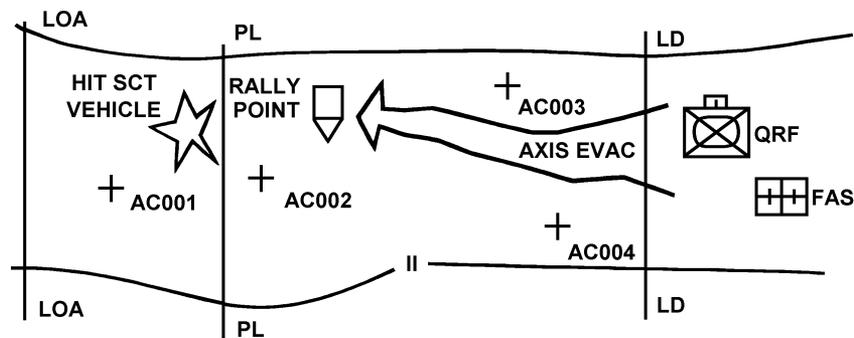
- Developing SOPs for load plans of outposts.
- Establishing CSS procedures for both mounted and dismounted RECON missions.
- Establishing CSS procedures for air versus ground insertion of RECON assets.
- Developing procedures for both aerial and ground sustainment.
- Developing resupply techniques to include—
 - Using multiple/false landing zones away from outposts as cache drop-off points.
 - Predetermining the locations and times for resupply of Classes I, III, IV, V, VII, and XI.
 - Establishing locations for caches on successive missions/insertions.

Combat health support considerations include—

- Determining the CHS requirements.
- Deploying trauma specialists and medical assets in DS of RECON operations, as required and appropriate.
- Planning for casualty evacuation/extraction operations.
- Developing a CHS SOP for supporting RECON elements deployed deep into enemy territory.
- Selecting evacuation sites (remembering that all cache sites are potential casualty evacuation sites).
- Developing TTPs for cross-FLOT casualty extraction.
- Establishing the time for pick up and the pickup point for aerial extraction of casualties. (The last known/reported location is normally the aerial pickup point and the best time is 30 minutes prior to BMNT or 30 minutes after EENT.)

- Developing a detailed plan for ground extraction, to include link up to quick reactionary force (QRF) and escort to casualty exchange point.
- Conducting rehearsals for day and night extractions.
- Requesting escort if a QRF is not established.

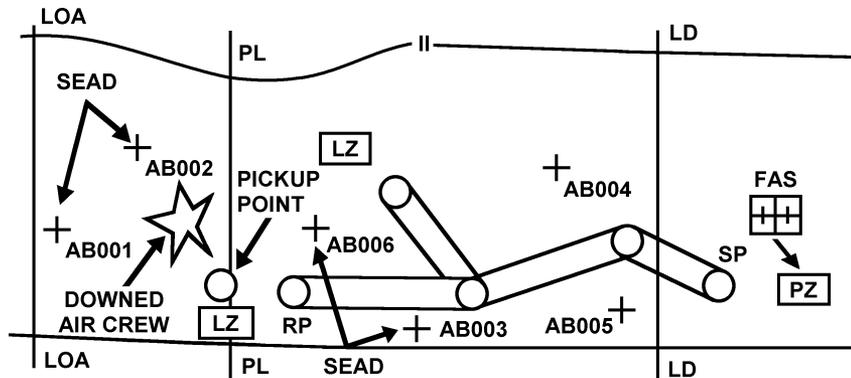
During RECON missions if a member or members of the platoon become casualties, initial care will be self-aid, CLS advanced first aid, or EMT from a trauma specialist. Trauma specialists may be deployed as a rider in one of the scout vehicle or an ambulance team may be in support. If casualties/patients require extraction/medical evacuation, it becomes a combat mission. Since this is a combat mission that may require offensive action, medical personnel are placed under the control of a QRF leader. Provided in Figure 4-1 is a technique for conducting cross-FLOT ground extraction and lists the overall considerations. Figure 4-2 is a technique for conducting cross-FLOT air extractions and lists the overall considerations. Since the RECON element is usually small, enemy contact could produce a significant number of casualties requiring extraction of the entire team. Either ground or air could be used to execute the extraction of the RECON team. As stated above, this is a combined arms operation. Medical personnel will participate in the planning, preparation, and execution of these missions. If medical evacuation vehicles are not sent with the extraction force, then one vehicle should be designated for casualties and augmented with a trauma specialist. For additional information on reconnaissance operations, see FMs 7-20, 7-30, 7-92, 17-98, and 71-3.



OVERALL CONSIDERATIONS

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| <ul style="list-style-type: none"> • EXTRACTION IS A COMBAT MISSION • PLAN/REHEARSE QRF • PLAN COMBAT MULTIPLIERS • PLAN ARTILLERY SUPPORT THROUGHOUT ZONE/SECTOR • PLAN FALSE/DISTRACTING ARTILLERY • CLOSE AIR SUPPORT • GRAPHICS ISSUED TO SUPPORT MISSION | <ul style="list-style-type: none"> • ALERT ALL RECON ASSETS • USE RECON ASSETS IN SECTOR/ZONE TO VECTOR QRF TO RALLY POINT • POSITION AID STATION NEAR QRF STAGING AREA • PLAN MUST COVER MOVEMENT IN AND OUT OF SECTOR/ZONE • LIMITED ATTACKS TO DISTRACT ENEMY/CLEAR ROUTES, ETC. |
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Figure 4-1. A technique for cross-FLOT ground extraction.



OVERALL CONSIDERATIONS

- EXTRACTION IS A COMBAT MISSION
- PLAN COMBAT MULTIPLIERS
- LETHAL SEAD—INGRESS/EGRESS
- NONLETHAL SEAD—TLQ-17/COMPASS CALL
- FALSE LZ/INSERTIONS
- FALSE ARTILLERY/SEAD
- CLOSE AIR SUPPORT
- ALERT ALL RECON ASSETS
- ISSUE INTEL UPDATE AT PZ
- USE RALLY POINTS/DOWNED CREW PICKUP POINTS
- POSITION AID STATION NEAR LZ

Figure 4-2. A technique for cross-FLOT air extraction.

4-2. Combat Health Support for the Offense and the Defense

a. Combat Health Support for the Offense.

(1) The offense is the decisive form of war, the commander’s only means of attaining a positive goal, or of completely destroying an enemy force (FM 100-5). Rapid movement, deep penetrations, aggressive action, and the ability to sustain momentum regardless of counterfires and countermeasures characterize the offense.

(2) When developing the CHS plan to support the offense, the CHS planner must consider many factors (FM 8-55). The forms of maneuver, as well as the threat’s capabilities, influence the character of the patient workload and its time and space distribution. The analysis of this workload determines the allocation of CHS resources and the location or relocation of MTF.

(3) Combat health support for offensive operations must be responsive to several essential characteristics. As operations achieve success, the areas of casualty density move away from the supporting MTF. This causes the routes of MEDEVAC to lengthen. Heaviest patient workloads occur during disruption of the threat’s main defenses, at terrain or tactical barriers, during the assault on final objectives, and during threat counterattacks. The accurate prediction of these workload points by the CHS planner is essential if MEDEVAC operations are to be successful.

(4) As advancing combat formations extend control of the battle area, supporting medical elements have the opportunity to clear the battlefield. This facilitates the acquisition of the battle wounded and reduces the vital time elapsed between wounding and treatment. There are two basic problems confronting the supporting medical units and MEDEVAC elements. First, contact with the supported units must be maintained. Responsibility for the contact follows the normal CHS pattern—higher echelon evacuates from lower echelon. Contact is maintained by forward deployed air and ground evacuation resources. Secondly, the mobility of the MTF supporting the combat formations must be maintained. The requirement for prompt MEDEVAC of patients from forward MTF requires available ambulances to be echeloned well forward from the outset. Air and ground ambulance support beyond the capabilities of the FSMC is requested from the supporting corps MEDEVAC battalion.

(5) In traditional combat operations, the major casualty AO is normally the zone of the main attack. As the main attack accomplishes the primary task of the combat force, it receives first priority in the allocation of combat power. The allocation of combat forces dictates roughly the areas that are likely to have the greatest casualty density.

(a) In the division, CHS (Echelon I) for the brigade is provided by maneuver battalion medical platoons. The medical platoon operates the BAS or squadron aid station, places trauma specialists in DS of the maneuver companies and RECON troop, provides patient evacuation from forward areas, and deploys treatment teams in DS of battalion or squadron elements for up to 48 hours without resupply. The FSMC (Echelon II) located in the BSA provides MEDEVAC support from the BAS/squadron aid station to the BSA and reinforces treatment capabilities at BAS/squadron aid stations for limited periods of time. When combat operations commence, the medical platoon normally locates its BAS as far forward as combat operations permit. The BAS treatment squad can split into two treatment teams and operate as two separate aid stations (BAS [-]), normally not to exceed 24 hours. Treatment Team A operates the main aid station (MAS) and Treatment Team B operates the forward aid station (FAS). In continuous operations, when operating for longer periods, personnel efficiency and unit capability will tend to deteriorate. Each team employs treatment vehicle(s) with two MES—one trauma set and one general sick call set. The medical platoon will depend on CLS, trauma specialists, company health care SGT, and unit 1SG to assist with clearing the battlefield and getting injured or wounded soldiers to the CCP. From the forward areas and the CCP, armored ambulances will provide medical evacuation to the FAS and MAS. Based on casualty estimates, additional ambulances may be forward positioned at CCP. The CCP, Treatment Team A, and Treatment Team B must select sites that provide cover and concealment and afford some protection to their patients. For additional information on force protection, see Appendix E. Treatment teams must maintain as much mobility as possible while providing stabilization care and rapid medical evacuation. Treatment and evacuation elements must ensure that adequate stocks of Class VIII items are on-hand and, if necessary, request Class VIII resupply from the FSMC.

(b) The Force XXI medical platoon may deploy a treatment team forward in support of brigade RECON troops based on mission requirements. As the battle moves from the original area of contact, coordinated movements of treatment teams allow for continuous CHS. Once patients are received, a treatment team from the BAS or squadron aid station will care for and treat these patients until their MEDEVAC or appropriate disposition. The remaining treatment teams of the maneuver BAS and squadron aid stations move with the battle and provide CHS to the maneuver and RECON elements according to the brigade order.

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(c) Careful coordination must be used when deciding when and which treatment team will receive patients. The plan must take into account maintaining the mobility of the medical platoon so that at least one treatment team will be able to follow the force as it maneuvers. This will keep evacuation routes and times to a minimum. Maneuver BAS/treatment teams provide area medical support to units without organic medical support operating in the maneuver battalion's AO. Brigade RECON will plan for area medical support for cross-FLOT operations. After MEDEVAC or appropriate disposition of their patients, the treatment team prepares for its next move. This echeloned displacement (leapfrog) technique provides for maximum utilization of medical platoon treatment teams and permits continuous uninterrupted CHS to maneuver battalions on the move. Each of the above actions must be coordinated with the CTCF and the FSMC.

(d) The BAS is under the tactical control of the battalion S4 and is normally deployed in the vicinity of combat trains. To reduce ambulance turnaround time in providing ATM to patients within 30 minutes of wounding, the BAS may split and place its treatment teams as close to maneuvering companies as tactically feasible. The battalion S4 closely coordinates locations for forward positioning CSS elements (including medical treatment elements) with the battalion S3. This is to ensure that the location of these elements is known by commanders of maneuvering and CS forces. Coordination ensures that CSS elements are not placed in the way of friendly maneuvering forces; in line of incoming or outgoing fires; or in areas subject to be overrun by rapidly advancing enemy forces. Treatment teams situated close to (within 1,000 meters of) maneuvering companies in contact must be prepared to withdraw to preplanned, alternate positions on short notice. They must also be aware of enemy capabilities. Some adversaries will possess weapons capable of direct fire at 4,000 meters.

(e) Trauma specialists are allocated to infantry and mechanized infantry companies on the basis of one trauma specialist per platoon and, under Force XXI, a health care SGT is allocated for each company. In armored units, the allocation is one health care SGT and one ambulance team per company. The location of the trauma specialist is of extreme importance for early acquisition and medical treatment of casualties. The mechanized infantry platoon trauma specialist normally locates with, or near, the element leader. When the platoon is moving on foot in the platoon column formation, he positions himself near the element leader trailing the base squad forward of the second team. This formation is the platoon's primary movement formation. When the platoon is mounted, the trauma specialist will usually ride in the same vehicle as the platoon SGT. The company senior trauma specialist collocates with the 1SG. When the company is engaged, he remains with the 1SG and provides medical advice as necessary. When a casualty occurs, first aid will be rendered by self-aid/buddy aid or by the CLS. The platoon/company trauma specialist will then go to the casualty's location or the casualty will be brought to the trauma specialist. The trauma specialist makes his assessment; administers initial medical care; initiates a DD Form 1380 (FMC); then requests evacuation or returns the individual to duty. The patient is evacuated from the point of injury or is transported on a nonmedical vehicle (coordinated by the 1SG) to a collection point. A vehicle from the medical platoon evacuation section (usually pre-positioned forward) picks up the patient and transports him to the BAS. As the tactical situation allows, the trauma specialist will provide medical treatment and prepare patients for evacuation. The ambulance team supporting the company works in coordination with the trauma specialists supporting the platoons. When a casualty occurs in a tank or an armored fighting vehicle, the evacuation team will move as close to the vehicle as possible, making full use of cover, concealment, and defilade. Assisted, if possible, by the vehicle's crew, they will extract the casualty from the vehicle and administer EMT. They move the patient to the treatment team or to a CCP to await further

MEDEVAC. The company health care SGT normally remains with the company CP, but may be used anywhere in the company, assisting the ambulance teams in some situations. The 1SG oversees the evacuation of casualties back to a CCP and may employ nonstandard medical platforms to accomplish his mission. The company health care SGT will position himself at the CCP and provide medical treatment, to include prioritizing patients for MEDEVAC to the BAS.

(6) When maneuvering companies anticipate large numbers of casualties, augmentation of the medical platoon with one or more treatment teams from the FSMC should be made. Augmenting treatment teams are under the tactical control of the battalion S4, but are under the technical control of the battalion surgeon. Medical treatment facilities should not be placed near targets of opportunity such as ammunition, POL distribution points, or other targets that may be considered lucrative by the opposing force. Considerations for the location of the BAS should include—

- Tactical situation/commander's plan.
- Expected areas of high casualty density.
- Security.
- Protection afforded by defilade.
- Convergence of lines of drift.
- Evacuation time and distance.
- Accessible evacuation routes.
- Avoidance of likely target areas such as bridges, fording locations, road junctions, and firing positions.
- Good hard stand on solid ground with good drainage.
- Near an open area suitable for helicopter landing.
- Available communication means.

(7) Types of operations in the offense include—

(a) *Movement to contact.* Medical evacuation support in movement to contact is keyed to the tactical plan. Prior deployment of FSMC ground ambulances with the maneuver battalion's organic medical platoons permits uninterrupted and effective MEDEVAC support from the BAS to the FSMC located in the BSA. Movement to contact operations is executed when there is little or no threat information. The FSMC and treatment teams from maneuver BAS in support of these operations must maintain their flexibility and be prepared to adjust CHS once contact is established.

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(b) *Exploitation and pursuit.* Medical evacuation support of exploitation and pursuit operations resemble those discussed for the envelopment (paragraph 4-3a[2]). Since exploitation and pursuit operations can rarely be planned in detail, evacuation operations must adhere to TSOP and innovative C2. These actions are often characterized by—

- Fewer casualties
- Decentralized operations.
- Unsecured ground evacuation routes.
- Exceptionally long distances for evacuation.
- Increased reliance on convoys and air ambulances.
- More difficult communications.

(c) *Deliberate attack.* The deliberate attack is based on a more detailed knowledge of the threat disposition and likely actions. The brigade's actions in contact will be more predictable than the fluid situation found in the movement to contact, or exploitation or pursuit. Specific terrain and routes/avenues of approach can be selected. Units can conduct at least a map RECON of their planned locations. While there may be CHS requirements during the approach, the assault on the objective will produce the greatest number of casualties. Some of the CHS considerations for the deliberate attack include—

- Higher percentage of casualties.
- Casualties will be more concentrated in time and space.
- Once the objective is secured, treatment teams can move to the objective instead of evacuating patients from the objective to the treatment teams.
- Use of air ambulance to overcome some obstacles may be required.
- Higher likelihood of wounded EPW.

(8) At the BAS, patients requiring further evacuation to the rear are stabilized for movement. Patient holding and food service are not available at the BAS; therefore, only procedures necessary to preserve life or limb, or enable a patient to be moved safely are performed at the BAS. Evacuation from the BAS or point of injury is performed by the FSMC's ambulance platoon and by the FSMT. Constant effort should be made to prevent unnecessary evacuation; patients with minor wounds or illnesses are treated and RTD as soon as possible. Patients with dental emergencies are evacuated to the FSMC for treatment. Ammunition, hand grenades, and light antitank weapons are not evacuated from the forward areas with a patient. Ambulatory patients may retain their rifle or pistol. Other weapons, such as machine guns and those items identified above, are collected and given to the soldier's 1SG or turned in to the battalion S4 for appropriate disposition according to command SOP/policy. All excess equipment collected

at the BAS is turned in to the battalion S4 or as directed by command SOP. Patients will always retain their protective mask. Other functions of the BAS include—

- Receiving and recording patients in the daily disposition log.
- Preparing FMC as required (see FM 8-10-6 for definitive information on initiating and completing a DD Form 1380).
- Verifying information contained on the FMC of all patients evacuated to the BAS.
- Requesting and monitoring MEDEVAC of patients.
- Monitoring personnel, when necessary, for NBC contamination prior to medical treatment.
- Notifying the S1 of all patients processed through the BAS, giving identification and disposition of patients.
- Supervising patient decontamination and treating NBC patients (see FMs 8-9, 4-02.283, 8-284, and 8-285).

NOTE

Patient decontamination is performed by a pretrained decontamination team. This team is composed of eight nonmedical personnel from supported units that work under the supervision of medical personnel. Patient decontamination teams perform best when they are trained and are permitted to exercise their skills with the supporting BAS. For definitive information on patient decontamination procedures, see FMs 8-10-1, 8-10-7, 4-02.283, 8-284, and 8-285.

b. Combat Health Support for the Defense. There are three forms of the defense: area defense, mobile defense, and retrograde. The area defense concentrates on denying threat access to designated terrain for a specific period of time, rather than on the outright destruction of the threat. The mobile defense focuses on denying the threat force by allowing him to advance to a point where he is exposed to a decisive counterattack by the striking force. The primary defeat mechanism, the counterattack, is supplemented by the fires of the fixing force. The third form of defense is the retrograde. The retrograde is an organized movement to the rear and away from the threat. The threat could force these operations or a commander can execute them voluntarily. Delay, withdrawal, and retirement are the three forms of retrograde operation.

(1) Combat health support provided for the defense may reflect lower casualty rates, but threat actions and the maneuver of combat forces complicate forward area patient acquisition.

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Medical personnel are permitted much less time to reach the patient, complete vital EMT, and remove him from the battle site. Increased casualties among exposed medical personnel further reduce the medical treatment and evacuation capabilities. Heaviest patient workloads, including those produced by threat artillery and NBC weapons, can be expected during the preparation or initial phase of the threat attack and in the counterattack phase. The threat attack can disrupt ground and air routes and delay evacuation of patients to and from treatment elements. The depth and dispersion of the defense create significant time and distance problems for evacuation assets. Combat elements could be forced to withdraw while carrying their remaining patients to the rear. The threat exercises the initiative early in the operation, which could preclude accurate prediction of initial areas of casualty density. This makes the effective integration of air assets into the MEDEVAC plan essential. The use of air ambulances must be coordinated with the FSMT, normally positioned in the BSA under Force XXI and/or with either the aviation brigade or the BSA in AOE divisions. See FM 8-10-26 for additional information on the air ambulance company and FSMT.

(2) The CHS requirements for retrogrades can vary widely depending upon the tactical plan, the threat reaction, and the METT-TC factors. Firm rules that apply equally to all types of retrograde operations are not feasible, but considerations include—

- Requirement for maximum security and secrecy in movement.
- Influence of refugee movement conducted in friendly territory, which could impede MEDEVAC missions.
- Integration of evacuation routes and obstacle plans.
- Difficulties in controlling and coordinating movements of the force that could produce lucrative targets for the threat.
- Movements at night or during periods of limited visibility.
- Time and means available to remove patients from the battlefield.

In stable situations and in the advance, time is important only as it affects the physical well-being of the wounded. In retrograde operations, time is more important. As available time decreases, CHS managers at all echelons closely evaluate the capability to collect, treat, and evacuate all patients.

- Medical evacuation routes required for the movement of troops and materiel. This causes patient evacuation in retrograde movements to be more difficult than in any other type of operation. The threat could disrupt C3. Successful MEDEVAC requires including ambulances on the priority list for movement; providing for the transportation of the slightly wounded in cargo vehicles; and providing guidance to subordinate commanders defining their responsibilities in collecting and evacuating patients. Special emphasis must be placed on the triage of patients and consideration given to the type of transportation assets available for evacuation.

- Decisions concerning patients left behind. When the patient load exceeds the means to move them, the tactical commander must make the decision as to whether patients are to be

left behind. The medical staff officer keeps the tactical commander informed so that he can make timely decisions. Medical personnel and supplies must be left with patients who cannot be evacuated. (Refer to FM 8-10 for additional information.) Every effort will be made to avoid this “solution.”

4-3. Combat Health Support for Maneuver and Enabling Operations

a. Choices of Maneuver.

(1) *Penetration.* In this tactic, the attack passes through the threat’s principal defensive position, ruptures it, and neutralizes or destroys the threat forces. Of all forms of offensive maneuver, the penetration of main threat defenses normally produces the heaviest patient workload. The commander’s plan for the penetration normally has three phases.

- Breaching the enemy’s main defensive position.
- Widening the gap created to secure the flanks by enveloping one or both of the newly exposed flanks.
- Seizing the objective with its associated subsequent exploitation.

During breach operations, plans must be in place for clearing casualties off the battlefield since increased number of casualties should be anticipated. Each company team requires an armored ambulance for casualty evacuation. If the engineer company is the breaching force, it must have one armored ambulance in DS. The BAS splints into two treatment teams, Alpha and Bravo, while dividing the two supporting FSMC ambulances. The treatment teams pre-position with the TF prior to LD. Treatment Team Bravo moves forward behind one of the company teams and is designated as the FAS. Treatment Team Alpha (MAS) follows the TF formation. The AXP with a treatment team from the FSMC must be integrated into the TF scheme of maneuver. Without the AXP, the TF medical elements will lose their ability to move as patients collect at the FAS and MAS. The AXP moves forward with the TF combat trains. The TF combat trains should move within 4 kilometers, but no more that 10 kilometers behind the lead elements of the TF. Once the breach is completed, the FAS moves through the breach to the other side, while the MAS moves to the position previously occupied by the FAS. The AXP moves forward to the position previously occupied by the MAS. Patient acquisition starts slowly, but becomes more rapid as the attack progresses. Evacuation routes lengthen as the operation progresses. Heavy preparatory fires which can evoke heavy return fire often precede the penetration maneuver. These threat fires could modify the decision to place evacuation assets as far forward as possible. The FSMC can reinforce the penetration force medical elements. Patient evacuation could be slow and difficult due to a bottleneck at the penetration. Medical evacuation support problems multiply when some combat units remain near the point of original penetration. This is done to hold or widen the gap in threat defenses while the bulk of tactical combat forces exploit or pursue the threat. Treatment elements are placed near each shoulder of the penetration; ground evacuation cannot take place across an avenue of heavy combat traffic. Because of the heavy traffic, the area of the penetration is normally a target for both conventional and NBC weapons. The trigger to push treatment team/BASs through the penetration and where they will go must be identified in the OPORD.

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(2) *Envelopment.* In the envelopment, the main or enveloping attack passes around or over the threat's principal defensive positions. The purpose is to seize objectives which cut the threat's escape routes and subject him to destruction in place from flank to rear. Since the envelopment maneuver involves no direct breach of the threat's principal defensive positions, the MEDEVAC system is not confronted with a heavy workload in the opening phase. However, ambulances are positioned well forward in all echelons of CHS to quickly evacuate the patients generated by suddenly occurring contact. Medical treatment facilities moving with their respective formations assist with clearing the battlefield to reduce delays in treatment. After triage and treatment, the patients are evacuated to MTF in the rear by supporting ground ambulances from the FSMC. When the isolated nature of the envelopment maneuver precludes prompt evacuation, the patients are carried forward with the treatment element. This must be planned for in detail and is an extreme measure when no other option is feasible. Expect an increase in mortality from wounds. Again, nonmedical vehicles could be pressed into emergency use for this purpose. When patients must be carried forward with the enveloping forces, CHS commanders use halts at assembly areas and phase lines to arrange combat protection for ground ambulance convoys through unsecured areas. Further, the commander should take advantage of friendly fires and suppression of threat air defenses to call for prearranged air ambulance support missions, or emergency use of medium-lift helicopter backhaul capabilities.

(3) *Infiltration.*

(a) Infiltration is a choice of maneuver used during offensive operations. The division can attack after infiltration or use it as a means of obtaining intelligence and harassing the threat. Though it is not restricted to small units or dismounted actions, the division employs these techniques with a portion of its units, in conjunction with offensive operations conducted by the remainder of its units.

(b) Combat health support of infiltration is restricted by the amount of medical equipment, supplies, and transportation assets that can be introduced into the attack area. No deployment of BAS treatment teams without their organic transportation should be attempted. Elements of unit-level CHS should be accompanied by their organic vehicles, and ambulances should receive priority for deployment. It may be necessary to man-carry enough BAS equipment into the attack area to provide EMT and ATM; this, however, results in degrading mobility. When the element is committed without its ambulances, patients are evacuated to the BAS by litter bearer teams. These litter teams must be designated and equipped by the commanders in their orders. Noise, light, and litter discipline during evacuation in an infiltration depends on how the casualty was wounded. Disease and nonbattle injury soldiers may not have been noticed by the enemy. If the casualty is a battle injury, the enemy has already detected that element. Once the enemy has detected and engaged the force, causing casualties, maximum allowable use of standard and nonstandard evacuation platforms should be used. This will increase lift capabilities and save time and soldier's lives. Patient evacuation from the BAS and medical resupply of the force may be provided by litter bearers, depending upon distances and degree of secrecy required.

(c) When airborne and air assault forces are used, infiltrating elements can land at various points within the threat's rear area and proceed on foot to designated attack positions. As in surface movement, the amount of medical equipment taken could be limited. In airborne operations, the evacuation of patients will be by litter bearers or ground ambulances to collecting points or the BAS and then by FSMC ambulances to the clearing station operated by the FSMC treatment platoon. In air assault operations, the evacuation is by litter bearers to collecting points or the BAS and then by air ambulances

to a clearing station. Once the combat element begins the assault on the objective, secrecy is no longer important and its isolated location requires CHS characteristic to airborne and air assault operations until ground linkup.

(4) *Turning movement.* A turning movement is a variation of the envelopment in which the attacking force passes around or over the threat's principal defense positions to secure objectives deep in the threat's rear; thus, forcing the threat to abandon his position or divert major forces to meet the threat. As stated above, the turning movement is a variant to the envelopment in which the attacker attempts to avoid the defense entirely; rather, the attacker seeks to secure key terrain deep in the threat's rear and along his LOC. Faced with a major threat to his rear, the threat is thus "turned" out of his defensive positions and forced to attack rearward at a disadvantage. Medical evacuation support to the turning movement is provided basically in the same manner as to the envelopment. As the operation is conducted in the threat's rear area, LOC and evacuation routes could be unsecured, resulting in delays in resupply and evacuation.

b. Enabling Operations.

(1) *Passage of lines.* This situation presents a challenge for the CHS planner. There will be a number of MEDEVAC units using the same air and road networks. Coordination and synchronization are essential if confusion and overevacuation are to be avoided. The medical units of the force manning the line should provide area support to the force passing through. This allows continued mobility for the moving force. The below information facilitates this coordination.

- Radio frequencies and call signs.
- Operation plans and TSOPs.
- Location of MTFs.
- Location of CCP and AXP.
- Main supply route, forward arming and refueling points, and A2C2 data.

(2) *Security operations.* Security operations obtain information about the enemy and provide reaction time, maneuver space, and protection to the main body. Security operations are characterized by aggressive RECON to reduce terrain and enemy unknowns, to gain and maintain contact with the enemy to ensure continuous information, and to provide early and accurate reporting of information to the protected force. See FM 17-95 for definitive information on security operations. The discussion below focuses on how CHS is provided for security operations. Security operations include the following missions: cover, screen, guard, and area security.

(a) *Cover.* The covering forces are dependent upon organic resources found in the maneuver battalion medical platoon for initial support. The level of command for the covering force determines the responsibility for the subsequent evacuation plan. In a corps covering force, for example, the corps CHS structure has the responsibility for establishing and operating the MEDEVAC system to support the forward deployed corps forces. This is done to prevent the tactical combat force following the

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covering forces from becoming overloaded with patients prior to the hand off and passage of lines. The use of CCPs, AXPs, and nonmedical transportation assets (casualty evacuation) to move the wounded is essential. The covering force battle could be extremely violent. Patient loads will be high and the distance to MTFs can be much longer than usual. The effectiveness of the MEDEVAC system depends upon the forward positioning of a number of ground ambulances and the effective integration of corps air ambulances into the evacuation plan.

(b) *Screen*. The primary purpose of a screen is to provide early warning to the main body. Screen missions are defensive in nature and largely accomplished by establishing a series of observation posts and conducting patrols to ensure adequate surveillance of the assigned sector. The screen provides the protected force with the least protection of any security mission. Combat health support will be provided by organic medical elements and ambulances teams deployed from the supporting medical company.

(c) *Advance, flank, and rear guards*. A guard force accomplishes all the task of a screening force. Additionally, a guard force prevents enemy ground observation of and direct fire against the main body. A guard force reconnoiters, attacks, defends, and delays as necessary to accomplish its mission. A guard force normally operates within the range of main body indirect-fire weapons. A guard force is deployed over a narrower front than a screen to permit concentration of combat power. These forces normally receive MEDEVAC support through the attachment of evacuation teams. The teams evacuate patients to predesignated CCPs along a main axis of advance or to the nearest treatment element providing area support. Employment of air ambulances provides a measure of agility and flexibility.

(d) *Area security*. Area security is a form of security that includes RECON and security by designated personnel, airfields, unit convoys, facilities, MSR, LOC, equipment, and critical points. Area security operations are conducted to deny the enemy the ability to influence actions in a specific area or to deny the enemy use of an area for his own purpose. This may entail occupying and establishing a 360-degree perimeter around the area being secured, or taking actions to destroy enemy forces already present. The area to be secured may range from specific points (bridges, defiles) to areas such as terrain features (ridgelines, hills) to large population centers and adjacent areas. Combat health support will be provided by organic and attached medical elements. In area security, Echelon I CHS is provided by organic or attached treatment teams. Echelon II CHS is provided by the supporting medical company via DS and on an area support basis. Depending on the type of area security operations being conducted, both air and ground ambulances may be employed.

(3) *River crossing operations*. The river barrier itself exerts decisive influence on the use of medical units. An attack across a river line creates a CHS delivery problem comparable to that of the amphibious assault. Combat health support elements cross as soon as combat operations permit. Early crossing of treatment elements reduces turnaround time for all crossing equipment that is used to load patients on the far shore. Maximum use of air ambulance assets is made to prevent excessive patient buildup in far shore treatment facilities. Near shore MTFs are placed as far forward as assault operations and protective considerations permit to reduce ambulance shuttle distances from off-loading points. For detailed information on river crossing operations, refer to FM 90-13. Rescuing casualties in the water must be considered by the TF medical planner.

(4) *Reconnaissance operations.* The RECON in force is an *attack* to discover and test the threat's position and strength or to develop other intelligence. The tactical combat force usually probes with multiple combat units of limited size, retaining sufficient reserves to quickly exploit known threat weaknesses. Combat health support techniques follow those discussed above for a movement to contact. Ambulances are positioned well forward and moved at night to enhance secrecy. The echeloning of ambulances is an indication to the threat that an attack is imminent due to the forward placement of CHS. Clearing stations are not established until a significant patient workload develops. Patients received at BASs of reconnoitering units are evacuated to clearing stations as early as practical, or are carried forward with the force until a suitable opportunity for evacuation presents itself. The maximum possible use of air ambulance assets is made to cover extended distances and to overcome potentially unsecured ground evacuation routes.

(5) *Unified action.* The majority of the operations occurring at the present time are joint, interagency, or multinational operations. During the initial planning stages of the operations, the CHS planner must determine who is responsible for providing MEDEVAC support to the force. The CHS planner must also ensure that duplications in support do not exist; that guidelines are established as to eligible beneficiaries; when individuals are to be returned to their own nation's health care delivery system; and what mechanisms exist for reimbursement of services. For additional information, refer to FM 8-42 and Joint Publication 4-02.

(6) *Integrated warfare operations.* Medical evacuation in an NBC environment is discussed in FMs 8-10-6 and 8-10-7.

4-4. Combat Health Support During Night Operations

The battalion surgeon and medical platoon members must anticipate that brigades do a substantial amount of work at night or in limited visibility. They must ensure that the platoon TSOPs (see Appendix F for an example of a TSOP) are available and used throughout the squadron for providing MEDEVAC and treatment at night. Real-life trauma care at night will be enhanced by the ability to use white light (visible light) at the earliest opportunity. Therefore, medical units/elements must establish standard procedures to use white light without compromising the tactical environment. This means training to erect shelters as soon as possible and routinely during hours of darkness. Personnel must understand that some shelters block visible light, but that the same shelters glow when viewed through night vision goggles (NVG). In some extremely mobile situations, ambulance/vehicles could be used to enclose patients and care providers, thus allowing treatment to proceed under white light conditions.

a. Conducting Night Operations. Medical leaders must understand night operations technology and their capabilities for conducting night operations. The brigade, battalion, and squadron surgeons should know how to use both far infrared (IR) devices (and how their capabilities can enhance CHS operations at night) such as the combat identification panel (CIP) and near IR devices, such as the BUDD light and the Phoenix light. See the discussion below on IR and night vision devices. The surgeons need to know the status and amount of equipment on-hand and to identify equipment needed. They must plan the SOPs and METT-TC-specific techniques necessary to perform the CHS mission. For these types of operations, the commander should be advised to consider—

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- Appropriating civilian buildings to reduce light and thermal signatures.
- Lightproofing shelters.
- Using nonvisible spectrum light in conjunction with night vision devices.
- Reducing noise signature to a minimum.

In addition, units are susceptible to a night attack. This further slows logistics and CHS activities. Use of chemical lights may be applicable. However, overuse of chemical lights degrades light discipline and security. Chemical lights are visible from a distance of a kilometer or more. Possible techniques for medical units/elements include—

- Chemical lights to light CP areas, thus eliminating generator noise and thermal signature.
- Magnetic holders to allow placement of color chemical lights on vehicles.
- Chemical lights to illuminate areas of vehicle engine compartment for night repairs.
- Chemical light holders to regulate the amount and direction of light.

b. Combat Health Support Considerations.

(1) Light discipline requirements affect CHS operations much as they do supply and maintenance operations. Medical units/elements will use additional fuel to run a vehicle-mounted night site. Treatment operations require lightproof shelters. Patient acquisition is more difficult. Units should employ some sort of casualty-marking system such as luminous tape.

(2) Limited visibility slows MEDEVAC. This requires additional ground ambulances to compensate. In the offense, ambulances move forward with BASs. However, personnel have to accomplish this movement carefully to avoid signaling the threat. Personnel use predesignated AXPs. Medical evacuation by air ambulance is difficult and requires precise grid coordinates as well as prearranged signals and frequencies. As in daylight, CHS operations conducted at night require active participation of all involved units. Operational procedures must include near and far recognition, signaling, predetermined marking of CCPs, routes, and MTFs. Maximum use of modern navigation tools, such as the GPS, IR, and night vision devices, will enhance the ability of medical units/personnel to carry out CHS in support of night missions. Night operating procedures must be routine and practiced as a part of routine operating procedures. This is especially true for medical units/personnel since they have a 24-hour responsibility under all conditions, not just combat operations.

c. Infrared and Night Vision Devices.

(1) A far IR device, such as the CIP, is a “quick fix” device for friendly identification. The thermal taped-covered CIP provides an aid in distinguishing friendly from threat vehicles when thermal sights are used. Combat identification panels do not replace current acquisition, identification, or

engagement procedures. They provide a device visible through thermal sights to increase situational understanding and provide a safety net at the normal engagement range. These devices can be used to further identify medical vehicle and units.

(2) Near IR devices that aid in C2 may be used for signaling and marking devices. The IR beam is an effective means to increase situational understanding and combat effectiveness and improve identification. These devices reduce the fratricide risk when used for marking obstacles, seized terrain, and breached sites. Additionally, these lights are super signaling devices (that is, configuration of certain patterns to indicate unit identification, turn on/off to signal accomplishment of a task, cross a phase line, and signal from one ground position to another specific position, or from ground to air). They are also useful in specialized units such as pathfinders for marking pickup, drop, or landing zones. These are excellent devices for near recognition signaling to guide incoming evacuation vehicles.

(a) *BUDD light.* The BUDD light operates using active near IR light viewed through image-intensifying devices. These image-intensifying devices are only effective during nighttime conditions. Near IR devices can be directional or omni-directional and emit a steady pulse or codable pulse. The BUDD light is a compact near IR source, using a standard 9-volt (BA-3090) battery as its power source. Both the BUDD light and its power source will fit in the palm of your hand. The average life span of the battery power for a BUDD light is 8 hours of continuous use. The near IR pulse emitted by the BUDD light is similar to a strobe light and pulses every 2 seconds. It is invisible to the naked eye and thermal imagers. The pulse is clearly visible out to 4 kilometers under optimal conditions when pointing the beam directly at the viewer. The directional characteristic of the beam makes it possible to limit observation by an enemy. If used to mark vehicles, care should be taken to minimize the light illuminating the vehicle's surface. The enemy has to have image-intensifying devices to see the lights directly; however, they may see the light being reflected off of vehicles when the lights are employed in a directional mode. This device is most effective for C2 purposes. The BUDD light is also very useful for dismounted operations at night.

(b) *Phoenix light.* The Phoenix light operates using active near IR light viewed through image-intensifying devices. The Phoenix light can be used as a codable IR beacon. The light is powered by a standard 9-volt (BA-3090) battery. The Phoenix light is ideal for use when positive identification at night must be made out to 4 kilometers under optimal conditions. The IR beacon has a range equal to the BUDD light. One advantage is the ability to code many beacons with different codes (sequence of flashes—including Morse code—up to 4 seconds), enabling anyone to be distinguished in a group. A programmed sequence will repeat until canceled or when the battery expires (same as a BUDD light). Operating instructions include connecting the battery to the Phoenix light. Using a metal object, a coin is best, make connection across the two pins on top of the light. A microminiature red indicator flashes the sequence as the code is entered. At the end of the 4-second memory, a green microminiature indicator will flash, indicating the end of the input sequence. The Phoenix light is now emitting the desired code. To check the code, make a connection across the pins. The green microminiature indicator will flash the code. To change the code, disconnect the battery and repeat the instructions. The Phoenix light also can be used during dismounted operations. The programming of a code can assist in distinguishing one unit from another. An active Phoenix light or BUDD light can be covered or uncovered as necessary to ensure the light is visible only when necessary

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(c) *Night vision devices.* There are numerous types of night vision devices in the Army inventory but this subparagraph will focus on what the squadron medical platoon has on its TOE. Each vehicle in the medical platoon will have two night vision devices. The wheeled vehicle driver will use either the AN/PVS-7B (discussed below) or the driver's vision enhancer (DVE). The DVE is a thermal imaging system capable of operating in degraded visibility conditions such as fog, dust, smoke, and darkness. In conditions of reduced visibility, the DVE allows a vehicle to maintain speeds up to 55 to 60 percent of those attained during normal daylight operations. Unlike traditional night vision devices that magnify ambient light, the DVE generates a picture based on very minute variances in temperature in the surrounding environment. It gives the operator visibility to the horizon in total darkness and the ability to recognize a 22-inch object at a distance of 360 feet. It can elevate 35 degrees, depress 5 degrees, and rotate 170 degrees in either direction. The DVE consists of a sensor module, display control module, positioning module, wiring harness, and mounting equipment. A combat DVE and a tactical wheeled vehicle DVE will be available. The ambulance and treatment vehicle drivers will use a DVE if available or continue to wear NVG. The NVG (AN/PVS-7B, a hand-held, head-mounted, or helmet-mounted night vision system) enable walking, driving, weapons firing, short-range surveillance, map reading, treatment of patients, and vehicle maintenance in both moonlight and starlight. It has an IR projector that provides illumination at close ranges and that can be used for signaling. There is a high light-level shutoff if the device is exposed to damaging levels of bright light. There is a compass that attaches to the device and allows for reading an azimuth through the goggles. This device has a weight of 1.5 pounds and operates on two AA batteries. The ambulance and treatment vehicle when fielded will have IR headlights. These IR headlights can be used for assisting drivers who wear NVG and for signaling. As with all lights, extreme caution must be taken in tactical situations. The IR headlights are typically very bright to personnel wearing NVG.

d. *Example Techniques for Using Chemical Lights for Marking and Signaling.*

NOTE

Techniques are only limited to available equipment and imagination.
The METT-TC should always take precedence.

(1) For marking, chemical lights can be placed inside standard military short or long pickets to mark routes and positions. The concave side of the picket contains the chemical light and the convex side faces the most likely direction of enemy observation. This technique controls the direction of the light while assisting with such things as MEDEVAC routes, supported unit collection points, AXP, or link-up point identification.

(2) For signaling, tying a chemical light to a length of cord or string and twirling it overhead in a circle is an unmistakable signal. This only needs to be used until recognition (radio) is established. This technique makes use of widely available common supplies. It is especially useful for a unit guiding an incoming ground or air ambulance.

(3) For marking casualty locations, for example, MOUT operations.

(4) For marking triage areas at the BAS to identify patient triage categories.