CHAPTER 5
BSA Security and Terrain Management

CONTENTS

RESPONSIBILITIES

The AirLand Battle will be fought throughout the depth of the battlefield. Operations in the rear include efforts to secure the force, neutralize or defeat enemy operationsin the rear, and secure freedom of action in the deep and close battles. The brigade commander is responsible for plans and operations throughout the brigade area of operations. He assigns tasks to subordinate and supporting commanders to accomplish all brigade missions. The brigade S3 includes detailed planning for the entire rear area as part of operational planning for offensive and defensive missions.

The FSB commander is responsible for BSA security and terrain management. His goals in this area include the following:

- Secure the BSA and facilities.
- Minimize enemy interference in C3.
- Minimize enemy interference in support operations.
- Ensure freedom of movement of friendly troops throughout the BSA. This will involve control of dislocated civilians which is coordinated with the division G5 through the DISCOM headquarters.
- Defeat Level I threats and respond appropriately to Level II and III threats as discussed in this chapter.
- Provide and coordinate area damage control.

In addition, the FSB must coordinate with the brigade S3 to ensure the BSA security plan is integrated into the plan for the entire rear area.

COMMAND AND CONTROL

The FSB commander is responsible for BSA security. As such he has command and control of all elements in the BSA for defense and positioning. Normally, the BSA is a base cluster with the FSB commander as the base cluster commander. The major elements in the BSA become unit bases. The senior individual in each base is the base commander. The FSB SOP will cover as many defense procedures as possible. Each base will be given specific responsibilities in the OPORD. Guidance for these responsibilities is given in this chapter.

In addition, all ground units entering the brigade area must report to the brigade rear CP and the FSB CP to coordinate routes, terrain, communications, and CSS. The rear CP will contact the main command post to confirm the operational aspects of the coordination.

The S2/S3 section of the FSB CPis the base cluster operations center. The FSB CP is colocated with the brigade rear CP within the BSA defensive perimeter. Alternate BCOCs should also be designated. Possibilities include the FSB company CPs and maneuver battalion field trains. In urban terrain, the FSB S2/S3 may have to establish subordinate base clusters and BCOCs within the BSA. One of these may be designated the alternate BCOC.

Each base will send a representative to the BCOC staff meetings. In addition, the BCOC will issue a situation report on a regular basis, twice daily if possible. The report will provide intelligence updates, reporting requirements, and impending BSA movement orders.

COMMUNICATIONS

Communications for BSA security will be conducted by wire, radio, signals, and personal contact. The primary means will be wire. Each base will be required to establish a wire linkup to the BCOC. The BCOC will operate a switchboard 24 hours a day. Other elements located in the BSA are responsible for laying wire from their CPs to the BCOC. The ADA and field artillery units in the BSA will have direct wire communications with the BCOC to provide early warning of enemy aircraft and to facilitate calls for fire. A sample wire net is shown in Figure 5-1.

Ideally, the FSB would also operate a separate rear operations radio net. However, availability of radios is not likely to permit this. Therefore, if wire communications are lost, units will monitor the FSB command net which will serve as the BCOC radio net. If communications by these means are lost, the tenant activities are responsible for sending a messenger to the BCOC to provide coordination.

In addition, units in the BSA cannot rely on wire and FM communications to relay alert status. Too much time would pass before every soldier received the message. The FSB should establish readily recognizable signals that are easy to initiate. For example, the warning for an NBC attack could be a pyrotechnic signal which could be relayed quickly with voice, hand and arm, or horn

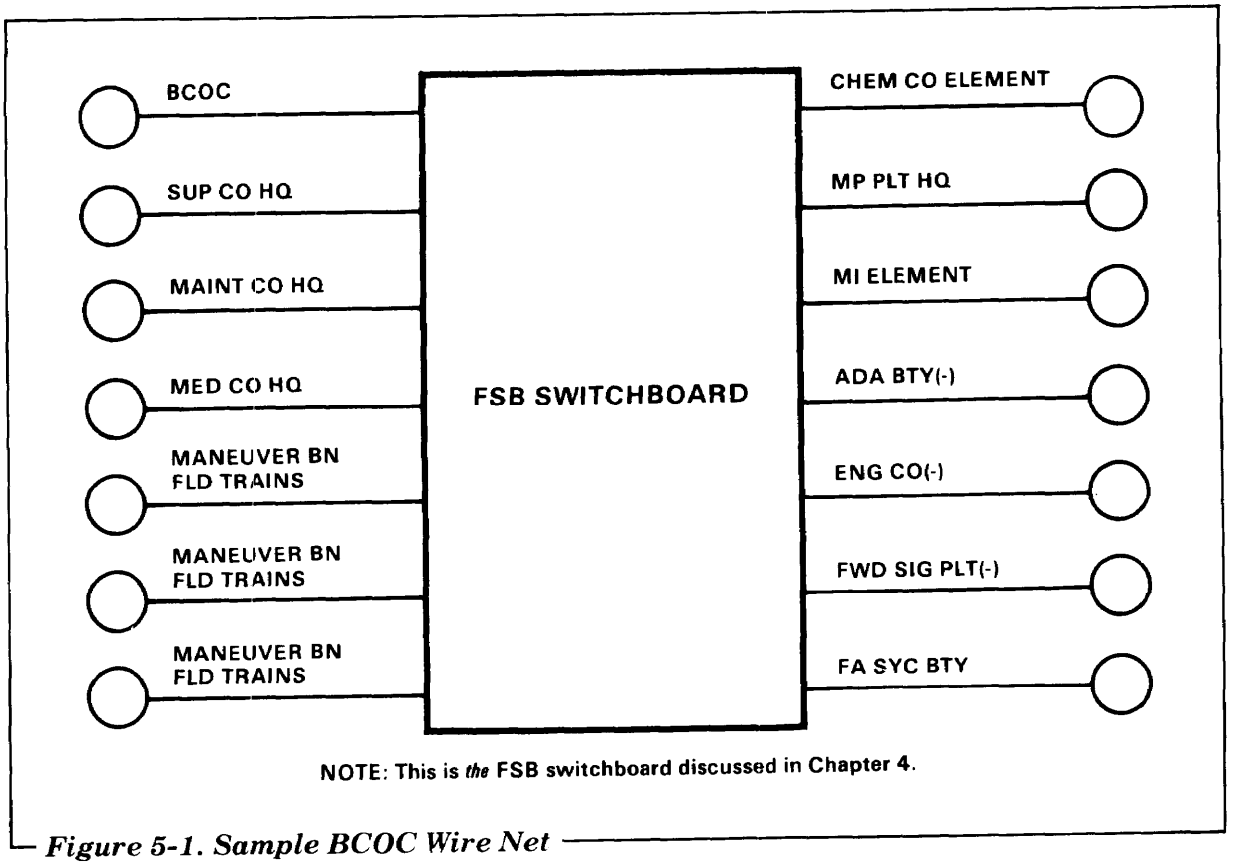

Figure 5-1. Sample BCOC Wire Net

signals. Similar signals should be specified in the SOP for air and ground attacks or to change frequencies. Detailed information and instructions would follow by radio, wire, or messenger. The all-clear signal would only be passed via command channels.

INTELLIGENCE

Like all other Army forces, the FSB must perform IPB. The FSB's interest is twofold. First, the sustainment planning considerations described in Chapter 2 are based on the FSB's knowledge of the enemy (for example, his projected use of chemical munitions affects the FSB's stockage of MOPP gear), the weather (fog may make aerial resupply impossible), and the terrain (lack of adequate road nets may mandate evacuation by air). Related to but distinct from the support implications of IPB are the rear operations considerations. For BSA security, the FSB commander, along with his staff, must analyze the terrain and weather and integrate this information with knowledge of the enemy. This enables the commander to identify probable target areas and activities. He can then predict probable courses of action to plan security operations.

TERRAIN

The concept of OCOKA is used to analyze terrain, OCOKA refers to Observation and fields of fire, Concealment and cover, Obstacles, Key terrain, and Avenues of approach. The FSB commander will rely heavily on information from the brigade S2

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for terrain analysis. The division is supported by a direct support terrain team which provides information to the G2 for IPB. The G2 passes it to the brigades and DISCOM HQ.

Line of sight is required in the BSA for radios, ground and air observers' vision, air defense target acquisition, and fields of fire for the BSA's direct fire weapons.

Concealment is protection from air and ground observation. Cover is protection from effects of fire. These considerations are closely related to observation and fields of fire. The FSB S2/S3 must determine what possibilities the terrain offers to both friendly and enemy forces. This analysis is vital to elements in the BSA in view of the limited weapons available and numerous personnel and items of equipment in the area. In built-up areas, BSA elements are likely to occupy buildings to maximize cover and concealment. Buildings significantly reduce heat signature. However, this technique is not effective in all areas of the world. Planners must take into account the soundness of buildings, availability of basements, and adequacy of the surrounding road net to accommodate traffic for CSS and self-defense operations.

Obstacles are natural and man-made features that stop, impede, or divert movement. Since one of the FSB's functions is to ensure freedom of movement for friendly forces in the rear, the FSB must be familiar with all existing obstacles and what the effects of removing, overcoming, or bypassing them would be. Weather effects on trafficability also act as obstacles.

Any feature that provides a tactical advantage is key terrain. Whether a particular feature is key or not varies with the tactical situation. However, features which may be key terrain features include bridges, fording sites, high ground, choke points, and road junctions. Not only must BSA elements optimize use of these features when available, but also they must recognize the enemy will frequently concentrate its efforts on these areas.

Avenues of approach are ground and air routes by which a force may reach an objective or key terrain feature. Considerations for avenues of approach in the rear are their capabilities to support movement of CS and CSS elements with their supported units and to allow rapid enemy movement into our rear. Commanders must avoid obvious armor and helicopter avenues of approach.

WEATHER

Weather affects mobility and the functioning of virtually all items of equipment, as well as the performance of personnel. Terrain and weather are considered concurrently. Again, the FSB depends on the G2/S2 channels to pass weather analysis information from the division weather team. The five aspects of weather that affect planning are temperature and humidity, precipitation, wind, clouds, and visibility.

Very high temperatures cause heat injuries and increased engine wear and failure. Very low temperatures increase cold weather injuries, damage to engines and cooling systems, lubrication problems, and fuel requirements. Cooler temperatures and humidity cause fog.

Precipitation affects mobility, visibility, and effectiveness of personnel and equipment. It also affects the quality of some stored material. Snow, even in small amounts, reduces the effectiveness of mines. FSB planners should consider precipitation of more than 0.1 inch per hour or 2 inches in 12 hours critical. Six inches of snow acccumulation or drifts higher than 2 feet will have severe effects on mobility.

Wind usually favors the upwind force by blowing dust, smoke, sand, rain, or snow on the downwind force. It affects employment of NBC munitions, smoke, and conventional weapons.

Clouds affect air operations. This includes logistics air missions, but also our own close air support, as well as the enemy's ability to conduct airborne or air assault operations in the BSA.

Though poor visibility limits employment of airborne forces, agents and special purpose force operations often rely on it to reduce the effectiveness of our rear area security. Poor visibility hinders control and reduces effectiveness of reconnaissance, surveillance, and target acquisition.

THREAT EVALUATION

Threat evaluation is a detailed study of the enemy forces. It considers their organization, tactical doctrine, equipment, and support systems. The FSB's interest for security purposes is in rear area threat evaluation. The FSB S2/S3 prepares a doctrinal template to reflect the enemy's air assault, airborne, operational maneuver group, and special purpose force employment doctrine. Other rear area threats (insurgents, guerrillas, terrorists, agents, and potential civil unrest) cannot be depicted in a doctrinal template. For these threats, an unconventional warfare situation map and population status overlay are prepared. The situation map shows probable operating areas, headquarters, encampments, and movement routes for unconventional forces. The rear area population status overlay shows areas with a high potential for civil unrest or with concentrations of enemy sympathizers. The overlay also shows where psychological operations would and would not be effective.

THREAT INTEGRATION

Once the threat evaluation is complete, this information is integrated with weather and terrain factors to determine how the threat is likely to operate in our rear areas. Again, the brigade S2 will evaluate the threat and advise the brigade S3. He will perform threat integration for the entire rear area; the FSB commander must ensure threat integration for the BSA is coordinated with the brigade. Due to the limited resources available to the FSB commander to defeat the threat, he must identify specific areas of interest. These may include—

- Landing zones and drop zones.
- Key road junctions.
- Forest paths.
- Small groups of individuals attempting to move through or evade detection in the BSA.
- Areas with insurgency sites.
- Guerrilla/insurgency sites.
- Terrorist operating or headquarters areas.

Target areas of interest are also identified along high-speed avenues of approach into the BSA.

Detailed information on IPB is in FM 34-10.

SOURCES OF INFORMATION

The FSB's responsibility for BSA security makes it imperative that the FSB CP and brigade staff maintain a close relationship. Intelligence information possessed by the brigade with implications for BSA security must be passed to the FSB S2/S3. In addition, he receives information from DISCOM S2 channels. However, intelligence gathering should not be restricted to these sources.

Local authorities, dislocated civilians, and local civilians are valuable intelligence sources. Information may also be obtained from base commanders within the BSA, military police, truckers, customers, elements of the MI battalion in the BSA, and any other elements moving into the area. In addition, information should flow laterally as well as vertically. For instance, while medical company personnel must pass information like task force casualty estimates to the FSB S2/S3, they should also notify other FSB companies simultaneously whenever possible.

BSA LAYOUT

The elements located in the BSA vary with a number of factors. The FSB commander and staff will coordinate with the brigade S4 to determine who will be in the BSA. The list below is a representative example of division elements that could be expected to locate in the BSA:

- FSB CP.
- Brigade rear CP.
- FSB supply company CP.
- Class I point.
- Water point.
- Class III point.
- Class II, IV, and VII point.
- Ammunition transfer point.
- Salvage collection point.
- GRREG collection point.
- FSB maintenance company CP.
- Maintenance shops.
- Class IX point.
- FSB medical company CP.
- Medical clearing station.
- Class VIII point.
- Smoke platoon.
- Decontamination platoon.
- Reconnaissance squad.
- Military police platoon.
- EPW collection point.
- Military intelligence team.
- ADA battery (-).
- Engineer company/companies (-).
- Forward signal platoon (-).
- Field artillery battalion field trains.
- Maneuver battalion task force field
- Aviation elements.

In addition to these division units, the BSA may include a number of corps elements, such as nondivision maintenance teams, CEB teams, the field trains for a corps artillery battalion, air or ground medical evacuation elements, armored cavalry squadron, detachment of the finance support unit, or nondivision engineer units. Information on these may also be available on 'he division and brigade OPORDs.

Some of the BSA tenants can be expected to always locate in the BSA, for example, the brigade rear CP and the FSB company headquarters. Others may move in and out of the BSA depending on METT-T. Examples may be the division military intelligence elements and the decontamination platoon. In addition, the maneuver battalion task force field trains may not always be located in the BSA.

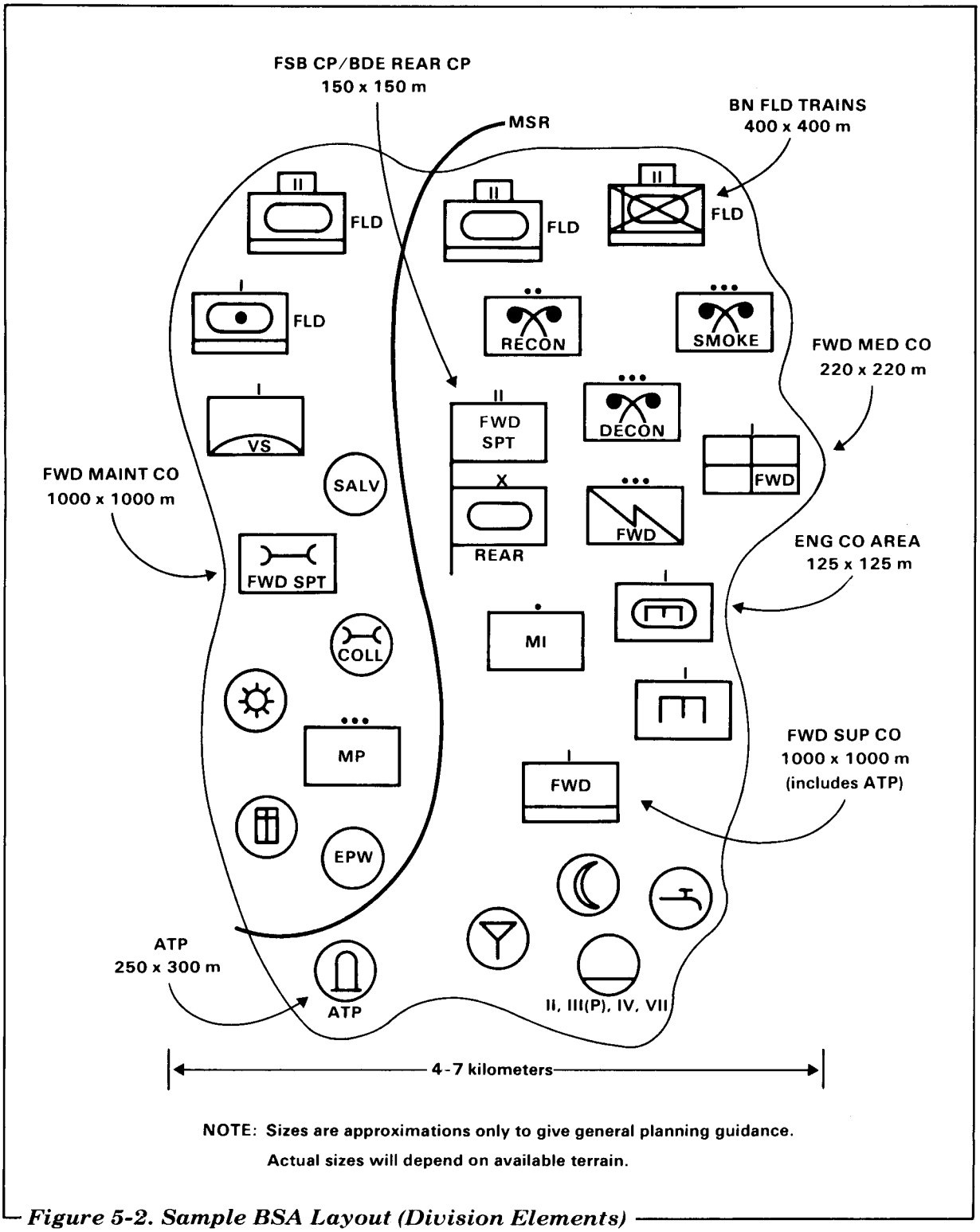
In some cases, trains may not be echeloned. In other cases, field trains may be located closer to the battalion troops than to the FSB elements, and it may not be feasible to integrate them into the BSA security plan. Sometimes terrain features may make such integration impractical. In short, although the field trains will normally locate in the BSA, they must not be expected to be there when support or tactical considerations make another location more favorable.

In all cases, the composition of BSA elements will not remain static. The FSB must be able to track and control changes. To accomplish this, all ground units entering the brigade area must send a representative to report to the brigade rear CP and FSB CP. They will coordinate movement routes, positioning for units locating in the BSA, communications, support requirements and procedures, and security responsibilities and arrangements. Guards at points of entry into the BSA will direct representatives of entering units to the rear CP/FSB CP location. Also, base commanders will notify the BCOC of all LOGPAC arrivals and departures. Movement of displaced civilians and local civilians must also be controlled.

Not only are changes in the elements located in the BSA occurring, but also changes are constantly taking place within the elements. MSTs in the UMCPs will vary in composition. Medical evacuation elements constantly move in and out of the BSA. Supply elements are involved in resupply efforts. Personnel available for defense actions may be extremely limited within certain bases. Base commanders must keep the BCOC informed of their situations.

Locations of elements within the BSA will vary depending on METT-T. Figure 5-2 presents one possible arrangement. Though the FSB commander and S2/S3 must use their best judgment in positioning units, some general guidelines to be considered include—

- Position the brigade rear CP/FSB CP near the center of the BSA perimeter for C2 and security reasons.
- Position field trains forward in the BSA near routes between supply points and combat trains.
- Ensure field trains and other bases locate their CPs near the rear of their bases, closer to the BCOC to enhance communications and protection of C2 facilities.
- Balance the advantages of dispersion (reduced destruction from a single enemy strike) with the disadvantages (C3 constraints and extended perimeter). In general, though specific situations may dictate otherwise, the BSA can be expected to occupy an area 4 to 7 kilometers in diameter.
- Make supply points accessible to both customers and resupply vehicles and helicopters.
- Keep class III points away from other supplies to prevent contamination. They should also be located at least 100 feet from water sources.
- Locate the ATP at least 180 meters from other supplies and 620 meters from the nearest inhabited tent.
- Position GRREG and salvage points near the MSR possibly near the ATP to maximize backhaul missions of vehicles used for ammunition supply.
- Locate the class I point near the water point whenever water sources allow.
- Locate the clearing station away from likely target areas (ATP, class III point,



NOTE: Sizes are approximations only to give general planning guidance. Actual sizes will depend on available terrain.

Figure 5-2. Sample BSA Layout (Division Elements)

bridges, road junctions) but near evacuation routes and an open area for landing air ambulances.

- Locate maintenance sites to be accessible to customers, including recovery/evacuation vehicles.
- Ensure maintenance shops, along with parking and equipment holding sites are on firm ground.
- Position the signal platoon and MP platoon headquarters near the FSB CP to enhance support and security.
- Position the ATP adjacent to the maintenance company site to allow the maintenance company, which has the most self-defense assets in the FSB, to provide protection for the austerely staffed ATP.
- Position the ATP near the rear of the BSA and near but off the MSR so that the large numbers of corps trailers bringing ammunition into the area do not clog up the MSR within the BSA. The ATP requires sufficient area to perform transload operations without interfering with BSA traffic.
- Position units with heaviest firepower, such as the maintenance company, along the most threatening avenues of approach.

COORDINATION

In addition to the C2 relationships discussed above, the FSB CP must ensure proper coordination is maintained with the elements discussed below. Due to the limited assets available to the BSA, the BCOC must coordinate all minefield, obstacles, and artillery fires within the BSA. One technique that may be used is to arrange in advance to have designated field artillery and ADA representatives (and perhaps the MP platoon leader) automatically report to the BCOC when the threat status reaches a predetermined level.

FIELD ARTILLERY SUPPORT

The BCOC will develop the fire planning required to implement the execution of fire support for the BSA. The FSB S2/S3 will coordinate fires with the BSA FSO designated by the field artillery battalion commander. Together, they will plan targets for the BSA defense and help establish preplanned engagement areas for artillery and close air support. These fires will be coordinated with the brigade fire support coordinator, through the service battery or directly from the BCOC to the main CP. Targets are placed in the TACFIRE systems for both brigade and division implementation. Artillery (and ADA) overlays must include displaced civilian camps, routes, and information on arts, monuments, and archives.

Calls for fire from the bases are made to the BCOC via field phones. If phones are not available, FM radio will be used. As previously mentioned, a direct line will link the BCOC and FA service battery CP. Calls will be made in accordance with procedures detailed in FM 6-30. An aerial fire support officer may be on call to adjust fires as necessary. TC 25-4-1 gives details on planning and conducting fire coordination exercises.

AIR DEFENSE ARTILLERY SUPPORT

The BSA must be protected from enemy air strikes. ADA assets likely to be available in the BSA are Stingers if the BSA is one of the main defensive priorities. The FSB S2/S3 will coordinate with the Stinger section chief

for BSA defensive fires. Assets are positioned to cover anticipated air avenues of approach. The FSB S2/S3 posts locations of the systems and air corridors covered on his sector sketch. The ADA base in the BSA will run a line to the BCOC. This will ensure early warning of all in-bound aircraft. In addition, although not located in the BSA, HAWK and Patriot units may be assigned sectors that encompass the BSA and support ADA fires within the BSA. The FSB S2/S3 will also coordinate with the brigade S3 through the rear CP to identify safe air corridors for logistics air missions and to ensure all ADA assets are aware of impending friendly air movements in and around the BSA. ADA operations are discussed in FM 44-3.

ENGINEER SUPPORT

When engineer assets are located in the BSA, they will be made available to the BCOC for survivability and countermobility operations. Therefore, the FSB S2/S3 must be prepared to take advantage of assets as they become available. Along with an engineer designated by the brigade engineer, he will plan barriers and minefield according to guidelines and principles presented in FMs 5-100 and 5-102.

MILITARY POLICE OPERATIONS

A direct support military police platoon is usually operating from the BSA. The battlefield missions performed by this platoon may include battlefield circulation control, area security, operation of the EPW point, and law enforcement.

Battlefield circulation control is performed along MSRs and in and around the BSA. MPs use traffic control points, mobile patrols, and temporary road signs to accomplish this mission. Coordination between MPs and the FSB CP is essential to ensure movement in the area is controlled. Displaced civilian control and coordination with the local government must be included in planning.

The area security mission of the MPs is vital to rear operations. MPs employed in the brigade rear provide a light, mobile force that can move, shoot, and communicate. Their mobility makes it possible for them to detect the threat as they aggressively patrol road nets and key terrain features throughout the rear area. Their organic communications enable them to advise the rear CP, base clusters, bases, and moving units of impending enemy activity. MPs may also be used for convoy security and to protect static positions as required. However, when used in this manner, missions which capitalize on MP mobility are degraded.

MPs conduct collection, evacuation, and internment operations to support their EPW mission. The EPW point holds EPWs captured by brigade units until they can be evacuated to the division central collection point. FM 19-40 covers EPW operations in detail.

Law and order operations are only performed when the brigade commander requires them and the tactical situation permits. This mission is usually the lowest priority during war.

The brigade commander sets priority of missions for the DSMP platoon. However, in some cases the brigade commander will give tasking authority to the FSB commander to support the area security mission and battlefield circulation control aspect of the terrain management mission. The FSB commander must use this asset to maximum advantage. Details on MP platoon operations are in FM 19-4.

BCOC OPERATIONS

The FSB commander is responsible for integrating base defense plans into a base cluster defense plan. As discussed, this requires development of a rear operations communications system and coordination with field artillery, engineer, ADA, and MP units. As part of the terrain management function, the FSB S2/S3 assigns a defensive position and a sector to each base in the BSA. Bases on likely avenues of enemy approach are given a smaller sector. The S2/S3 tries to ensure each base's sector of fire overlaps the adjacent base's sector. He does this by checking sector sketches provided by bases or personally coordinating with base commanders. Gaps are covered by planning for fires, obstacles, patrols, OPs, or sensors. The FSB S2/S3 must carefully coordinate this planning with each base to avoid having troops engage friendly forces.

The BSA defense plan must be integrated into the plan for the entire brigade rear. This requires the BCOC to coordinate with the brigade S3 for the overall plan. It must also coordinate directly with other BCOCs in the brigade rear to plan mutually supporting fires and to prevent firing upon each other.

The S2/S3 keeps a sketch of the defensive plan. It shows base sectors of fire, locations of mines and obstacles, planned indirect fire coverage, OPs, patrol routes, and positions of automatic and antiarmor weapons. These weapons will include those in the BSA for repair. If the firing system is operable, these weapons should be included in the BSA defensive scheme, and mechanics should work on them in their fighting positions. Whenever possible, units should occupy the same location within the BSA relative to the other units every time the BSA moves. They should build a habitual relationship with the units on all sides of them. This will expedite coordination of sectors of fire. Since night vision devices are likely to be scarce, illumination plans must also be included in the overall BSA security plan. Details on sector defense planning are in FM 19-4.

In addition, the BCOC must plan for a BCOC reaction force from assets in the FSB. This force will be called upon when a base's defenses cannot defeat the threat and MPs and combat forces from the brigade are not immediately available. As a minimum, the reaction force should include personnel equipped with machine guns, grenade launchers, rifles, FM radios, and vehicles. The FSB S2/S3 must carefully equip the reaction force. Removal of scarce assets such as machine guns from the defensive perimeter when the reaction force is assembled must be considered and integrated into the defense plan. During periods of increased readiness, the reaction force should be assembled for immediate response. It must be well rehearsed and able to react precisely and immediately. Rally points, battle positions, and detailed procedures must be planned and practiced in advance.

The BCOC must ensure that all base commanders understand the different threat levels and the associated actions. The brigade staff must also be aware that the FSB is neither staffed nor equipped to continue support operations at normal levels while responding to increased levels of threat. Support will be degraded. How much it is degraded will depend on the level of the threat.

Level I threats are those which can be defeated by base or base cluster self-defense measures. They normally involve the activities of agents, saboteurs, and terrorists. Typical actions the BCOC will require in such situations include manning OPs fully, increasing guards and spot-checking vehicles, tightening base security, alerting defensive perimeter personnel, and increasing protection of key facilities. The degradation of support will depend on the actions

directed by the individual BCOC in specific conditions. However, as a general planning guide, the FSB can estimate that the 75 percent of available assets will be engaged in support operations, while 25 percent defend.

Level II threats are those beyond base or base cluster self-defense capabilities. They can, however, be defeated by response forces, normally MPs with supporting fires. They normally involve—

- Diversionary and sabotage operations by unconventional forces.
- Raid, ambush, and reconnaissance operations by small combat units.
- Special or unconventional wartime missions.

The BCOC would likely require strictly controlled access to all areas, reinforced perimeter defense, OPs prepared to withdraw, and the reaction force alerted.

A tactical combat force is required to defeat a Level 111 threat. Level 111 threats normally involve-

- Heliborne operations.
- Airborne operations.
- Amphibious operations.
- Penetration by enemy forces from the main battle area.
- Ground force deliberate operations (for example, operational maneuver groups with linkup of smaller airborne and assault units).
- Infiltration operations.

OPs will be withdrawn, reaction forces committed, the brigade S3 notified, and support operations ceased. Such a threat is normally preceded by artillery or air strikes.

The BCOC determines the level of threat and issues prearranged alerts to all bases. The BCOC also determines the probability of an air attack and issues air defense warnings.

The BCOC should also have planned in advance emergency move procedures. If the FSB is under imminent danger from a Level 11 or III threat, the BCOC will call for an emergency move of key BSA assets. Key elements should be identified in advance and prepared to move to a predesignated site with minimum notice. The commander designates key FSB elements as required. These will likely include C2, ATP, class III, emergency medical treatment, and austere maintenance elements. Emergency destruction of equipment and supplies (excluding class VIII) is performed to avoid enemy capture. Priority items for destruction will probably include COMSEC items, fuel, ammunition, vehicles, communications equipment, and weapons. Additional information on emergency moves is in Appendix A.

Other duties of the BCOC are to identify primary and secondary entry points into the BSA and designating preplanned landing zones for brigade reaction forces to use when required. The BCOC will also conduct regular (preferably daily) meetings with base representatives to update the defensive plan.

BASE OPERATIONS

GENERAL

The elements in the BSA are organized into bases for self-defense. Normally, each FSB company and each maneuver and field artillery battalion field trains in the BSA will

constitute a base. Miscellaneous small teams will be assigned to a base by the BCOC. The base commander is responsible for preparing the base defense plan and coordinating with the BCOC. Each base must be capable of defending itself against a Level I threat and delaying a Level II threat until the reaction force arrives. If a base is faced with a Level II threat, it must take action to prevent critical supplies and equipment from falling into enemy hands, defend itself as long as possible, and avoid capture.

Base commanders are responsible for the following:

- Coordinate with the base on each side to plan mutually supporting fires and to avoid troops engaging each other. If a problem exists in that area, the base commander will notify the BCOC.

- Assign each individual a fighting position. Positions should provide overhead cover. Positions must also allow interlocking sectors of fire.

- Ensure proper individual fighting positions are prepared. Soldiers should use all available cover. Positions should provide frontal protection from direct fire while allowing fire to the front and oblique. Protection from indirect fire requires a depression or hole at least 1 1/2 feet deep. Details on fighting positions are in FM 5-103.

- Deploy crew-served weapons in fighting positions with primary and secondary sectors of fire. They cover the most likely enemy approaches. Instructions for preparing positions for each type of crew-served weapon are also in FM 5-103. The base commander must ensure each weapon has an adequate range card.

- Identify target reference points to be able to direct fire against approaching ground or air enemy forces.

- Deploy all weapon-carrying vehicles on the base perimeter. As discussed previously, this includes combat vehicles in the BSA for repair.

- Ensure vehicles are properly positioned. Natural cover and concealment are used as much as possible. Frontal parapets may be used with vehicles on the perimeter whenever possible.

- Setup observation posts and listening posts. The FSB cannot constantly occupy a full perimeter and perform its mission. Early warning is imperative. Therefore, OPs and LPs are critical. OPs must provide a good view of the sector, which ideally overlaps with the adjacent OP sectors. Both the OPs/LPs and routes to them must provide cover and concealment. They should not be in positions that attract attention (such as isolated groups of trees) or on the very peaks of hills where positions would be silhouetted. Further guidance on OPs may be found in FMs 19-4 and 17-98.

- Establish patrols when required.

- Enforce noise and light discipline.

- Ensure camouflage is used properly. Guidance can be found in FM 5-20.

- Plan and establish hasty obstacles.

- Create a base reaction force to respond immediately against a threat within the base. Ensure the force has covered and concealed routes to each sector on the perimeter.

- Ensure soldiers know alert signals and proper responses to artillery and air attacks. Since soldiers are not continuously occupying the perimeter, they must be well trained to quickly respond to early warnings.

- Prepare sector sketches and provide to the BCOC. These will be updated at regular BCOC meetings. Sketches will include major terrain features, weapon positions, and OP positions.

SUPPLY POINTS

Whenever engineer assets are available, fuel tankers and drums are protected by berms or deep-cut protective positions. Natural terrain concealment and camouflage nets are also used. Class I, II, and IV items are protected in deep-cut trenches if time allows, but construction of trenches for those items is a low priority. Traffic control must include measures to conceal movement at, to, and from supply points. At water points, control of spills and drainage is required to avoid standing pools of water which reflect light. As discussed in Appendix D, night resupply is used to maximize the concealment of darkness.

MAINTENANCE FACILITIES

In the base company area, individual positions are prepared near billeting areas and on the periphery of work stations. Simple cut-and-cover or other expedient shelters are constructed next to key shop facilities for quick protection from artillery and air attacks.

MEDICAL CLEARING STATION

The role of the medical company must be carefully considered by the FSB commander. There are three possibilities. First, the clearing station may be located near the center of the BSA to be protected by surrounding bases. This increases the size of the BSA without adding any defenders to man the perimeter. This also increases traffic movement in the middle of the BSA. A second option is to assign a sector of the BSA perimeter to the medical company. Medical personnel can carry individual small arms for their own defense and the defense of the wounded and sick in their charge against those not acting in accordance with the law of land warfare. However, the duty of medical personnel is to care for the sick, wounded, and injured. In addition, to questions on conformance with the Geneva Convention accord, the commander must realize the perimeter sector assigned to the medical company would have no crew-served weapons. The final option is to locate the clearing station away from the rest of the FSB. It is then essentially protected by the enemy's compliance with the Geneva Convention. In view of the medical company's mission to provide area support to units in the BSA and the constant coordination required with BSA elements, this option may not be feasible under most circumstances.