

Chapter 3
Command and Control

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PRINCIPLES

The support battalion and subordinate commanders use the C2 system to plan, direct, and coordinate the activities used to accomplish the logistics and HSS mission. Commanders measure the efficiency of a C2 system by the extent to which their intentions are carried out. They also measure the efficiency by the ability of their staff and subordinate commanders to cope with changes quickly and effectively. An effective C2 system requires the following:

- Clearly defined functional responsibilities for all aspects of command and control.
- Sound knowledge of the tactical situation and the operational commander’s intentions.
- Personal involvement and appraisal by the commander and staff of the logistics and tactical situation.
- Familiarity with the responsibilities of higher, lower, supported, and supporting units. This includes the kind of support needed and what support each level can provide.
- Close contact and exchange of information at higher, lower, adjacent, supported, and supporting levels.
- Clearly written directives, reports, orders, and studies. However, the commander should not rely strictly on written communications.
- Understanding of the organic communications of the separate brigade to include radio nets and access to the area signal system.
- Effective operational CSS communications network in particular and overall corps communications in general.

- Good understanding of automation and information systems. This includes the organization and operations of the logistics and HSS automated functions and the communications which support the system.

The support battalion and subordinate commanders are responsible for the C2 of organic and attached elements. They–

- Plan and conduct the operations of organic and attached logistics and HSS units with the same care as that used in planning and conducting tactical operations.
- Consider the capabilities and limitations of the organic logistics and HSS system and its reinforcing support. The main interest is to ensure logistics and HSS are sufficient to support and preserve the force.
- Make policies and decisions known to all organic elements in time to ensure support for planned operations.
- Give subordinate commanders the resources and authority to accomplish the mission.
- Ensure subordinate commanders are well trained in communications and decision making. Also ensure they understand when and in what circumstances they have the prerogative to act.

A C2 system consists of organizations, processes, and facilities. The organizations are the internal and external units with which support battalion elements interact to accomplish their missions. The processes are the techniques and procedures the commanders and their staffs use. Facilities are the CP and supporting automation and communication systems.

ORGANIZATIONAL RELATIONSHIPS

To perform their C2 functions, the support battalion commander and his staff develop and maintain a variety of relationships. They include relationships with –

- Higher organizations – Separate brigade.
- Supported organizations – Elements of the separate brigade.
- Subordinate organizations – Support battalion companies.
- Supporting organizations – Corps support battalion forward corps support group, and COSCOM support operations staffs.

SUPPORT BATTALION AND BRIGADE HEADQUARTERS

The support battalion is a subordinate command of the brigade headquarters. The support battalion commander is the principal logistics and HSS operator of the brigade and executes the brigade DS-level CSS plan. As discussed later in this chapter, the support battalion commander and staff develop a close relationship with the brigade S4. Typically, the support battalion CP collocates with the brigade rear CP. The support battalion commander provides technical support and advice to the brigade commander on CSS matters. The support battalion keeps the brigade headquarters aware of the support status in the brigade area. He also is aware of anticipated requirements beyond the capability of the support battalion. The brigade commander gives the support battalion commander support priorities. He also gives direction on support operations, battlefield locations, security, and movement.

The brigade commander plans all aspects of brigade operations, including logistics. The brigade S4 assists in the area of logistics. He provides logistics information to the commander and acts as the brigade's logistics planner. As such, he coordinates the status of supplies and equipment with the maneuver battalion XO and S4s. He also coordinates with representatives of CS elements attached and assigned to the brigade. The brigade S4 maintains continuous contact with the support battalion commander to provide update of brigade status. He also maintains contact with the BMMO to keep track of the support battalion's capabilities. To maintain this coordination, the brigade rear CP normally collocates

with the support battalion CP. The brigade S4 has a representative there at all times. The support commander and staff understand the brigade commander's intent and translate current developments into future requirements. They anticipate required changes to the support battalion's organization, employment, and operations.

SUPPORT BATTALION AND SUPPORTED BRIGADE UNITS

The support battalion also forms a close relationship with the supported battalions and other attached and assigned units. This close relationship with supported units ensures planners integrate support battalion operations with the operations of the supported forces. The support battalion and supported units work out the day-to-day details of logistics operations in the brigade. These include specific requirements and time schedules. For routine operations, the support battalion companies also develop relationships with supported unit CSS operators such as support platoon leaders, battalion maintenance officers, and medics.

Support relationships have to be adjusted in extreme circumstances. For instance, if a unit is cut off from its parent unit, the senior maneuver commander reorganizes logistics assets. He puts all assets, both unit and DS level, under the centralized control of the senior logistics or other designated individual. If the whole brigade with the support battalion is cut off, the support battalion commander is normally in control. He takes several actions. He gathers information on all available assets as well as the personnel and equipment in the supported force. He advises the maneuver commander, who selects the best alternative – break out, defend encircled, attack deeper, or exfiltrate. On the basis of the commander's intent, the logistician rations key supplies and authorizes cannibalization. Also he develops plans to destroy equipment and develops a casualty evacuation plan.

In addition to its support relationship to the brigade, the support battalion has terrain management and security responsibilities. For these functions, it has operational control over all elements located in the BSA. The brigade S3 has staff responsibility for the overall security of the brigade. The support battalion commander has responsibility for the security of the BSA. This topic is discussed in depth in Chapter 5.

SUPPORT BATTALION HEADQUARTERS AND SUBORDINATE COMPANIES

The support battalion commander maintains close personal contact with his subordinate company commanders. He depends on them to provide timely information on the status of their companies. In addition, the company commanders understand the support battalion commander's intent to perform their roles with initiative. They enhance this understanding through frequent face-to-face discussion.

The company commanders are likely in the vicinity of the support battalion CP to facilitate coordination. However, they do not tie themselves to one spot. They command their companies from the locations where they can best assess and influence the support operation. These commanders use verbal orders, radio, visual signals, or wire among themselves, the support battalion staff, their platoon leaders, and the supported elements.

SUPPORT BATTALION AND CORPS UNITS

A number of corps elements may operate in the brigade area. Examples of such units include –

- Engineer battalion.
- Military intelligence teams.
- Field artillery battalion.
- Air and ground ambulances and medical units.

If the corps elements are in the brigade rear and the number of personnel and items of equipment to be supported are small enough, the support battalion supports them on an area basis. If the numbers are substantial or dispersion taxes the support battalion's assets, the COSCOM has to augment the support battalion. In all cases, these corps units receive HSS from the nearest medical facility regardless of unit affiliation. If the separate brigade deploys with a division, corps units operating in the separate brigade area obtain logistics from the CSB/logistics task force employed in the DSA.

Where the separate brigade deploys to an undeveloped theater of operation, the corps commander

attaches a corps slice to the separate brigade. The corps slice includes logistics and HSS elements. These elements support corps combat, CS, and CSS elements which accompany the separate brigade. Depending upon METT-T, the corps slice could consist of DS supply company elements and MSTs. It could also include truck platoons, CEB teams, and HSS elements.

In addition to corps elements which operate in the brigade area, corps forces may move through the area. For instance, corps units withdrawing from a covering force mission may pass through the brigade area. The support battalion coordinates movement through the area. It also provides minimal support to assist the units in reaching their destination. Support most likely is supplemental maintenance and fuel.

SUPPORT BATTALION AND THE SUPPORTING CORPS SUPPORT BATTALION/CORPS SUPPORT GROUP

The support battalion normally ties directly into the corps support system. The support battalion S2/S3 (the support operations staff in the ACR) coordinates with the support operations staff of the CSB designated by the CSG OPORD to provide support on –

- ASP support to the separate brigade ATR
- Reinforcing DS maintenance (including MST support) to the battalion maintenance company.
- Designated field services (CEB, laundry teams).

For other support, the support battalion S2/S3 coordinates with the support operations staff of the supporting forward CSG on –

- GS ammunition support (CSA to ATP).
- GS bulk fuel support to the support battalion Class III point.
- GS-level supply (depending on the forward CSG task organization).
- Mortuary affairs support.

As discussed in Chapter 5, the support battalion transportation officer goes through the brigade transportation officer to request transportation support from the supporting MCT. An MCT is collocated with a forward CSG which tasks truck units providing logistics.

PROCESS

The support battalion commander and staff use the C2 process outlined in FM 101-5 to make decisions and

supervise the execution of orders. A summary of this process appears here. The process is a continuous one;

the support battalion commander and staff are always involved in estimating and planning. However, the focus becomes more precise when the support battalion receives a mission.

In some cases the support battalion commander deduces the mission. Usually, he receives planning guidance and a restated mission from the brigade commander. When he receives or deduces the mission, the support battalion commander and staff begin mission analysis. The support battalion staff identifies the tasks required to accomplish the mission. It issues a warning order to all support battalion elements, along with the support battalion's planning guidance.

Planning guidance includes the brigade commander's intent and a restated mission. It includes specific courses of action to develop or eliminate from consideration and assumptions. It includes constraints (to include time limitations) and critical information required. It also includes specific considerations such as the probability of NBC attack, implementation of deception plans, and rear operations. The support battalion staff uses planning guidance to prepare estimates. Therefore, the support battalion commander ensures that the nature of his planning guidance does not bias staff estimates.

The support battalion commander and staff plan continuously. Yet, it is not until they receive the brigade commander's decision on the tactical employment of brigade units that they finalize the concept of operations. Working with the brigade S4 and the support battalion medical company commander/brigade surgeon, the support battalion staff determines the logistics and HSS structure. They determine —

- What type of support is required.
- What quantities of support are required.
- What is the priority of support,
- What logistics and HSS resources are available.
- Where the logistics and HSS resources are located.

- When the logistics and HSS resources are available to supported units.

An in-depth discussion of planning for HSS is in FM 8-55. Logistics planning factors are in FM 101-10-1/2.

Such logistics and HSS planning is as detailed as time permits. Sound SOP and contingency plans greatly assist in the development of specific plans. When SOPs are comprehensive, they have to change only to accommodate specific requirements or circumstances. In any case, planning concentrates on those areas most vital to successful mission accomplishment of the supported brigade.

On the basis of staff estimates, the support battalion commander determines the supportability of courses of action to accomplish the mission. Once the support battalion staff finalizes the support plans, the XO gives guidance on preparation of the OPORD/OPLAN. The S2/S3 consolidates the input. He then publishes and distributes the OPORD/OPLAN after the support battalion commander approves it.

After the S2/S3 distributes the OPORD/OPLAN, the support battalion commander and staff supervise its execution. The primary purpose of the staff is to assist subordinate units to carry out the intent of the support battalion commander's order. The support battalion staff refines plans and orders as the situation changes. Information comes back to the command section through reports and personal observations of the battalion/company commanders and staff and the BMMO. On the basis of this information, it evaluates instructions as required.

One final point is key. Time is often the critical factor in the C2 process. FRAGOs on previous orders are often preferable to new orders. Also, SOPs layout a simplified OPORD process that meets the commander's needs. This process may include an easy-to-use, fill-in-the-blank OPORD format. The format is on the unit's automated system.

FACILITIES

C2 facilities include CPs and supporting automation and communications systems. These facilities process and transmit information and orders necessary for effective C2. A discussion of the support battalion CPs and C2 automation is below. Chapter 4 contains information on communications.

AUTOMATION

Automated systems throughout the brigade allow commanders to manage information to optimize use of limited resources. The systems include the machinery, programs, specialists, and organizations which process data through the use of computers. The command control,

and subordinate system that includes a CSS control system integrates data bases to support cross-functional decision making.

Command, Control, and Subordinate System Structure

CCS2 provides the means of interfacing the five battlefield control functions of maneuver, air defense, CSS, intelligence/EW, and fire support. The Army Tactical Command and Control System interfaces these five battlefield control functions. (Note: Initial fielding begins in the first quarter of FY 94.)

The CSS Control System of the ATCCS is an automated system that provides logistics, medical, and personnel command and control information. It rapidly collects, analyzes, projects, and distributes this information to the commander. This allows the commander to make timely and sound tactical decisions. This information also helps CSS commanders perform their command and control functions. In addition, this information helps combat support commanders to execute their missions. The CSSCS retrieves data from CSS subordinate units and feeder systems, called Standard Army Management Information Systems. The CSSCS is employed at armored cavalry regiment, separate brigade, division, corps, and echelons above corps.

There are four CSSCS devices in a separate brigade and five in an ACR. In the ACR, the regimental combat aviation squadron has a fifth device. This device provides visibility on aviation logistics concerns. Each device responds to information requirements generated by the support battalion commander, the brigade commander, and the other ATCCS nodes at brigade level. It also provides the means for the brigade commander and staff to disseminate information, such as OPLANs, orders, and inquiries, to the support battalion. The interface with the other CCS2 nodes (fire support, air defense, IEW, and maneuver) permits integration of all battlefield control functions to synchronize activities. Figure 3-1 depicts CSSCS in support of the separate brigade/ACR.

Support Battalion. CSSCS devices in the support battalion are the support battalion S2/S3 CSSCS and the BMMC CSSCS. The support battalion devices collocate in the support battalion CP complex in the BSA. They communicate via LAN.

The support battalion S2/S3 CSSCS device is the ATCCS CSS node at the separate brigade echelon. This

node communicates with the brigade S3 ATCCS MCS in the main CP via MSE.

The STAMISs (SIDPERS, SARSS-2, SPBS-R, SAAS-DAO, SAMS-2) interface with the support battalion S2/S3 CSSCS and the BMMC CSSCS. The SIDPERS locates in the support battalion S2/S3 CSSCS. SARSS-2, SPBS-R, SAAS-DAO, and SAMS-2 locate in the BMMC CSSCS. They communicate via direct connection, LAN, or magnet media exchange. Other STAMISs (TAMMIS, SARSS-1, SAMS-1) locate in the OPFACs of the support battalion companies. Because of their dispersion throughout the BSA, they communicate with the battalion CSSCS via CNR or magnetic media exchange.

Brigade Staff. CSSCS devices in the brigade headquarters are the S4 CSSCS and the S1 CSSCS. The S4 CSSCS device locates in the CSS cell of the main CP. CSS personnel (S1, S4, S5) share this device. The S1 CSSCS device locates in the rear CP, and the S1, S4, S5 personnel in the CP also share this device.

The STAMISs (SIDPERS, DAMMS-R) interface with the brigade staff CSSCS devices. They collocate within the OPFAC. They interface via direct connection LAN or magnetic media exchange.

Functional Systems

The CSS automated systems provide information to CSSCS for command and control purposes. Yet, they continue to perform the functional missions for which they were originally designed. These systems operate on TACCS or the ULC hardware. The support battalion uses the systems below:

- SIDPERS operates on TACCS and automates strength accounting, assignment, organization record keeping, personnel record keeping, and labor-intensive military personnel operations within the S1 section of the support battalion.
- SPBS-R automates the property accountability and reporting requirements of ARs 710-2 and 710-3. It provides the brigade with a state-of-the-art automated property book that improves Class VII accountability and asset visibility. The SPBS-R operates on TACCS in the Class VII section of the BMMC. SPBS-R on TACCS interfaces with SARSS-1, ULLS, and CSSCS.
- ULLS operates on the ULC and provides automation of logistics functions at the unit and battalion levels. The unit maintenance application has been developed. (In addition, an S4 consolidated

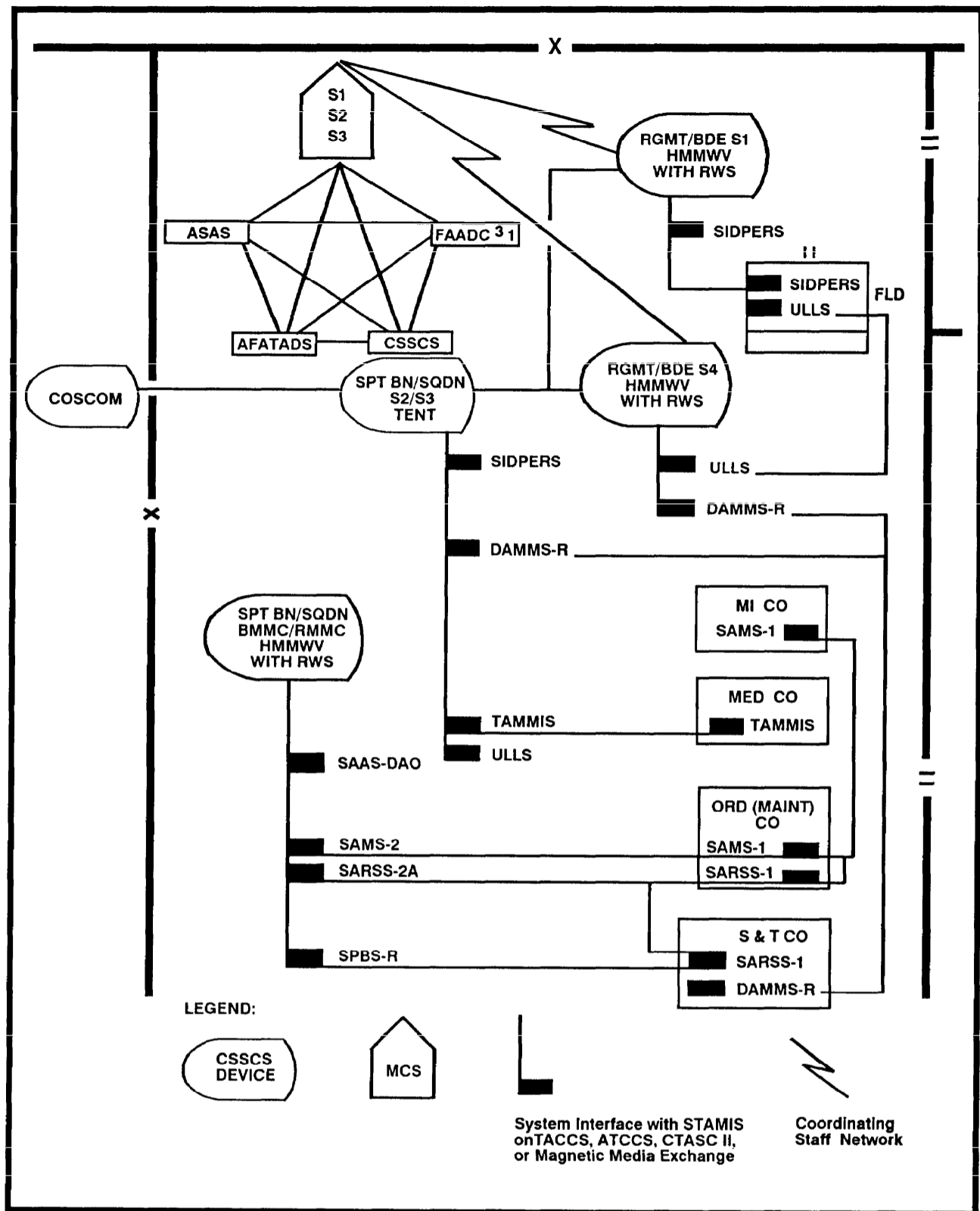


Figure 3-1. CSSCS distribution in support of a heavy separate brigade/armored cavalry regiment.

logistics component is currently under development.) ULLS interfaces with CSSCS, SARSS-1, SAMS-1, SPBS-R, SAAS-DAO, and other applicable STAMISs.

- SARSS-1 operates on TACCS hardware in the support battalion's S&T and maintenance companies. The system automates Class II, III (packaged), IV, VII, and IX supply actions. It performs time-sensitive functions such as receipt, storage, issue, replenishment, inventory adjustments, supply performance reporting, and excess identification, as well as maintaining accountable stock record balance. During normal distribution operations, SARSS-1 interfaces directly with SARSS-2A on TACCS at the BMMC. In contingency operations, SARSS-1 may operate in the autonomous mode without SARSS-2A support and interface directly with the DAAS to route requisitions directly to the wholesale supply system. In addition to interfacing with SARSS-2A, SARSS-1 interfaces with ULLS, SPBS-R, SAMS-1, DAMMS-R, CSSCS, and PWIS.
- SARSS-2A operates on TACCS in the BMMC. It is in the Class I-IV supply section, repair parts branch of the materiel section, and property book and Class VII section. In the BMMC, SARSS-2A receives asset balance reports from SARSS-1 and routes unfilled requisitions received from subordinate SARSS-1 activities to the appropriate source of supply. It also performs lateral transfers, substitutes item identification release, and submits catalog changes to SARSS-1. It also maintains asset balance visibility for all SARSS-1 subordinate activities. SARSS-2A interfaces with subordinate SARSS-1, CSSCS, higher echelon SARSS-2A/B, and other designated STAMISs. SARSS-2A replaces the DS4 run on the DAS3.
- SAMS-1 operates on TACCS in the support battalion's maintenance company. The system automates maintenance production control, providing immediate job order and backlog status information. It provides, through file inquiry, repair parts and shop stock asset status. It screens production parts requirements against on-hand assets and automatically generates, edits, and passes requests to the supply system via an interface with SARSS-1.
- SAMS-2 operates on TACCS hardware in the BMMC materiel section. The system receives SAMS-1 data and provides immediate production and supply requirements to managers. It gives daily visibility of deadlined equipment. The materiel condition status report module displays parts required for production and readiness by either unit or weapon system. In addition to the SAMS-1 interface, SAMS-2 interfaces with other appropriate SAMS-2 (for example, BMMC to CMMC) and SAMS-3 devices, and other designated STAMISs.
- SAAS-DAO operates on TACCS hardware in the BMMC. It provides an automated management information system to support the management and distribution of ammunition requirements within the separate brigade and ACR. It interfaces with SAAS-1/3 at the CMMC and SAAS-4 at the ASP.
- DAMMS-R operates on TACCS hardware in the HHC of the support battalion. It interfaces with the transportation officer assigned to the S4 section of the brigade headquarters. The brigade transportation officer automated mission performance also requires a DAMMS-R on TACCS interface with the support battalion S&T company DAMMS-R operating on ULC. The system provides in-transit cargo movements data, mode asset status, hold/diversion status, movement information, transportation status reports, container reports, ETA forecasts, and transportation intelligence.
- TAMMIS-D operates on TACCS in the medical company of the support battalion. The system provides timely, accurate, and relevant information through the MEDPAR-D and MEDLOG-D subsystems. MEDPAR-D provides automated capabilities in treatment and disposition data, unit medical administration, ICRS, medical C2, and system setup/maintenance. MEDLOG-D automatically generates medical supply requests and processes materiel receipts. It also accumulates cost summary data and manages due-in supplies. There is also an ADTMC module which assists the aidman in the proper treatment and/or disposition of disease cases.

COMMAND POST

The dynamics of the modern battlefield – speed, complexity, and lethality – require the very highest

level of organization and operational efficiency within any CP structure. Automated and manual information systems minimize the time required for administrative processing of information. The systems ensure the accurate portrayal of the tactical situation. The systems also prevent needless verification of data. They make information immediately available to the commander and members of the staff.

The CP is the control center for command and administration of the battalion and its attached units. SOPs control routine day-to-day CSS operations. Also, the SOPs define staff responsibilities and interrelationships. The battalion staff coordinates CSS operations that require special attention and resolves conflicts between subordinate units and between subordinate and supported units.

The support battalion commander and S2/S3 in coordination with the brigade S4 select the location of the BSA. The brigade S3 approves the location. Positioning of elements within the BSA is the responsibility of the support battalion commander.

Certain officers and staff elements normally operate in the support battalion CP. These include the commander and the XO; the S1, S2/S3, and C-E staff officers; the BMMO; the automation management officer; and personnel of the staff sections supporting these principal staff officers.

Personnel normally operate in a two-shift mode to permit continuous operations. Table 3-1 is an example of how the battalion CP positions could be organized into two shifts. This is only an example of minimum staffing. During intense activity, all available personnel are required for short periods. However, maximum staffing cannot continue indefinitely. The support battalion commanders and staffs consider fatigue and sleep loss that occur during combat. Lack of sleep causes fatigue, thus, providing a major source of battlefield stress. Leaders are particularly susceptible. Principles to minimize fatigue include:

- Developing and enforcing specific sleep plans.
- Planning at least 3 to 4 hours of sleep every 24 hours. Even at this rate, performance, especially decision-making skills, becomes degraded in several days.
- Giving priority of sleep to those whose decision making is critical to the mission.

Table 3-1. Support Battalion CP Organized in Two Shifts.

Peak Activity	Reduced Activity
S2/S3 ofr Support ops ofr (ACR) Maint materiel ofr Automation mgt ofr Supply and services ofr Bn C-E chief Transportation ofr (HSB/SIB/TDB) Movements control ofr (ACR) Intelligence sgt NBC NCO Support/staff maint technician Materiel mgt ofr Clerk typist	S2/S3 ops sgt Bn comm chief Swbd op Senior maint supv Spt ops sgt (ACR) S2/S3 typist

A key consideration in determining the location of the CP is the ability of the site to provide good communications with higher, lower, and adjacent organizations. Considerations include the capability to remote radios and to use terrain to mask transmissions. FM 24-1 has details. The support battalion locates the CP near routes which allow relatively easy access into the area. It avoids prominent terrain features and major road junctions to prevent the enemy from readily determining the CP location.

When possible, the support battalion locates the CP in built-up areas. Barns, garages, and warehouses eliminate the need for extensive camouflage. Use of built-up areas also reduces infrared and electromagnetic signatures and reduces the requirement to move as often.

Built-up areas may not be available. If they are not, the support battalion locates the CP on the reverse slope. This location provides cover and concealment from both ground and air observation fires. The ground is firm enough to support vehicle traffic, have good drainage, and provide enough space to disperse vehicles.

The CP travels light and is able to move often. A CP is a major source of electromagnetic and infrared energy. If the CP does not move often, its location is fixed and targeted. The larger and more elaborate the CP setup, the less rapidly the CP can move. However, the more frequently the CP moves, the more command, control, and communications suffer.

When the CP does move, it displaces by echelon. Once an interim operational capability is established at the new location, the remainder of the CP elements move.

The commander may lay the CP out in a number of different arrangements, still allowing the CP to perform its functions effectively. In a built-up area, the layout conforms to the structure of the available buildings. Figure 3-2 (ACR) depicts a dual shelter configuration in a field environment. The S2/S3 and

RMMC perform their communications, intelligence, operations and logistics missions from these two vans. Figure 3-3 (separate brigade) has S2/S3 operations in a van and BMMC operations in a tent. The brigade rear CP collocates with the support battalion CP to ensure the best possible communications and coordination.

A standard interior arrangement of the CP is desirable. It helps visitors locate specific staff sections and simplifies displacement and reestablishment of the CP. An orderly arrangement groups those elements that frequently work together. Also, agencies that have considerable traffic locate near entrances. Agencies that require special security precautions (such as, the communications center) arrange to centrally locate.

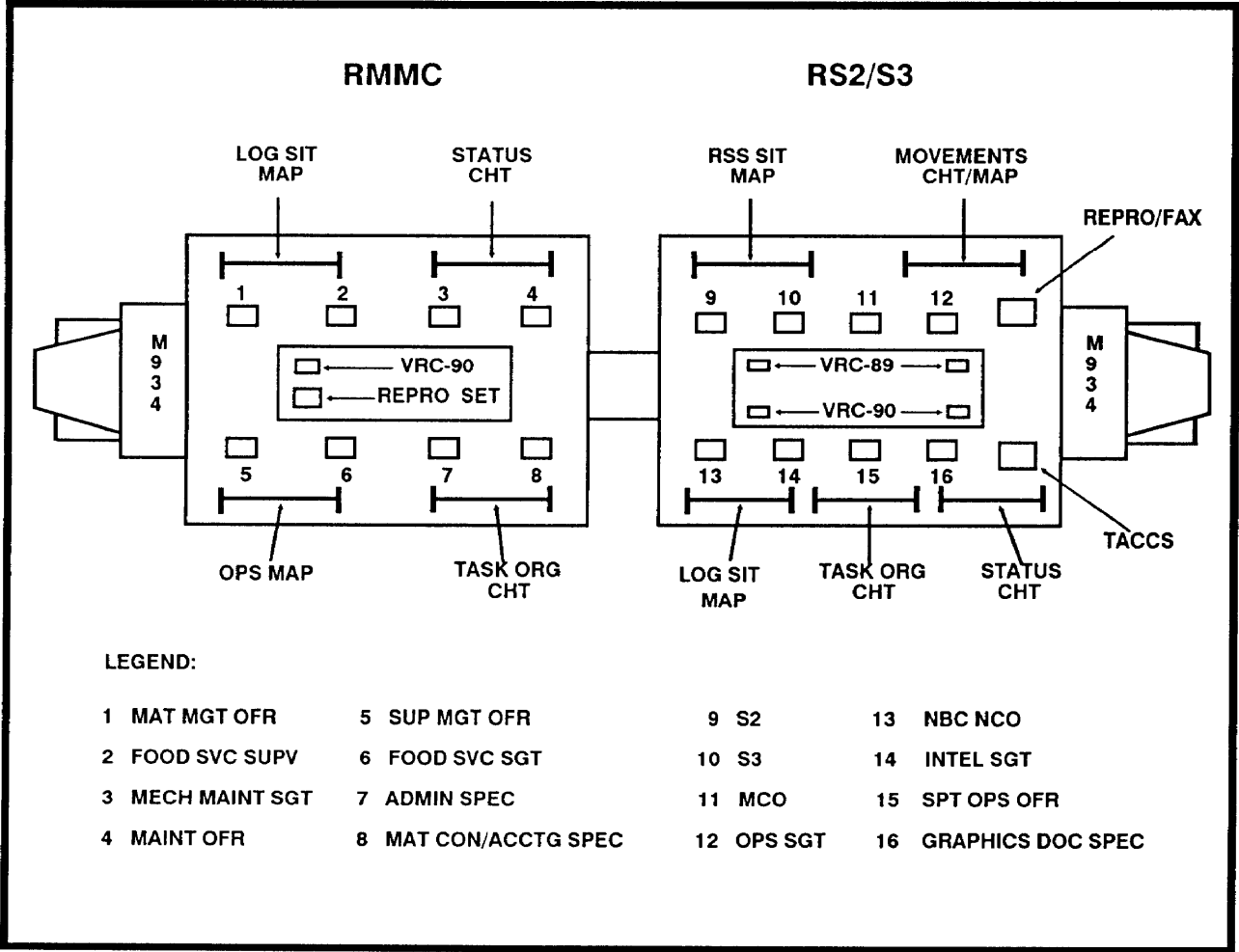


Figure 3-2. Support squadron, ACR, command post.

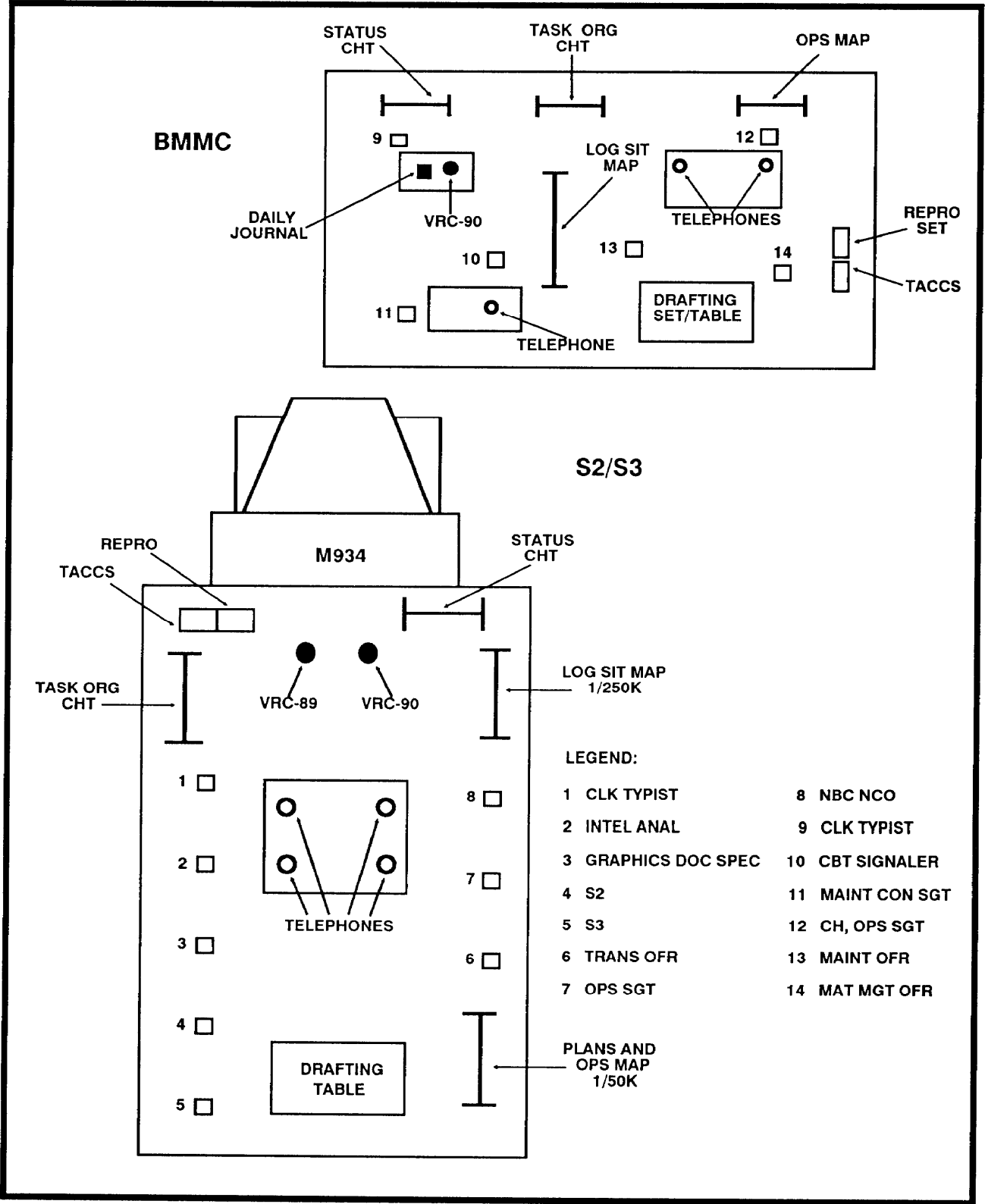


Figure 3-3. Support battalion, separate brigade, command post.