

CHAPTER 2

HEALTH SERVICE SUPPORT ESTIMATES, PLANS, AND ORDERS**Section I. PRINCIPLES OF PLANNING****2-1. Health Service Support Planning**

a. Current HSS planning addresses the management of normal day-to-day operations, while short- and long-range planning cover projected operations of successively longer periods. Planning is a continuous process. The planner must remain sensitive to the demands for HSS based upon constantly changing situational and operational requirements. During current operations, staffs at all levels (especially higher command levels) must continuously plan for subsequent operations. Regardless of the type of military operation being supported or the level of command providing the support, HSS plans must be made. These plans may be either formal written plans or informal thought processes. Either plan must be well-communicated to be effective. The planner must proceed in an orderly, progressive manner to ensure maximum effort and completeness. The specific time required to plan varies with the type, size, and level of the command concerned. The amount of detail required to plan will also vary with the—

- Type of command.
- Experience of all personnel in the command.
- Complexity of the operation.
- Factors of combined, joint services, or interagency participation.
- Time available.

b. Planners must develop well-thought-out plans and validate the plans through field training exercises and command and staff simulations. The process of thinking through a plan

and conducting "What if?" drills by changing critical variables is especially useful. This process allows the HSS planner to envision potential results and to anticipate problems. Consequently, the planner can become proactive instead of being reactive. The proactive planner can eliminate potential problems before they cause adverse consequences. He has more time to accomplish the required synchronization to adjust operations when adverse consequences arise because he has anticipated problems and has already considered potential solutions. The proactive planner has more time to address unanticipated problems and more time to plan HSS for future operations.

c. Effective and timely planning is essential to operate successfully on the battlefield. Failure in the planning process will result in commanders, their staffs, and subordinate units finding themselves unprepared to function in military operations. The modern, mobile battlefield is the wrong place to be operating precariously. That approach will cost soldiers' lives. Planners must have the initiative to ask questions that may affect the performance of their units, and they must know their units well enough to answer questions when asked.

2-2. Planning Sequence

The planning sequence is a series of steps representing a logical progression of command and staff actions required to develop plans. The planning sequence attempts to prepare for all developments that can reasonably be anticipated. Although some actions ordinarily occur sequentially, others take place concurrently. Field Manual 101-5 provides an in-depth discussion of the planning process.

2-3. Current Plan

A plan developed in the planning sequence described in FM 101-5 is not necessarily implemented on completion. As new information becomes available or as events occur, the plan is reviewed and updated accordingly. This action continues until the plan is implemented or until no requirement exists for the plan.

2-4. Coordination of the Plan

a. Coordination is one of the most essential elements in successful planning. From the beginning, the planner must continuously coordinate the various types of operations with the commander and his assistants. With a knowledge of the mission, the current situation, and the objectives, the planner can better plan for the support that will be required. This method enables him to begin the planning for support early and allows him time for more thorough planning. He must ask questions such as, *What resources will I need to do the job? Where will Z obtain them?*

b. The planner must also coordinate with those staff representatives at the various headquarters who can furnish him needed information and who must coordinate their plans with his. He must begin early coordination in those areas requiring close HSS interface within the CSS community.

c. Building the HSS interface as part of the CSS community is critical. Health service support depends on the CSS system for a multitude of support services such as—

(1) Class I (Subsistence, including medical B rations and gratuitous health and welfare items).

(2) Class II (Clothing, individual equipment, tentage, tool sets and tool kits, hand

tools, and administrative and housekeeping supplies and equipment). This class includes items of equipment (other than principal items) prescribed in authorization/allowance tables, and items of supply (not including repair parts).

(3) Class III (Petroleum, oils, and lubricants [POL]: Petroleum fuels; lubricants, hydraulic and insulating oils, preservatives, liquid and compressed gases, chemical products, coolants, deicing and antifreeze compounds, together with components and additives of such products, and coal).

(4) Class IV (Construction: Construction materials including installed equipment and all fortification/barrier materials).

(5) Class V (Ammunition, individual small arms ammunition, and pyrotechnics for defense of self and patients).

(6) Class VI (Personal demand items).

(7) Class VII (Major end items such as vehicles and aircraft which are ready for their intended use).

(8) Class IX (Maintenance repair parts for associated support items of equipment [ASIOE]).

(9) Class X (Material to support nonmilitary programs).

(10) Other support services such as—

(a) Nonmedical transportation.

(b) Potable water resupply.

(c) Liquid waste disposal.

(d) Direct support(DS)/general support (GS) maintenance backup.

(e) Trash/solid waste disposal.

(f) Medical intelligence dissemination.

(g) Rear operations.

(h) Mortuary affairs.

(i) Site support by engineer units.

(j) Movement control.

(k) Reconstitution.

(l) Delivery of Class VIII supplies.

(m) Assistance in movement of medical units.

(n) Nonmedical augmentation, such as personnel and air and g-round transportation from nonmedical units, to medical evacuation assets in mass casualty situations.

d. Commanders and staff (planners) within units must know how, when, and with whom to coordinate (synchronize) both internally and externally. Proficient synchronizers tend to think about what is happening and what will be happening two levels down, two levels up, and on each side.

e. Just as HSS commanders must be multifunctional to recognize CSS requirements, so too must future multifunctional CSS commanders recognize medical requirements to integrate CSS effectively across the spectrum of military operations. They will have to understand what the HSS system is all about as they will have an

inherent responsibility for ensuring that HSS is planned and provided in a timely, responsive, and effective manner.

2-5. Characteristics of the Plan

A good HSS plan—

- Provides for accomplishing the mission.
- Is based on facts and valid assumptions. All pertinent data have been considered for their accuracy, and assumption have been reduced to a minimum.
- Provides for the use of existing resources. These include resources organic to the organization and those available from higher headquarters.
- Provides for the necessary organization. It clearly establishes relationships and fixes responsibilities.
- Provides for personnel, materiel, and other arrangements for the full period of the contemplated operation.
- Provides for decentralized execution of the plan. It delegates authority to the maximum extent consistent with the necessary control.
- Provides for direct coordination during execution between all levels.
- Is simple. It reduces all essential elements to their simplest form and eliminates those elements not essential to successful action.
- Is flexible. It leaves room for adjustments because of operating conditions and, where necessary, stipulates alternate courses of action (COA).

- Provides for control. Adequate means exist, or have been provided, to carry out the plan according to the commander's intent.
- Is coordinated. All elements fit together, control measures are complete and understandable, and mutual support requirements are identified and provided for.

2-6. Planning Guidance

The commander provides planning guidance to the staff as required. The frequency, amount, and content of planning guidance will vary with the mission, time available, situation, information available, and experience of the commander and staff. The commander may choose to issue initial planning guidance to the staff when the mission to be supported is announced; however, he must take care not to unduly bias staff estimates. This guidance is used to direct or guide the attention of the staff in the preparation or revision of staff estimates and serves to expedite the decision-making process. Planning guidance should include all elements of the commander's intent.

2-7. Basic Planning Considerations

The commander's intent and the mission assigned to the combat forces must be the basic consideration of all components in their planning for HSS.

a. Health service support preparations and planning must be initiated early and designed specifically to support the operation.

b. Certain basic factors and premises must be used for sound HSS planning. Among the most important are—

(1) Preparing a HSS estimate and a concept of the HSS operation.

(2) Coordinating the efforts of the health services of the component forces to make maximum use of available resources.

(3) Planning to assure flexibility for unforeseen contingencies such as nuclear, biological, and chemical (NBC) and directed-energy (DE) warfare.

Section II. THE HEALTH SERVICE SUPPORT ESTIMATE

2-8. Surgeon's Responsibility

a. After the commander provides planning guidance, the surgeon should prepare estimates of requirements and descriptions of projects to be undertaken for establishing adequate HSS systems to support the mission. He prepares this in his role as a special staff officer. The surgeon makes a health service estimate that may stand alone, or that may be incorporated into the personnel estimate. This estimate forms the basis

for the subsequent HSS plan. All HSS possibilities that could affect the successful support of an operation must be considered. (See FM 8-42 for additional discussion.)

b. The surgeon must determine what basic load modifications are required, what additional people skills are required, and any mission unique training that must be conducted. The surgeon must know his intelligence element, how medical information requirements are made

known to the appropriate intelligence element, what medical intelligence is available, how medical intelligence is disseminated, and how to integrate intelligence in general and medical intelligence in particular into HSS operation plans (OPLANs)/operation orders (OPORDs). (See Appendix F and FM 8-10-8.)

c. The commander uses the HSS estimate, along with estimates of other individual staff members, in the preparation of his own estimate. He uses the information in the HSS estimate to select the best COA for the command, and for inclusion in the operational and logistics support plans.

d. After considering all the staff estimates, the commander completes his own estimate and makes his decision. In the case of a medical command (MEDCOM) or medical brigade headquarters, the estimate is made by the commander, assisted by his staff, and normally results in the publication of the HSS plan for the command. At lower echelons, the estimate is a continuous mental process integrated in the planning process.

2-9. Format for the Estimate

The process followed in preparing a HSS estimate of the situation is the same as that followed in preparing an operational estimate.

a. Staff estimates may be presented orally, or in writing. Often, only the staff officer's conclusions or recommendations are presented to the commander.

b. An example for a health service estimate is found in Appendix B. This format is applicable to any echelon of command and can be used under any operational condition. It is lengthy and includes many more details than may be needed in some situations. Each HSS planner

must vary it according to his needs. There is no beginning or end to the estimate. It must be continuously and constantly revised as circumstances change, so that planned support can be provided to the command from the time it is mobilized until it is inactivated.

c. The estimate is intended to be a timesaving and integral part of providing adequate support for all types of operations. If the estimate is prepared by the command surgeon (corps surgeon/corps support command [COSCOM] surgeon), it must support the tactical commander's intent. If prepared by a command such as a MEDCOM, medical brigade, or medical group, it becomes the estimate of the medical commander assisted by his staff. Normally, estimates at the division surgeon's level are not formal written documents; however, health service considerations may appear in a written personnel estimate prepared by the G1/S1 (Personnel/Adjutant, respectively). The commander or the staff officer should use the format as a guide and checklist.

2-10. Mission

a. The senior medical commander/command surgeon is responsible—

(1) For analyzing the mission of the command from the HSS perspective.

(2) For outlining the concept of HSS operations, assigning taskings, and providing guidance for a casualty care system in support of the commander's intent and concept of operations.

(3) For coordinating HSS with civil affairs, other Services, and/or alliance and coalition partners, and other government agencies.

(4) For coordinating HSS with host nations by providing medical liaison teams to countries with which the US has HSS agreements

or with relief agencies participating in the operation in concert with civil affairs.

(5) For anticipating the lack of HSS infrastructure in a host nation and determining the impact upon refugee management.

b. The HSS mission is the basis for the estimate and is stated clearly in paragraph 1 of the estimate. It always conforms to the operations in which the supported personnel are engaged. For example, the mission might be to *provide HSS to the 52d Mechanized Division in a deception operation on 10 and 11 June 92. The division attacks on 110310 June to secure high ground on Hills 123, 456, and 789. 3d Brigade makes the main attack on the west.* In another example, the mission may be to *save lives by providing basic medical care, medical evacuation, and preventive medicine (PVNTMED) sanitation enforcement and education.*

2-11. Situation and Considerations

The health service situation will consist of HSS facts, assumptions, and deductions that can affect the operation. In this logical and orderly examination of all the HSS factors affecting the accomplishment of the mission, the HSS planner must be familiar with the commander's intent. The information required includes medical intelligence which is obtained through supporting intelligence channels. (See FM 8-10-8 for a discussion on information requirements and priority intelligence requirements.) The planner must conduct a thorough evaluation of the enemy situation and the area of operations (AO) from the standpoint of their effects on the health of the command and HSS operations. These are enumerated as follows in paragraph 2 of the estimate:

a. *Enemy Situation.* From his specialized point of view, the surgeon must consider

the enemy's ability to adversely affect the HSS operations of the command.

(1) The enemy's attitude toward the Geneva Conventions could alter HSS if he is likely to attack the friendly HSS system, or if he is known to have attacked it. It could also determine the type of medical care friendly prisoners of war can expect.

(2) The enemy's strength, disposition, probable movements, logistic situation, and combat efficiency must be considered to estimate the number of patients requiring hospitalization and evacuation.

(3) The enemy's ability to inflict conventional and unconventional (NBC and DE warfare) casualties is a concern. The type of enemy weapons employed will influence the number and type of combat casualties. Heavy artillery bombardment, air attack, surprise weapons and tactics, and continuous operations increase battle fatigue casualties, while guerrilla or terrorist attacks cause other combat stress reactions. Supplementary hospitalization and evacuation resources may be required.

(4) The enemy's medical capabilities, sanitation discipline, and the health of potential enemy prisoners of war (EPW) can be expected to influence the command's medical work load as well as the EPW patient work load.

b. *Friendly Situation.* A preliminary estimate of medical work loads can be made when the friendly forces' strength, combat efficiency, position, weapons, and plan of action are compared with those of the enemy.

(1) This comparison considers the tactical plan of the commander to determine the location of areas of casualty densities and the best placement of HSS units.

(2) He must consider the enemy's ability to disrupt the rear operations of the command. Medical units in the rear must be incorporated into base clusters. Units must be positioned logically to ensure maximum security. These facilities are so numerous that in many cases the ideal type of security may not be available. The threat to these units must not be aggravated by positioning them near areas of high attack probability such as ammunition or nuclear storage facilities. To successfully defeat enemy deep operations, clear-cut lines of authority for security must be established. These lines of authority must be clearly identified at all echelons before any plans or operations are initiated. (See FM 100-15 or FM 71-100 for detailed discussions.) Field Manual 8-10 addresses Article 24 of the "Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field (GWS)." It also discusses US Army policy on the use of Article 24 personnel in perimeter defense.

(a) Article 24 of the GWS provides special protection for "Medical personnel exclusively engaged in the search for, or the collection, transport, or treatment of the wounded or sick, or in the prevention of disease [and] staff *exclusively engaged* in the administration of medical units and establishments. . . . [Emphasis added.]"

(b) The GWS does not itself prohibit the use of Article 24 personnel in perimeter defense of nonmedical units such as unit trains logistics areas or base clusters under overall security defense plans, but the policy of the US Army is that Article 24 personnel will not be used for this purpose. Adherence to this policy should avoid any issues regarding their status under the GWS due to a temporary change in their roles from noncombatant to combatant. Medical personnel may guard their own unit without any concurrent loss of their protected status.

c. *Characteristics of the Area of Operations.* The HSS planner should obtain medical

intelligence regarding the AO from the supporting intelligence element (FM 8-10-8). This information must be considered in the planning process. The characteristics of the AO influence the number of patients, as well as their collection and evacuation.

(1) *Terrain.*

(a) Topography has the same bearing on HSS planning as it does on tactical planning. Using terrain to one's advantage may reduce combat casualties therefore decreasing the anticipated patient work load.

(b) Natural conditions may favor large populations of arthropods (insects, arachnids, and crustaceans) which commonly are vectors of many diseases and therefore could directly increase the incidence of disease.

(c) Mountains, forests, and swamps can be expected to hamper HSS. Altitude exposure at high terrestrial elevations frequently results in reduced military performance and can result in acute mountain sickness. Transfer of patients from shore to ship is particularly dependent upon coastline and harbor conditions. Availability of roads, landing strips, and railroads will be important in developing evacuation alternatives. Terrain factors such as protection, shelter, and water supply are considered in consonance with evacuation alternatives and with the selection of medical treatment facility locations. Evacuation resources must be augmented when using difficult terrain.

(d) An increase in the hospital bed allocation should be considered if the terrain analysis suggests a significant increase in battle injury (BI), wounded in action (WIA), disease admissions, or difficulty in evacuating patients. Preventive medicine detachments should be tasked to reinforce forward deployed units if disease potential warrants.

(e) The duration of hazards from chemical-biological warfare agents may increase in the forest where the air is still and the foliage is thick.

(2) *Weather and climate.*

(a) Climate influences the incidence of frostbite, hypothermia, snow blindness, immersion injuries, sunburn, heat exhaustion, heatstroke, combat stress, and other medical manifestations that detract from combat unit effectiveness.

(b) Tropical, desert, and tundra conditions strongly favor the growth of arthropod populations that highly increase the incidence of disease casualties. Preventive medicine units become increasingly important under such adverse conditions.

(c) Humidity may affect storage life of medical supplies and equipment.

(d) Precipitation affects available water supply, may impact on hospital site selection, and may damage unprotected supplies. Rain and snow will have dramatic effects on roads, changing evacuation routes and increasing turnaround times.

(e) Temperature variations may require special protection of medical supplies and may increase patient load because of heat and cold injuries. Weather also impacts on the level of degradation incurred while in mission-oriented protective posture (MOPP) and thus has a direct impact on heat casualty volume. Additionally, requirements for medical facilities, supplies, and evacuation resources can be expected to increase. Because the rate of deterioration of health service logistics is influenced by both climate and weather, storage facilities must be estimated accordingly. Evacuation alternatives, particularly by air, will

be highly influenced by weather conditions. (See FM 1-230.)

(3) *Dislocated civilian population and enemy prisoners of war.*

(a) Wartime stress and physical damage can lead to rapid deterioration of urban and rural utilities such as electricity, water, and sewage services. Consequent increases in communicable disease could present a threat to which friendly forces are vulnerable. Enemy prisoners of war and refugee populations also tend to be sources of communicable disease. Because cities and towns tend to be located along axes of peacetime economic activity, they invariably confront CSS units moving on main supply routes (MSRs) and at crossroads of principal highways. Even if a disease outbreak is suspected, bypass of such areas is generally impractical. Refugee populations, if not properly managed by local authorities or military police, also tend to concentrate on major transportation routes.

(b) Civil Affairs (CA) and military police have the responsibility of working with the local authorities to manage the flow of refugees.

(c) Preventive medicine teams could be tasked to assist local authorities to reactivate essential civilian sanitary services, or to establish hygienic refugee assistance facilities.

(d) Veterinary units may be used to assist in the control of animal diseases that present a risk to the human population or to the agricultural economy. Veterinary units will also inspect subsistence fed to dislocated civilians and EPW to prevent foodborne diseases, as required. This will limit the impact these populations have on Army Medical Department (AMEDD) resources.

(e) *If resources permit*, MTF or medical treatment/holding cot allocations could

be increased to accommodate known or suspected outbreaks of disease.

(f) Class VIII and Class X materiel (materiel to support nonmilitary programs) could similarly be accumulated in anticipation of a larger demand.

(g) Increased evacuation and hospitalization requirements for dislocated civilian populations will be supported by local resources, nongovernmental organizations, and relief agencies, whenever possible. Coordination with these local medical agencies should be proactive and accomplished in concert with CA units. This should minimize the strain on military medical resources.

(4) *Flora and fauna.* Certain kinds of arthropods, animal diseases, and toxic plants encountered in the area may also contribute to the noneffective rate of the command. Orientation of personnel and safeguards against arthropods, animals, and vegetation may be necessary. Preventive medicine units can develop desired information. Veterinary units can evaluate the local crops and animals for availability and suitability as fresh food sources. As a TO expands and matures, more fresh food will be needed to support US Forces.

(5) *Disease.* The effects of major diseases are delayed because of incubation periods. Knowledge of potential losses to malaria, dengue, sandfly fever, typhus, and other endemic disease is invaluable in determining appropriate preventive and control measures. These measures include requirements for basic personal protective measures, immunizations, chemoprophylaxes, immunoprophylaxes, pest management, or other appropriate measures. Should time not allow for preventive measures, disease information will be essential in estimating disease rates and for projecting strength changes in maneuver units.

(6) *Local resources.* The HSS planner requires information concerning the availability from local sources of such items as food, ice water, pharmaceuticals, and medical gases (oxygen and anesthetics).

(a) Although other units of the command are responsible for procuring food and water, appropriate veterinary services or PVNTMED detachments are responsible for food wholesomeness, hygiene, safety, and quality assurance and for water treatment and storage.

(b) Availability of pharmaceuticals or medical gases in the area affects supply stockage levels and transportation required for the operation.

(c) The use of local facilities such as hospitals, medical clinics, dental and veterinary schools, and their associated staffs should be considered.

(d) The civil-military operations (CMO) staff can provide liaison with indigenous health professionals and organizations.

(7) *Nuclear, biological, and chemical and directed-energy weapons.* The numbers and types of NBC/DE casualties depends on the scenario. However, these weapons produce mass casualties (MASCAL) whenever they are used. (See FM 8-10-7.) The uncertainty concerning the numbers, types, and extent of injuries from NBC or DE weapons is made even more complex since injuries from more than one type of these weapons can affect the methods of patient treatment and prognosis. Another example is that acute ionizing radiation exposure increases the morbidity and mortality of virtually all patient types. Such insidious weapons and devices also produce a large number of patients with stress-related injuries whose symptoms may be difficult to distinguish from true signs of injury. Nuclear, biological, and chemical weapons may produce large numbers of

patients during a single attack so that medical units will have to face large peak patient loads. Directed energy weapons may also be used by the threat force. The effects could be severe on HSS operations.

(a) The CMO staff can identify nonmilitary organizations to support HSS operations under these conditions.

(b) The NBC and DE threat must be evaluated and included in the overall planning concept to determine how to counter it. All medical units must be prepared to execute coordinated MASCAL plans.

(c) Health service support units will not generally establish themselves in a contaminated environment. However, all units in the theater are at risk of attack. Furthermore, remaining or entering a contaminated area maybe required to provide HSS. Commanders must ensure that units and personnel are prepared to survive, defend, and continue operations in or near a contaminated area by instituting MASCAL standards for medical treatment. Presence of critical facilities such as nuclear power plants or chemical plants could impact on medical operations. The Bhopal and Chernobyl incidents are excellent examples of how these type facilities could affect medical operations.

(d) Veterinary service personnel will advise all DOD theater logistics units and user units on storing subsistence to prevent NBC contamination, on monitoring and detecting NBC contamination of rations and, when necessary, on decontaminating rations to ensure food safety.

(e) Preventive medicine units and all HSS personnel will be alert for abnormal disease patterns in order to detect NBC effects. The sick soldier or local population is likely to be the first indication of biological warfare use; rapid

identification may be critical to the survival of theater forces.

(f) The Area Medical Laboratory (AML) has special capabilities to support HSS units in NBC environments. The AML is described in Chapter 7.

d. *Strengths to be Supported.* The strengths to be supported are usually shown in a table in which the personnel strength is broken down into categories indicating the types and amounts of support to be required. These categories may include Army, Navy, Air Force, Marines, allies, EPW, indigenous civilians, detained persons, and civilian internees. Various experience rates are applied against these strengths to estimate the expected patient load. The detail in which the tabulation is prepared varies with the scope and type of the operation.

e. *Health of the Command.*

(1) An important consideration in making the estimate is the health of the command. The following factors affect casualty estimates and indicate command and medical measures that should be taken prior to each operation being planned:

- Acclimation of troops.
- Presence of disease.
- Status of immunizations and drug prophylaxis.
- Status of nutrition.
- Adequacy of clothing and equipment.
- State of fatigue, morale, unit cohesion, and training.

- Physical conditioning.
- Oral health fitness level.

(2) The planner is concerned with providing HSS regardless of patient origin. He is interested in all causes for patient admission, requirements for beds, geographic dispersion of patients, and the accumulation in medical work load. Combat commanders are primarily interested in assessing combat power from which they can develop alternatives for subsequent operations. The surgeon is best served by data expressed as "rates/1000/period," which simplifies planning for HSS. The commander can better evaluate alternative operational concepts if projected losses are expressed as "percentage reduction" in combat strength of combat units. Recognizing that major disease impacts are delayed because of incubation periods, knowledge of potential losses to malaria, dengue, sandfly fever, typhus and similar diseases is invaluable for—

- Phasing the proposed tactical operations.
- Managing individual replacements.
- Task organizing maneuver units for the next operation.

(3) Therefore, if disease is expected to exert a significant impact on the force, consideration should be given to projecting changes in the strength of subordinate components not only for disease and combat losses expected during the operation of concern but also for disease losses that will exert their operational impact during following periods. The return to duty (RTD) rate of WIA and disease and nonbattle injury (DNBI) cases is also of primary interest to the commander and staff.

f. Assumptions. An assumption is a supposition on the current or future course of events, assumed to be true in the absence of positive proof. Assumptions are sometimes necessary to enable the planner to complete the estimate of the situation and to decide on a COA to support the operation. In addition to a statement of facts, logical assumptions are included in this paragraph as a basis for development of the estimate. Subsequently, these assumptions may be deleted or modified as new information becomes available. Assumptions are usually restricted to higher levels of planning and normally apply only to factors beyond the control of friendly forces such as enemy capabilities and weather.

g. Special Factors. Factors that are not listed elsewhere or items of such importance to the particular operation that they merit special consideration are mentioned. For example, how patients suffering from combat stress may affect the operation is a consideration.

2-12. Health Service Support Analysis

The analysis in paragraph 3 of the estimate is a logical comparison of the estimated requirements of the command and the support means available for the operation.

a. Patient Estimates. Estimates of patients can be prepared from data compiled in paragraph 2 of the estimate. Patients are estimated as to number, distribution in time and space, areas of patient density, possible MASCAL, and lines of patient drift and evacuation. The surgeon can consult experience tables to assist him in determining requirements for the operation. From this data, hospital bed estimates can also be made. (See Chapter 5.)

b. Support Requirements. Requirements are calculated from the estimate of patients and the data contained in paragraph 2 of the

estimate. The planner should consider separately the requirements for the following:

- (1) Patient evacuation, medical regulating, and patient reporting and accountability (Chapter 4).
- (2) Hospitalization (Chapter 5).
- (3) Health service logistics, to include blood management (Chapters 6 and 8, respectively).
- (4) Medical laboratory services (Chapter 7).
- (5) Dental services (Chapter 9).
- (6) Veterinary services (chapter 10).
- (7) Preventive medicine services (Chapter 11).
- (8) Combat stress control (CSC) services (Chapter 12).
- (9) Area medical support (Chapter 13).
- (10) Command, control, communications, computers, and intelligence (Chapter 14).
- (11) Support to other Services (Chapters 2,6,8, and 10).
- (12) Others, as appropriate.

Neither the resources available nor the allotment of specified units should be considered at this stage in the analysis. Only the HSS resources REQUIRED to support the commander's operation plan are determined.

c. Resources Available. Having determined the HSS requirements, the surgeon then

considers the resources on hand or readily available to meet the requirements. See paragraph 3 of the estimate, Example B-1, Appendix B. Maximum use of available personnel and supplies promotes the overall effectiveness of the HSS of the command. To ensure all aspects of HSS are considered, review the following supporting categories:

(1) *Organic HSS units and personnel.* Medical units that are organic components of the command are listed and under each is a statement describing its location, strength, and readiness for action. Professional and specialty personnel capabilities must also be considered.

(2) *Attached medical units and personnel.* Medical units already attached and those that may be readily available, their locations, strengths, readiness, and professional and specialty personnel capabilities are considered.

(3) *Supporting medical units.* Consideration is given here to the evacuation and other support furnished by higher echelons as well as from the Air Force and the Navy.

(4) *Civil public health capabilities and resources.* Host-nation medical personnel and supplies reported by CA as available from civil public health must also be listed. Civilian medical facilities and personnel may be used in some cases to augment military facilities; in other cases, the surgeon may be requested to give them support. He should be acquainted with their potential. Cultural differences and medical care philosophies can impact on health care provided. Civil Affairs personnel assist in planning for the maximum of host-nation support. They also assist in carrying out host-nation agreements.

(5) *Indigenous or retained medical personnel.* Consideration is given to the use of indigenous and retained personnel and their

supplies in providing medical care for their respective categories of personnel.

(6) *Health service logistics.* The surgeon must consider supplies and equipment on hand, immediate resupply availability, the condition of this materiel, and the organization's capability to maintain it.

(7) *Medical troop ceiling.* The medical troop ceiling should be reviewed by the command surgeon to determine the possibility of securing additional medical support units. This action should be effected as early as possible to ensure the timely receipt of the required units. See Chapter 14 for a discussion of the medical troop ceiling.

d. Courses of Action. By taking into consideration all support requirements and resources available, the planner can then determine major problem areas and difficulties. Based on this determination, several possible COA can be developed and listed which will provide the necessary HSS. In this subparagraph, the planner lists these COA and considers policies, standing operating procedures (SOPS), and procedures that will accomplish the support mission. He limits himself to such considerations as—

- Centralization versus decentralization of HSS. (Will authority be delegated to the maximum extent consistent with the necessary control?)
- Dependence on evacuation by other Service components.
- Extent to which civilian and EPW labor will be used.
- Evacuation policies.

2-13. Evaluation and Comparison of Courses of Action

In paragraph 4 of the estimate, the planner evaluates and compares the various COA developed in paragraph 3. He does this by comparing the COA to determine which one CAN best BE SUPPORTED FROM THE HSS PERSPECTIVE. He lists those difficulties which will have different effects on each possible COA. This then enables him to evaluate these COA in terms of their inherent strengths and weaknesses. By next comparing the possible COA in the light of these strengths and weaknesses, he is able to identify further the basic advantages and disadvantages of each. He does not draw conclusions at this time, but defers this action until the comparison of all possible COA is completed.

2-14. Conclusions

a. Paragraph 5 of the estimate represents the end of the thought process of the estimate and is the basis for the development of the HSS plan. The statements represent the command surgeon's or medical commander's "decision" and serve as a guide to other staff members and/or subordinates in their planning.

b. The planner—

(1) Indicates whether the HSS mission for the operation can/cannot be accomplished,

(2) Indicates which COA can best be supported from the HSS perspective.

(3) Lists factors which may adversely affect the health of the command.

(4) Lists the limitations and deficiencies in the preferred COA that must be brought to the commander's attention.

(5) Includes a COA which is less than desirable, but which best supports the commander's operational mission with the most economical use of available HSS resources.

(6) Provides a general statement if the HSS mission cannot be accomplished.

c. Further details regarding general estimates of the situation are contained in FM 101-5.

2-16. Mission, Enemy, Terrain and Weather, Troops, and Time Available

The acronym METT-T (mission, enemy, terrain and weather, troops, and time available) is a useful tool to remember and organize planning considerations, particularly when the plan is not a

formal written plan, or when the planner does not have quick access to planning references.

a. Mission refers to the same responsibilities and considerations as discussed in paragraph 2-10.

b. Enemy refers to considerations discussed in paragraph 2-11a, enemy situation.

c. Terrain and weather refers to the considerations discussed as "characteristics of the AO" in paragraph 2-11c.

d. Troops refers to the friendly situation, paragraph 2-11b, and to the resources available, paragraph 2-12c.

e. Time refers to the amount of time available to formulate and execute the plan.

Section III. THE BASE DEVELOPMENT PLAN

2-16. A Base

a. A base is a locality from which an operation or activity is projected, or is to be projected. It varies in size and type and may range from a radar station to a base with complete ship repair facilities and cantonment facilities for the training and staging of several divisions of troops. The most complex type of base is one where the Army, Air Force, and Navy share a locality—

- That was recently the scene of intensive combined amphibious operations, or

- Where facilities are rapidly developed for support of continued tactical operations while still being subject to enemy attack.

b. By definition, base development is the acquisition, development, improvement, and

expansion (or rehabilitation) of facilities and resources of an area or location for the support of forces. This area may develop into an established communications zone (COMMZ).

c. Base development includes the provision of personnel and facilities required for construction, port operations, transportation, hospitalization, maintenance, communications, and all other activities involved in base operations. The theater OPLAN includes a logistics annex. This annex contains information and instructions concerning what is to be done in support of combat operations, but does not include detailed information as to the means for accomplishing these ends. This type of detailed information is contained in the base development plan (BDP). It ensures the timely availability of personnel, materials, and facilities required to support contingency plans or continued operations.

2-17. Planning Sequence

a. A planning sequence usually begins with the publication of a joint strategic capabilities plan by the Joint Chiefs of Staff (JCS) to the theater commander. The theater commander then issues a base development planning directive to his Service component commanders. This directive is based on the operational concept and the force structure. The directive includes selected base sites, assigned support missions, operational target dates, preliminary estimates, and instructions required for specific planning. When more than one Service component or when an allied service occupies or has a requirement for the same type of facilities on a base or geographical area, a joint BDP is required. This plan ensures interservice coordination and avoids duplication of effort.

b. A planning directive is provided to the appropriate Service component commanders early in the preparation of BDPs. This directive has no specific format, but may—

- Allocate responsibilities to the Service component commanders for projects and functions.
- Specify priorities and completion dates for projects.
- Specify construction standards.
- Allocate facilities and real estate to subordinate commands.
- Indicate the command structure and designate the commander or commanders charged with base development.
- Indicate the scope and magnitude of the logistic support capabilities of the base.

- Specify SOPs and directives to govern implementation of the plan.

2-18. The Plan

a. The BDP is the product of concurrent planning by the theater commander, the commanders of the component Services, and the theater Army (TA) commander. It is accomplished according to the planning directive. It is the governing instrument for planning and establishing a base. The plan is a compilation of all the information necessary for the theater commander and his staff to coordinate the efforts of subordinate commands in base development. It provides specific direction and includes all phases of concurrent planning undertaken by the subordinate commands concerned. The BDP sets forth the base facilities to be provided and the CSS function to be performed. It covers such matters as categories of construction, priorities, and restrictions on use of critical materials. Within a TO, the BDP is published in a standard format, as outlined in Joint Publication 4-01. It is issued as an appendix to the logistics annex of the OPLAN. The BDP serves as the mechanism by which requirements, identified in the logistic annex to the OPLAN, are converted into facilities, installations, and other construction requirements. As a starting point, the base developer must have information as to those requirements such as tons of dry cargo to be stored, gallons or barrels of petroleum to be moved, troops to be housed, and expected hospital patient load to include types of patients expected.

b. Using standard planning factors tempered by experience, these requirements become warehouses to be built, pipelines to be installed, troop camps to be established, and MTFs to be constructed. (See paragraph 2-21b.) Estimates of requirements are made in each of the functional areas of CSS, and the validity of the BDP will depend largely on the accuracy of these estimates.

If more precise information is available, planning factors in FMs 101-10-1/1 and 101-10-1/2 should not be used. In addition to determining construction requirements, the BDP provides the rationale for estimating construction cost, real estate acquisition requirements, and the size of the construction force. The BDP becomes the theater commander's construction directive when implemented. Normally, no major construction will be undertaken unless it is contained within the approved plan. The BDP may not be completely responsive to the situation as it actually develops. During the first few months of an operation, urgently needed construction should be accomplished without delay, but a comprehensive review of the plan will be required to evaluate how well the planner visualized the events that are actually taking place.

2-19. Theater Base Development Planning Staff

a. The TA commander forms a base development planning staff that is responsible for developing the BDP (or the Army's portion of a joint BDP) and for staff supervision in the execution of the plan on implementation. The planning staff will be provided representatives from—

- Service component commands (to include the TA MEDCOM).
- Theater Army general and special staff sections.
- Theater Army subordinate commands and agencies involved in base development planning and execution.

b. The mission of the base development planning staff is to develop the theater BDP for submission to and approval by the TA commander. This planning staff also provides advice and recommendations to the TA commander in all

matters pertaining to base development planning, programming, and execution.

2-20. Health Service Support Considerations

In planning the HSS portion of base development, the TA surgeon and his staff must consider the following basic factors:

a. *Mission.* The mission assigned to an advanced base serves as the basis for establishing the extent of development and the schedule of readiness for the medical facilities that are included in such development. Only those medical facilities that are essential for fulfillment of the HSS mission should be authorized.

b. *Degree of Permanence.* Plans provide for only the minimum medical facilities necessary consistent with the safety, health, morale, and protection of using forces. In a highly mobile situation, or for an operation of expected short duration, the requirement for new bases would be transitory in nature. Planning for such situations must consider, as a probability, the abandonment or the roll up of any facilities provided. Maximum effort, therefore, must be exerted to use all possible existing facilities to satisfy US forces' requirements. New facilities should consist of little beyond those which can be established by using units employing locally available materials. If ultimate peacetime use of the base is anticipated, initial development is planned for later incorporation into permanent base development.

c. *Limitations on Manpower, Supplies, or Equipment.* The theater commander usually has at his disposal only limited resources in manpower, supplies, and equipment. Because unloading capacities in objective areas are limited, strict control of shipping is established. All base development planning, including HSS, should

conform to those limitations established by overall tactical and logistical considerations.

d. Estimated Phased Population. To prepare the BDP, it is necessary to make estimates of the troop population at successive stages in the development of the base. These estimates must list the major units and headquarters, as well as accompanying units, including combat, combat support (CS), and CSS troops of all Services concerned. Initial estimates are revised to conform to troop lists as they become known. The recapitulation of troops is stated in the final plan.

e. Natural and Local Resources. Every effort is made to develop natural and local resources of an area to provide maximum effective support of military operations. Any exploitation of these resources which conserves medical personnel, supplies, equipment, or time must be given due consideration by the surgeon. All estimates should, as far as possible, be based on fact. Use of local civilian and EPW labor is included in this consideration. Planning for the use of local resources should be based on reliable information, preferably supported by on-site reconnaissance.

f. Areas Available for Development.

(1) Areas suitable for medical facilities in the objective area are usually restricted in size and number. This is particularly true in the immediate landing area and in the vicinity of ports and beaches. If base development involves more than one Service, consideration must be given to the allocation of areas or space/facilities required by each Service component for support. The joint BDP will include the assets and requirements of all Services involved. To the maximum degree possible, the facilities planned to meet the needs of one Service will be designed to accommodate similar or related requirements of the other Services operating in the same area. If the requirements of the Services are in conflict, the theater commander

reevaluates the requirements of each Service and allocates areas so as to ensure the most effective overall development of the base area.

(2) When information of the objective area is incomplete and the location of certain high priority installations such as airfields cannot be indicated definitely, the BDP should provide that all suitable sites found be reserved for the use of the Service concerned until they are released for other use. As a corollary, each Service makes early reconnaissance and releases all unsuitable sites at the earliest possible date.

(3) The possibility of the need for future expansion should be considered by the surgeon in studying available areas and in selecting and recommending facility sites.

g. Priority of Development.

(1) Determining priorities to develop bases is an intricate task. It involves compromise and reconciliation between operational and logistical considerations. After dates of operational readiness have been established, the base development planners ensure that required construction forces and supplies are provided in the objective area. Partial use of incomplete base facilities is usually necessary even though construction efficiency is consequently lowered and there is delay in final completion. Priority for development is established by balancing operational requirements against the construction program. While flexibility should be provided for contingencies, a decision on major changes should be reserved at the appropriate command level. This procedure will prevent hasty changes based on limited knowledge and/or consideration of the factors involved. The senior commander ashore must have authority to make necessary changes in the BDP in conformity with the tactical situation and physical conditions present in the objective area.

(2) Factors that may govern development priorities include—

- The urgency of meeting special operational requirements.
- The ease or difficulty of completing construction tasks for reasons other than enemy opposition.
- The anticipated interference by enemy operations with certain construction efforts.

h. Unloading Health Service Personnel, Supplies, and Equipment. Estimates of terminal capacity available for unloading health service personnel, supplies, and equipment in the base area are essential in determining the extent of the development possible during any given period of time. The surgeon must give further consideration to the availability of facilities to accommodate all health service resources.

i. Selection of Treatment Facility Sites. (See the hospitalization section in FM 8-10 and Training Circular [TC] 8-13.)

j. Deployment of Automatic Data Processing (ADP) Resources. (See Technical Bulletins (TBs) 18-13 and 18-106.)

2-21. Construction Requirements

a. Analysis of Construction Task. After the major elements of the BDP are reasonably firm, the planners can analyze the construction task. Although construction is a function of the engineers, using Services are responsible for making known their general construction requirements for facilities and installations and for assisting with construction plans. For example, the surgeon coordinates with the engineer in the construction of all MTFs. Much of the difficulty

encountered by construction forces is often due to a lack of complete planning or understanding of requirements. As changes in the situation develop, revisions in plans must be made so that actual needs are met, rather than those outlined in an outdated plan. Flexibility in such matters is important.

b. Medical Treatment Facility Construction.

(1) The nature of the support operation will dictate the standard or type of construction. Operations of short duration will require an austere type of construction. Support of long-duration operations will require the highest construction standards possible. Combat zone (CZ) MTFs must maintain the flexibility inherent in mobile and semimobile units. With the fielding of Deployable Medical Systems (DEPMEDS) equipment in both the CZ and the COMMZ hospitals, construction requirements are greatly reduced. However, the requirements for site preparations such as those listed below remain the same:

- Site preparation.
 - Trash and garbage pits.
 - Soakage pits or liquid disposal system.
 - Incinerators.
 - Protective trenches.
- Facilities such as showers, latrines, wash, and dining.
- Motor parking.
 - Landing zone.
 - Perimeter security.

- Fuel storage.
- Power generation equipment placement.

(2) The MTF planner must provide the engineer command with detailed and specific requirements for contaminated waste storage and disposal. Host nation or TO requirements may demand higher standards of construction in contaminated waste storage and disposal sites than are otherwise needed for the MTF itself. These specific needs must be provided to the engineer command early since they may require “design from scratch” facilities.

(3) In the absence of DEPMEDS-equipped hospitals, consideration should be given to the use of existing facilities in the areas which were originally designed as MTFs, or which are readily adaptable to use as a MTF. Attention to types of buildings, their potential patient capacity,

and their effective use prior to the conduct of an operation may result in the selection/use of facilities that will save precious time and resources.

c. Standards of Construction for Contingency Operations. Joint Publication 4-01 establishes the system for identifying construction standards. Construction standards are based primarily on the length of the contingency operation and are set by the theater commander. The following construction standards conform to JCS requirements and are included in the facility/installation descriptions printed in Technical Manual (TM) 5-301 and in the Theater Construction Management System (TCMS):

- Initial—less than 6 months.
- Temporary--6 to 24 months.

The two standards of construction are shown in Table 2-1.

Table 2-1. Construction Standards

	INITIAL	TEMPORARY
	EXPECTED DURATION	
	LESS THAN 6 MONTHS	6 TO 24 MONTHS
APPLICABILITY.	ALL FORCES DURING INITIAL DEPLOYMENT TO A THEATER OF OPERATIONS OR ON RELOCATION TO A NEW LOCALE WITHIN THE THEATER WHEN EXISTING FACILITIES ARE NOT AVAILABLE AT THE NEW SITE.	FORCES WHOSE MISSION ORIENTATION IS FIXED. FORCES SUBJECT TO RELOCATION PROVIDED CONTINUOUS USE OF THE FACILITIES WILL BE OBTAINED THROUGH UNIT ROTATION OR OTHER MEANS.
SPECIALIZED CONSTRUCTION SUPPORT.	CANTONMENT CLEARING AND GRADING FOR DRAINAGE AND FACILITY SITE. GRADING AND MINIMUM STABILIZATION OF ROADS. INSTALLATION OF TACTICAL BRIDGING AND RELOCATABLE PORT FACILITIES. CONSTRUCTION OF TACTICAL AIRFIELDS AND OTHER OPERATIONAL FACILITIES. CONSTRUCTION OF PROTECTIVE BARRICADES FOR POL; AMMUNITION STORAGE; AIRCRAFT PARKING; AND COMMAND AND CONTROL FACILITIES.	ENGINEERED SITE PREPARATION, INCLUDING BUILDING FOUNDATIONS OR CONCRETE SLAB FLOORS; PREFABRICATION OF BUILDING COMPONENTS; SUPERVISION OF BUILDING ERECTION; CONSTRUCTION OF ALL-WEATHER ROADS, FIXED BRIDGING, AND FIXED PORT FACILITIES; AND PAVING OF AIRFIELDS. INSTALLATION OF STEEL STORAGE TANKS AND PIPED SYSTEMS FOR POL AND WATER SUPPLY.

Table 2-1. Construction Standards (Continued)

	INITIAL	TEMPORARY
	EXPECTED DURATION	
	LESS THAN 6 MONTHS	6 TO 24 MONTHS
SHELTERS SUCH AS TROOP HOUSING, DINING FACILITIES, AND ADMINISTRATIVE BUILDINGS.	ORGANIC EQUIPMENT THAT CAN BE ERECTED BY USING ACTIVITIES.	SIMPLE WOOD FRAME STRUCTURES (OF EQUAL USE) USING LOCAL MATERIALS, AUSTERE PREFABRICATED BUILDINGS, AND RELOCATABLE BUILDINGS. CONSTRUCTION MATERIALS, BUILDINGS, AND TECHNIQUES ARE BASED ON A LIFE-CYCLE COMPARISON.
COLD STORAGE.	PORTABLE UNITS.	PORTABLE UNITS WITH SHED.
ELECTRICITY.	ORGANIC	ORGANIC AND/OR LOW VOLTAGE (440 VOLTS) GENERATORS AND DISTRIBUTION SYSTEMS, SOME CENTRAL POWER PLANTS; HIGH VOLTAGE DISTRIBUTION.
WATER.	ORGANIC EQUIPMENT.	QUARTERMASTER DELIVERED WITH LIMITED PIPED DISTRIBUTION TO MTFs, DINING FACILITIES, BATHHOUSES, AND HIGH-VOLUME USERS. SOME CENTRAL TREATMENT PLANTS; PIPED DISTRIBUTION.
SEWAGE.	PIT OR BURNOUT LATRINES. (IF LOCAL SEWAGE SYSTEMS ARE AVAILABLE AND SUITABLE [CAPACITY AND DRAINAGE], THEY MAY BE SUBSTITUTED OR USED TO SUPPLEMENT ORGANIC SOURCES.)	PIT OR BURNOUT LATRINES; WATERBORNE TO PRIMARY TREATMENT FACILITY FOR MTFs, DINING FACILITIES, BATHHOUSES, AND HIGH-VOLUME USERS.
SOLID WASTE (GARBAGE AND TRASH).	PIT OR TRENCH.	PIT OR TRENCH; LOCAL CONTRACTOR REMOVAL.
ROADS AND HARDSTANDS.	STABILIZED WITH LOCAL MATERIALS.	SOME PRIMARY ROADS PAVED; OTHER ROADS AND HARDSTANDS ALL-WEATHER WITH SELECTED BASE COURSE MATERIALS.
BRIDGES.	TACTICAL OR HASTY BRIDGING TECHNIQUES.	FIXED.
AIRFIELD PAVEMENTS.	TACTICAL SURFACING MATERIALS.	PAVED OR TACTICAL SURFACING MATERIALS.
LIQUID FUEL STORAGE AND DISPENSING.		
1. TERMINAL.	RELOCATABLE, NONRIGID STORAGE AND DISTRIBUTION.	RELOCATABLE, RIGID STORAGE AND DISTRIBUTION.

Table 2-1. Construction Standards (Continued)

	INITIAL	TEMPORARY
	EXPECTED DURATION	
	LESS THAN 6 MONTHS	6 TO 24 MONTHS
2. FORWARD.	RELOCATABLE, NONRIGID STORAGE AND DISTRIBUTION.	RELOCATABLE, RIGID STORAGE AND DISTRIBUTION.
3. PORT.	RELOCATABLE.	FIXED OR RELOCATABLE.

(1) Where specific types of construction are listed under a standard, they are intended to be illustrative of the quality of construction. Alternatives using native materials should be considered. Selection of materials and construction techniques should include consideration of the priority of the requirements, cost, climatic conditions, availability of material locally, availability and capabilities of construction activities, and transportation costs. The life-cycle cost of a relocatable facility should include the initial procurement costs, erection costs, and disassembly costs, as applicable (less the residual value of the components of materials recovered for reuse). Any equipment or quality of construction authorized under a lower standard may be used under a higher standard.

(2) Standards of construction relate to quality of the installations provided. The lower standard, "Initial," requires a minimum of engineer construction effort. "Temporary," the higher standard, may require buildings for some facilities, paved roads, and waterborne sewage. Within the standards, certain other choices are available such as whether to use wood or steel frame. The standard of construction will not be uniform throughout the theater; however, the theater commander may place a ceiling on construction at a specific level such as, *No construction authorized*

above temporary. Normally, each major project will have a standard allocated to it depending on the factors discussed below. As a general guideline, the most austere standard that will meet operational requirements and provide necessary facility life will be considered. Normally, no construction involving the expenditure of engineer effort will be authorized if the duration of the operation is expected to be less than 180 days. Obviously, exceptions to this policy may be made with regard to port facilities and lines of communication if construction rehabilitation is operationally necessary. It is entirely possible that agreements with the host nation may require construction to a higher standard than is justified by a strict analysis of the proposed operation. United States national policy may indicate that benefits will accrue through the construction of permanent facilities that will revert to the host government after the termination of hostilities.

(3) A lack of engineer troops and the requirement to provide facilities quickly may result in construction to a lower standard than desired. It is perfectly reasonable to construct to a low standard and then to upgrade the facilities as troops and time become available. Upgrading facilities to a higher standard is more costly than constructing to the higher standard in the first place, and this option may be foreclosed because of

fund constraints. Certain equipment such as computers, radars, and communication gear may require environmentally controlled conditions to ensure proper operation. Failure to construct the higher standard could result in the failure of this equipment to operate. Control of the construction effort is a matter for command emphasis. The natural desire of any commander assigned to a TO is to provide the best possible facilities for his personnel. Should all commanders be allowed to follow this desire, there would soon be no construction material available for operational projects. As a matter of policy, the theater commander should state that no construction will be authorized in the theater unless—

- It is contained in the approved BDP, or
- It is specifically approved by the theater commander as having overriding importance for mission accomplishment.

Upon initiation of the construction program, the base development planning staff will be charged with staff supervision over execution of the plan. Part of its responsibility will be to assure that construction assets are not channeled off into unauthorized projects. In line with this effort, tight controls will be placed on the issuance of construction material (Class IV) and on the use of engineer troops. Perhaps most important of all is the factor of self-discipline at all levels.

2-22. Responsibilities of the Health Service Support Planner

a. The fact that most construction is an engineer responsibility does not relieve the medical unit commander and his staff from any further action. *The HSS planner must incorporate the requirement for MTF construction and/or site preparation into the BDP.* There must be timely planning and coordination between the MTF, higher medical

headquarters, and the engineer units. The degree of participation by the MTF will depend on the size of the project. If a new facility and/or a major modification of an existing facility are needed, most of the planning and design will take place at a higher medical headquarters. However, the MTF commander and his staff, if in the TO, should be consulted during the predesign phases.

b. The degree of the MTFs participation during the construction phase greatly increases when major modifications to existing facilities or conversion of nonmedical permanent structures to medical facilities are programmed. Examples of major modifications include installation of central air conditioning, upgrading of water and sewage lines, addition of warehouses, modernization of operating rooms, or the conversion of existing buildings to MTFs. Special and extraordinary electrical requirements for hospital-peculiar equipment must be identified and made known to the engineer units during this phase of planning. These types of construction involve long-range planning. The initiation of a project begins with the submission of work requests by the MTF commander. The flow of work requests through command channels will vary in accordance with local procedures. Coordination is normally effected with the area coordinating committee. Construction specifications and rough drawings are prepared at the senior medical headquarters level and reviewed with the MTF commander and his staff prior to being forwarded through channels to the engineer command. The input of the medical unit commander and his staff is critical to the provision of adequate and appropriate health care facilities.

c. Final approval of the project is normally made by the TA commander, subject to the availability of funds, labor, and supplies. Final drawings and determination of whether to use civilian or military construction personnel is a responsibility of the engineer command. Final drawings are prepared in phases. Each phase is returned to the senior medical headquarters for

review. Each phase should also be reviewed with the MTF commander and his staff. Once construction starts, the project is under the supervision of the engineer command. The MTF commander, however, should forward progress reports and comments to his higher headquarters. Under no circumstances should the MTF commander try to make major job changes directly with the project engineer. Final acceptance of the project is normally a joint operation between the engineer command, the senior medical headquarters, and the MTF commander.

d. Determination of what constitutes major and minor construction will vary with the local policy. Of primary interest to the MTF commander is the fact that minor construction projects will involve a direct relationship between him and the engineers. Examples of minor construction include enlargement of rooms through the removal of walls and construction of small storage sheds. The job request originates with the MTF and is usually a responsibility of the Services section, Final approval rests with the

area commander and will depend upon the availability of funds, labor, and supplies.

e. The success of any construction project, whether major or minor, is greatly enhanced by the active interest and participation of the MTF commander and his staff in all phases of construction. The MTF commander should make every effort to be a member of the area coordinating committee. The MTF health service materiel officer should establish close relations with the officer in charge of engineer activities and/or the supporting engineer units.

f. To provide HSS, facilities of various types are needed. Health service support planners at senior medical headquarters are responsible for participating with the engineers and other Services in the construction of these facilities. This responsibility includes coordination with the commander, TA area command, transportation command, personnel command, and engineer command, and with the TA headquarters regarding suitable sites for medical facilities and installations.

Section IV. THE HEALTH SERVICE SUPPORT PLAN/ORDER

2-23. Preparation of the Plan

Before the HSS estimate is completed, the commander or the surgeon has started his preparation of the HSS plan. As each problem is recognized and solved, a part of the plan is automatically defined. These bits of fragmentary information should be disseminated to surgeons of subordinate and higher commands as early as possible to assist them in preparing their plans and estimates. Once the estimate is completed, it defines requirements, identifies resources, and determines policies and procedures. Now, specific responsibilities must be

assigned in the HSS plan. An example of a HSS plan is at Appendix C.

2-24. Responsibility

a. Each medical unit and medical headquarters involved in providing HSS must prepare its own plan. This plan will be based on the commander's intent and the OPLAN and/or the administrative/logistics (ADMIN/LOG) plan of the next higher headquarters.

(1) The OPLAN covers a single military operation or a series of connected military operations to be carried out simultaneously or successively. When the plan is put in effect, or executed, the plan becomes an OPORD.

(2) The ADMIN/LOG plan applies to CSS operations. It is based on the command's operations requirements. When put into effect, or executed, it is the ADMIN/LOG order. (See Figure 2-1 for an example of paragraph 5 of the ADMIN/LOG order.)

(3) See FM 101-5 for a detailed explanation of OPORDs, ADMIN/LOG orders, SOPS, fragmentary orders (FRAGOs), and warning orders. Field Manual 101-5 also provides a detailed discussion on annexes to orders.

b. The medical commander or surgeon must continually know and be familiar with the plans and general policies of the tactical commander to adapt HSS to changes. The medical commander must ensure that adequate resources are available for the successful accomplishment of the HSS mission.

2-25. Purpose and Scope

a. The HSS plan varies in its purpose and scope according to the size and complexity of the operation which it supports. *The HSS plan of a combat or CS battalion, for example, as a minimum includes the location of the patient collecting points and the battalion aid station (BAS). On the other hand, the HSS plan for a division considers more functions because of the greater extent of support responsibilities.* Some examples of these responsibilities are the location of MTFs and the distribution and assignment of evacuation assets.

b. The standard format of the plan is detailed and all-inclusive to fit the most complex

situation. This format is a checklist and guide; only those portions that apply are to be used. Subparagraphs that do not apply or are addressed in the tactical standing operating procedures (TSOPs) maybe omitted entirely and subsequent subparagraphs numbered accordingly. However, the planner must exercise caution in determining which subparagraphs are inappropriate to avoid an incomplete plan.

c. The OPLAN is used to prepare—

- The medical unit OPLAN or OPORD. (See Appendix C for an example.)

- The HSS annex to an OPLAN or order. (See Appendix C for an example.)

- Paragraph 4b or paragraph 5 of the ADMIN/LOG plan or order. (See Figure 2-1 for an example of paragraph 5, ADMIN/LOG order.)

2-26. Format

The plan must be in consonance with the format of the OPLAN. (In addition to the following, see Appendix C.)

a. *Heading.* The security classification is designated by the command headquarters and will be placed at the top and bottom of each page of the plan. Numbers and letters for identification and filing purposes are designated by the responsible headquarters. When reference is made to locations by map coordinates, maps are listed, including the applicable sheets. If no maps are referenced, this portion of the heading is omitted. The time zone applicable to the operation follows the references used in preparing the plan. Times in other zones are converted to the time zone of the current operation by using Figures 2-2 and 2-3. The phrase local should never be used.

5. Health Service Support

This paragraph contains information and instructions for supported units that prescribe the plan for evacuation and hospitalization of sick, wounded, or injured military personnel.

(This paragraph should be supported by an overlay.)

a. Medical Evacuation. This subparagraph should state routes, means, and schedules (if any) of evacuation and responsibilities. Evacuation and en route treatment policies should be included, when applicable. Specific policy for evacuation by air or ground methods and evacuation of NBC-contaminated patients is included. Information concerning medical evacuation request procedures and channels should be included if applicable and different from SOP. The evacuation policy may be included in this paragraph.

b. Medical Treatment Facilities. List of all appropriate treatment facilities (for example, troop medical clinics, aid stations, clearing stations, hospitals) belonging to or supporting organizations the order is written for, their locations, and times of opening or closing, if appropriate. Definitive treatment policies including treatment of contaminated casualties should be included.

c. Other Services. Include pertinent information on any other health service matters (for example, dental, preventive medicine, health service logistics and blood management, combat stress control, veterinary, medical laboratory, and area medical support). Include unit locations, support information, policies, and any others, as appropriate.

Figure 2-1. Example of paragraph 5, ADMIN/LOG order.

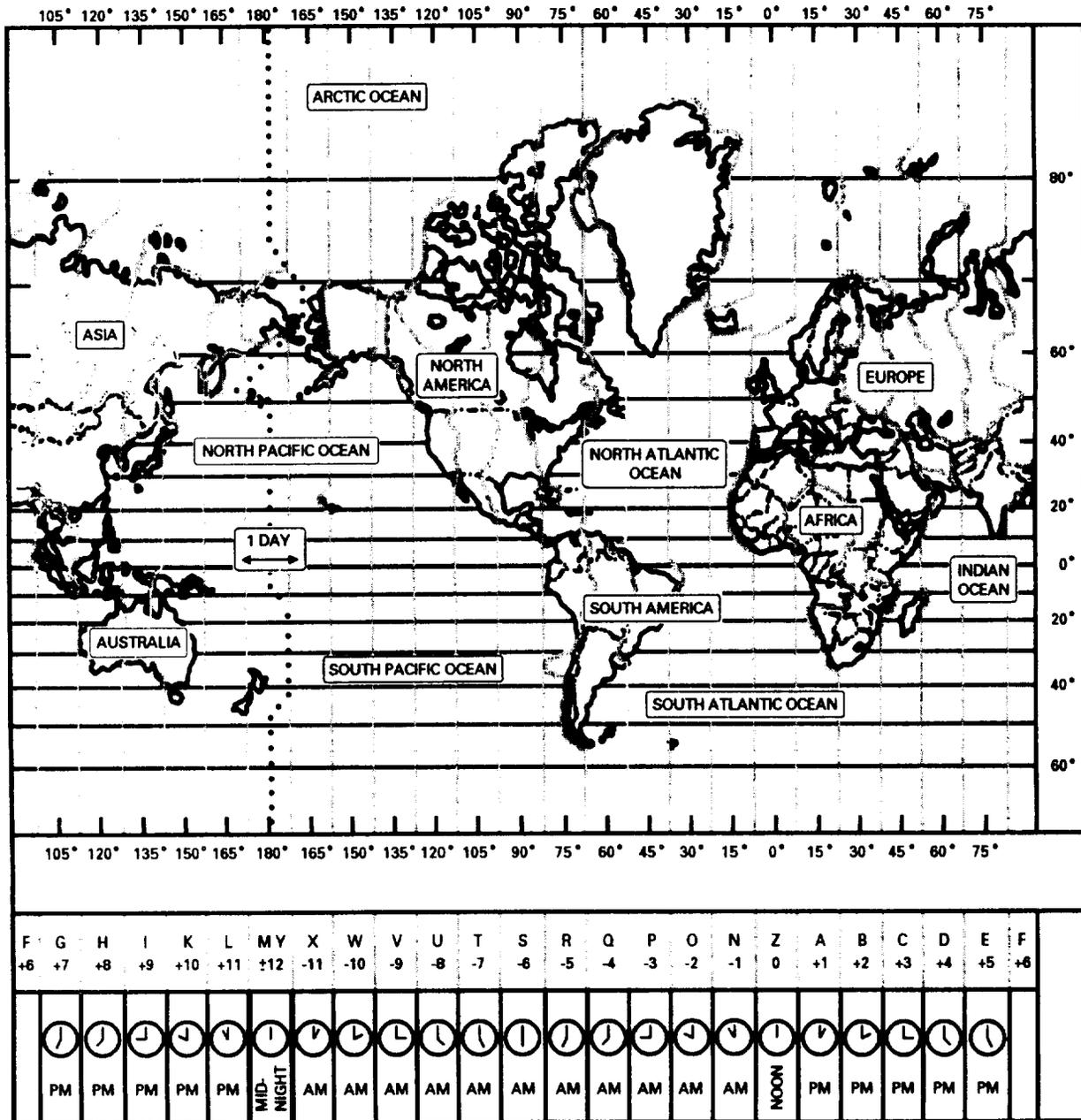


Figure 2-2. Time zone chart.

b. Task Organization. The task organization indicates how the command is organized to accomplish the mission. The task organization may appear after the time zone or in Annex A. If there are to be attachments for limited administration or control, this fact should be indicated in paragraph 1.

c. Body.

(1) *Paragraphs 1, 2, and 3 (situation/mission/execution).* The first three paragraphs follow the format of the OPLAN. They contain guidance for logical planning, are of assistance to subordinate HSS planners, and ensure conformity within the plan. (See Appendix C.)

(2) *Paragraph 4 (service support).* Paragraph 4 contains a statement of the CSS instructions and arrangements supporting the operation that are of primary interest to the units and formations being supported. (If lengthy, details may be included in an annex and referenced here.) Subparagraphs are titled "Supply," "Transportation," "Services," "Labor," and "Maintenance."

- The supply subparagraph outlines such matters as supply priorities for medical units and handling of hospital patient ration supplements. It addresses health service logistics organizations and gives locations. Locations may also be provided in a map overlay (as an annex to the plan). Information in this subparagraph may be simplified by making reference to SOPS that include required information.

- The transportation subparagraph considers the medical requirements for various means of supporting transportation and planned movements.

- The services subparagraph pertains to medical units and facilities such as mortuary services, laundry, bath, construction,

real estate requirements, and support from area personnel replacement units (*for RTD of personnel discharged from MTFs*). It also outlines the maintenance of Class VIII equipment and other items of equipment. It may also address minimal reequipping of RTD soldiers released from MTFs at Echelons III and IV. Minimal reequipping of RTD soldiers will consist of basic uniform items to protect the soldiers during transit to replacement companies.

- The labor subparagraph includes policies on the use of civilian or other labor personnel. Restrictions on the use of civilians, interns, and/or detainees will be in compliance with existing agreements or arrangements.

- The maintenance subparagraph includes priority of maintenance, location of facilities, and collecting points.

(3) *Paragraph 5 (patient evacuation, treatment and hospitalization, and other health services).*

- The evacuation subparagraph outlines the evacuation plans for all friendly forces to include Navy, Marine, Air Force, allies, and civilian personnel. Plans for medical evacuation of EPW are also included. Medical evacuation requirements and units available are listed to include their locations, missions, and attachments. The location of patient collecting points and ambulance exchange points are placed on overlays.

- The treatment and hospitalization subparagraph outlines policies and facilities/units, to include their locations, missions, and attachments. Locations may also be provided in a map overlay attached as an annex.

The other health services subparagraph includes the provision of the remaining HSS functions: medical laboratory

services; health service logistics, to include blood; dental services; veterinary services; PVNTMED services; combat stress control services; area medical support, and required command, control, communications, computers, and intelligence.

(4) *Paragraph 6 (miscellaneous).*

This paragraph is used to discuss any areas of support not previously addressed which may be required or needed by subordinate elements in the execution of their respective HSS missions. Examples of discussion points are command post locations, signal operations instructions, claims, special reports that may be required, joint agreements, and international or host-nation support agreements affecting HSS.

d. Ending. The ending of the plan contains the commander's or surgeon's (or other appropriate) signature, a list of annexes (if any), and the distribution. Annexes may include the task organization (unless included in the plan), medical overlay, PVNTMED, or professional annex, or similar data.

2-27. Modification

The commander or the staff surgeon at each level must modify his plans to fit each situation as it arises. He must remain constantly abreast of the

tactical situation. He must continue to plan for the next operation while operating the HSS for the current operation. Current tactical concepts emphasize flexibility with diversification of planning and operations. Accordingly, all HSS plans which support tactical operations must be flexible. They must have alternatives which can be used during the course of the operation in order to meet rapidly changing situations. Alternatives the commander is considering must also be considered by the surgeon. The surgeon must be in a position to receive information from medical elements under his control, or technical supervision so that he can direct changes and modifications in existing plans according to the requirements of the situation. In addition, the HSS planner must be alert to the magnitude of the problems which might confront him in NBC warfare. The unique conditions to be encountered in NBC warfare require a case-by-case analysis of each situation.

2-28. Execution of the Plan

Execution of the plan necessitates close, continuous, and effective interface between HSS and CSS system planners. The surgeon and all medical commanders must continuously monitor, direct, and control the HSS situation to ensure that the required support is provided the tactical commander.

Section V. JOINT HEALTH SERVICE SUPPORT PLANNING

2-29. Joint Task Force Operations

a. Joint Publication 1, Joint Warfare of the US Armed Forces, notes:

The nature of modern warfare demands that we fight as a team. This does not mean that all forces will be equally represented in each

operation. Joint force commanders choose the capabilities they need from the air, land, sea, space, and special operations forces at their disposal.

Generally, joint operations are directed by the Commanders in Chief (CINC) of the unified commands and executed by their subunified commands and Service components.

b. Some CINC, however, conduct operations within their area of responsibility (AOR) by activating joint task forces (JTFs). Joint task forces are established to accomplish specific, limited objectives that require the significant and closely integrated efforts of forces from two or more Services. The Commander, JTF (CJTF) is appointed by the CINC and exercises operational control (OPCON) over assigned and attached forces. The CJTF may wear an additional hat as the commander of a JTF Service component. Joint Publication 5-00.2 provides detailed guidance and procedures for forming, staffing deploying, employing, and redeploying a JTF for short-notice contingency operations.

c. A variety of scenarios exist that lend themselves to designating an Army corps commander as a CJTF. When this occurs, the corps surgeon becomes the surgeon and assumes responsibility for planning, coordinating, and controlling joint HSS within the CJTF joint operational area (JOA). Joint Publication 4-02 provides operational and organizational guidelines to meet the HSS requirements of combatant commands, JTFs, and Service components.

2-30. Joint Health Service Support Relationships and Responsibilities

a. The JTF surgeon is the principal advisor to the CJTF for all HSS matters. The JTF surgeon's office is normally built upon the Service staff of the JTF surgeon, augmented by HSS planners and operations officers from other Services. The JTF surgeon can expect to receive broad guidance and a general concept of medical operations from the unified command surgeon.

b. The JTF surgeon's office should be staffed to effectively facilitate joint planning and coordination of JOA HSS, standardization and interoperability, and integration within the overall joint operation.

c. Specifically, the JTF surgeon's office must be prepared to—

(1) Maintain liaison with component command surgeons and resolve HSS conflicts surfaced by JTF components.

(2) Provide detailed HSS guidance, assign HSS tasks, and develop the joint HSS concept of operations. In the interest of maximizing the use of potentially limited HSS resources, the JTF surgeon may direct joint use of HSS assets. For example, the JTF surgeon may direct the Navy component to provide all Echelon III hospitalization or the Army component to provide all rotary-wing aeromedical evacuation for the entire JTF. In these instances, joint staffing of units is normally not considered a prerequisite for their joint use.

(3) Consolidate component patient estimates, assess the sufficiency of the evacuation policy within the area of operations, and recommend changes if appropriate.

(4) Advise the CJTF on HSS aspects of combat operations; rest, rotation, and reconstitution policies; PVNTMED; and other HSS factors that could affect joint operations.

(5) Monitor JTF medical readiness to include component status of patient beds, health service logistics (including blood products), and staffing.

(6) Report JTF medical readiness status to the CINC in accordance with the unified commander's OPORD.

(7) Coordinate HSS provided to and received from allies or friendly nations.

(8) Coordinate medical intelligence support and identify medical essential elements of information (EEI) and requests for information (RFI).

(9) Prepare Annex Q for all JTF plans and orders. See Appendix C for an example format. Also, see Appendix C for an example checklist.

(10) Advise the CJTF on HSS aspects of the Geneva Conventions and the Law of Land Warfare.

(11) Supervise the activities of the Area Joint Medical Regulating Office (AJMRO) and Area Joint Blood Program Office (AJBPO).

d. The AJMRO functions as part of the JTF surgeon's office and manages the movement of patients to and between medical facilities within the JOA. The Joint Medical Regulating Office (JMRO) coordinates the movement of patients to CONUS with the Armed Services Medical Regulating Office (ASMRO). Specific functions of the JMRO/AJMRO are discussed in Chapter 4.

e. The AJBPO functions as part of the JTF surgeon's office and manages the theater blood program. Specific functions of the JBPO/AJBPO are discussed in Chapter 8.

2-31. Health Service Support Considerations in Joint Task Force Planning

a. The type of operations that may require the activation of a JTF are normally crisis or emergency situations for which there may not be an existing OPLAN. Joint crisis action planning (CAP) progresses through a logical sequence from problem recognition to the execution of an OPORD. There are six phases in the process; however, time constraints may force these phases to be compressed. The six phases are situation development, crisis assessment, COA development, COA selection, execution planning, and execution. The unified command will normally identify and activate the JTF during the COA development phase.

b. Upon JTF activation, the JTF surgeon begins operational planning. Specifically, the JTF surgeon should—

(1) Review unified command SOPs and OPORDs.

(2) Update and standardize HSS planning factors as required.

(3) Determine the extent of and initiate planning to medically support non-combatant evacuation operations (NEO). These operations may be conducted in the environments of conflict or war.

(4) Obtain and review medical threat and PVNTMED information pertinent to the operation. Identify additionally required medical EEI and RFI to the JTF intelligence section.

(5) Develop JTF medical policies and procedures.

(6) Coordinate with JTF operational planners during concept development and assess medical risks associated with alternate COA.

(7) Assess host-nation HSS availability.

(8) Develop and coordinate the JTF HSS concept with component and unified command surgeons. Plan for joint use of assets to ensure minimum essential hospitalization and evacuation support.

(9) Evaluate projected force deployment flow and ensure that timely and responsive HSS, including the theater aeromedical evacuation (AE) system, is available throughout the operation.

(10) Activate the AJMRO and AJBPO and disseminate medical regulating and blood management procedures.

c. During the operation, the JTF surgeon may be directed to begin planning follow-on civil-military, CA, or peacekeeping operations support. Joint HSS considerations for these operations will be discussed in other joint publications currently under development.

d. As the operation nears completion, the JTF surgeon should begin planning HSS for the redeployment of the JTF and/or transfer of HSS responsibilities to a follow-on subunified command.

Section VI. JOINT TASK FORCE CRISIS ACTION PLANNING FOR HEALTH SERVICE SUPPORT

2-32. Crisis Action Planning Phase I, Situation Development

Often, the JTF will not have been activated at this stage in the CAP process. However, if it has, the JTF surgeon should consider the following:

a. What type of military forces might be used to resolve the crisis or conflict, and how might they be supported medically?

b. If combined action is possible, what type of HSS could be required or provided by other nations?

c. What steps can be taken to collect additional medical information about the threat, crisis, conflict, or region?

d. How are medical requirements entered into the consolidated intelligence collection plan?

e. How will the communications system support the passing of medical information, reports, and requests?

2-33. Crisis Action Planning Phase II, Crisis Assessment

a. If noncombatant evacuation is required, consider the following:

(1) How many of the noncombatants are known to require medical care?

(2) Where are these noncombatants located? Is there a published plan addressing their collection prior to evacuation?

(3) Is a permissive or nonpermissive NEO anticipated? How best can it be medically supported?

(4) Are there any civilian casualty projections for NEO?

(5) What is the medical evacuation policy for NEO patients?

(6) Has direct liaison with embassy health officials been authorized and established?

(7) Has the Department of State authorized pets to accompany NEO evacuees? Are any animals prohibited from US entry by the Food and Drug Administration? What will be done with pets brought to evacuation control points?

b. If any humanitarian, civil, or security assistance medical requests have been made by foreign governments, how can they be supported?

c. Are there any treaties, legal agreements, host-nation agreements, or status-of-forces agreements between the US and foreign governments that are medically significant? Stand-

ardization agreements already in existence may be used to form the basis for detailed coalition agreements and procedures.

d. Are there any concept plans (CONPLANS) or OPLANs for the area or situation?

e. What type of foreign military or civilian infrastructure is established within the JOA? What and where are its key elements?

2-34. Crisis Action Planning Phase III, Course of Action Development

a. What specific HSS factors affect the actions under consideration?

b. What HSS assets are provided in the OPLAN?

c. Is available HSS adequate to support planned operations? If not, what additional assets are required? How will the JTF request them? Are all medical units, to include aeromedical evacuation liaison teams (AELTs) and aircrews, on the Time-Phased Force and Deployment List (TPFDL) and scheduled for timely arrival? See Appendix E for a discussion of the TPFDL.

d. If an intermediate staging base is required, what medical units should be positioned there?

e. What airfields are available for intratheater and intertheater AE?

f. Have medical personnel augmentation requirements been identified and requested?

2-35. Crisis Action Planning Phase IV, Course of Action Selection

No medical actions are required.

2-36. Crisis Action Planning Phase V, Execution Planning

a. Is the selected COA medically supportable with available HSS assets?

b. If not, will required HSS assets be available before mission execution?

c. If not, is the CJTF aware of the risks?

d. What is the status of communications? Have any dedicated or medically-unique nets, procedures, or requirements been identified?

e. Has sufficient coordination with joint/combined forces and the host nation been conducted?

f. Have medical sustainability and re-supply requirements been established? Are Class VIII channels established?

g. Is the HSS portion of the OPOD ready to be published? Does it address assistance to US nationals, civilian internees, detained civilians, displaced civilians, and EPW?

h. Is the JMRO/AJMRO fully functional?

i. Is the JBPO/AJBPO fully functional?

j. Is the AE system planning complete?

(1) Have primary and secondary aeromedical airfields been identified?

(2) Are sufficient assets planned for or in place (aeromedical evacuation control center [AECC], aeromedical evacuation control element [AECE], AELT, mobile aeromedical staging facility

[MASF], aeromedical staging facility [ASF], and AE crews)? See Chapter 4 for a discussion of these assets.

(3) Are AELTs located at key locations within each Service component's HSS system?

(4) Do Service components understand they are required to move patients to supporting MASFs? Will they be able to do so?

(5) Are sufficient items such as litters, straps, and blankets available?

2-37. Crisis Action Planning Phase VI, Execution

Once the plan is executed, the JTF surgeon and the JTF Service component surgeons monitor, direct, coordinate, and control the HSS situation to ensure that the required support is provided the CJTF.

SECTION VII. MEDICAL INPUT FOR THE JOINT TASK FORCE OPERATION ORDER

2-38. Medical Annex

Neither the unified command nor the JTF OPORD—developed in CAP—will be as comprehensive or detailed as an OPLAN developed by the deliberate planning process. However, the standard medical Annex Q provides an appropriate framework for the abbreviated JTF medical annex.

2-39. Guidance

The JTF basic OPORD will provide general medical guidance and the theater evacuation policy. It will note that detailed medical guidance will follow in a separately published Annex Q. To ensure rapid dissemination of these documents, they will usually be published via a Worldwide Military Command and Control System (WWMCCS) teleconference established for the operation.