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Operations

**GUIDE TO SERVICES CONTINGENCY
PLANNING: BEDDOWN**

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Purpose: This volume implements AFPD 34-1, *Air Force Services Combat Support Programs* and summarizes Services' contingency planning considerations for bare base beddown. It provides Services planners and Prime RIBS personnel with an overview of the beddown assets, tasks, and basic procedures required for Air and Space Expeditionary Force (AEF) bare base operations. It introduces AEF use of Force Modules. It is the initial volume in a series of AFH 10-247 publications that are guides to Services contingency planning.

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Section A—INTRODUCTION

1. Purpose. This guide provides planners with an overview of the beddown assets, tasks, and basic procedures required for Air and Space Expeditionary Force (AEF) bare base operations. It introduces the AEF concept of using Force Modules for planning AEF deployments. While each deployment location has its special requirements, there are common, basic approaches for providing services at all locations. You will have to use and adapt the layouts and procedures to meet your location. Other branches of the Armed Forces' Services and Morale, Welfare, and Recreation organizations may approach support for Joint Service beddowns differently, but the basic requirements are similar and will be addressed as they apply to AEF bare base and austere bare base deployments and the use of Force Modules. More detailed information on specific subjects will be provided in subsequent related handbook volumes.

2. Background. Services can trace some of their history back to the American Revolution and the Army's Quartermaster Department, which was responsible for camp equipment, tents, transportation, and winter quarters using wood stores for heat. Congress added subsistence to the Quartermaster's responsibilities by the War of 1812, because while the Commissary Department could buy food, often they could not get the rations to the troops. Prior to the 1846 Mexican War, the Quartermaster Department picked up responsibility for clothing and other field equipment. Laundry support services did not exist through the Civil and Spanish American Wars. Soldiers wore their uniforms until they fell apart and were replaced, or washed themselves and their clothes in whatever water was available. World War I's severe "Cootie problem" caused the Quartermaster Corps to institute field laundries and sanitation programs during the latter stages of the war. However, it wasn't until World War II that the field laundry actually became effective. With the formation of the United States Air Force in 1947, support for services type functions fell into the period where Air Force was building up. Services, transportation, engineering, and supply squadron functions were placed under what was usually called an "Air Base Group", but Services was often not formally designated as a squadron. Because the Army built and provided much of the support for Air Force bases built during the Korean War, many Services operations were not field tested then. Services Squadrons were formed in the mid-1950s as a part of "Combat Support Groups". Services employed all their major functions during the Vietnam War. In 1978, Major General Robert C. Thompson, Director of Engineering and Services, proposed the creation of services contingency teams to perform feeding, contingency lodging, and laundry support for deployed Air Force personnel. The teams were formally identified as Prime Readiness in Base Services (RIBS) teams to support short-notice deployments around the world. The mortuary function was added to support identification and preparation of remains, temporary interment, and graves registration. Prime RIBS teams provided excellent support from Desert Storm to the present.

Morale, Welfare, and Recreation (MWR) functions formally date back to 1919, when the Army formed a Morale Branch with Salvation Army and Red Cross personnel providing a variety of services and support for troops stateside and abroad. Before the start of World War II, a Morale Division was designated to provide service clubs/recreation centers and mobile support for movies, athletics, and entertainment. Added later during peacetime were more permanent arts and crafts, theaters, libraries, and sports facilities/activities. Air Force MWR personnel or squadrons served during Vietnam and Desert Storm. In 1991, the previously joined Civil Engineering and Services functions were separated at Air Staff and at the Field Operating Agency level (i.e., Air Force Engineering and Services Center) into two functions. The Services function joined with the MWR functions and a Morale, Welfare, Recreation, and Services Agency was formed in 1992. The two Air Force squadrons merged in 1992 and the Agency was renamed the Air Force Services Agency on January 1, 1994.

Figure 1. Prime RIBS Seal



3. Primary Sources. This handbook was developed from Air Force and Joint Services' publications, Silver Flag and homestation training materials, lessons learned, and deployment data and information from field units, services, engineer, and logistics planners involved in bare base activities. The following publications, series of publications, and electronic guides were used for writing this publication: AFI 10-212, *Air Base Operability*; AFI 10-214, *Prime RIBS Program*; AFI 10-401, *USAF Operation Planning Process*; AFI 10-403, *USAF Mobility Planning*; newly revised AFI 34-242, *Mortuary Affairs Program*; the Silver Flag Exercise Site's *Prime RIBS Contingency Training Handbook*; the *Prime RIBS Field Feeding Handbook*; Joint Publication 4-06, *Joint Tactics, Techniques, and Procedures for Mortuary Affairs in Joint Operations*; AFPAM 10-219, Vol 5, *Bare Base Conceptual Planning Guide* (draft update); AFH 10-222, Vol 2, *Guide to Bare Base Assets*; the electronic *Prime RIBS Managers Guide* [see Air Force Services Agency Readiness Web Page (<https://www-r.afsv.af.mil>)]; the ACC Services *Deployment/Force Beddown Checklist*; the HQ Air Mobility Warfare Center's series of Services courses; the series of Prime RIBS Home Station Training Self-Study guides; Unified Facilities Criteria (UFC) 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings*; and AFMAN 10-100, *Airman's Manual*.

Section B—AEF DEPLOYMENTS USING FORCE MODULES

4. Deployment Requirements Change. Prior to 1989, the Air Force was postured against one primary threat, the Soviet Union. Much of our force was forward deployed and if called to fight, would do so from home base or would deploy to a well-established, permanently manned facility in PACAF or USAFE. While mobility forces deployed in support of humanitarian operations, combat forces generally did not deploy away from well-established bases even though War Reserve Materiel (WRM) Harvest Eagle and Harvest Falcon deployment packages were being fielded. Deployment planning for a bare base (i.e., a location with a usable runway, taxiway, parking areas, and a source of water that could be made potable) was often only seen by planners working with classified plans that still envisioned deploying Cold War size forces.

The importance of deployment planning increased dramatically with Desert Shield. Air Force, Joint Service, and large scale coalition deployments to Southwest Asia (SWA) bare bases, some with hardened facilities, leaped into a new phase of operational and concept planning. While bare bases had been identified and readied in that theater, few stateside or USAFE bases could provide the forces required to support the massive operational and support manpower taskings for SWA efforts. Personnel were tasked from most of the major commands and backfills drawn from the rest of the bases, the Reserves, and National Guard. Within days, Wings and squadrons were on the move to SWA locations. Unless large-scale use of prepositioned WRM, including Harvest Falcon assets was possible, support for warfighters lagged by many weeks or months as massive amounts of other WRM assets and materials were shipped by sealift and airlift. Many workarounds were used until assets arrived from overseas or closer USAFE prepositioned stocks, or resources were obtained by contract. Services personnel supporting these efforts faced daunting challenges for contingency lodging and food service support. Some units showed remarkable abilities to handle the situation, while others faced a learning process made all the harder by having to use personnel from many different squadrons or Reserve/Guard units. Literally overnight, the United States Armed Forces found that despite their best-laid plans, support procedures to meet these type deployments had just changed. To address the situation where more aircraft in a greater variety of mixes may be called upon again for a scenario similar to Desert Storm, the concept of using force modules was developed and better defined for the combat side of deployments. Operational and concept plans have been drawn up and pre-site surveys conducted for more of the combat forces. Deployment exercises and gaming have been used to improve deployability. Combat force deployments in support of SWA deployments continued and procedures improved. With the tragedy of Khobar Towers, the use Harvest Falcon assets was called upon again as the deployed forces in SWA restructured. Still there was little that was accomplished to address changing the deployment methodology of the supporting forces. "Faster and leaner" approaches were needed, but not achievable until the support UTCs and phasing could be matched to the phasing of the warfighters and weapon systems.

5. Deployment Planning Changes. After study and planning, on 4 August 1998 the AEF concept was briefed by Secretary of the Air Force F. Whitten Peters and General Michael Ryan, Chief of Staff USAF. The structure of expeditionary forces and the deployment methodology for the AEF were established. Realignment of the Active, Guard, and Reserve Command forces followed during the next few years. After September 11, 2001, the next evolution in force management, planning, and deployment was forged in fire. Operation Enduring Freedom demonstrated that deploying a wing *en masse* was not feasible when the deployment location is *airlift constrained* and for Joint Operations, a conventional wing and its squadrons were not the primary basis for planning forces. AEF and Joint Services' deployments to remote areas during Operation Enduring Freedom proved that the strategy of *light, lean, and lethal* worked. OEF

deployments exercised the concept where only those that *must deploy will deploy* was possible (see [Figure 2](#)). However, the deployments also showed that the levels of comfort and sanitation sometimes could not meet minimum acceptable standards for any of the Armed Forces. For larger operations, deployable facilities, equipment, and services can transform undeveloped real estate into an operational air base virtually overnight. WRM assets have undergone more than four decades of research and new technological advances and do provide stronger, lightweight facilities and more efficient equipment. However, with the complexities of AEF deployment planning, sometimes it's not possible to ensure the on-time arrival of those assets. The great number of variations in AEF scheduling, support and the wide range of locations call for additional improvements and changes to the deployment planning approach and support packages. AEF logistics planners have to consider the fixed standard planning factors established for bare bases, but also need to rely on more detailed information up front using site-specific data from intelligence sources and first-hand advanced surveys prior to laying out their plans.

Figure 2. Joint Forces Deployment at Bagram Air Base, Afghanistan



Realizing this, theater commanders use advance echelon (ADVON) teams to perform site specific planning for potential bare base locations, which are included in Operational Plans (OPLANs). The ADVON team's inputs may be included in a GeoReach or Expeditionary GeoBase installation database for use in final beddown planning and layout. Sometimes these teams are members of a theater team used to establish criteria for various sites. They often have a better understanding of the theater's OPLAN based deployments for phasing and the need for some UTC tailoring.

For AEF short-notice deployments, which have not been preplanned except as part of a concept plan (CONPLAN), the advance team responsible for site specific planning may be from the deploying bed-down units. This is even more significant if the Air Force will share or host a Joint Service operation (JSop), since information from the site surveys and layouts may identify shortfalls that another branch of the Armed Forces must fill. Because advance team members can be a part of the initial or follow-up bed-down force for that location, Services planners and Prime RIBS team members must be very aware of the planning, layout, and erection processes. Just as with a theater's ADVON team inputs, their inputs may be included in the Expeditionary GeoBase installation database.

Services planners' inputs may impact numerous deployment decisions ranging from: the sequence of air-lift flow for bare base assets; projected use of local supplies, food sources, and contract support; and the use of any existing facilities/services versus deployable facilities and services. Prime RIBS personnel must be aware of the considerations associated with bare base planning, the concept of employment for sequencing bare base support, and the various tasks of bare base Services support. They may be some of

the first personnel on site to help open a base, could augment a *first-in* operational support team, such as with an Air Mobility Operations Groups (AMOG), Tanker Airlift Control Elements (TALCE), Contingency Response Groups (CRG), or Special Tactics Team (STT), or be tasked to create a nearby satellite base operation. When tasked this way, site personnel may have to work and live with much more austere conditions from several weeks to more than a month before obtaining additional support infrastructure.

Figure 3. First-in Austere Conditions (Operation Iraqi Freedom)



6. AEF Mission Planning Restrictions/Considerations and the Force Module Concept. Under circumstances where OPLAN bare bases are used, WRM major system components are used to support or provide contingency lodging, food service, hygiene facilities, and fitness and recreation facilities. The typical legacy Harvest Falcon package supports 1,100 people and one squadron of aircraft with a combination of one Housekeeping Set, one Industrial Operations Set, and one Initial Flightline Support Set. Each additional aircraft squadron deployed to that location would require one Follow-On Flightline Operations Package and an additional Housekeeping Set from Harvest Falcon.

When originally envisioned, the Housekeeping Set was intended to be the first Harvest Falcon asset package to arrive. It would take care of personnel constructing the cantonment area (i.e., lodging community complex) that provides housing, feeding, and hygiene facilities for deployed personnel.

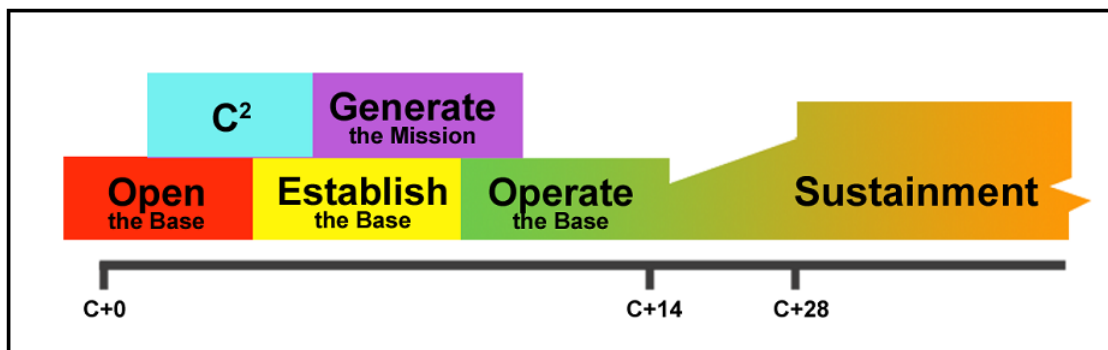
AEF deployments are not tied to this concept of flow and support. Services' planners must ask questions early on in the tasking sequence to ensure they know the correct numbers of personnel to be supported and when support services can be delivered. Planners also need to know from theater sources what their deployment location's mission will be, as bare bases can vary from a major deployment center with 5,000 plus personnel, an intermediate aerial port with fewer than 1,500 personnel, or even as part of a Aerospace Expeditionary Group at a Joint Service base (with fewer than 500 Air Force personnel).

The AEF concept brought a major change in that the initial AEF deployment forces may have to be in place even earlier than previous planning models. For AEF planning purposes, a typical flying squadron is **no longer the prime basis for planning a deployment**. To meet AEF commitments and a theater commander's air superiority and support campaigns, some important AEF planning considerations or restrictions may be imposed for initial mission planning. These include: (1)-compression requirements for initial deployment timelines, (2) fewer numbers of support personnel on the ground during the initial 3- to 14-day periods, (3)-limited initial flow of equipment and support packages, (4)-spreading out follow-up packages over more airlift missions, (5) sending selected mission support UTCs in prior to **C+0 Day** to ready the base, and (6)-employing joint concepts of support and deployment with Air National Guard, Air

Force Reserve Command, Army, Marine, and Navy forces. In addition to the above considerations, the total number of transport aircraft available is often the critical planning restriction for theater locations that are *airlift constrained*. Airlift constrained locations are usually landlocked, have no accessible or nearby seaports, lack major or secure road or other available land routes, and/or cannot meet deployment timelines due to lack of airlift or maximum on ground requirements. To meet all the challenges of AEF deployments, the Air Force Chief of Staff's **Force Module** concept was identified as the guide for AEF deployments.

Under the Force Module concept, deployment timelines are envisioned as five Force Modules: Open the Base, Command and Control, Establish the Base, Operate the Base, and Generate the Mission (see [Figure 4](#)). The typical timeline goal for a beddown of approximately 2,000 to 3,000 persons is fourteen days (depending on the threat, type of base, and availability of airlift), with initial flying operations achieved by **C+72 Hours**, and sustainment operations phasing in after fourteen days.

Figure 4. Strategic Roadmap Force Module View of AEF Deployments

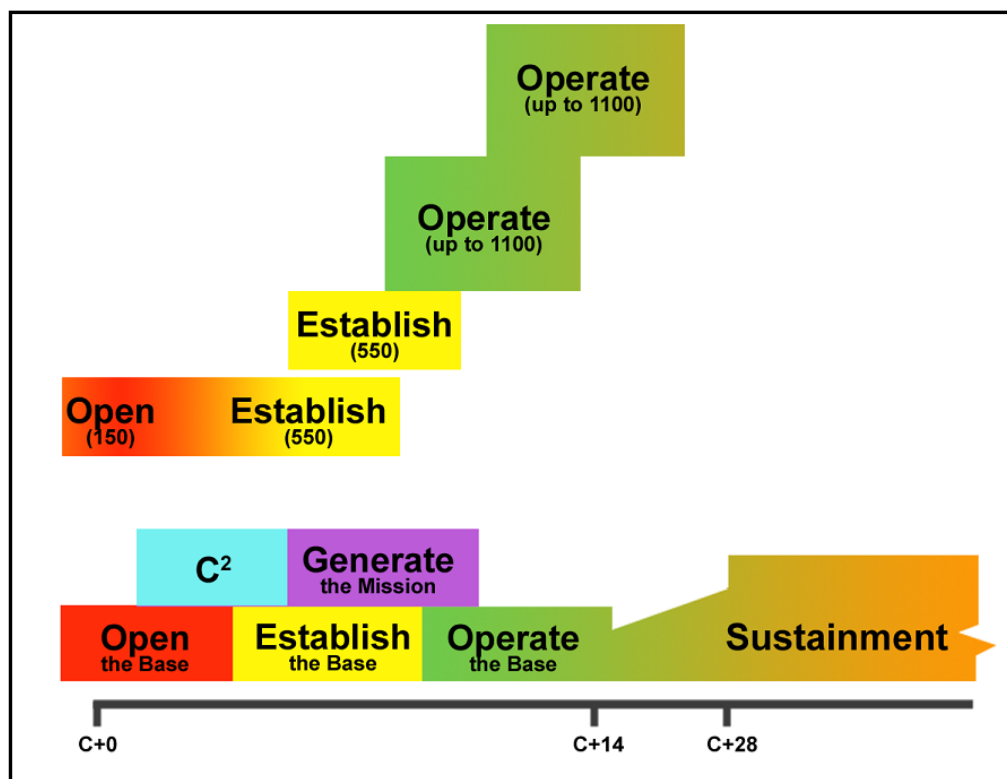


In order to meet a full mission capability within C+14 days, *Open the Base* efforts may have to be front-loaded – that is started **prior to C+0 Day**. This means that if a special team is not designated for this function, then Services, Civil Engineers, and other base support functions may have to go in early to lay out the base, establish control of the area (examples are security and UXO efforts), and set up some deployable assets and areas. To meet the lighter and leaner AEF philosophy, the typical *legacy system* WRM asset packages (i.e., Harvest Eagle and Harvest Falcon) are being upgraded for deployability and function. In 2002, asset managers began realigning WRM assets to match the force module concept. To keep up with the various changes to deployable assets, the overall program for managing and updating bare base assets were placed under the new *basic expeditionary airfield resources* (BEAR) WRM program.

7. Force Modules and BEAR Sets. To meet the AEF planning considerations or restrictions, it is not physically possible or feasible to tailor each deployment package for each AEF location and mission. Instead, to meet general force module timeline scenarios, the BEAR systems were repackaged into sets that more closely align with deploying force modules. Changes in technology allow numerous shelters to be replaced with more readily deployable systems that are simpler to erect with fewer personnel. Separate efforts for the reallocation of BEAR assets are also used with the typical Housekeeping, Industrial Operations, Initial Flightline, and Follow-on Flightline sets to realign them to fit the Force Module approach. Initial capability would begin with a 150-person BEAR set (i.e., either a BEAR 150 Housekeeping or an Air Mobility Command Swift BEAR) to open the base, followed by a BEAR 550 Initial Housekeeping package and a BEAR 550 Follow-on Housekeeping package. Operational and infrastructure support are

provided by a BEAR Industrial Operations package and BEAR Initial and Follow-on Flightline packages. The legacy WRM sets (Harvest Eagle and Harvest Falcon Housekeeping sets, as well as the PACAF T550 Housekeeping set) are being phased out as the BEAR packages are brought on line. While the BEAR 150 Housekeeping may be left on site during fill-out of beddown assets, the AMC Swift BEAR package may have to be redeployed elsewhere to support additional missions. The primary effort is to use the two BEAR 550-person (housekeeping) modules to more closely match the force module view of supporting smaller Wing or Group numbers. Added together, the modules still support an approximately 3,000-person bare base mission. The BEAR repackaging created modular and scaleable assets that reduced the need for major tailoring to support smaller missions and Joint Service Operations (JSops) that are limited in scope. These concepts are depicted in [Figure 5](#), which shows the timelines and conceptual modules.

Figure 5. Force Module Influence on BEAR Systems



Open the Base Module. Besides having the capability to insert smaller modules, the major planning consideration is plugging in an *Open the Base* team (module) **prior to C+0 Day**. The *Open* package of approximately 150 personnel performs beddown. For this short-term effort, personnel are supported by assets that meet minimum standards for living, comfort, and health requirements. [Without a BEAR 150 or Swift BEAR package, the beddown team would have to initiate bare base beddown using legacy system assets tailored for that deployment.] At some locations, a limited number of Prime RIBS personnel could be on an *Open* team along with engineers (Prime BEEF, Airborne RED HORSE, or 49th MMG BEAR team personnel) to prepare the site and erect and install facilities, equipment, and some utilities. For locations that are not in higher threat areas, planners can consider use of a theater established contractor or one of the contractor augmentation programs (i.e., Air Force Contract Augmentation Program (AFCAP), Army Logistics Civilian Augmentation Program (LOGCAP), or Navy Construction Capabilities (CONCAP) contract) to support some early beddown functions. If the team is a special team (i.e., Air

Mobility Operations Groups (AMOG), Tanker Airlift Control Elements (TALCE), Contingency Response Groups (CRG), or Special Tactics Team (STT), Services personnel may not be included early in the *Open*-module.

Command and Control (C²) Module. This module contains the capabilities to establish a deployed wing command and control structure, which includes the initial maintenance group, mission support group, operations group, and medical group staffs. It is completed when the *Establish*- and *Operate*-modules arrive. Upon arrival, this module assumes command and control responsibilities for the airbase from the initial elements, which could be a TALCE or CRG organization that was used for the *Open*-module. The C²-module must be in place prior to any command elements leaving from the *Open*-module.

Establish the Base Module. The *Establish*-module brings in the assets required to prepare the base to receive the weapon systems, other support aircraft, and the *Generate the Mission Module*. The components of this module bring the beddown to Initial Operational Capacity (IOC). It provides for fielding of the life-sustaining functions necessary for force beddown and base operating support (BOS). Primary functions are lodging, field feeding (to transition from MREs to hot meals), full-out health and sanitation facilities, mortuary services provisions, and self-help laundry for individuals. The core Services and Civil Engineer UTCs begin arriving during this phase of intense beddown operations. Theater contract or contractor augmentation programs can be used in areas that are not high threats. If the threat increases during this phase and contracts were planned for use, ***essential services and contingency plans must be identified*** and plans developed to prevent loss of support for essential Services' functions.

Generate the Mission Module. The *Generate*-module includes the aircraft and weapons system direct support. Separate showers and latrines may be included in this module for direct support of flightline units and activities.

Operate the Base Module and Sustainment. The *Operate*-module brings mission support forces needed to achieve full operating capability and sustain mission generation for up to 30 days. The resources provide capabilities to robust force protection, communications, cargo handling, and quality of life activities (chaplain, fitness, recreation, library, health care, additional feeding and lodging), and provides reach-back capability, such as for Supply, US Mail, Military pay. *Sustainment* is the longer term operation of the base. It includes replacement of personnel and upgrade of equipment, facilities, and utilities for longer term operations. It may include enhanced contract support and transition to more permanent facilities and equipment. Sustainment is addressed in another volume.

The following table describes the basic BEAR sets as used to support an AEF deployment based on force modules.

Table 1. BEAR Systems for Force Module Deployment.

Designation	Type Support	Description
BEAR 150 (B-150) or Swift BEAR Set	<i>Open-the-base</i> housekeeping set	<ol style="list-style-type: none"> 1. Stand alone package developed to support up to 150 personnel when opening a bare base at the start of each contingency. 2. Set consists of small shelters with environmental control and small commercial power units and hygiene facilities.
BEAR 550 Initial (B-550i) Set	Initial housekeeping set to transition into <i>Establish-the-base</i>	<ol style="list-style-type: none"> 1. Stand alone package provides a robust camp consisting of environmentally controlled billeting, feeding and hygiene to support 550 personnel in small shelters (tents). 2. Billeting is on cots with insect netting at 12 people per tent with one environmental control unit (ECU) per tent. 3. Feeding initially will be from a Single Pallet Expeditionary Kitchen (SPEK) followed by a 9-1 or 9-2 Kitchen. 4. Hygiene consists of latrines and shower shave units. 5. High and low voltage electrical and water distribution system is included. 6. Small shelters are also provided for administration, morgue, and supply functions.
BEAR 550 Follow-On (B-550f) Set	Follow on housekeeping to support <i>Establish-and Operate-the-base</i>	<ol style="list-style-type: none"> 1. An additive package to B-550i increases support to 1100 people. 2. Provides environmentally controlled billeting, feeding and hygiene to support 550 personnel in small fabric shelters. 3. Billeting is on cots with insect netting at up to 12 people per tent with one ECU per tent. 4. Feeding is done in a 9-2 Kitchen. 5. Hygiene consists of latrines and shower shave units. 6. High and low voltage electrical and water distribution system is included. 7. No additional small shelters for base support functions.

Designation	Type Support	Description
BEAR Industrial Operations (IO) Set	Establishes bare base infrastructure	<ol style="list-style-type: none"> 1. Stand alone package that supports up to 3300 personnel and three fighter aircraft squadrons or their equivalent. 2. Provides a single location with up to six basic expeditionary airfields. 3. Consists of small, medium, and large (4000 and 8000 square foot) shelters for supply, engineering, vehicle operations and maintenance, TMO packing and crating, and other general purpose functions. 4. Provides high voltage electrical power generation and distribution and environmental control.
Initial Flightline (IF) Set	Establishes flightline operations infrastructure and support	<ol style="list-style-type: none"> 1. Facilities, equipment and supplies for aircraft flight operations, maintenance, crash-rescue, and other flight operations related activities for one aircraft squadron. 2. Support a single aircraft squadron equivalent at a bare base location. 3. Consists of 8000 and 4000 square foot shelters, aircraft hangars (ACH), small and medium shelters for maintenance (avionics powered/non-powered AGE, fuels laboratory, propulsion), fire ops/crash rescue, aircrew alert, squadron operations, storage, and general purpose functions. Provides a latrine and field lavatory. 4. Requires an Industrial Operations Set or a 550 set tasked for Prime Power and base infrastructure support.
Follow-on Flightline (FF) Set	Establishes flightline support for additional aircraft squadron equivalents	<ol style="list-style-type: none"> 1. An additive to the IF Set. 2. Includes limited facilities, equipment, and supplies needed to support flight operations and maintenance needs for a subsequent squadron equivalent. 3. Consists of an ACH for a propulsion shop and small and medium shelters for powered/non-powered AGE and general purpose functions.
NOTE: Sets do not include shelter flooring in the primary packages.		

Section C—DEPLOYMENT PLANNING AND USE OF FORCE MODULES

8. Predeployment Planning Phase. Services (theater) deployment planners and deploying Prime RIBS team members must consider the type of deployment, timeframe, available resources, and the type of planning already accomplished. Some AEF deployments may follow a deliberate planning scenario where a theater plan identifies most requirements in an OPlan for bare base development. [This is often the case when the location has a permissive (i.e., non-hostile) environment.] For these, the base Services planners should check: (1) updated base support plans (BSPs), (2) GeoReach or Expeditionary GeoBase data, (3) various sources of transportation (air/maritime/land), (4) prepositioned theater WRM assets, (5) personnel/equipment UTC flow per established time-phased force deployment timelines, and (6) well established personnel numbers for Air Force and other branches of the Armed Forces on the base. Since this type of deployment follows a deployment set by the OPlan, it may not directly follow the AEF Force Module concept. AEF deployments more frequently follow the crisis-action mode of planning to deploy an AEF Wing (AEW) or a larger AEF Task Force (AETF) to meet a contingency requirement. An AETF deployment relies on the Force Module concept for deploying Operational and Support forces, especially for JSops. For these deployments, less is known and transportation and resources may be initially limited.

In either case, the predeployment planning phase is used by the AEF Center, MAJCOMs, and lead wings/other core supporting units to: (1) identify what must be accomplished to deploy and meet mission core requirements, (2) plan for build-up and follow-on requirements, and (3) identify what support force UTCs must be augmented or can be tailored. Predeployment planning usually requires much more intense period of research, information development, and coordination. For most initial AETF (Force Module-based) deployments, Services' core functions are food service, lodging, and mortuary operations. Build-up support will add field laundry support, while follow-on support will provide fitness/recreation and Field Exchange support (as soon as feasible). For an AETF deployment, Services UTC requirements are based on the deployed population supported and not necessarily the number of squadrons or aircraft. However, as with the AEW deployment, there are some basic assumptions used for initial planning that consider the number of aircraft, the population, and the number of Services personnel required. **Table 2.** depicts an aircraft requirements matrix for Services support. These figures may be adjusted as force modules change and BEAR assets are fielded.

Table 2. Aircraft Requirements Matrix – Services Support.

	Pop.	Fighter	Bomber	Tanker	C-130	Services UTCs
Lead	1,100	15-18	10-14	11-20	12-18	RA/RB(3) R4/R9
Follow	550	6-18	6-14	5-20	4-18	RA/RB/R4
	275	2- 5	2- 5	2- 4	2- 3	RB

During large operations (such as Operation Enduring Freedom), deployment timelines can shift considerably for some locations when resources and personnel stack up in transit, are shuffled to meet travel contingencies, or realigned to meet changes in location, missions, and site conditions. However, the Force Module notional deployment flow (for permissive environments -- depicted in **Figure 6.**) usually remains consistent. Most bare base planning conforms to the notional deployment flow in **Figure 6.**, with the *Establish*-module flow and resupply shown in **Figure 7.**

Figure 6. Notional AETF Force Modules and Services Support (Permissive Environments)

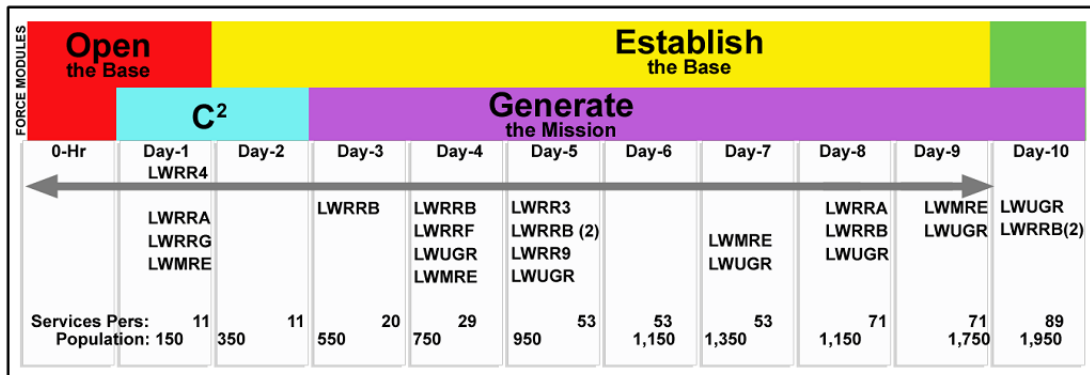
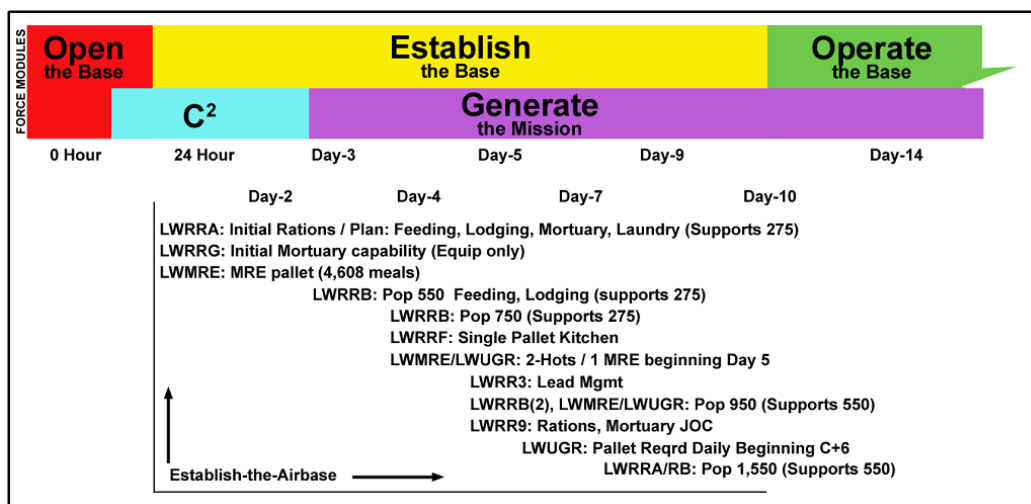


Figure 7. Notional Establish-Module Flow



Appendix A provides a list of the Services UTCs for an AEF deployment. Macro-scale Services AEF Requirements matrices are available in Appendices B-1 and B-2 for planning Services AEF UTC bare bases and surge operations. These matrices cover deployment requirements for populations ranging from 550 to 7,125 personnel and take the overall requirements past Day 14 for the *Operate the Base* deployment phase (module) and into subsequent sustainment efforts. These matrices should be considered if the bare base is expected to grow past 3,300 personnel. [For larger deployments, see the Master UTC Document on the Services Agency web-site.]

Non-permissive environments, such as those that require securing the airfield, removing or disrupting UXOs, or mitigating environmental hazards, may cause the initial arrival times for Services and other *Establish*-module forces to slip several days due to *Open*-module difficulties and increased threat. The number of personnel in the *Open*-module could also double in numbers. When going to a location with a non-permissive environment, Services personnel must review their *Establish-the-base* beddown plans to consider: (1) any additional *Open*-module personnel who carry over, (2) increases in planned initial resupply efforts, and (3) delays in the process for transitioning from *Open* to *Establish*.

9. General Services Planning Actions and Factors. To ensure that the beddown is accomplished right the first time, initial Lead wing and other core support unit Services planners and Prime RIBS team leaders must take the extra effort to obtain all available deployment information and consider applicable gen-

eral planning factors. Deployment planning for AEF teams is a rigorous process of checking and crosschecking plans against available information and resources.

Review Plans and Information. Upon notification, obtain and review existing plans, such as: Base Support Plans (BSPs), Operational plans (OPans) with appropriate annex's and War Mobilization Plan Volume 1 Annex GG, and any expeditionary support plans (ESPs). If there are electronic or hard copy photographs, maps, or GeoBase/GeoReach databases, access them for site layout information. Check with other sources of information, such as MAJCOM or theater Services personnel or counterparts. Check deployment message traffic for any Point of Contact listings and determine if there are any classified theater playbook, unit, or commander guides. Also check for any Embassy or Military Liaison contacts, tactical control or operations center contacts, or any individuals who have been to the site. Go to the AEF Center or theater secure or restricted access (SIPRNeT or NIPRNeT) deployment Web-sites for information that may already be loaded or available. Finally, monitor deployment plans using the Deliberate and Crisis Action Planning and Execution System (DCAPES) to check core and support UTCs requirements and sourcing.

Obtain the Major Facts. Some information may be readily available from deployment messages and plans. Generally once you have the location and time frame for the deployment, you can determine what types of environmental conditions you will have to contend with (i.e., arctic, desert, tropical, monsoons, high altitude). These conditions will determine the type of assets you will need for deployment. The weather conditions/prevaling wind directions will also affect planning of the beddown area. Weather related concerns affect the orientation of the facilities, the adequacy of heating, and whether you need to trench, sandbag, or berm around facilities (see [Figure 8](#)). Deployment numbers are critical and must be closely watched from initial planning through sustainment. What is the total population to be supported? Who are the other units that will be arriving with you and for what will they be responsible? The matrix in Appendix A will tell you what UTCs should be needed to support the total population of the contingency. The deployment tasking messages will give you information on what other Services UTCs will also respond and when. You need to determine how much equipment, personnel, and what team kits you will need to support for the contingency. Contact the other teams and work on final details. **CROSS-CHECK!** Compare your tasking messages and planned resources with the other supporting units. Services units should check DCAPES for their various support UTCs. Different base Personnel Readiness Units (PRUs) sometimes issue different instructions, orders, and transportation requirements based on their understanding of other messages. PRUs may not check or have some of the separate theater guidance that affects tasking orders.

Figure 8. Rainstorms and Flooding Can Occur in the Desert

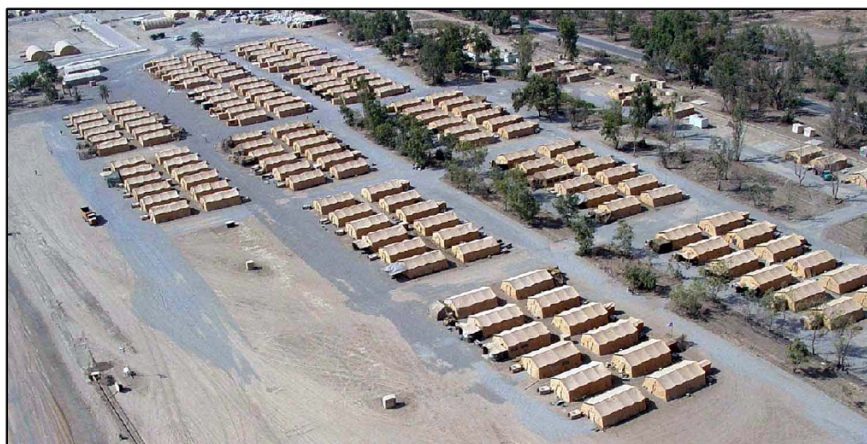


Watch Timing and Travel Integrity. Review the theater planner's Time Phased Force Deployment Data (TPFDD) to determine the flow of equipment and personnel going to your location. Services units should ensure that orders require travel with baggage and weapons. Then continue to monitor DCAPES and TRANSCOM Global Transportation Network systems for information on teams, equipment, and travel to make sure you stay together. Check for any cases where units must join up with other Services or support teams heading to a location. Changes can and do occur. Watch for the movement of the WRM assets. Determine where they are, how they will arrive, and then check the status when possible while deploying.

Contracting Support. Based on information gathered from deployment documents and other sources, Services units should identify possible contracting needs and sources at the location. Seek guidance from your base Contracting office. Also check for existing theater, host nation, Joint Service or other support plans, agreements, contracts, or sources of supply. Some services type support may be available through civilian or host nation contracting, but may require use of interpreters. Check on the general availability of interpreter support for contracts. When civilian personnel are planned to support Services' efforts, **identify contingency plans on how to maintain essential services**, if contract operations are terminated during increased threat. This could affect what you would include in your deployment team kits. Check on authorization for and obtain the Government Purchase Card (GPC - previously designated the IMPAC card) for use during travel and especially once on location.

Missions to Be Supported. What are the Air Force missions at the location? Of primary concern after obtaining the number of personnel and their mix (rank, gender, organization) are how many permanent and transient flying missions will be supported and what are the aircrew requirements for contingency lodging (i.e., crew rest/integrity issues) and field feeding/flight kitchen? Will there be special operations missions supported from the location? What other forces will be at the location and what support will they require from you? For JSops, who will be responsible for base operating support (BOS)? Is there a recognized theater standard for levels of Services support? Are there any Inter-Service Support Agreements (ISSA) or Common Use Logistics (CUL) requirements identified for use at the location? Who else could you be supporting or will you be sharing support with, such as other US Armed Forces, host nation military, armed forces from other nations? Will they be operating separate *Services type* functions, or will you be integrating efforts (at least initially)?

Figure 9. Joint Operations at Baghdad Airport



Existing Facilities and Support Services. Determine if there are any known existing facilities or services that could be used for contingency lodging, shower, shave, latrine, or laundry support. Even some austere bases have existing facilities and utilities that can be used initially for expedient lodging (see [Figure 10.](#)). Are there any other Joint Service units at the location that can provide or take over some of these functions either in-house or by contract? Determine if there are any known environmental hazards that could restrict operations or require theater logistics, contract, or engineering support before the facilities or sites are usable?

Figure 10. Hangar Facility Used for Initial Field Lodging



Sometimes there are host nation restrictions on the use of certain types of facilities due to location, environmental pollution, loss of service to existing inhabitants, or other support concerns. [Example: Environmental problems and digging restriction may make it impossible for Civil Engineers to install latrines and shower/shave units without first upgrading sewage systems or tying into existing sewer lines. This can cause initial delays in installing latrines and shower/shave units and could cause additional problems with locating contingency lodging (see [Figure 11.](#).)]

Civil Engineers (CE). CE will be your main contact for planning at the beddown site. You need to begin working with them as early as possible to identify CE and Services deployed organizations and points of contact for planning and beddown. Make sure all your facility power, sanitation, waste, and water requirements are made know to them. Let them know your basis for layout of personnel lodging and hygiene facilities (i.e., the *demographic breakout* for expected number of aircrews, officers, senior NCO, NCOs/enlisted, male, female, major Air Force and other units).

Figure 11. Sewage Overflow Hazard from Existing Utility.



Also let them know what feeding facilities will be required. Review with CE any known site plans, area photos/maps, or GeoBase type data to identify possible beddown layouts prior to deploying. Check proximity, access, and availability to the rest of the base. Try to keep food service operations, field exchange, recreation, and sports and fitness activities close to the beddown area for easy access to the base population. Make sure that major Services facilities and groups of facilities are accessible for fire protection. Begin working with Fire Department (CEF) personnel to ensure risk assessments include Services facilities. Develop a layout plan for your dining and kitchen tents, as well as kitchen support facilities such as sanitizing and storage tents. Plan for possible expansion. Review the plan with CE and *determine primary and alternative locations* based on providing service and tying into utilities. If the kitchens still have burner systems that require a fueling and lighting area, identify those areas, which must be at least 50 feet from the kitchen/dining tents and also separated by at least 50 feet. Compare notes with CE on what you both have found regarding availability of resources. Determine from CE if use of commercial utilities is possible and feasible in lieu of just expeditionary equipment, or would this be best accomplished later in the deployment. Careful choice of locations can preclude having to relocate Services facilities that would block access or prevent use of utilities. Determine if any environmentally hazardous areas have been identified (such as by advance teams) that would affect siting lodging or food service areas (i.e., kitchens and food supply/storage). Also identify the points of contact for environmental/entomology concerns that could arise at the location. Are insects or rodents expected to be a problem? Discuss what are the expected means and alternatives for handling disposal of waste products from the dining facility, such as grease, gray water, food products, and paper waste. If contracting for waste disposal is an option, CE and Services should meet with Contracting to discuss.

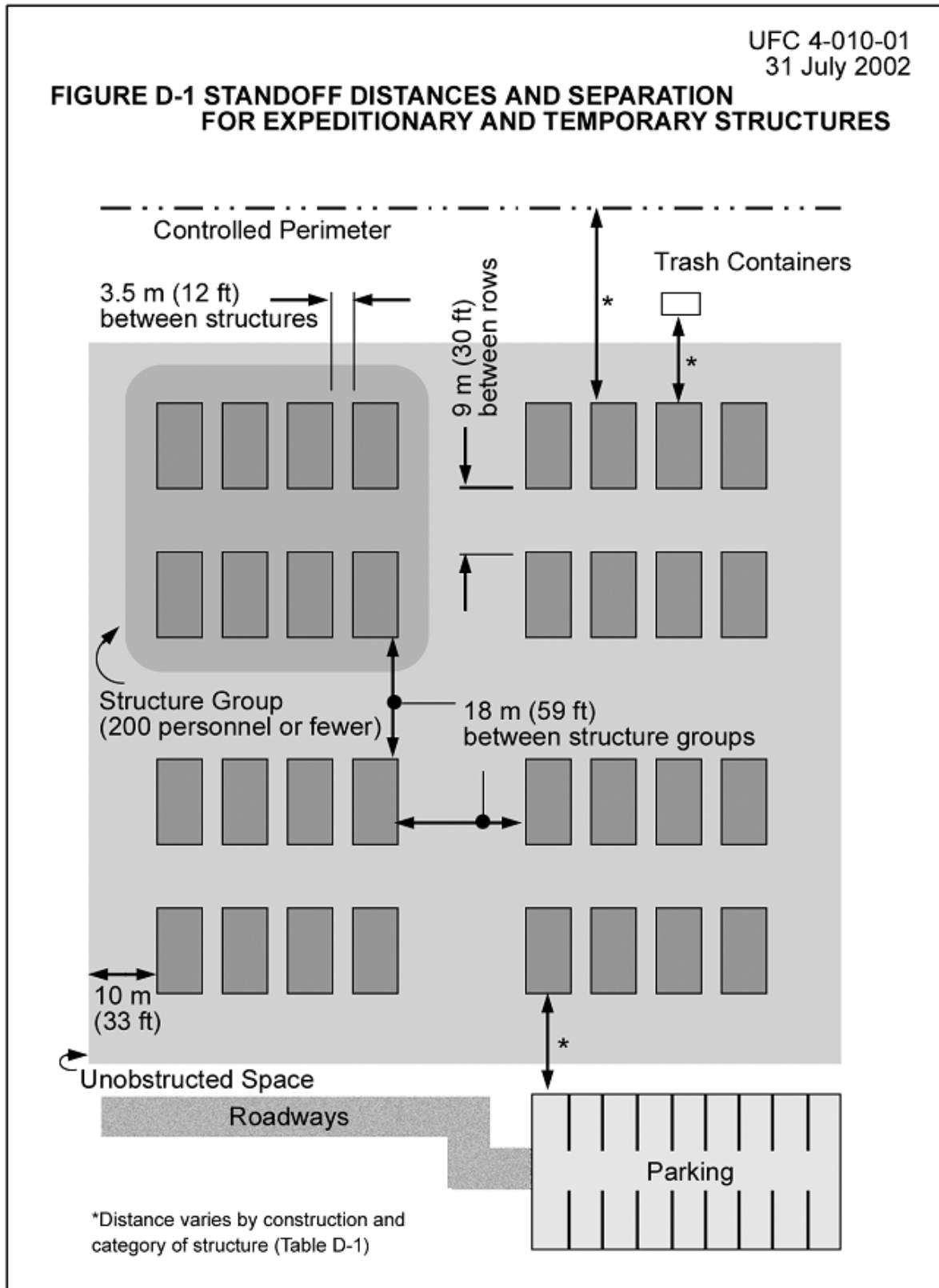
Security Forces (SF). Meet with SF to determine any known considerations or restrictions regarding threat, such as need for protection from direct or indirect fired weapons. Early on reviews of proposed layouts can help identify possible problems caused by creating aiming points for enemy weapons. Develop an understanding of possible chemical/biological (C/B) threats, the general base layout security concerns, and location of protected base perimeter. Identify Services high use facilities that could be targets and work with CE and SF personnel on proposed layouts that will meet new siting criteria for standoff and separations distances for expeditionary facilities, especially for primary gathering buildings (i.e., facilities with 50 or more personnel) (see example in [Figure 12](#)). [Incorporate Unified Facilities Criteria (UFC) 4-010-01, *Minimum Standoff Distances and Separation for Expeditionary and Temporary Structures* for expeditionary facilities.] Determine what protective measures may be required for primary gathering buildings or high use areas. Threat potential will also determine what type of tent layouts you and CE will use for planning. High threat areas need to be in a dispersed formation, possibly with protective bunkers

or revetments, while low threats will allow use of typical block formations. Go over expected requirements for deliveries from local merchants and what security will be required for mortuary operations.

Communications. Meet with Communications Squadron (CS) planners to determine what communication systems will be available at the location (i.e., telephones, cell phones, satellite phones, radios, fax, and computer network). Determine what systems will be secure or must be secure. Identify frequencies and systems that will be used at the location and check on guidelines or directives for compatibility/interference. Then check with Services UTCs from the other bases to ensure there are no frequency conflicts. Have CS personnel check with the other base CS units to determine if Services systems can be upgraded or workarounds developed to allow adequate operations and Services command and control. Ensure that CS includes plans to support the morale center computer and telephone requirements. The basic planning factor is 10 computers and 10 telephones per thousand personnel supported.

Cultural sensitivities. Are there any cultural sensitivities that would be affected by normal Services support efforts? You need to consider food items, beverages, wear of certain civilian clothing, forms of entertainment, and use of expressions, language, or gestures that may be offensive to the population, local customs, host government, or coalition/allied forces.

Figure 12. New Standoff Distances and Separation Criteria (example)



Check for any General Order Number 1 that was issued for the theater or operation, in which the theater commander prohibits activities for the location and period of operation. Sale, distribution, or use of prohibited items must be avoided. Exceptions and clarifications should be sought as soon as it is determined that there may be a conflict. Some common rations may contain banned or offensive food products. If you are supporting coalition operations or could be conducting humanitarian support, consider how you issue rations and check on the availability of vegetarian humanitarian rations.

Priorities for Services. Deploying AEF organizations, especially an AEW or AETF, should have a well established understanding of the beddown priorities before deploying to their location. The normal base beddown priorities are (1) beddown of forces (work sites and lodging areas), (2) mission-readiness and security, and (3) quality of life. The general priorities for providing Services type support can be dictated by the local conditions and flow of resources and personnel. Because many of the Services beddown priorities are normally tied to the base beddown priorities (i.e., Services may have to rely on specific siting, site preparation, utility support, or erecting some facilities with an available manpower pool), Services may be somewhat constricted in what they can accomplish for beddown. Based on the established base beddown priority sequence of events, the normal Services priorities are establishing/providing: (1) a distribution point for obtaining MREs and water (such as bottled water handled by Services and or canteen refills handled by Civil Engineers -- (water sources are a coordinated effort with Civil Engineers, Logistics Supply, Contracting, and Medical Group), (2) the latrine portion of the lodging functional groups (for lodging, latrines, and shower/shave), (3) field feeding facilities (to transition to/from UGR food service), (4) the lodging portion of the lodging functional group, (5) the shower/shave hygiene facilities, (6) the field laundry services, (7) the mortuary support facilities, and (8) fitness/recreation/field exchange/other services. Before you deploy, you should have a handle on the overall flow of resources, the expected arrival site conditions that could influence beddown priorities (such as weather or the medical/environmental situation), and any theater or host-nation planned support for Services type functions. As previously noted, it may be possible to use existing facilities (such as hangar or warehouse space) for initial expedient lodging. This could allow you to concentrate on completing other facilities and services earlier than planned and also avoid having to move facilities (see [Figure 13.](#)) and/or relocate personnel as organizations grow and demographic breakouts change. Because many BEAR set WRM components are interchangeable or common, some components can be used in various locations. During the crunch of the initial beddown operation, some common components may be traded or given to others to meet shelter needs. The basic thought is that a tent is a tent, no matter what it is sheltering (i.e., lodging, office, dining space, mortuary, or a latrine).

Figure 13. Relocating Combined 9-1 Kitchen.



However, for health and asset accountability reasons, it is wise to control assets. You may not want to reuse mortuary or latrine components later as a part of the dining hall kitchen. Therefore before deploying, meet with Logistics Readiness, Civil Engineers, and Medics to ensure that everyone knows how to control assets, are aware of appropriate uses, and can maintain accountability.

It is very important that deploying Services personnel identify the points of contact for ration and Army and Air Force Exchange Service (AAFES) support in-theater. Work with them to identify basic transportation timelines, restocking schedules, possible customs problems, and any other in-theater contacts or contracts for food and products. Prearrange order codes and fund cites with AFSVA and the Defense Supply Center Philadelphia (DSCP) to set up delivery for fresh foods not available in country. [Become familiar with the DSCP Subsistence Web-site for updates in policy, information, and issues related to subsistence operations (<http://www.dscp.dla.mil/subs/>).] Determine the flow of rations from purchase to delivery and identify potential obstacles to delivery. Coordinate expected delivery needs through the DSCP Region Commander.

Even initial pre-deployment planning should consider growth. For main forward locations, consider that there will be a later transition from initial to sustainment operations and increases in quality (i.e., moving from initial to temporary to semi-permanent facilities). These will all require expansion and moving of assets. Make good choices up front on layout, but don't sacrifice a good layout that will get you up and operating quickly. However, don't create a roadblock to future expansion that will require extensive relocation of infrastructure (see [Figure 14.](#)).

Lessons learned have shown that certain efforts require emphasis prior to deployment. The following Checklist presents items that should be considered for beddown predeployment actions and planning.

Figure 14. Manual Relocation of Tents and Belongings



Checklist 1. Predeployment Actions and Planning.

Action	Details/Comments
1. Prepare and marshal equipment, supplies, and personnel based on best known requirements at the deployed location.	<ul style="list-style-type: none"> a. Do not depend only on higher headquarters guidance. b. Check with other sources of information, especially theater Services personnel or counterparts. c. Check deployment message traffic for any Point of Contact listings. d. Determine if there are any classified theater playbook, unit, or commander guides, and check for any Embassy or Military Liaison contacts. e. Review AEF Center or theater secure or restricted access (SIPRNeT or NIPRNeT) deployment Web-sites for information. f. Monitor deployment plans using the Deliberate and Crisis Action Planning and Execution System (DCAPES) to check core and support UTCs. g. Based on above info, determine the required equipment and supplies and verify that they are packed. h. Hand-carry copies of packing lists.
2. Ensure UTCs deploy with:	<ul style="list-style-type: none"> a. Adequate bench stocks for repairs to deployed and pre-positioned equipment (see action item 7 also). b. Technical Orders. c. Standard base checklists modified for bare base attack response, C-CW or other Tactics, Techniques, and Procedures, major accident response, etc. d. Baggage and weapons, which should be clearly stated on travel orders.

Action	Details/Comments
3. Plan to take the following items.	<p>a. Survival Recovery Center (SRC) and Disaster Control Group (DCG) Checklists.</p> <p>b. Readiness related (i.e., Disaster Preparedness) OPlan and checklists.</p> <p>c. Minor items or supplies not contained in UTC LWRRG Initial Deployment Kit .</p> <p>d. AFI 34-201 and all appropriate funds management forms and training aids and AFH 10-247, Volume 6, <i>Guide to Services Contingency Planning: Resource Management</i>.</p> <p>e. Computer system (preferably dual voltage laptop loaded with all Services required software as listed on the Services Agency web-site (Prime RIBS Managers' Guide)). Obtain certification and accreditation as necessary with Communications Squadron.</p>
4. Consider taking a <i>limited quantity</i> of the following items based on best known requirements at the deployed location:	<p>a. If the deployed field kitchen will use mogas and JP-8, pack and ship spare M2A burner parts, immersion heater parts, and Babbington burner parts.</p> <p>b. Rudimentary barbershop kits: several electric clippers (each with various length trimmer guides), hair cutting scissors, combs, liquid and spray disinfectants, haircut aprons.</p>
5. Set up plans for homestation family support/assistance network.	Set up briefings for deploying personnel and for spouses to explain programs and expected methods of communication and timelines to establish programs.

Action	Details/Comments
6. Develop planned site lodging assignments.	<p>a. Determine requirements for aircrews and unit/shift integrity.</p> <p>b. Determine if any major base functions will be formed from UTCs from several bases/organizations and work with primary (core) first sergeant to develop assignments.</p> <p>c. Determine if there are any JSop or Allied Nation lodging restrictions.</p> <p>d. Decide before you arrive on the method of lodging assignment. The three typical methods of assignment are:</p> <ul style="list-style-type: none"> (1) Individual (first-come/first-served – disperses forces and expedites registration, but hurts functional integrity of squadrons), (2) Unit (good for some deployments, but not favored in hostile environments based on threat), and (3) Group (consolidated personnel from many units by AFSCs as if they were a unit – can also present threat problem in hostile environments). <p>e. Determine who must be billeted together and then consider threat.</p> <p>f. Lessons Learned: Mission support is better when deployed units can be grouped by AFSCs (similar to peacetime) to create an expeditionary squadron, especially when there are many small units supporting a specialized function. Examples:</p> <ul style="list-style-type: none"> (1) An Expeditionary Civil Engineer squadron (where fire department and EOD members come from many units) and (2) An Expeditionary Security Forces squadron (same rationale).
7. Obtain the AMC mission number and aircraft tail number for each deploying chalk.	<p>a. TALCE at the locations can track status of deploying aircraft.</p> <p>b. Can determine early on if delays will require a fallback plan.</p>

Action	Details/Comments
8. Plan Ahead for Reach-Back Support	<p>a. Based on the type equipment you expect to receive, determine what critical equipment items may require repairs.</p> <ol style="list-style-type: none"> (1) Identify critical parts for the equipment items. (2) Based on similar type deployments, find out which parts fail and how. (3) Determine the main mode for ordering replacement parts and the total time it takes to receive those parts. <p>b. For long lead time items that are not common to the bench stock you carry, consider alternate sources of supply or substitute parts.</p> <p>c. Establish home station POCs for reach back to work issues and support for critical parts.</p> <ol style="list-style-type: none"> (1) Have home station POCs contact Logistics Supply personnel to determine normal shipping modes for delivery to your location. (2) Determine if home station can obtain parts faster. <p>(3) Determine alternate shipping methods that may be available for sending items to the deployment location.</p>
9. Bottled Water Support	<p>a. Determine if bottled water will be required initially and/or throughout the deployment.</p> <p>b. If bottled water is required, Services is the point of contact.</p> <ol style="list-style-type: none"> (1) Work with CE, Logistics Supply, Contracting, and Medical Group to determine requirements and distribution points, as well as delivery and resupply. (2) Services will be responsible for procuring, storing, monitoring levels of use/on-hand stocks, and distributing for bottled water. [Do not assume anyone is taking this on.] <p>c. Establish lines of responsibility for the process or each step.</p> <ol style="list-style-type: none"> (1) Ensure that any issues of responsibility are resolved and stocks will be on hand upon arrival. (2) Determine probable methods of distribution (water points for issuing, receipt with meals, and receipt by units) and best locations for water distribution. (3) Services must provide responsible agency(s) with estimated consumption levels with meals.

A final lesson learned is that the best time to begin an after action report is while you are planning the deployment, so you can establish the format and also capture key predeployment efforts. Details will be provided on after action reports and formal management and accounting in subsequent volumes.

Section D—MAJOR SYSTEM COMPONENTS

10. Background. AEF deployments require Services personnel to be flexible. Most OPLAN planned deployments to typical bare bases will use *standard issue* WRM legacy systems or BEAR assets. Services personnel are usually designated as an Expeditionary Services Squadron, within an expeditionary Mission Support Group, under a numbered air expeditionary wing (AEW). However, Services personnel may be using other assets as a part of a JSop on a base shared with or operated by the Army (or another branch of the Armed Forces). In this case, you may be a core UTC based squadron within a numbered Air Expeditionary Group supporting a limited Air Force operation (such as air refueling or aerial port operations). Services personnel may even be a smaller UTC tasked to provide support for special contingency missions such as a Contingency Response Group or Security Forces Group.

AEF deployments have placed Air Force personnel into austere locations where only a CONPLAN is available. While some of these missions can be met with standard assets, more often the support will be for a limited, special mission at austere locations where bare base facilities, utilities, and beddown functions may not exist for a month or more. Expedient facilities and services may be required along with a 550-person housekeeping system. Prime RIBS personnel will have to work closely with Prime BEEF personnel to determine what can be accomplished with expedient means given the austere conditions (see [Figure 15](#)).

Figure 15. Austere Conditions During Initial Operations



The following major support facilities and equipment items support Services functions. Some systems are legacy systems being phased out as BEAR systems become deployable. Be aware that the funding of many replacement systems is a long-term process under the joint Logistics/Services/Engineering WRM modernization program.

11. Contingency Lodging. When existing facilities are not available, then transportable systems are used. Typical contingency lodging facilities include fabric systems such as TEMPER tents from the legacy systems. System upgrades are moving toward several fabric systems (i.e., the small (SSS), medium (MSS), and a new large (LSS) shelters). When supporting a JSop, Navy, Marine and Army assets may also be used.



TEMPER (tents): These all-purpose shelters are constructed of articulated aluminum frames that lock into position with pins or tabs. The frame sections are covered with a synthetic fabric, a weather fly over the top of the tent sections, and a rubberized floor mat. For temperature control, an inner liner is installed along with its fabric ventilation duct. A typical tent section has a footprint 20 feet wide by 8 feet long, although the tent is a nominal 16 feet wide at the 7 foot high eave header. Four (4) sections are connected together lengthwise to provide a 20 foot by 32 foot tent, which is the typical contingency lodging configuration. This configuration uses one environmental control unit (ECU) to provide cooling or heating in hot or moderately cold climates. For colder climates, an auxiliary heater is required with adapter kits. The tents come packed four to a container, with wiring and power distribution panels, lighting sets, fire extinguishers, and cots.



Small Shelter System (SSS): These are all-purpose fabric shelters constructed with separate ruggedized square aluminum tubes that form a frame with (vertical) arches and (horizontal) purlins. Each portion of an arch plugs into the adjoining section and the overall arches are tied together with purlins that plug in together and are pinned through arch brackets. The outer cover is a heavy synthetic fabric, while the floor is a rubberized fabric mat. For temperature control, an inner batt insulation liner is installed in addition to the interior liner panel and two fabric plenums. A typical contingency lodging SSS has a footprint 20 feet wide by 32.5 feet long (and is 10 feet high at the top of the arch). These tents have six (6) arch frames forming five (5) sections. This configuration uses one environmental control unit (ECU) to provide cooling and heating. The SSS is more airtight and energy efficient, has better interior air circulation, is lighter weight, and can withstand much higher winds than the TEMPER tent. Four people can install it in a quarter to half the time it takes twelve people to install the TEMPER tent. A tent comes packed in its own container with wiring and power distribution panels, liner and plenums, and lighting sets. Ancillary contingency lodging support equipment items are separate.

Other Air Force inventory systems are being phased out, but may be available at some locations as personnel shelters or shops, especially if brought in by another branch of the Armed Forces. These systems are highlighted here.



General Purpose Shelter (GP). While intended as a shop or office, the GP has been used for contingency lodging and the contingency lodging office function. The general-purpose shelter consists of rigid honeycomb panels and I-beams connected to form a series of arches. The overall size of the shelter is approximately 31 feet by 48 feet by 12 feet. The shelter can be erected on a prepared surface by a crew of six Civil Engineers in 15 to 20 hours, depending on whether or not a floor is installed. The system has a membrane floor (flexible heavy-duty fabric) or lightweight flooring system. GP shelters are being phased out and replaced by the (California) medium shelter systems (MSS).



Expandable Shelter Container (ESC). This shelter is an expandable hard-wall container that is used primarily for flightline and industrial shops. Due to its structure of sandwich panels with structural framing and windows, it is quieter than a tent and can be used to provide contingency lodging for pilots. When expanded, the ESC measures approximately 21 feet by 13 feet by 8 feet and can handle two to four aircrew members. ESCs are being phased out in favor of the SSS. The Army, Navy, and Marines have similar hardwall structures that may be used for Joint Service contingency lodging.



General Purpose (GP) (Medium and Large) Tents. These systems are being removed from the Air Force inventory, but are used by the Army, Navy, and Marines. They are primarily pole-supported structures with a polyester duck fabric. While they are easily erected and weigh less than the Small and Medium Shelter Systems, they are narrower, have poor temperature control, and afford less protection from wind, rain, and chemical attack. The GP Medium has a footprint of 32 feet long by 16 feet wide with a height that varies from 5.5 feet to 10 feet. The GP Large has a footprint of 52 feet long by 18 feet wide with a height that varies from 5.5 feet to 12 feet. For increased cold protection and livability, a GP tent may be *hard backed* -- that is erected over a raised plywood floor, plywood walls, and wooden truss system. This provides additional strength, noise reduction, and increased weather protection. If sheetrock is also used on the inside walls, fire safety and temperature protection are further increased. For JSops, Air Force personnel may live in these facilities when another branch of the Armed Forces provides BOS.

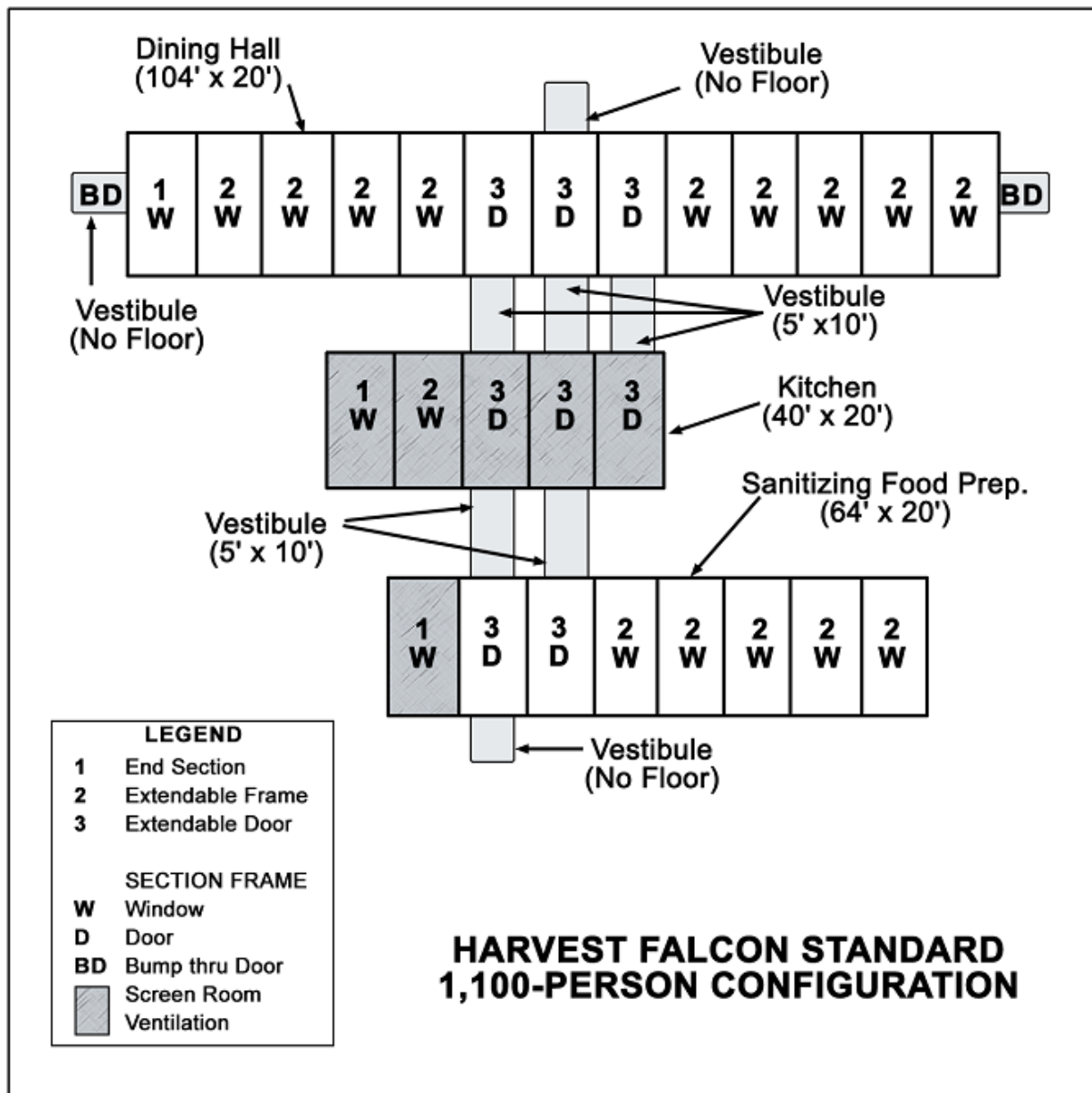
12. Food Service. Typical field food services structures include the modernized Harvest Falcon and Harvest Eagle 9-1 gas and electrified kitchens (which will transition to all electric), e-Falcon initiative type kitchens, the Single-pallet Expeditionary Kitchen (SPEK), and the newly fielded Containerized Deployment Kitchen (CDK).

The legacy-based Harvest Falcon 1,100 (9-1) kitchen has been the most commonly used package for contingency operations. Upgrades and changes to the BEAR kitchen (9-2) system are being phased into the inventory. This is a field kitchen with a floor plan complex based on TEMPER tents capable of supporting 1,100 personnel, requiring an area of 300 feet x 300 feet. The dining hall configuration can be varied if necessary to fit the shape, operation, and functions at the location, because the TEMPER tent components are common with other components used at the base and throughout TEMPER tent based systems. The dining tent consists of a 13-section TEMPER tent (see [Figure 16.](#) and [Figure 17.](#)), which can seat 240 personnel and requires an area of 104 feet x 20 feet for setup. The kitchen area consists of a 5-section TEMPER tent and requires 40 feet x 20 feet, and the sanitizing/food preparation area consists of an 8-section TEMPER tent and requires an area of 64 feet x 20 feet.

Figure 16. 1,100-Person (9-1) Dining Tent.



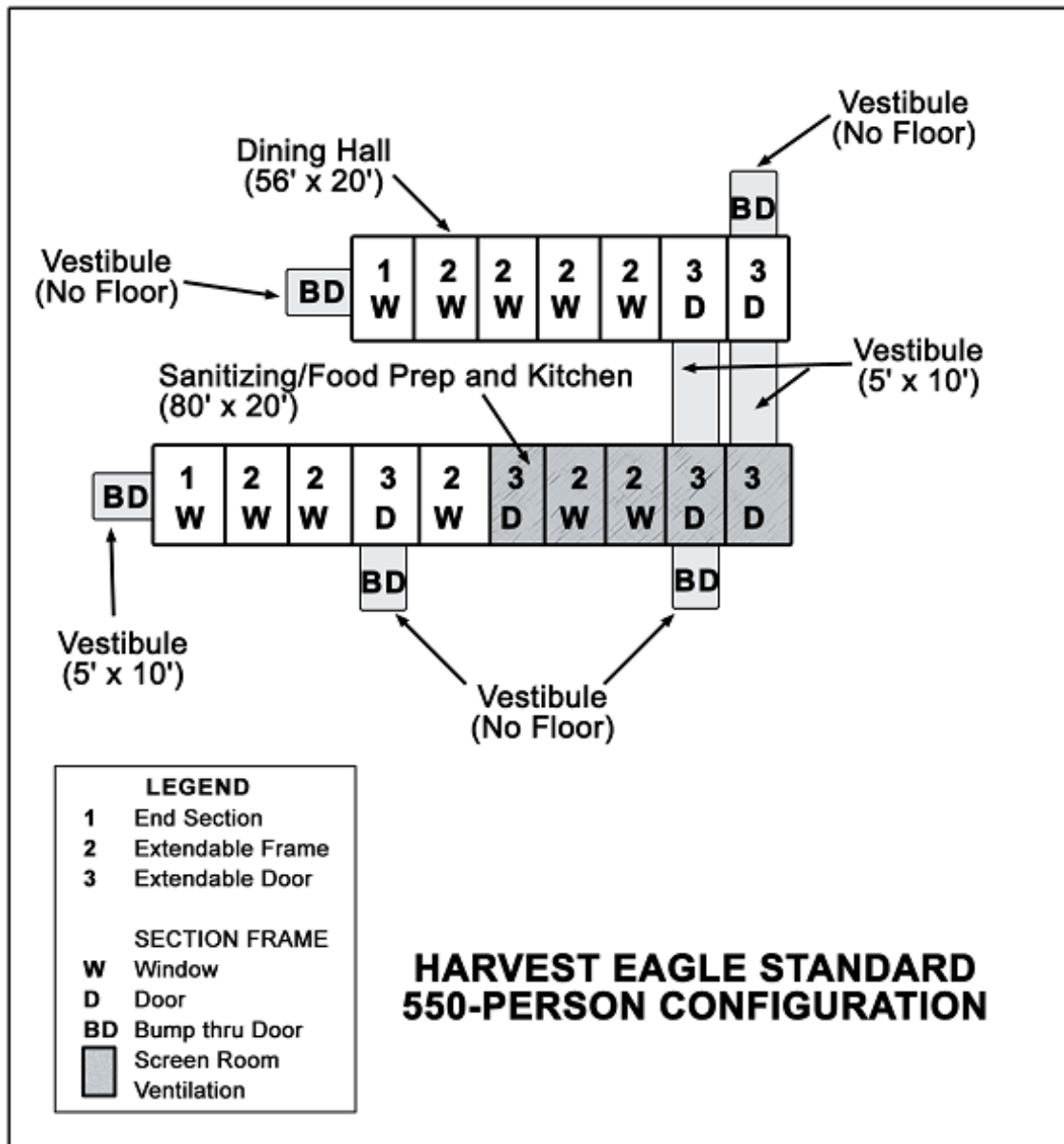
Figure 17. Standard 1,100-Person (9-1) Kitchen Configuration.



Included with this legacy system are six 150 cubic foot refrigerator boxes, one 1,200 cubic foot walk-in refrigerator and two ice machines. The 300 cubic foot advance design refrigerators (ADRs) replace the 150 cubic foot refrigeration boxes. The 9-1 requires 7 ECU's.

The legacy-based Harvest Eagle 550 (9-1) kitchen also consists of a 9-1 kitchen and TEMPER tent complex, which can support 550 personnel and requires an area of 200 feet x 100 feet (see **Figure 18**). The dining tent consists of a 7-section TEMPER tent with an area of 56 feet x 20 feet. The sanitizing/food preparation and kitchen uses a 10-section TEMPER tent and requires an area of 80 feet x 20 feet. Included with the Harvest Eagle are four 150 cubic foot refrigerators, which will be replaced by two 300 cubic foot ADR units. (

Figure 18. Standard 550-Person (9-1) Kitchen Configuration.





Single Pallet Expeditionary Kitchen (SPEK) UTC LWRRF. The SPEK is a lightweight, quick response kitchen, designed to provide hot meals using tray-pack Unitized Group Rations Heat-n-Serve (UGR H&S). It provides UGRs for approximately 550 people per meal using high-efficiency burner technology. A team of 8 Services personnel can ready the platform and start feeding within 4 hours of arrival of rations and equipment (see [Figure 19](#)).

Designed for initial or smaller AEF deployments, it is best suited for austere contingency locations and for periods up to 30 days. Newer SPEKs arrive in a dedicated expandable container, while base owned and earlier systems may still use a 3 section TEMPER tent with a rubberized floor surface. It operates with a packaged generator. When the location receives a 9-1 kitchen, the SPEK may be incorporated into the BEAR's Harvest Falcon or Eagle assets, moved to another on-site location to support flightline meals or an isolated portion of the site, or reconstituted and repackaged for return or deployment elsewhere.

Figure 19. SPEK Pallet As Deployed with TEMPER Tent.





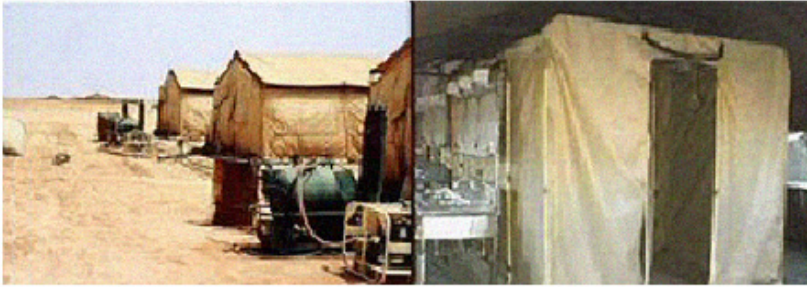
Containerized Deployable Kitchen (CDK). The CDK is a deployable, fully self-sustaining, kitchen capable of preparing a minimum of 500 meals twice a day. It is structured from a standard 8 foot by 8 foot by 20 foot ISO container with one expandable side. The system includes electrically powered food preparation equipment assembled in an expandable single-sided tactical shelter, a water pressure control system and 250-gallon water bladder, and a 150 KW diesel generator. The CDK provides a source of hot meal preparation until other BEAR assets arrive, or can provide satellite/remote-feeding support. The CDK provides an all-weather capability (at temperature ranges from -25° F to +120° F) for preparing UGR and A rations; additional weather protection can be achieved by using a SSS or TEMPER tent section (see [Figure 20.](#)).

Figure 20. CDK with TEMPER Tent Section for Added Protection.



13. Hygiene Facilities. The other components of contingency lodging are the supporting hygiene facilities. Typical hygiene facilities include Shower/Shave Units, Latrines, and Laundry. Legacy systems that have provided most of the initial beddown support are being modernized under BEAR with new technologies.

The force module concept is also driving changes to hygiene facilities, as well as causing the use of older expedient means alternatives for some of the more austere locations. To replace expedient facilities and means, even smaller package units have been adopted for *first-in* teams such as those used by Air Mobility Command and Air Force Special Operations Command. Services personnel should be familiar with the various approaches and standard BEAR facility requirements.



Shower/Shave Units. The shower/shave system is a portable unit that consists of a four-section shower element and four separate washstands. The Open and Establish modules contain at least four units, including dedicated TEMPER tents. Portable showers consist of six separate, but identical and interchangeable mod-

ules. Each module consists of a pallet-like shower base pan, integral drains and fittings, and drain to plumbing. Each shower module has two shower nozzles mounted on a surrounding framework with vinyl fabric shower enclosures. An M-80 water heater and pump provide the hot water supply; there is a separate pump with hose for removal of wastewater. Each shave facility consists of a three-bowl washstand and a mirror with attached light fixture (see [Figure 21](#)). The washstand features folding legs and contains all required plumbing. Four washstands (a total of 12 bowls) are located with each field shower (two on each side).

Figure 21. Shower/Shave Unit Sinks.



Latrines. The field deployable latrine (FDL) system consists of three toilets and a urinal trough mounted above a 135-gallon water tank and a 180-gallon waste tank. For planning purposes, the field deployable latrine can serve 70 male and 52 female personnel. Four deployable latrine units constitute one legacy or BEAR package to support 275 people. These packages come with their own TEMPER tents, privacy screens between the toilet stools and the urinals, and a pressurized water system (operating on 115-volts AC power) to flush the toilets. The latrine can be unpacked, assembled, and placed into operation in two

hours by four people (see [Figure 22](#)). During the early stages of a deployment, the latrine can be operated in a stand-alone mode by periodically replenishing water. However, Civil Engineers must receive a wastewater disposal trailer (that should deploy with the system) to be able to empty the waste tank.

Figure 22. Installing a Field Deployable Latrine.



14. Field Mortuary Operations. Most field mortuary operations can use a 4-section TEMPER tent or the Small Shelter System to support mortuary collection point (MCP) operations. The site also requires a 150 cubic foot refrigerator (or the replacement 300 cubic foot ADR) for refrigerated storage. The site and facility should be located away from other facilities. It may require a power generator if normal site power is not available during processing. The MCP also should have adequate area lighting, a water supply, access for truck and forklift operations, good drainage and runoff protection, and ventilation. Depending on the location and temperatures, an environmental control unit may be needed during processing. A contaminated waste collection point may also be necessary.

Depending on the location and temperatures, an environmental control unit may be needed during processing. A contaminated waste collection point may also be necessary.

15. Laundry. Services is responsible for planning the required quantities of washers, dryers and supplies for self help laundry operations and organizational laundry service, and provide for contract laundry support where available. Prime RIBS UTCs are not structured to provide personal and organizational laundry service, except for support of contingency medical laundry services. Self-help residential/dorm style washers and dryers or heavy duty commercial units are planned for personal and light organizational items.

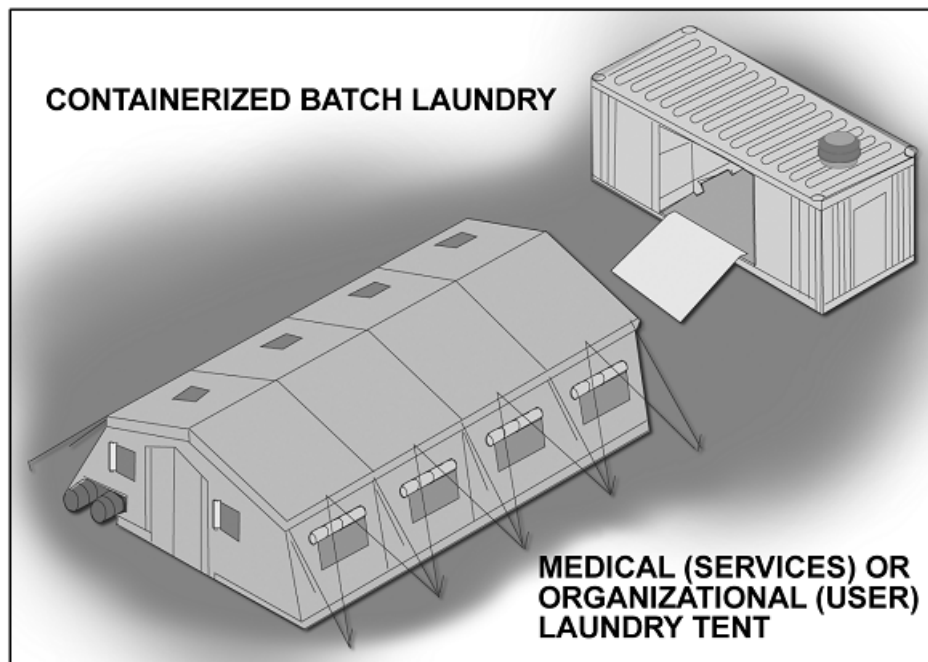


Medical and/or Organizational Laundry. A Containerized Batch Laundry (CBL) system was developed to replace the previous standard bare base laundry system. It consists of two 50-pound/load washer-extractors and two 75-pound/load dryers (both heavy commercial), exhaust fans, all hoses and connections mounted in an ISO container. Fully configured, it comes with lighting, environmental control

and a generator (100 kW, 208 volt/3 phase). Several types of these systems have been configured for the Armed Forces. In arid locations, it is important that the system is equipped with water filtration equipment, which can recapture about 50% of the water used. The CBL is capable of collecting waste water and transferring it up to 500 feet from the unit for disposal. Individual components can be ordered for use on pallets versus in the container, but would require close coordination with Civil Engineers to ensure they

can be used with existing or proposed utilities. The CBL usually is located near a TEMPER tent for laundry drop-off/pick-up or for sorting and organizing the laundry and storing products (see [Figure 23.](#)).

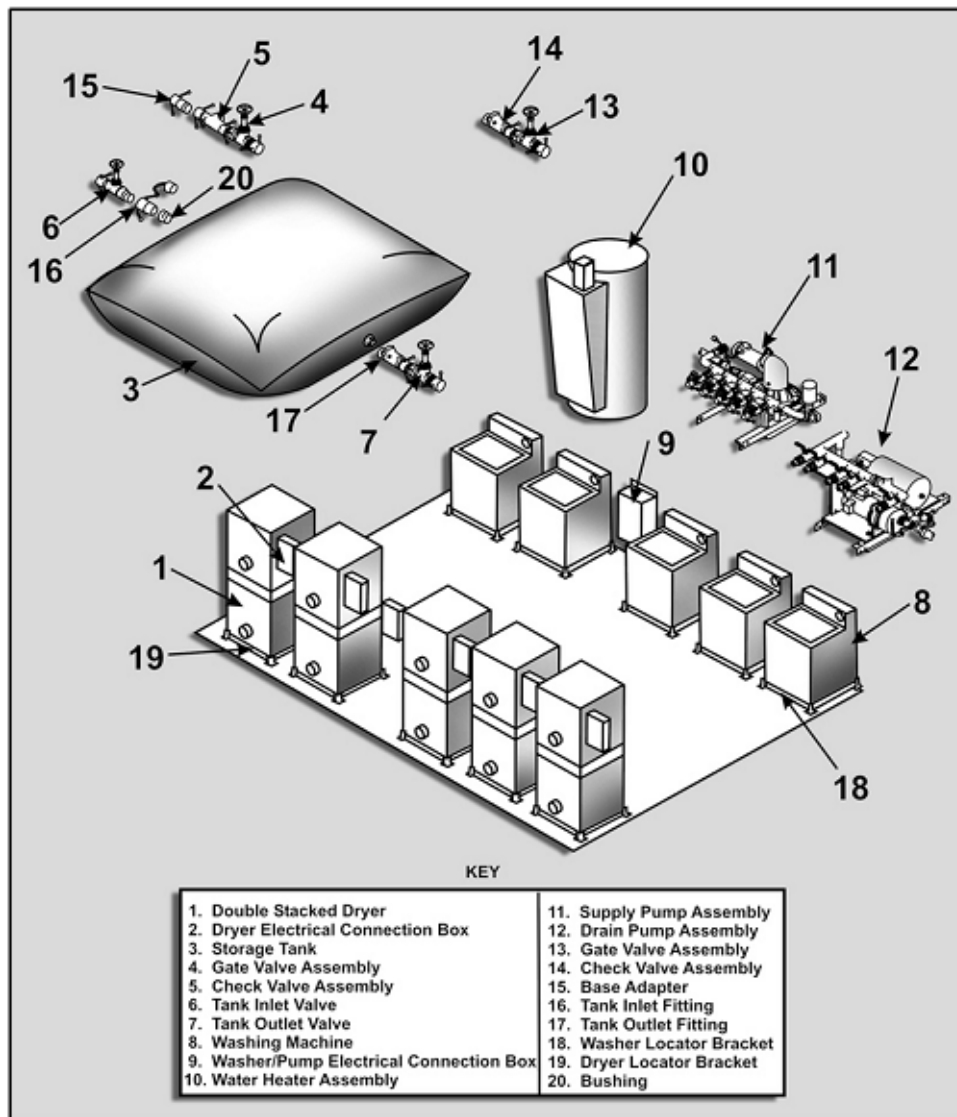
Figure 23. Example of Medical or Organizational CBL Layout.



Self-Help Laundry. The Self-Help laundry (SHL) system was designed for rapid deployment and continuous operation as a complete field laundry. The SHL consists of five washers, five double-stacked dryers, a water heater, a 3,000 gallon collapsible bladder water tank, supply and drain pumps, electrical distribution panels, and associated hardware (see [Figure 24.](#)). The washers, dryers and electrical connection boxes can operate within a 32 feet long by 20 feet wide facility (TEMPER tent or small shelter system). The pumps, water heater, and tank are all positioned outside

the shelter. If a SHL system is not available, then a similar type system can be built from components. However, check with Civil Engineers before ordering to ensure they can obtain similar support components. Order water-efficient, high spin-rate washers (or washer-extractors) and dual power dryers to ensure that power requirements and water usage rates can be met. Many standard washers without high spin rates or water economizer cycles may require more water than can be provided at desert/arid locations.

Figure 24. Self Help Laundry System Components.



16. Expedient Support. For deployments where all assets lag behind the arriving initial forces, expedient means are still an alternative that may have to be used during the initial few days of a deployment. The initial concerns are usually for field hygiene and may require use of expedient latrines and mess kit laundries. Mess kit laundries are standard in operation and layout. One mess kit laundry (see [Figure 25.](#)) will support 275 personnel. Providing adequate centralized mess kit laundries avoids illness and attracting vermin that can spread disease throughout a bare base. The choice of expedient latrines (see [Figure 26.](#)) and the siting of latrines and urine collection pits can affect beddown efforts. Pit and trench latrines and urinal collection pits should not be located within the site of future beddown construction. Chemical toilets, burn-out latrines, and pail latrines are alternatives.

Figure 25. Mess Kit Laundry.



17. First-In Deployable Support System. Legacy systems and BEAR may not provide all the Services' support for some missions. To meet essential support for special operations and *first-in* teams, small, rapidly deployable field-services kits have been developed, such as by the Air Force Special Operations Command (AFSOC). These systems provide shower, shave, wash, contingency lodging, and latrine support to meet minimum health and shelter requirements for personnel without having to rely on field expedient construction.

Figure 26. Expedient Latrines – Deep Pit and Burn-Out.



AFSOC's kit (see [Figure 27.](#)) supports 100 personnel or a field medical team during a field deployment away from a support base. The system as currently configured requires less than 3 full pallets on a C-130. Team members require minimal familiarization with the system and can establish initial support without Services personnel on site, although water, supplies, and rations must be provided during the time period of use. Small Shelter Systems are used for contingency lodging, while smaller *Alaska Workhorse shelters* are used with the shower and shave units. Small privacy tents are used with chemical toilets.

Figure 27. AFSOC Airborne Rapid Response Kit.



18. Fitness, Recreation, and Item Sales. Typical fitness and recreation facilities include Fitness/exercise equipment and recreation centers. TEMPER tents, general-purpose shelters, or their upgrades to Small or Medium Shelter Systems can house these support packages. When possible, item sales from a larger Services resale operation or an AAFES Direct Operation Exchange – Tactical (DOX-T) are established. These should be located in higher security facilities with hard-walls, such as an ESC or an ISO container, modular facility, or a mobile trailer unit.

Figure 28. Expandable Shelter Containers Provide Securable Initial Recreation or FE Facilities.



If this is not possible, tents (one for sales and one for storage) can be used as long as the facilities can be secured. These facilities and functions are important and arrive later in the force module flow. They will be covered in greater detail in other handbooks.

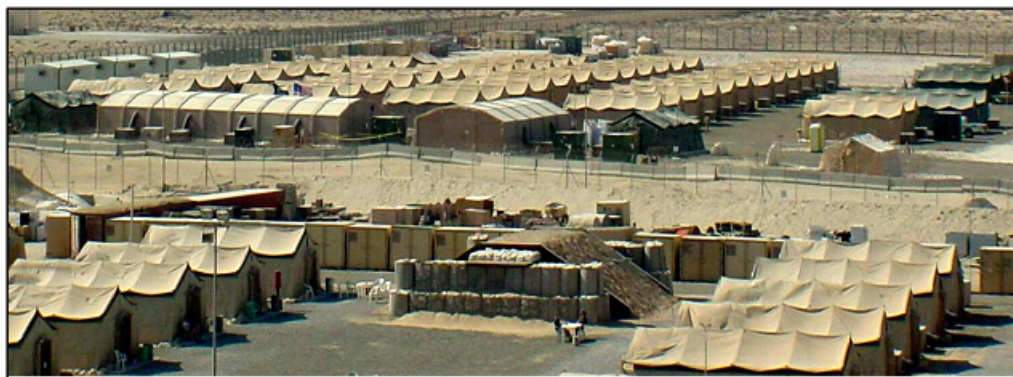
Section E—ON-SITE DEPLOYMENT PLANNING

19. On-Site Planning. When you arrive on site, begin reviewing, using, and modifying your predeployment plans as necessary to meet the site conditions. Many AEF base predeployment plans can be adopted with little modification except as influenced by the flow of resources or for changes that may have occurred while you were in transit. If you are at a location that will be a Joint Service (JSop), one of the first things to accomplish is to sort out *who is in charge of the location at the immediate time*. Due to the fluid nature of JSops, some Services units may find another branch of the Armed Forces or a special Air Force team (such as a TALCE) in charge when they arrive. For Joint Service efforts, the AETF or AEW commanders may have to meet with the Staff Judge Advocate to determine lines of authority if this is not directed in theater plans/orders.

Expeditionary Services organizations should establish points of contact with other base units while establishing Services command, control, and communications (C³) to make sure that everyone is working together in spite of various plans and levels of authority. It is important that you help maintain control of resources. Even though Logistics or Civil Engineers may finally be accountable for WRM BEAR assets, if you must pull part of a BEAR asset for Services use, you must keep track of the asset and meet with Logistics as soon as possible to account for the asset. While many BEAR components are interchangeable, they are also accountable. Air Force Services and Civil Engineers may be leading the initial, more permanent beddown efforts at locations, which then transfer to the control of another branch of the Armed Forces. Accountability is a major issue for transfer. Control and accounting for pallets, crates, ISO containers, and special packing materials is essential for redeployment. These items usually must be accounted for prior to transfer to successor units or another branch of the Armed Forces.

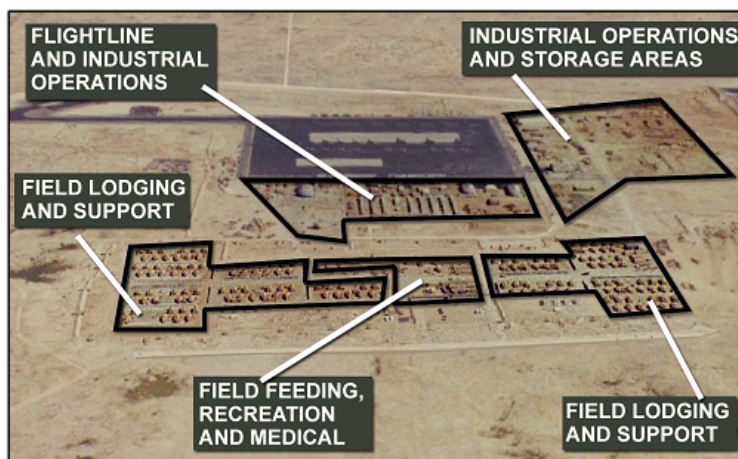
Expect to make some changes, especially if you find a better way to proceed with the beddown. However, avoid making changes that could affect security, fire protection, communicable disease prevention, or pest control without first checking with the other responsible parties (i.e., Security Forces, Fire Department, Medical Group, and Civil Engineer Environmental (Entomology)) or their representative counterparts if another branch of the Armed Forces is in charge for JSops. It is especially important that you maintain close contact with Environmental/Entomology technicians to avoid initial problems with pest control. While Services personnel may be the first in to provide a good, hot meal to hungry troops, **you** may also be the first, good hot meal for hungry insects and other vermin, especially at austere sites or locations taken over during a conflict.

Be aware that if the AEW's or AETF's mission beddown priorities change, your plans may change as well for layout and number of personnel to be supported. Whether or not there are any known changes, you must stay in close contact with the Civil Engineer site planners accomplishing site surveys. Ensure that you both understand the basis for the layout and marking of the beddown groups, facility and utility locations, and orientation of the facilities. If the location has a higher threat level than anticipated, it may be necessary to incorporate protective bunkers near field lodging (see [Figure 29.](#)) or construct sandbag revetments around large or high-use facilities (i.e., dining facilities and self-help laundries that are used at night). This will require additional space for clearance and access.

Figure 29. Protective Bunker and Container Revetments.

Confirm or identify all contract services that can be relied upon for dining and laundry support. Then start laying out the main groupings of facilities and support areas as soon as the area has been rough surveyed/ marked. Identify what can be done by Services personnel alone and what will require Civil Engineer support or base work force augmentation. Some areas that looked flat and clear on maps may have to be filled with gravel or dirt, cleared by heavy equipment, or dragged to clear brush. In other cases, personnel may simply have to walk the sites to clear objects that could damage tents or other Services facilities. Be on the lookout for unforeseen hazards during the initial site layout and report the nature and location of hazards to the appropriate control centers.

20. Layout Concept. The basic layout concept is to have the flightline operations facilities and shops, heavy equipment and industrial support, and aerial port operations along the ramp. Administrative offices are located between the ramp facilities and the lodging facilities. Lodging should be located in areas that are high, dry, have relatively flat ground, and have good drainage. To minimize noise and dust, keep the main roadways to flightline and industrial areas away from the lodging areas (see [Figure 30.](#)).

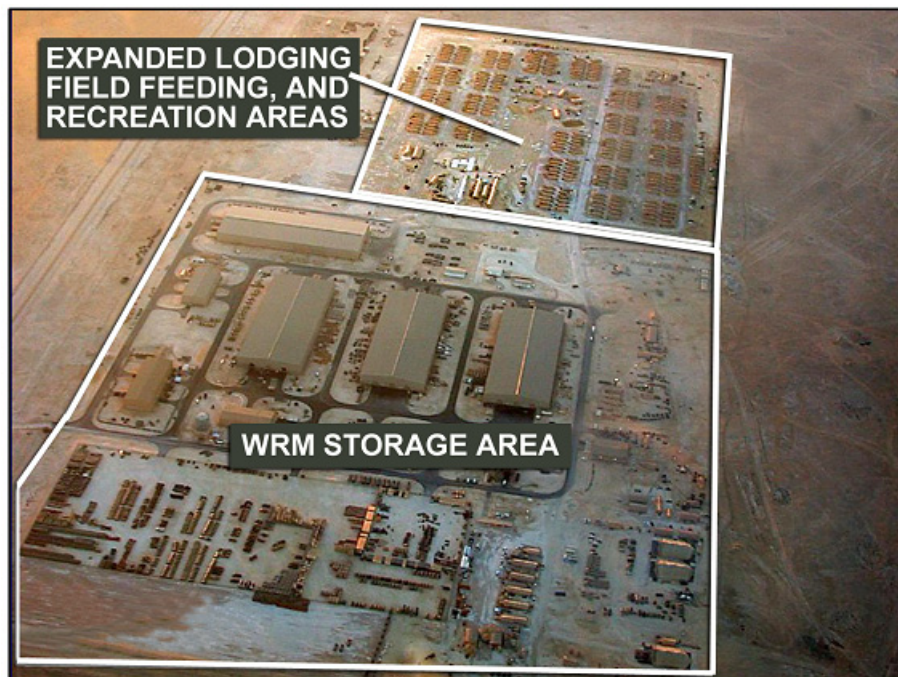
Figure 30. Normal Layout by Groups.

Some locations will have areas for future expansion of lodging. In some cases this is not feasible and lodging support for newer missions may have to move to the other side of a ramp, to a geographically separated area, or near industrial or storage areas (that are free of excessive noise, dust, and lighting) (see [Figure 31.](#)). While this can create duplication of efforts and facilities, it may be unavoidable if there is

insufficient land to allow for on-site expansion. Ensure that supporting UTCs are sized to account for lodging communities, which are geographically separated from the main base support services.

21. Lodging Community Layout. Check with the Security Forces before final layout of lodging facilities and Services community support functions. **Figure 30.** and **Figure 31.** illustrate differences in layout of the lodging blocks (more often referred to as *billeting blocks* by Civil Engineers). One location used staggered (semi-dispersed) rows, whereas the other employed symmetric rows. Applying different layouts may be required for weather conditions, but using semi-dispersed layout is usually dictated by the threat level.

Figure 31. Separate Lodging Community Away from Main Base.



Dispersed layouts provide greater separation and break up visual outlines (i.e., tight blocks with symmetric rows are easier to target with off-base indirect-fired weapons). For normal threat construction, follow the layout requirements shown previously in (UFC 4-010-01 related) **Figure 12.**, where each structural group would be a 24-tent *billeting block* (see **Figure 32.**).

Figure 32. Typical 24-Tent Block (Symmetric).

For higher threats, facilities may have to be dispersed into fully dispersed or semi-dispersed layouts. This can greatly affect the size of the entire lodging community and increase the installation time and efforts for the utility systems that must support the more dispersed facilities. Some dispersal plans may not be fully supportable with the existing utility kits.

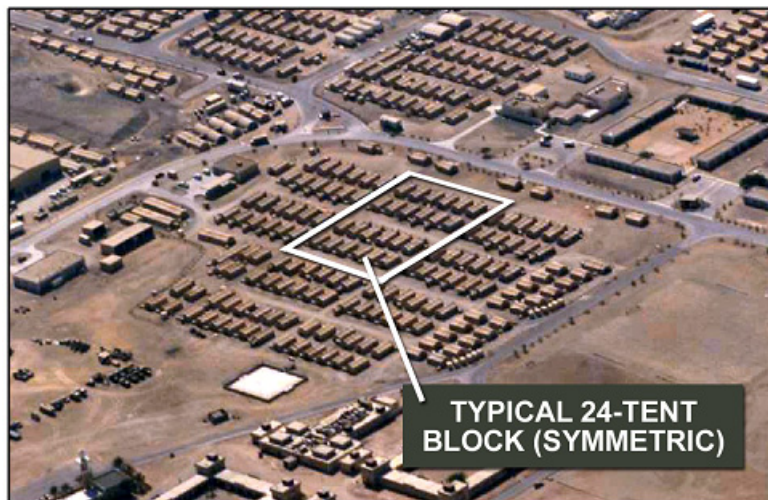
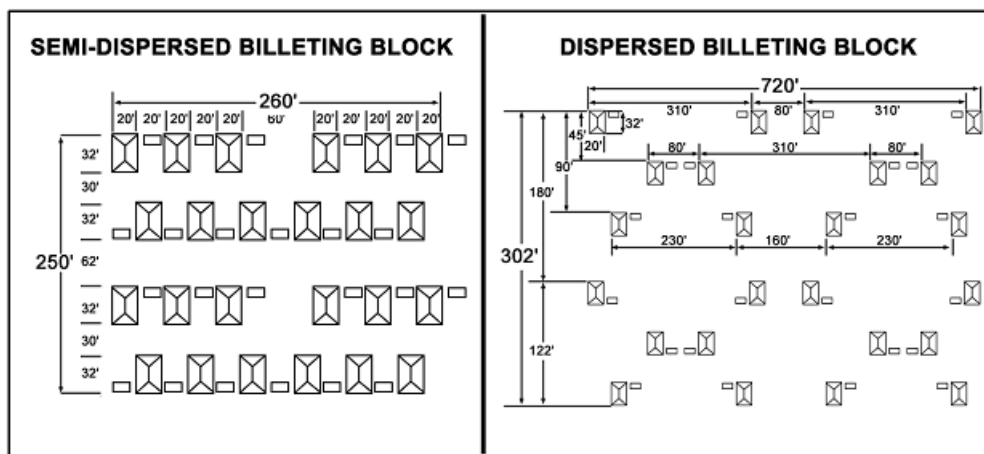


Figure 33. shows the dimensions necessary to support semi-dispersed and dispersed billeting block layouts for 24-tent/288-person layouts. A primary limiting factor for dispersing facilities within the lodging/general Services support areas is the base electrical and plumbing systems. Work closely with Civil Engineers if dispersal is required. Modernization efforts that use Small Shelter Systems versus TEMPER tents should not affect the spacing, but changes to and upgrades of the electrical systems could affect the ability to disperse layouts. BEAR modernization efforts are underway and will affect layout of lodging facilities. Legacy Harvest Eagle based systems and deployments that had to incorporate some older joint service assets have typically been laid out in smaller clusters. Meet with Civil Engineers to determine if they have adequate resources that make it possible to create the lodging complex as a symmetric block instead of in an older cluster layout (see Appendix D).

Figure 33. Semi-Dispersed and Dispersed Billeting Blocks.



The primary hygiene facilities (i.e., shower/shave units and latrines) are located within the lodging community. Additional latrines and showers may be located closer to the flightline work centers. The hygiene facilities are placed to be convenient for resident lodging; when possible also locate the latrines near the primary paths of travel to the dining facilities and larger recreation areas or facilities. Work with the Civil Engineers and first sergeants to develop maintenance plans and rosters for cleaning, resupply, maintaining, and controlling latrines and shower/shave units. For issues on flightline units or with other branches of the Armed Forces at JSop locations, also work with the Expeditionary Mission Support Group commander and the other Armed Forces counterparts, such as the Quartermaster, who may already have manpower to share some aspects of support. Finally, consider what possible contract services or host-nation support contracts/services may be available. They may be able to provide service support as well as support for overall sanitation and waste management programs, which is also a concern for food service operations.

22. Food Service Layout and Requirements. Field feeding is one of the first efforts to be undertaken. Services personnel may be able to set up much of the SPEK or CDK systems without major assistance. Recognizing that force module and theater deployment environments affect supportability, the deploying theaters or AEF organizations have developed deployment guidelines for serving meals (see [Table 3.](#))

Table 3. Guidelines for Serving Meals (by Days into the Deployment).

Target Ration-Mix by Days				
	Days 1-4	Days 5-14	Days 15-29	Days 30+
AEF	3-MREs	1-MRE 2-UGRs supplemente d with A-ration components if available (fresh fruits and vegetables (FFV))	3-UGRs supplemente d with A-ration components if available (FFV)	Expand to 4 meals/ day as required

Layout of kitchens and dining facilities, large subsistence storage, and additional flightline or flight kitchens are driven by the base population, layout, and supply availability. Layout planning normally requires most dining facilities to be located adjacent to the field lodging functions. For larger populations that can justify a second or third 9-1 (or 9-2) kitchen, one of the dining facilities may be located closer to the flightline or primary work areas. If it is not feasible to locate a full 9-1 (or 9-2) kitchen closer to the primary work areas, then a SPEK or a CDK may be able to absorb the load for a flight meals/flightline area kitchen. [Since a primary objective is to locate the field exchange near the primary dining facility, locate multiple primary dining facilities closer together when possible to help centralize food service operations and allow the use of one larger, field exchange.]

In addition to the standard requirements for high, dry, and good drainage, food service facilities require good access roads, but not roads that have high traffic and create dust. The dining facility block site

should also have adequate potable water and electric power with backup capability (although it may be limited), adequate drainage and access to waste receptacles, and larger safety areas for storage, lighting, and burner refueling. The general layouts are depicted in **Figure 34.** and **Figure 35.** for 1,100- and 550-person dining facility blocks. For older legacy-type and joint service kitchen systems, you may have to provide fuel storage, lighting, and cool down areas. For newer technology burner systems and all-electric kitchens, you may be able to reduce or eliminate these areas. Determine requirements with your fire department personnel.

Figure 34. General Layout of 1,100-Person Dining Facility Block.

Appendix F depicts a dual Harvest Falcon kitchen layout that has proven to drastically increase the flow of personnel into the facility and greatly increase efficiency over two separate 1,100-person kitchens.

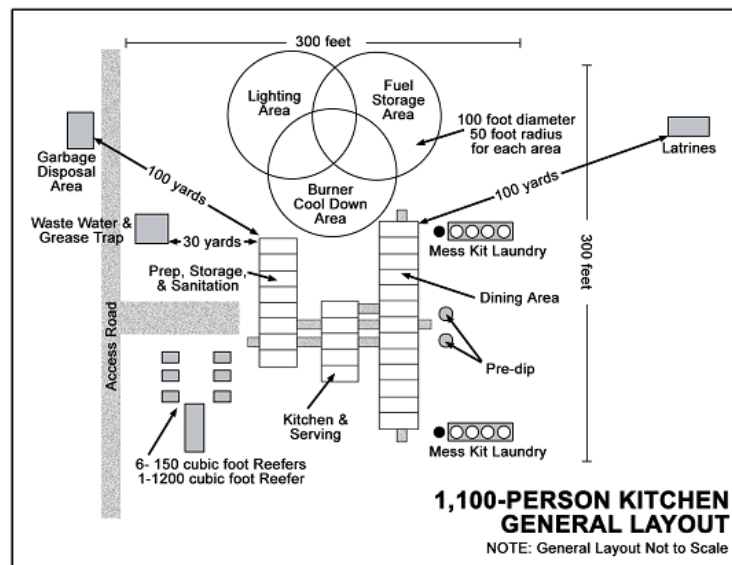
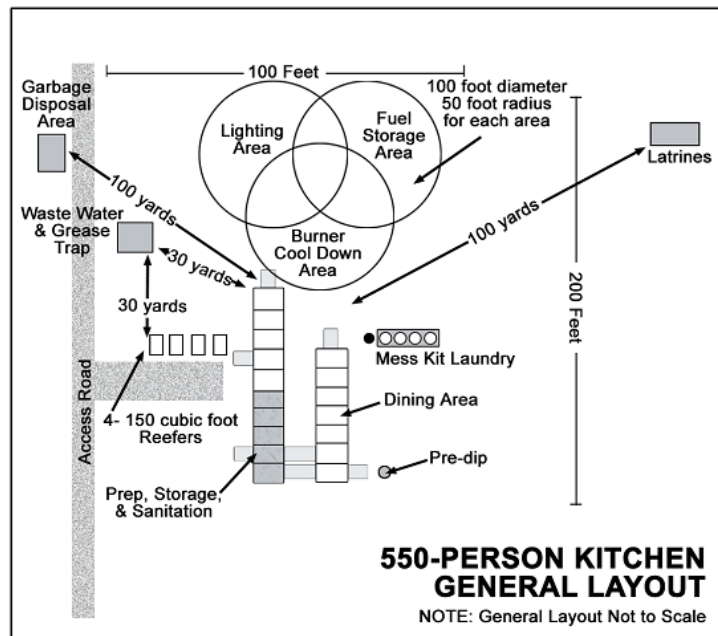


Figure 35. General Layout of 550-Person Dining Facility Block.



For large populations with multiple food service operations, consider using a centralized subsistence/rations storage facility. Centralized storage provides better management controls, cuts down on movement of rations from various delivery sources (i.e., theater and overseas military delivery, local sources, and prime vendors), and allows for better facility control (i.e., security from theft and sabotage, entomology support, providing better weather protection). If supply lines or replacement times are long and subsistence reorders must rely on large bulk shipments instead of smaller regular shipments, then plan for a larger centralized location that is covered, has temperature controlled areas for perishables, has hard interior storage surfaces, and heavier load bearing loading areas. Coordinate as necessary with Logistics Readiness (Contracting, Supply, and Transportation), Civil Engineers, Security Forces, and Aerial Port personnel to identify the best location for a large centralized Storage (see [Figure 36.](#)) When possible, plan to have the area central to several dining facilities. This will make it easier to transport smaller loads of rations to the storage locations at the dining facility.

Figure 36. Large Subsistence Storage Facility Operations.



Dining facility complexes are inviting targets for terrorist attacks and sabotage, so allow space for placement of physical protective measures as appropriate. Remember that weapons fire is not the only source of possible terrorist attack. Fire is a major hazard for dining facilities and lodging tents, especially for locations with older tents. Tents become more flammable with age. Always provide good access for fire protection vehicles at dining facilities and throughout the lodging complex. [Figure 37.](#) and [Figure 38.](#) show the results of an actual fire in a tent city area and a test burn sequence. Services personnel must recognize the potential for high loss of life at dining facilities.

Figure 37. Results of Fire in a Tent City.

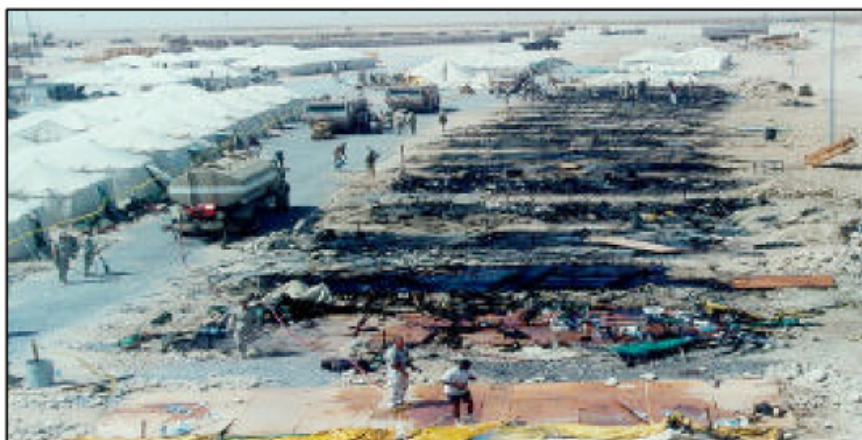
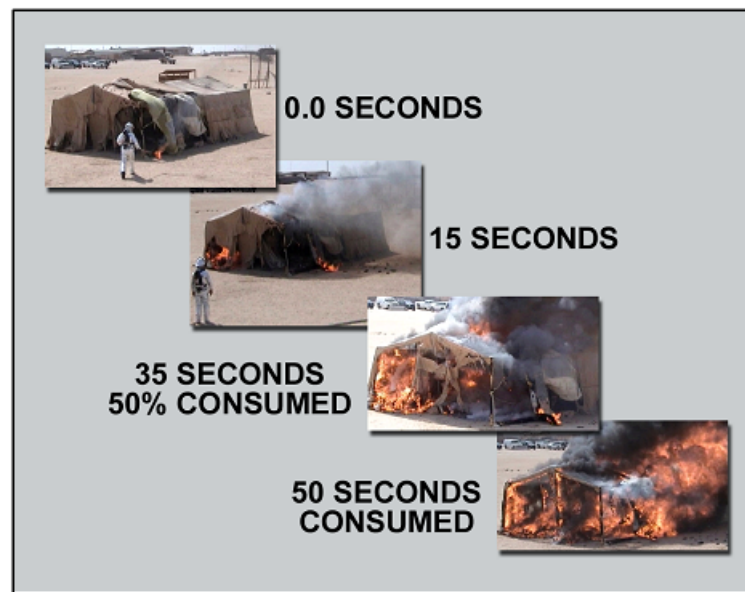


Figure 38. Test Burn of TEMPER Tent.



At the first sign of a hazardous fire situation, one of the first actions to take is to direct evacuation of the facility. Tent fires can be extremely rapid in their spread. If the fire occurs up-wind along a major tent surface, there may be no chance to fight the fire. The best protection is fire prevention. Ensure all language interpreters for Services contracts understand this and pass it on to workers.

23. Laundry Support. The first thing to check is the availability and adequacy of contract laundry services. Meet with your Contracting Officer to determine the available methods (example: local contract, central theater contract, one of the three Armed Forces contractor augmentation program contracts, etc.). Based on populations and organizations, calculate the total weekly laundry loads based on the types of laundry service required (personal, medical, and organizational), as well as linen/bedding service requirements. The Wartime Mobilization Planning (WMP) factors for laundry are (1) personal laundry of 17 pounds per person per week (ppw), (2) medical patients and medical personnel of 32 ppw, and (3) organizational bulk laundry of 10 ppw. [Determine if there are any short or long term geographic, weather, or medical factors that would require adjusting the WMP factors.] For arid regions, the availability of water could restrict water availability for laundry services during the initial beddown until all sources are developed. Determine if contract, medical, self help and organizational laundries, or a combination of these will be required. If contract services are provided, then the main issue is to site facilities and develop procedures for pick-up and drop-off of clothing, linen, and bedding (see [Figure 39](#)).

Figure 39. Bedding and Linen Service by Contract.



If self help laundry systems are required, site them to be accessible to lodging, but be aware that the facilities may create noise and lighting issues with nighttime use. They will require access to power, water, and gray-water (sewage) and should be monitored to maintain sanitation and mechanical condition. Set up a program with Contracting, Civil Engineers, and first sergeants for maintenance, training, and clean-up. [Note: Familiarization training for lodging community residents on how to use washers and dryers will go a long way in helping to keep the equipment working. It is especially important if the self help laundry is composed of commercial washer-extractors. These units save time and water, but can pose hazards to inexperienced operators due to high spin rates.] For Self-Help Laundry Systems, plan on one system for each 200 people. If you have to use COTS equipment, plan on 1 washer and 1.5 (commercial type) dryers for each 20 people (see [Figure 40](#)).

If a medical laundry is required, the Containerized Batch Laundry (CBL) system may be located either at/ adjacent to the medical facility or at a location more central to Services' main administrative area. Location should be determined with medical personnel, realizing that manpower, vehicles, weather, utilities, and roadways will affect laundry pick-up, cleaning, and delivery capabilities. When there is a large requirement for organizational laundry support, a CBL or similar type COTS system can be provided closer to the flightline for operation by the organizations. Services should ensure that organizations receive training on the systems and establish accountability for use, cleaning the area, and obtaining repairs (by Civil Engineers or contract). For JSops where another branch of the Armed Forces has a laundry field service function, it may be possible to develop a joint agreement for support of some laundry service functions, such as for bulk linen, bedding, or medical support. Another possibility for JSops is that the other branch of the Armed Forces uses other equipment and you may also have to use their system for initial medical support.

Figure 40. Self-Help Laundry with COTS Equipment.



24. Mortuary Affairs. Basic criteria for support of mortuary affairs operations is found in chapter 12 of AFI 34-242, *Mortuary Affairs Program*, and Joint Publication 4-06, *Joint Tactics, Techniques, and Procedures for Mortuary Affairs in Joint Operations*. JP 4-06 presents that mortuary affairs support planners at all levels should consider the following when they develop support plans. The exact number of fatalities that US military forces will suffer across the range of military operations can never be predicted beforehand. Therefore, mortuary affairs support plans at all levels should be capable of adjustment to meet unanticipated situations. Plans should be reviewed and amended as new facts become available, resources change, and other variables become apparent. Each Service component is responsible for providing its own mortuary affairs support. When requirements exceed the Service component's organic capabilities, the Army, as executive agent, will provide backup general support, when requested. For Services, this means that even initial beddowns must have a mortuary support plan, which includes individual deaths as well as mass casualties, and must adjust the plan for the situation.

The current theater mortuary policy is *Bag-Tag-Ship* for regional contingencies. Remains will be returned to CONUS Port Mortuary for identification processing, personal effects inventory, preparation, casketing, and final disposition. Mortuary personnel collect and preserve identification (information), operate the Mortuary Collection Point (MCP), and prepare remains for shipment. The MCP operation and the requirement for a temporary interment area should both be sited on maps and initial steps taken to erect MCP facilities and provide for site support (i.e., roads, lighting, power, water source, drainage, and at least temporary sanitary waste collection from processing). If necessary, the MCP will preserve remains by refrigeration or ice for shipment to the Port Mortuary. Keep the site away from the main living and work areas and use any available natural or artificial screening (such as trees, earth berms, hills, unused ISO containers). If there is the possibility that remains may contain UXOs; provide sandbags revetments for emergency areas of protection and for general blast protection. Be aware that your location may have to function as a temporary collection point, if aircraft are weather diverted while transferring remains from other MCPs to the Port Mortuary.

Although *Bag-Tag-Ship* is planned, you must also plan ahead for temporary interment. The situations that may require temporary interment are lack of transportation or the inability to store remains, which are usually caused by hostilities, overall transportation shortages, inability to decontaminate remains, the

number of remains overwhelming manpower capabilities, or insufficient available refrigerator space. In these cases, the theater commander could approve the use of temporary interment at your location.

Figure 41. Mortuary Collection Point.



If so, immediately meet with Civil Engineers to finalize layout and begin excavating a temporary interment site. The site should be level, free of large obstacles, away from main roads and populated areas, not in a flood zone, and has adequate soil depth to the water table. Appendix C has the basic layout of the site. Since the site will probably be excavated with heavy equipment, Civil Engineers will have to determine what equipment is available on station that will be adequate to the task (given types of soil and local conditions). Ensure that the layout is site specific and that they do not try using strictly book values for spacing and depth. Based on the soil and weather conditions, Civil Engineers must provide enough space between rows to prevent equipment from caving in or sliding into the trenches when excavating trenches and while covering the remains. They may also have to assist Services personnel for placement of row markers.

25. Quality of Life. Fitness, recreation, item sales, theater, education, and library facilities/services all add to the quality of life at a bare base. Realistically most of these functions cannot be supported during the initial Force Module flow until the sustainment functions of lodging, food service, hygiene, and laundry services are supported during the *Establish* phase. Usually delivery of higher priority mission equipment, including the WRM and Services' life-sustaining equipment flow, precludes most support. Meeting quality of life needs should be reviewed after the transportation flow becomes more steady state. While this is happening, review what is really important at your location, as users' priorities may be dictated by the unique nature of the bare base and the ability to obtain equipment/support by contract (before the UTC equipment sets arrive). Some locations may present such long and strenuous work and require acclimatization (to heat or cold), that support for fully equipped fitness facilities will have to take a backseat to more supportable needs (see [Figure 42.](#)). This may also be the case for hostile environments where threat conditions may not allow for early on fitness activities. Establish a recreation tent, small library, and movie theater when possible.

[Table 4.](#) provides the general planning criteria for recreation support at bare bases. A recreation tent or medium shelter can support self-directed activities (such as paperback books, playing cards, and games), video games, and large screen TVs and videos. It also provides a location to help organize and support self-directed programs for darts, volleyball, football, soccer, etc. Usually high on the priority list, both for

members of the Air Force and other branches of the Armed Forces, is obtaining even a limited field exchange type support (either from initial Services resale efforts or an early-in AAFES DOX-T) for item sale of necessities and popular health, hygiene, food, and reading materials.

Figure 42. Interim Program versus Full Scale Fitness Facility.



Plan to provide as much interim support as possible for item sales through Services resale of necessities and work with AAFES to have a functioning DOX-T between days 30-60. This is especially important when you will be supporting field units that may have been deployed longer without support. Provide for space to lay out fitness, recreation, and resale or exchange facilities in a centralized area near main paths of travel to dining facilities. For JSops, ISO containerized field exchanges and other resources may be available.

Table 4. WMP 1, Annex GG, Services Programming Chart.

SPORTS & FITNESS	RECREATION	LIBRARY
HOSTILE ENVIRONMENT		
None. Intense labor conditions will not allow for fitness activities. (12-18 hour shifts)	Paperback books, playing cards & board games.	Paperback book Kit.
LOW SCALE HOSTILITIES		
Self-directed programs with deployment kits. Initiate a fitness center facility.	Establish a recreation tent, library, and resale operation. Establish movie operation.	Paperback book kit Periodical kit Video (20 per 100 people) CDs (10 per 100 people)
SUSTAINMENT		
Self-directed and directed programs, leagues and tournaments. Mirror Homestation programs where possible.	Expanded programs and activities. Ticket and tours program and lounge operation where possible.	Paperback book kit Periodical kit Core Reference – 22 Titles Education Support: DANTES and CLEP materials, plus materials to Support locally sponsors courses. Video (20 per 100 people) CDs (10 per 100 people)

Coordinate with your other military Services-function counterparts for what is coming in and determine where it should go to better serve overall sales, fitness, and recreation needs. When possible, plan to locate satellite sales functions (either resale or DOX-T) near the flightline/primary work areas. Establishing and managing quality of life programs will be addressed in subsequent volumes.

Section F—BEDDOWN TASKS

26. Purpose of this Section. This section presents primary beddown tasks and considerations for AEF deployments. Whether the beddown follows specific requirements in an OPlan (deliberate planned) or a (crisis action planned) force module AEF deployment, remember two things, BE FLEXIBLE and BE SAFE! Your overall plans will change and task priorities will have to be adjusted based on the mission, situational requirements, and flow of resources. AEF deployments to austere bare base locations can create situations that are more hazardous than anticipated. To address these hazardous circumstances, Services needs to be involved in site operational risk assessments. Tanker Airlift Control Element (TALCE) commanders and some AEW commanders may have to rely upon Operational Risk Management (ORM) to reorder beddown priorities and tasks. Prime RIBS team chiefs need to be familiar with ORM methods and be able to provide operational risk assessment inputs with the other key sources (i.e., Fire Department, Security Forces, Medical, and Civil Engineer). By identifying beddown hazards, on site commanders have a better opportunity to obtain theater commander support for more critical assets at austere AEF bare bases.

27. Question Yourself Upon Arrival. So what do you first do when you arrive on site? For many units, traveling from a stateside base to an overseas location can sometimes be compared to a traffic accident where you were hit while wearing a seat belt and your air bag deployed. Your first thought is to figure out your situation -- is everyone safe and do I still have all my arms, legs, fingers, and toes. Landing after a deployment can be a similar experience due to flight times and jet lag – personnel are somewhat stunned. Lessons learned have shown that you need to ask some simple questions upon landing.

Where am I and is anyone missing? There is the chance that UTCs were diverted to another location. While the core UTCs typically go where planned, some initial support UTCs could be diverted en route to support a higher mission priority. Determine if you still have the same established UTCs scheduled.

What is the threat? If the threat is not the same as considered during planning, you may have to adjust where to site facilities and the way you operate during beddown, such as planning additional physical or C/B protection or using a dispersed layout. If the threat will be sustained at a lower level, you may be able to adjust the layout of the lodging community (i.e., use symmetric (block) layouts versus a dispersed layout).

Where are my assets? Establish as soon as possible what is already on site and determine what you planned to have **now** is still on its way.

When are assets and personnel due? Again, find out if there are any delays, such as personnel stacked up awaiting intra-theater airlift or other standard BEAR assets being sent first to a higher priority location while your assets are delayed.

Are the initial numbers the same (for missions and personnel supported) as you planned and are your support UTCs present? If there are any changes, start recalculating what you will need.

What's the weather like and are we ready for it? Extreme temperatures and ranges in temperature can be very stressful and create acclimation problems even during the first few hours of a beddown. Inclement weather upon arrival can slow beddown to a crawl. You may have to set up interim locations for some beddown lodging, hygiene, and field feeding support, if the best planned locations/terrain require equipment and fill materials before functions can be permanently sited.

Who's in charge? As mentioned in an earlier section, this can vary, especially for JSops. Make sure you establish your own command and control and find out the chain of command/authority for the beddown.

Are there any unforeseen hazards at the site (existing or newly created)? Planned locations that have UXO or environmental hazards may have to be re-sited and some beddown operations may be restricted until the hazards are eliminated or otherwise mitigated. Lack of some assets (such as hygiene facilities) may create a health hazard at the location and cause arriving forces to use expedient means to build such facilities. See what this does to your timeline and determine with Civil Engineers if you have to re-site any facilities. Do not site field feeding facilities and lodging facilities where an expedient latrine was previously constructed, unless you, Medics, and Civil Engineers can choose an expedient latrine method that avoids creating a hazard at that immediate location (i.e., a pail latrine is preferable to a pit or trench latrine).

What are the priorities? Check with the Group and/or Wing commander or the SRC (as appropriate) to determine if there were any changes in beddown priority based on mission, flow of resources, or threat. Adjust schedules and layouts if required.

Where is Contracting? Find out if the Contracting UTC arrived and is able to obtain/meet the planned (up-front) contract requirements? If not and you are at a JSop location, check to see if the other Armed Forces contracting officer has arrived and try to work with them – they want to eat too. If not, then alternate means will have to be used, which are normally manpower intensive, can slow beddown efforts, and require changes in choices of laundry support and serving meals.

28. Tasks by Major Areas of Services Function. The following checklists present tasks associated by Primary Functional Area. High priority items are noted with a "(P)", but this is not a priority listing, which is actually reflected by beddown priorities. When you have a concern about a Primary Functional Area, review that area again in Section 5 if necessary.

Other than standard acronyms and notations, the following notations are used within the table: **CE** = Civil Engineers; **CEF** = CE Fire Department; **SF** = Security Forces; **CS** = Communications; **LC** = Logistics Contracting; **LT** = Logistics Transportation; **LS** = Logistics Supply; **EMSG** = Expeditionary Mission Support Group; **MG** = Medical Group; **SqFt** = Square Foot; **JSops** = Joint Service operations; **SVS** = Services; **SVSCC** = Services Control Center.

Checklist 2. Command, Control, and Communications (C³).

Action	Details/Comments
1. Establish C ³ (P)	a. Verify the SVS Chain of Command to have all SVS units under a SVS commander. b. Ensure that lines of communication by telephone, hand-held radio, and/or cell phone are adequate. If the lines are not secure, closely manage operational aspects of discussions. c. Develop a list of other requirements that are needed (example: fax machines for lodging and mortuary).
2. Identify location for Services Control Center (SVCC) (P)	a. Determine requirements for secure radio and telephone. b. Establish internet and secure e-mail connection for computers.

Action	Details/Comments
3. Provide basic lines of communication	<p>a. Communicate with EMSG/CC, SRC, and WOC.</p> <p>b. Establish communications between SVS work centers and staff offices.</p> <p>c. Determine (with CS) the feasible modes of communications.</p> <ol style="list-style-type: none"> (1) Telephone, (2) Cell phone, (3) Field phones, (4) Base station radios (secure and unsecured), (5) Hand-held radios (secure and unsecured), and (6) Morale e-mail and telephones. <p>d. Establish communications with theater Services representatives and provide list of available contact methods, names, and numbers.</p>
4. Personnel Accountability (P)	<p>a. Establish a communications, contact, or buddy system (as warranted by threat) to track location of SVS personnel and work center standup.</p> <p>b. Ensure that all SVS related annexes to response plans are available at the SVSCC.</p> <p>c. Ensure that SVSCC personnel are situated, trained, and kept up to date on changes.</p>
5. Track personnel, equipment, and beddown efforts (P)	<p>a. Establish procedures for tracking SVS personnel and equipment and ensure that SVSCC has at least an information copy of everything equipment related (if they are not managing it).</p> <p>b. SVSCC should coordinate tracking of SVS beddown functions and work sites.</p> <p>c. Track arrival and lodging and compare personnel with PERSCO.</p> <p>d. Establish joint reception function as necessary.</p> <p>e. Managers should maintain a current list of what is received and where it is located for: equipment (see your load lists), pallets, dunnage, packing materials, hazardous materials lists and approval forms). SVSCC should have a copy.</p> <p>f. Develop and maintain a list of key POCs for beddown issues other than going through the SRC.</p> <p>g. Maintain updated information and data for essential elements required for upward reporting to theater and MAJCOM.</p>

Checklist 3. Contingency Lodging and Hygiene Facilities.

Action	Details/Comments
1. Verify site conditions (P)	<p>a. Is the area relatively flat, high, dry, and has good drainage?</p> <p>b. Is the area away from primary vehicle traffic, noise sources, offensive smells, and intense security lighting?</p> <p>c. Is the area accessible to foot, delivery, and emergency vehicle traffic?</p> <p>d. Check to ensure that there have been no changes to threat or if there are any force protection problems? If the situation has changed from initial plans, consider relocation, rearrangement, or using dispersed facilities.</p> <p>e. Are prevailing winds as expected?.</p> <p>f. Check to see if latrine tents and shower/shave units can be located in the optimum SVS-positions (along lodging primary access routes to field feeding facilities).</p> <p style="padding-left: 40px;">(1) Latrines should be down wind and down slope from quarters and field feeding facilities.</p> <p style="padding-left: 40px;">(2) Meet with CE to correct problems and determine if there are any utility support problems (such as too rocky or soft soil or being too remote for adequate water, electrical, or sewerage service).</p> <p>g. Is there adequate area for future expansion? If not, meet with SF and CE to determine if using other areas nearby is feasible.</p> <p>h. Are there any existing facilities that are adequate for permanent lodging or temporary lodging?</p>
2. Establish the lodging facility breakouts. (P)	<p>a. (P) Break out the numbers of personnel by types of groups to be supported. The following are primary categories to be considered:</p> <p style="padding-left: 40px;">(1) Flight crews (by type of aircraft, expected number of aircraft, and crew numbers),</p> <p style="padding-left: 40px;">(2) Officer and Senior Officers,</p> <p style="padding-left: 40px;">(3) Enlisted and Senior NCOs,</p> <p style="padding-left: 40px;">(4) Men and Women,</p> <p style="padding-left: 40px;">(5) Civilians,</p> <p style="padding-left: 40px;">(6) Foreign Military/Visitors,</p> <p style="padding-left: 40px;">(7) Transient and Permanent personnel,</p> <p style="padding-left: 40px;">(8) Any special shift crews (example: fire station firefighters), and</p>

Action	Details/Comments								
	<p>(9) Any quarters with requirements for higher security (example: special mission or VIP).</p> <p>b. (P) Provide CE with group breakout listings and identify any groups that must be within contiguous billeting blocks (examples: flight crews, officers, females, and foreign military).</p> <p>c. (P) Provide CE with a list of existing facilities that will be used for beddown lodging to allow CE to provide hygiene facilities as necessary.</p> <p>d. Determine if there are any adequate existing or contract quarters available in the area.</p> <p>(1) Inspect them and the location with SF, CE, CEF, LC, and LT (if transportation is required).</p> <p>(2) Try to provide 72 SqFt/enlisted and 100 SqFt/officer.</p> <p>e. Establish the timeline for beddown and arrival of personnel.</p> <p>(1) Determine if the number of personnel per type of lodging facility must be increased during the initial beddown.</p> <p>(2) For expedient facilities, the normal recommended minimum is 50 SqFt per Person.</p> <p>CAUTION: When faced with the situation on whether to increase the number of personnel per facility (i.e., decrease the allotted SqFt/ person), check with MG. During the initial days of the deployment, personnel are often exposed to conditions that cause respiratory infections. Decreasing square footage could contribute to more rapid spread of airborne bronchial infections. Limiting the number of personnel per shelter may be required for health reasons unless masks are provided and used. Example: For BEAR assets (based on a standard TEMPER tent):</p> <table border="1" data-bbox="682 1428 1331 1858"> <thead> <tr> <th><u>#/Tent</u></th> <th><u>SqFt per Person</u></th> </tr> </thead> <tbody> <tr> <td>12</td> <td>~53 (normal)</td> </tr> <tr> <td>8</td> <td>80 (flight crews, for health conditions, theater directed such as for storage of additional equipment)</td> </tr> <tr> <td>16</td> <td>40 (very short term, such as <i>Open the Base</i> or emergency situations)</td> </tr> </tbody> </table>	<u>#/Tent</u>	<u>SqFt per Person</u>	12	~53 (normal)	8	80 (flight crews, for health conditions, theater directed such as for storage of additional equipment)	16	40 (very short term, such as <i>Open the Base</i> or emergency situations)
<u>#/Tent</u>	<u>SqFt per Person</u>								
12	~53 (normal)								
8	80 (flight crews, for health conditions, theater directed such as for storage of additional equipment)								
16	40 (very short term, such as <i>Open the Base</i> or emergency situations)								

Action	Details/Comments
	<p>During the initial beddown surge, when personnel are on extended 12 to 18 hour shifts (i.e., only a few personnel are actually sleeping at one time), the number of personnel per shelter may decrease available space to about 32 SqFt/ person. First check with MG and CEF.</p> <p>f. SVS is responsible for the locator system, but it won't work without strong backing of the first sergeants. Finalize with first sergeants the breakout of personnel, who they are responsible for, and how to make changes to assigned tents without busting the locator system.</p> <p>g. Develop detailed maps (with CE) of the lodging community (lodging, latrines, shower/shave, dining facilities, laundry, fitness center (s), recreation facilities, Field Exchange, morale communications and/or educations centers), fire lanes, utility corridors, etc.).</p>
3. Inventory and secure lodging assets.	<p>a. Track inventory, secure it as best possible, and identify items that are more prone to disappear (examples: cots, tent lighting).</p> <p>b. Project linen, pillow, and mattress requirements and coordinate with LC.</p> <p>c. Identify and secure higher value items such as microwaves and small appliances. Determine requirements for contract replacement (with like items of compatible electrical power).</p> <p>d. Meet with CE and LS for any changes in use of BEAR assets as well as unique needs. Other branches of the Armed Forces may have similar assets -- midnight swaps are not authorized, but sometimes occur.</p>
4. Determine/develop lodging standards.	<p>a. If there is a theater lodging standard for JSops or the theater's Air Force component, use it as necessary.</p> <p>b. If this is not a JSop and there are no theater standards, develop a proposed site lodging standard for the AEW commander. Examples: SqFt/person, maximum number/type of tent, type furnishings, amenities (TV, refrigerator), approved/banned appliances, etc.</p> <p>c. (P) Finalize the standards and procedures and brief commanders, first sergeants, and OICs and NCOICs of deployed personnel.</p> <p>d. (P) Provide them with information pamphlets and post-able packets describing: (1) SVS activities,</p>

Action	Details/Comments
	<ul style="list-style-type: none"> (2) Locations, (3) Policies/Procedures, (4) Hours of Operation, (5) Safety, and (6) Rules of Conduct. <p>Post the information in/at Services facilities.</p> <ul style="list-style-type: none"> e. Meet with senior commanders of deployed units as a courtesy call. f. If primary bedding was sleeping bags on cots, identify when/if there will be a transition to linen/blankets/mattress/bed frames.
<p>5. Verify your personnel support plans and implement a 24-7 Lodging operation..</p>	<ul style="list-style-type: none"> a. Check to see that SVS UTC manning is at least matching the flow of incoming personnel and equipment. Identify critical shortfalls. b. (P) Begin establishing the 24-hour Lodging operation for reception of forces. c. Meet arriving personnel and identify permanent location parties and transients who must stay over. d. Work with PERSCO to develop an accurate head count of permanent party personnel. e. (P) Brief arriving passengers as a group and issue lodging assignments, linens, and deal with luggage issues. <ul style="list-style-type: none"> (1) Work individual issues as time permits. (2) Brief safety and quarters responsibilities. (3) Turn permanent party personnel over to first sergeants when possible for additional processing questions.
<p>6. Lodging Beddown</p>	<ul style="list-style-type: none"> a. (P) When sites have been selected and established by CE site planning teams, begin erecting tents/shelters. b. (P) Check on tent/shelter erection teams. <ul style="list-style-type: none"> (1) Is there adequate manpower within CE and SVS teams to meet erection schedules, or are additional personnel needed? (2) If needed, identify who the augmenting personnel should report to and for how long will they be available. Work with CE to train augmenters. c. Designate the tents by numbering each facility and mark these and unit areas on a map of the base. <ul style="list-style-type: none"> (1) CE and CEF should agree on numbering system. (2) Designations will be important for emergency and fire responses.

Action	Details/Comments
	<p>d. Carefully control the locator system and cross reference by individual and facility number.</p> <p>e. Order or purchase major supplies (such as for transitioning from sleeping bags to beds).</p> <p>f. Begin issuing supplies (cots, cleaning supplies, light bulbs, trash bags, brooms, etc.) and initiate restocking/replacing supplies.</p> <p>g. Locate transient lodging near the lodging tent to provide for frequent inspections. [<i>Consider locating sleeping quarters for Lodging Operation personnel either near the Lodging Operations tent or within the tent.</i>]</p> <p>h. Establish work order and a work order tracking systems for CE and CS support.</p> <p>i. Spot check to ensure that tents are orderly and the locator system is accurate. First sergeants should be ensuring this already. As necessary, provide replacement pamphlets for posting procedures, safety, and occupant responsibilities.</p> <p>j. Work with CE to obtain and locate adequate trash dumpsters within the lodging community, as well as daily use trash cans at the lodging tents/shelters. Ensure occupants are emptying daily use trash cans, if this is not provided for under a service contract.</p> <p>k. (P) Spot check the areas during the first few days for cleanliness (i.e., candy wrappers and other litter, loose food and drinks, open cups/bottles) and safety (extension cords, overused plugs, evidence of smoking materials inside, careless disposal of smoking materials outside, use of unapproved appliances).</p> <p style="padding-left: 40px;">(1) Bring unacceptable conditions to the attention of the first sergeants.</p> <p style="padding-left: 40px;">(2) Encourage commanders, OICs/ NCOICs, and first sergeants to visit their unit's areas if they are lodged somewhere else.</p> <p>l. (P) For higher threat areas, ensure that bunkers or other collective protection facilities are being provided.</p> <p style="padding-left: 40px;">(1) Publicize the Force Protection Condition (FPCON) warning systems and required responses within the lodging community.</p> <p style="padding-left: 40px;">(2) Have the base test the system and monitor responses.</p>
7. Quarters Assignment Relook	<p>a. Flight Crews. Are crew rest and crew integrity being maintained and are efforts adequate?</p> <p style="padding-left: 40px;">(1) Are like type and scheduled crews kept together for crew rest reasons?</p>

Action	Details/Comments
	<p>(2) Are aircrew area adequately separated from noise, lighting, traffic, and other disruptions that would interfere with crew rest?</p> <p>b. Officers. Determine if you could provide adequate lodging for senior ranking officers during a site visit. Officers are usually billeted in a separate area, but if Harvest Eagle clusters are used, officers may be integrated with other personnel.</p> <p>c. Senior NCOs. Billeted similar to officers.</p> <p>d. Females. Is there a stated policy on separation/integration. The site commander develops the policy on whether there is distinct separation by area, tent, or partition within tents. Use of all female latrines and showers is dictated by numbers and resources, where specific hours of use may also have to apply.</p> <p>e. Married Personnel. If deployed to the same location, they may be lodged together with site commander approval.</p> <p>f. Transient.</p> <p>(1) Do you have a transient population?</p> <p>(2) Do you have adequate quarters established for them?</p> <p>(3) Is there the need to support an area for use by transients, who must remain together and separated (example some Special Forces units)?</p> <p>g. Other Nation's Military. If supporting military members from other nations, do they have different standards and factors or the number of personnel per tent/shelter?</p>

Checklist 4. Field Feeding.

Action	Details/Comments
1. Verify site conditions (P)	<p>a. Is the area large enough to contain the kitchen facility functional layout?</p> <p>b. Is the area relatively flat, high, dry, and has good drainage?</p> <p>c. Is the area away from noise sources and offensive smells?</p> <p>d. Is the area accessible to foot, delivery, and emergency vehicle traffic without creating dusty conditions?</p> <p>e. Threat versus Siting. Take action based on the following questions.</p> <p>(1) What are the expected threats to this high use facility?</p> <p>(2) Will the threat require physical protection such as sandbag revetments?</p> <p>(3) Will protective bunkers be required nearby?</p> <p>(4) Do the separation distances from parking, trash containers and other sources of possible terrorist attack comply with facility protection policy?</p> <p>f. Are the latrine tents and wash stations far enough away from the dining facilities to prevent attracting flies (to the dining area), but still along the main paths of travel to allow users to wash their hands/use the latrine? Meet with CE Entomologist and MG Bio-Environmental Engineer.</p> <p>g. Is there adequate area for future expansion for a nearby dining facility and a Field Exchange? Always plan on the chance that surge expansion may be required.</p> <p>h. Is the site accessible to utilities?</p> <p>i. Are there any known public health hazards evident at the location?</p>
2. Receipt of Resources	<p>a. Determine what BEAR kitchen UTCs have arrived and are the UTCs complete?</p> <p>b. If UTCs are not complete, check when they are due in?</p> <p>c. Have your initial MRE and UGR rations arrived and are they complete? Are they sufficient based on known populations and present flow of personnel?</p> <p>d. Are other rations and subsistence on order and in the pipeline? When can they be expected?</p> <p>e. Are there any existing storage locations available that can be used at the initial dining facility and/or for centralized control? If not, erect tents/shelters for centralized storage and daily use/issue.</p>

Action	Details/Comments
	<p>f. Inspect the rations for their condition and conduct a cursory check for freshness by checking the packaging dates on UGRs. DO NOT break open packaged UGRs <i>just to inspect them</i>, if there are no indications of damage and you do not intend to use them during the beddown surge.</p> <p>g. Move MREs and UGRs off the hot ramp. (P)</p> <ol style="list-style-type: none"> (1) Place them under shade or within covered storage with adequate circulation to prevent loss to excess heat (or cold). (2) Elevate above ground when necessary for protection from vermin, dampness, or extreme temperatures. (3) Work with Aerial Port and LT for delivery and vehicle transportation requirements for delivery and storage locations. (4) If the temperatures at the location routinely exceed 100° F, temperature controls may be required for MREs and UGRs. (5) When supply deliveries require infrequent, large bulk delivery, meet with CE to obtain environmental control units to control areas for the more perishable items. (6) See Appendix E for information/ guidance on MREs and UGRs.
3. Establish Initial Kitchen Capability (P)	<ol style="list-style-type: none"> a. Will an initial deployment kitchen facility (SPEK, CDK, etc.) be used for on-site food preparations of UGR H&S? If so, set it up, but do not let the siting interfere with erecting the primary kitchen(s). b. Establish a ration pick-up point and issuing procedures for MREs and bottled water if bottled water is required. Coordinate with CE if a canteen refill (water buffalo with chiller) is required here. c. Establish a schedule for transition to UGR meals. d. Post and brief the initial feeding plan.
4. Establish Primary Kitchen Facility(s) (P)	<ol style="list-style-type: none"> a. When initial feeding is underway, establish locations and orientation for the major kitchen components and erect the primary kitchen/ dining facility with CE. <ol style="list-style-type: none"> (1) Have CE familiarize SVS staff with the critical support components for electrical, mechanical, water, and waste systems and explain what to watch for if there are problems. (2) Obtain a list of the key CE POCs for kitchen/dining facility support. (3) Based on the equipment you confirm to be on site, determine if there are in-theater or regional capabilities for obtaining repairs/parts.

Action	Details/Comments
	<p>(4) SVS and CE should contact their home station Reach-Back POCs to identify any changes in supported systems.</p> <p>b. Determine what types of hard surfaces that can be provided for the various kitchen areas (storage, preparation, and serving).</p> <p>(1) Concrete surfaces may be possible in short term, but not during the initial beddown.</p> <p>(2) Be flexible and try to site the facilities with enough space to allow picking up and moving kitchen tent components onto the concrete surfaces.</p> <p>(3) Do not site the facility originally such that you have no place to move it without also having to move a drain field, grease pit, or nearby latrines.</p> <p>c. Conduct a complete inventory of all field kitchen components and rations/subsistence. Identify any missing or broken critical parts.</p> <p>d. Meet with LC to initiate services contracts for dining facility personnel services and supply support.</p> <p>(1) Obtain an interpreter at the same time if non-English speaking labor is used.</p> <p>(2) If AF LC is not available, check with other armed forces contracting officers at the location or nearby – they may have authority to help.</p> <p>(3) Check on the ability to obtain services using the GPC card,</p> <p>(4) Check on theater-authorized CAP program, whether AFCAP, LOGCAP, or CONCAP, and</p> <p>(4) Check on the availability of any theater centralized contract for dining services support.</p> <p>e. Brief and post the operational feeding plan and any planned major transitions, such as going from UGRs to regular subsistence, dropping MREs, adding an additional shift.</p> <p>f. Meet with Operations Group representatives to finalize requirements for flight meals based on missions. Determine whether the primary kitchen will prepare meals or a separate flightline facility will be needed.</p>
6. Determine options for obtaining food items.	<p>a. Check with theater, MAJCOM, Services Agency, and DSCP technical experts and managers for information on ration ordering, logistics, and historical data for similar deployments in the region. Army Veterinary Services or Air Force Medical Group Public Health personnel must approve all local food sources.</p> <p>b. Finalize plans for obtaining rations.</p>

Action	Details/Comments
	<p>(1) Meet with LC to enter into any local or regional contracts or for approved sources.</p> <p>(2) Use the GPC card as necessary.</p> <p>(3) Work with Aerial Port and LT for arrangements on transfer of rations/subsistence from delivery point to storage locations.</p>
7. Food storage	<p>a. (P) Determine total requirements for rations and subsistence based on:</p> <p>(1) Population and rate of use. Determine actual participation rates as soon as possible.</p> <p>(2) Restocking (time from order to arrival by type of ration/subsistence).</p> <p>(3) Local purchase capability.</p> <p>b. Determine total requirements for rations and subsistence storage at the primary kitchen(s) and the need for centralized storage (if required).</p> <p>(1) Finalize kitchen storage (dry, refrigerated, frozen, etc.) and erect shelters.</p> <p>(2) Determine types and size of storage at centralized storage area. Install or build any required flooring and shelving.</p> <p>(3) Transfer food assets to facilities and finalize administration for accountability and tracking.</p> <p>c. Meet with CE to identify any refrigeration unit or environmental control demands that are necessary for the storage of subsistence.</p>
8. Prepare the Resources. (P)	After accounting for all equipment/resources, rations, and subsistence, clean or sanitize everything.
9. Water Usage.	<p>a. Calculate your expected water usage rates based on planning factors (normally ~50 gallons/day/person, except use ~21.5 gallons/day/person for (arid) areas that require rationing). The primary planning factor for field kitchens is 3.3 gallons/person/day.</p> <p>b. Further break out the requirements by potable, non-palatable, and non-potable water.</p> <p>(1) Non-Potable water is water that has not been examined and declared safe for human consumption. It is generally not used except for dust control around the area site. It can be used for cleaning equipment that will not touch food products or food handling equipment.</p>

Action	Details/Comments
	<p>(2) Non-palatable water is water that is safe to drink, but is not palatable (i.e., it tastes bad). It can be used in mess kit cleaning stations, kitchen cleaning, and possibly some steam or hot water tables. It may have higher amounts (parts per million) of chlorination, lower amounts of chlorination if used as hot water, or increased dissolved solids or gases (above levels for palatability). It is usually found when storage bladders have been exposed to higher heat or when chlorinators or ROWPUs are not properly adjusted. Use as necessary.</p> <p>(3) Potable water is required for consumption and cooking/food preparation. For drinking water, approximately 6 Liters of cooled water/day/person is required in addition to the kitchen beverage. [Services should consider this factor only if water is also distributed at/near the kitchen or other SVS functions.] Requirements for kitchen use are based on an arid environment; kitchens are planned for 3.3 gallons/person/day (based on a 3-meal day, but this can vary with the type of rations used).</p> <p>(a) Kitchen cleaning. The amount required is determined by the kitchen and meals served, but consider 2.35 gallons/ per person/per day.</p> <p>(b) Kitchen beverages. 0.5 gallons/ day/person as beverage and 0.09 gallons/day/person as ice.</p> <p>(c) MREs require 0.06 gallons/meal.</p> <p>c. Meet with CE to discuss water requirements for the kitchens.</p> <p>(1) Determine if there is adequate water production capacity to support planned operations.</p> <p>(2) During initial operations, it may be necessary to use rations that require less water, if conservation methods are required.</p> <p>(3) While CE takes steps to increase water production, get with LS and MG to consider the availability of any contract water sources for initial use.</p>
10. Reassess the Threat.	<p>a. Meet with SF, LS, MG, and CE to assess vulnerabilities to terrorist attack, poisoning, sabotage, theft, etc., based on final decisions for siting utilities (water and electric), use of food sources, location(s) for food storage, and obtaining support contracts.</p> <p>b. With each responsible party, establish Tactics, Techniques, and Procedures to address each area of vulnerability.</p>

Checklist 5. Laundry.

Action	Details/Comments
1. Determine Overall Laundry Requirements.	<p>a. Use planning factors to determine the personal, organizational, lodging (blankets/linen/sleeping bags), and medical laundry/dry cleaning demands.</p> <p>b. Determine what contract laundry services are available to meet these demands.</p> <p>(1) Determine with SF if the threat will allow use of contract laundry services.</p> <p>(2) If there is a possible security threat, determine what restrictions are necessary to include in contracts, such as escorts or restricting contractors to certain areas and hours on site.</p> <p>c. Determine the best mix of contract, organizational, and self help laundry support that should be provided.</p> <p>(1) Meet with CE to review setting up on-site laundry requirements for each on-site system and for any shelters used by contractors for laundry support.</p> <p>(a) If palletized or container laundry systems were in the plans, establish siting and determine when they will be ready (i.e., equipment, water, power, drainage, lighting, overhead cover or shade).</p> <p>(b) If systems must be ordered or components purchased to set up laundries, establish siting and determine when they will be ready.</p> <p>(c) Determine the type of water that CE can provide for support. [Potable or non-palatable, unless MG determines that some non-potable water is acceptable.]</p> <p>(d) Obtain list of CE POCs for contact in case of electrical, water, drainage, or mechanical problems.</p> <p>(2) Meet with LC for contracting and adopt AFSVA standard contract (as modified for the location).</p> <p>(3) If self-help laundries are required, determine with LC if a contractor can provide self-serve units and support.</p> <p>d. Identify methods to obtain repair parts (LS, contract, reach-back support) and service (CE or contract).</p> <p>e. Identify where linen (bedding) exchange activities will take place, such as at the main lodging office or in a separate location.</p> <p>(1) Ensure that the area has roadway access and is centrally located within the lodging complex.</p>

Action	Details/Comments
	(2) Get with MG and CE Entomology and make provisions to handle and isolate linens that have been exposed to insect infestations (such as lice) to prevent spreading infestations and medical problems.
2. Contract Services.	<p>a. Before awarding support contracts, visit the local contractors' sites to confirm their capabilities to meet standards for performance. Ensure each contract covers accountability.</p> <p>b. Determine what groups will be served and determine funding.</p> <p>c. Establish drop-off and pick-up points (if different), bag and tag requirements (ensure requirements are possible for users to meet and include bags and any marking capability in contract (if marking is not routine marking by users)), hours of operation, and other equipment required (such as containers for bulk items).</p> <p>d. For contract self-serve units, identify any special requirements or instructions for machine use. Provide (within contract or by SVS) users with free normal laundry products (detergent, bleach/stain remover, softeners, etc.) that are compatible (and may be necessary) for use with the wash water.</p>
3. Personal Self-Help Laundry.	<p>a. For self-help laundries located within the lodging complex, provide for adequate numbers of Self-Help Laundry systems or laundry systems composed of COTS components.</p> <p>b. Provide users with:</p> <ol style="list-style-type: none"> (1) Familiarization training (at least brochures). (2) Post operating instructions, rules for area cleanliness, and any restrictions for use (such as late night noise, attire, food, drinks, smoking, etc.). (3) Provide a list of CE, SVS, and first sergeant POCs for issues or problems. (4) General-use laundry products compatible with the machines and water (i.e., detergent, water softener if required, stain removers or bleach if required.) (If there are other washing requirements, users can provide their own products (if the Field Exchange stocks these items).) (5) Areas to sit and fold/hang clothes while doing laundry. <p>c. Meet with CE to ensure they have a maintenance plan for the equipment and support systems.</p> <p>d. Work with first sergeants to develop a list of personnel to monitor the machines, the areas for cleanliness, check on machine operation, and provide for availability of products.</p>

Action	Details/Comments
4. Organizational Laundry.	<p>a. For user run organizational self-help laundries, which are located near work areas, provide for adequate numbers of laundry systems (compatible with the users cleaning demands) and ensure that they provide for adequate shelter.</p> <p>b. Provide users with:</p> <ol style="list-style-type: none"> (1) Familiarization training (at least brochures). (2) Post operating instructions. (3) Ensure that POCs are appointed from the using organizations to monitor use, area cleanliness, and any restrictions for use. (3) Provide a list of CE, SVS, and Organizational POCs for issues or problems. (4) Provide for or ensure that organizations can also obtain (through LS) laundry products that are compatible with the machines and water. <p>c. Meet with CE to ensure they have a maintenance plan for the equipment and support systems.</p> <p>d. Work with first sergeants to develop a list of personnel to monitor the machines, the areas for cleanliness, check on machine operation, and provide for availability of products.</p>
5. Medical Laundry.	<p>a. If medical laundry support is required, determine the demand and equipment requirements.</p> <p>b. If the laundry is run by SVS, site the facility and equipment after coordinating location with MG and CE.</p> <p>c. Provide associated support for pick up or drop off at the medical facility. Work with LT and MG.</p> <p>d. Provide supplies. Establish any necessary accounting requirements (medical support to AF, JSops, or support to others).</p> <p>e. If support is by contract, see "2. Contract Services".</p>

Checklist 6. Mortuary Affairs.

Action	Details/Comments
1. Verify site conditions (P)	<p>a. Ensure area meets requirements for size, protection from view (by remoteness from personnel or with natural cover), drainage and runoff, and flood protection.</p> <p>b. Ensure that CE can support the requirements for:</p> <ul style="list-style-type: none"> (1) Limited potable and non-potable water, (2) Electrical and/or generator power, (3) Lighting, (4) Medical biohazard wastewater (control and storage if necessary), (5) C/B waste handling, (6) Lighting, (7) Environmental control units if necessary, and (8) Support for refrigeration.
2. Prepare the Site.	<p>a. Clear the site as necessary for the equipment, roadways, open storage, refrigerators, and water bladders.</p> <p>b. Erect the shelter and position major equipment, refrigeration units, and pallets for breakout.</p> <p>c. Inventory the supplies and secure. If security is a threat, store pallets at another location but develop plans to rapidly move them to the MCP.</p> <p>d. Pre-coordinate requirements for vehicles, ice, water coolers, meals, and insure that the SVSCC has plans and access to resources.</p> <p>e. Confirm that CE has installed utility support in place. If not, is there a plan and assets for rapid support (i.e., generator, exterior lighting, water bladders/pipes/pumps, ECU, site preparation for above ground wastewater recovery/storage, hook up for refrigeration).</p> <p>f. If site is generally not observable, establish with SF any necessary site access controls (i.e., concertina or barbed wire barriers) and coordinate SVS monitoring with SF patrols.</p> <p>g. Identify areas with CE that could be used for temporary (trench) interment (see Appendix C for layout).</p>
3. Notification.	<p>a. Ensure that CE plots on the base map the location of the MCP site and identifies areas for temporary interment.</p> <p>b. Coordinate with Aerial Port personnel, MG, CE EOD, LT, and SF to identify procedures for receiving or shipping remains.</p> <p>c. Brief commanders on requirements for Mortuary Affairs, Bag-Tag-Ship provisions, temporary storage, and provisions for temporary interment. Identify notification POCs for SVS and PERSCO.</p>

Checklist 7. Quality of Life.

This information is only for the initial weeks of the beddown. Details are covered in another Volume.

Action	Details/Comments
1. Barber Shop.	a. Even before initiating contact with AAFES for a barbershop, check on the ability to contract for primary barber services (hair cuts). Use local hires or off-duty military. b. Provide for a small shelter with chairs, towels, water source, interior lighting, and electric, along with several barbershop kits.
2. Initial Field Exchange (FE) Operations.	a. Verify the size of the population that will be served and where located. For large deployments with several distinct lodging communities, identify which may be primary and satellite operations. b. Identify sites near lodging and dining facilities that can support a FE. <ul style="list-style-type: none"> (1) Consider using two or more (separate or combined) small shelters or one medium size shelter for primary locations. (2) Determine if ISO shelters or containers are available for secure storage. (3) Satellite locations may be able to use ISO shelters and shipping containers for a FE and secure stock control. c. Coordinate with the AAFES manager for: <ul style="list-style-type: none"> (1) Stock, (2) Barber/beautician services, and (3) Local vendor support d. Establish accounting and cash control. e. Identify to first sergeants requirements for labor pool, such as injured personnel, who can operate as cashiers or stockers. f. Obtain refrigeration for beverages. g. Establish asset security measures with SF and CE. h. Check on any Customs requirements. i. Meet each shipment as it arrives.
3. Recreation/Fitness and Others.	a. Verify the location and layout of the lodging complex, dining facilities, and proposed FE activities. b. Site locations for Recreation and Fitness facilities and determine the type of shelters, protective cover, and open-air services that can be supported both initially and as authorized for the site population.

Action	Details/Comments
	<p>c. On a map, plot out your master plan for Quality of Life facilities showing:</p> <ul style="list-style-type: none"> (1) Primary Lodging Community facilities (lodging tents/shelters, latrines/shower and shave, SVS lodging office, dining complex(s)). (2) Initial FE, recreation and fitness facilities. (3) Approximate sized blocks to represent the final authorized FE complex (i.e., all AAFES functions), recreation, fitness, education, morale telephone/e-mail location, movie theater, equipment checkout, etc. <p>d. Meet with CE, CS, and SF to determine if there are any problems with the proposed layout. CE needs your plan to use when establishing utility corridors to support the lodging community's initial recreation and fitness facilities, as well as the near future growth (usually in the late <i>Operate</i> and early <i>Sustainment</i> phases).</p> <p>e. Begin erecting smaller recreation facility tent(s) sized to support early recreation activities such as card and small video games, paperback book library, large TV and medium TV/VCR setups.</p> <p>f. Determine the pace of beddown and the requirement for a fitness facility. Determine what simple equipment may be available by contract. Erect a shelter or cover for use as an interim fitness area.</p> <p>g. Coordinate for larger shelters and purchase, contract, or arrange for primary fitness equipment.</p>
4. Initial NAF.	<ul style="list-style-type: none"> a. Create and implement the initial NAF administrative function and field accounting procedures. b. Establish unit funds custodians. c. Initiate a start-up imprest fund. d. Initiate inventory and property records.

Attachment 1

SERVICES AEF LEAD AND FOLLOW CORE UTCS

UTCs	Personnel/ Equipment	Supports
LWRRA Lead	9 persons	Limited initial food service, lodging, mortuary affairs, fitness, recreation, field exchange, and non-appropriated fund instrumentality (NAFI) support for populations up to 275 for 10 days. Has the ability to establish food service, lodging, and laundry contracts with local host nation vendors. Provides initial surge beddown support for food service, lodging, and mortuary affairs at bare bases for a population of up to 275 people.
LWRRB Initial	9 persons	Provides initial feeding operations at bare base. Can augment LWRRA/LWRR2 UTCs for additional food service, lodging, laundry, fitness, or recreation support for population increases up to 275.
LWRR2 Augmentation	18 persons	Augments LWRRA UTC for food service, lodging, mortuary affairs, fitness, recreation, field exchange activities and self-help laundries support at bare bases for population increases of 550 people.
LWRR3 Lead Management	3 persons	Provides initial management support for Services operations for a bare base population of up to 1,100.
LWRR4/ LWRR5 Management Augmentation	2 persons each	Provides management augmentation support to existing Services operations for a bare base population of up to 1,650.
LWRR8 Learning Resource Center (Sustainment)	3 persons	Provides follow-on Education and Base Library resources, services, and access at bare bases with a population of 500. Additional UTCs can be used to support population increases in increments of 500. This UTC is not sourced until it is determined that the beddown will become a steady-state location. It is typically sourced after the beddown has been opened for 180 days or more.
LWRR9 Services NAFI/ Administrative Management (Sustainment)	3 persons	Provides initial non-appropriated funds instrumentality (NAFI) management and Services administrative and supply support for a population up to 1,100 at bare bases.

UTCs	Personnel/ Equipment	Supports
LWRRF Lead (SPEK)	Equipment	Provides initial hot meal feeding capability with populations of 275 or more. Maximum application per beddown is two. Sustained operations beyond 15 days require additional BEAR assets.
LWRRG Initial Mortuary and Recreation	Equipment	Provides initial sustaining equipment items for Mortuary Affairs at bare bases with a population of 275 or more. Includes limited self-directed recreation items. Maximum application per beddown is one.
LWRRD Fitness and Recreation Kit	Equipment	Provides initial base Fitness and Recreation capability for a bare base population of 275 or more. Maximum application per beddown is one. This UTC is augmented with Cardio-based and Selectorized equipment after day-45 via Prime Vendor worked through component headquarters.

UTCs are not fixed. They evolve and change. The above UTCs may adjust with time. Always check current requirements on the Services Agency web-site (Prime RIBS Managers' Guide).

Attachment 2

SERVICES AEF UTC REQUIREMENTS MATRIX PERSONNEL

		Beddown Population Spread																	
		0-550	551-825	826-1100	1101-1375	1376-1650	1651-1925	1926-2200	2201-2475	2476-2750	2751-3125	3126-3500	3501-3975	3976-4450	4451-4925	4926-5475	5476-6025	6026-6575	6576-7125
90% Feed Pop		495	743	990	1238	1485	1733	1980	2228	2475	2813	3150	3578	4005	4433	4928	5423	5918	6413
BB/COB/FOL Support	RA ¹	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
	RB ²	1	2	3	4	5	6	6	7	8	9	10	11	12	13	14	15	16	17
	R3					1	1	1	1	1	1	1	1	1	1	1	1	1	1
	R4	1	1	1	1							1	1	1	2	2	2	2	2
	R5							1	1	1	1	1	1	1	1	1	1	1	1
	R9	1	1	1	1	1	1	2	2	2	2	3	3	3	4	4	4	5	5
	RIBS	23	32	41	50	60	69	83	92	101	110	124	133	142	156	165	174	186	195
C2	45A0	1	2	2	2	3	3	3	3	3	4	4	4	4	4	4	4	4	
Food	45D1	9	15	19	24	29	34	40	44	50	56	63	71	77	87	92	100	108	115
	Cook to Cus Ratio	55	50	52	52	51	51	50	51	50	50	50	50	52	51	54	54	55	56
Lodging	45D5	3	3	4	5	6	6	6	7	7	7	8	8	8	8	9	9	9	9
Mortuary	45C0 ³	1	1	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3
Laundry/Linen	45D7/6 ⁴	1	1	2	2	3	3	3	3	3	4	4	4	4	5	5	5	5	6
Exchange	4660	2	2	2	3	3	5	7	9	10	11	12	13	14	15	16	17	18	19
Fitness	45D8	2	3	4	5	6	7	9	10	11	11	13	13	14	14	15	15	16	16
Recreation	45D9	2	3	4	5	6	7	9	10	11	11	13	13	14	14	15	15	16	16
NAFI	45B0	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3
Logistics	45B0	1	1	1	1	1	1	2	2	2	3	3	3	3	3	3	3	4	4
Protocol LWRP5	HQs			1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
	WG			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Lead Sq				Wing				AETF									

NOTES:

1. LWRRRA Provides Initial AEF Support (Food, Lodging, Mortuary Affairs) & Beddown Planning for Fitness, Recreation, Laundry, and Exchange operations.
2. LWRRB Is A Primary Building Block Team (One LWRR2 UTC may be substituted for Two LWRRBs).
3. Mortuary Support - Sourced from Recreation, Fitness and Exchange.
4. Laundry manpower reflects Self-Help support only. Organizational Laundry requires 1 LWRRB per Containerized Batch Laundry (CBL).
5. Protocol earned if Beddown has HQs Element. Earned at Wing level if number of Official visits warrants and approved by CFACC.
6. LWRRD provides Initial Fitness capability--Must be augmented via Local Purchase and/or Prime Vendor as beddown matures.

Attachment 3

SERVICES AEF UTC REQUIREMENTS MATRIX EQUIPMENT AND VEHICLES

		Beddown Population Spread														
		0-550	551-1100	1101-1650	1651-2200	2201-2750	2751-3300	3301-3850	3851-4400	4401-4950	4951-5500	5501-6050	6051-6600	6601-7150	7151-7700	
Equipment UTCs/PV	Fit/Rec	RF	1	2	2	2	2	2	2	2	2	2	2	2	2	
		RG	1	1	1	1	1	1	1	1	1	1	1	1	1	
		RD	1	1	1	1	1	1	1	1	1	1	1	1	1	
		Prime Ven	1	1	1	1	2	2	2	2	3	3	3	3	4	4
	C2 ¹	1	2	3	3	3	3	4	4	4	4	4	4	4	4	
Kitchens ²		SPEK	1	2	2	2	2	2	2	2	2	2	2	2	2	
		CDK	1	2	3	3	3	3	3	3	3	3	3	3	3	
		BEAR-I*	1	1	1	1	1	1	1	1	1	1	1	1	1	
		BEAR-F**		1	2	3	4	5	6	7	8	9	10	11	12	13
Lodging ³		Surge	46	92	138	183	229	275	321	367	413	458	504	550	596	642
		Sustain	69	138	206	275	344	413	481	550	619	688	756	825	894	963
	Mortuary ⁴	1	1	1	1	1	2	2	2	2	2	2	3	3	3	
Laundry ⁵		Self	1	1	2	2	3	3	4	4	5	5	6	6	7	7
		Org	0	1	1	1	1	2	2	2	2	3	3	3	3	4
	Fitness ⁶	1	1	2	2	3	3	4	4	5	5	6	6	7	7	
	Recreation ⁷	1	1	2	2	3	3	4	4	5	5	6	6	7	7	
	Exchange ⁸	1	1	2	2	3	3	4	4	5	5	6	6	7	7	
	Logistics ⁹	1	1	1	2	2	2	2	2	2	2	2	3	3	3	
Vehicles	1.5Ton Covered	Mortuary			1	1	1	1	1	1	1	1	1	1	1	
	450 Cuft	Rations		1	1	1	1	1	1	2	2	2	2	2	2	
	Forklifts	10K-AT		1	1	1	1	2	2	2	2	3	3	3	3	
		4K					1	1	1	1	1	2	2	2	2	2
	CC Supplies	P/U		1	1	2	2	2	2	2	3	3	3	3	3	3

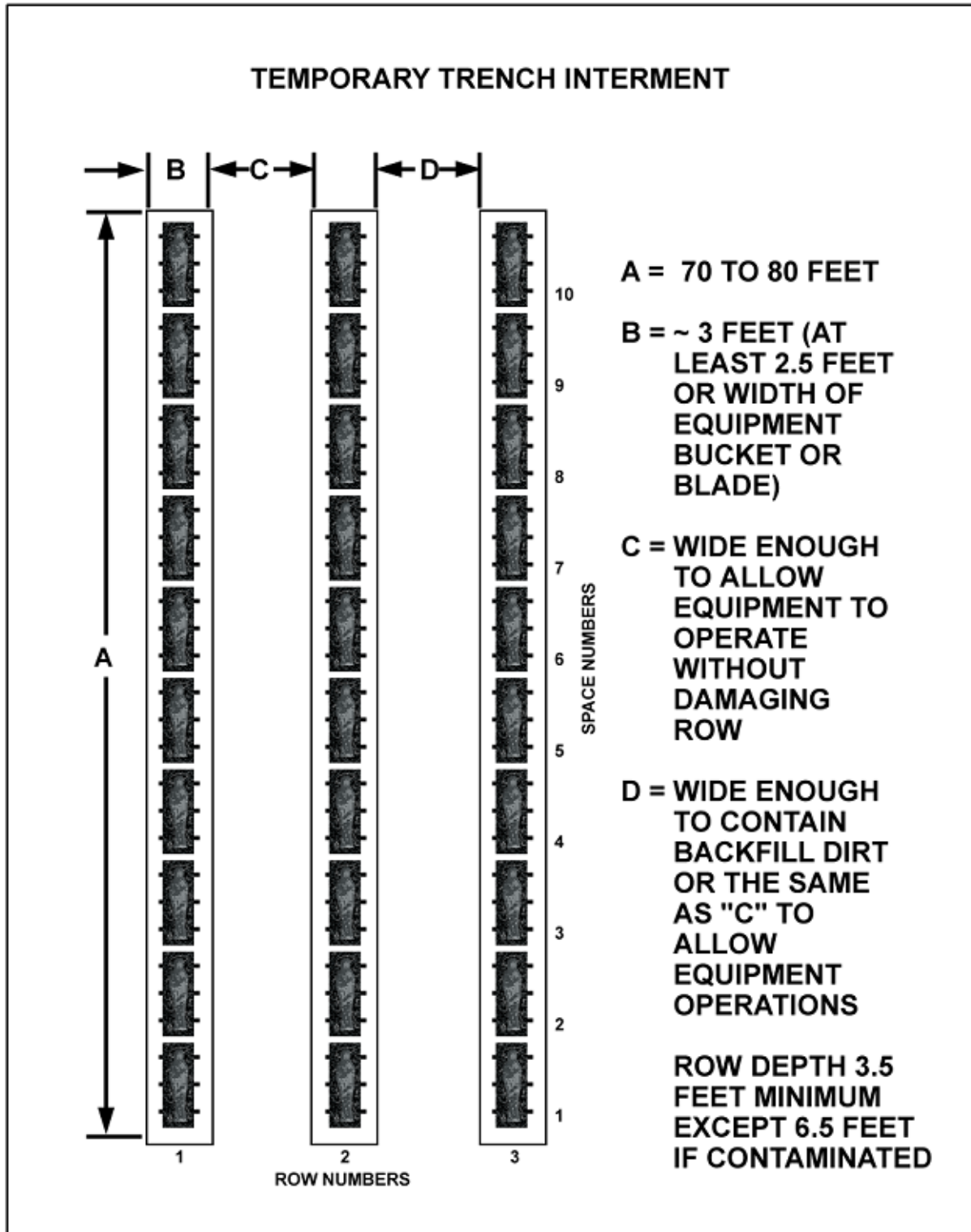
- * BEAR-I = BEAR 550 Initial housekeeping = B-550i
- ** BEAR-F = BEAR 550 Follow-on housekeeping = B-550f

Use the following explanations or system planning factors with the corresponding B-2 Matrix superscripted designations.. Substitute the closest sized TEMPER/Small Shelter System (SSS) tent if the designated system is not available.

1. C2 = Services Command and Control
2. Kitchens:
 - SPEK Is First Module of BEAR-I or May Deploy With Lead Prime
 - RIBS Unit
 - Each Kitchen Type Supports 550
 - BEAR-I & BEAR-F assume 1-SPEK is in place
3. Lodging
 - Surge = 12 Per Tent
 - Sustainment = 8 Per Tent
4. Mortuary = Small Shelter System (SSS)
5. Laundry:
 - Self-Help = 1,100
 - Organizational = 2,200 + 1 Medium Shelter System (MSS)
 - Per Laundry
6. Fitness = Medium Shelter System (MSS)
7. Recreation = Medium Shelter System (MSS)
8. Exchange = Medium Shelter System (MSS)
9. Logistics = Small System Shelter (SSS)

Attachment 4

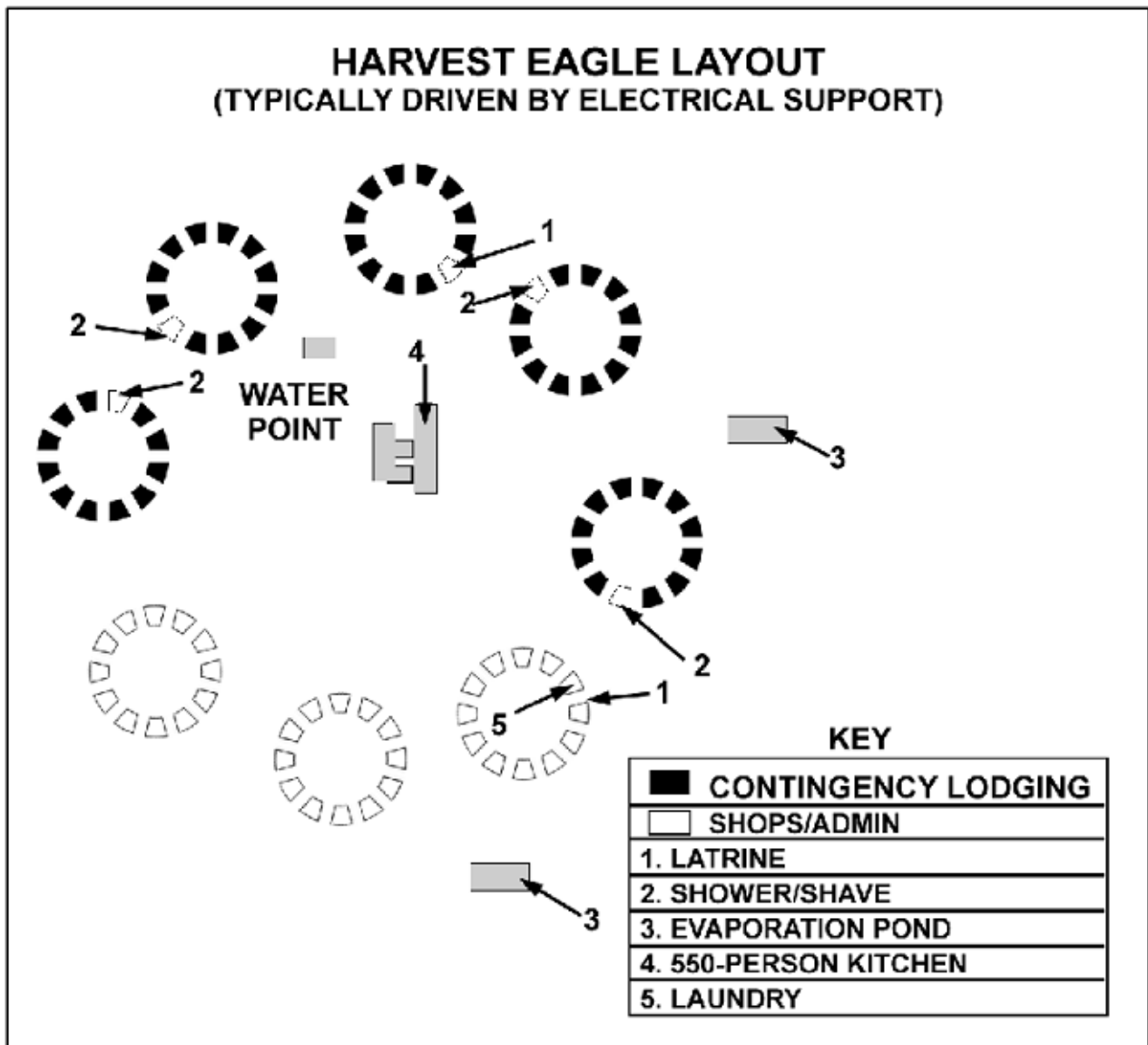
TEMPORARY TRENCH INTERMENT LAYOUT



Attachment 5

CLUSTER LAYOUT

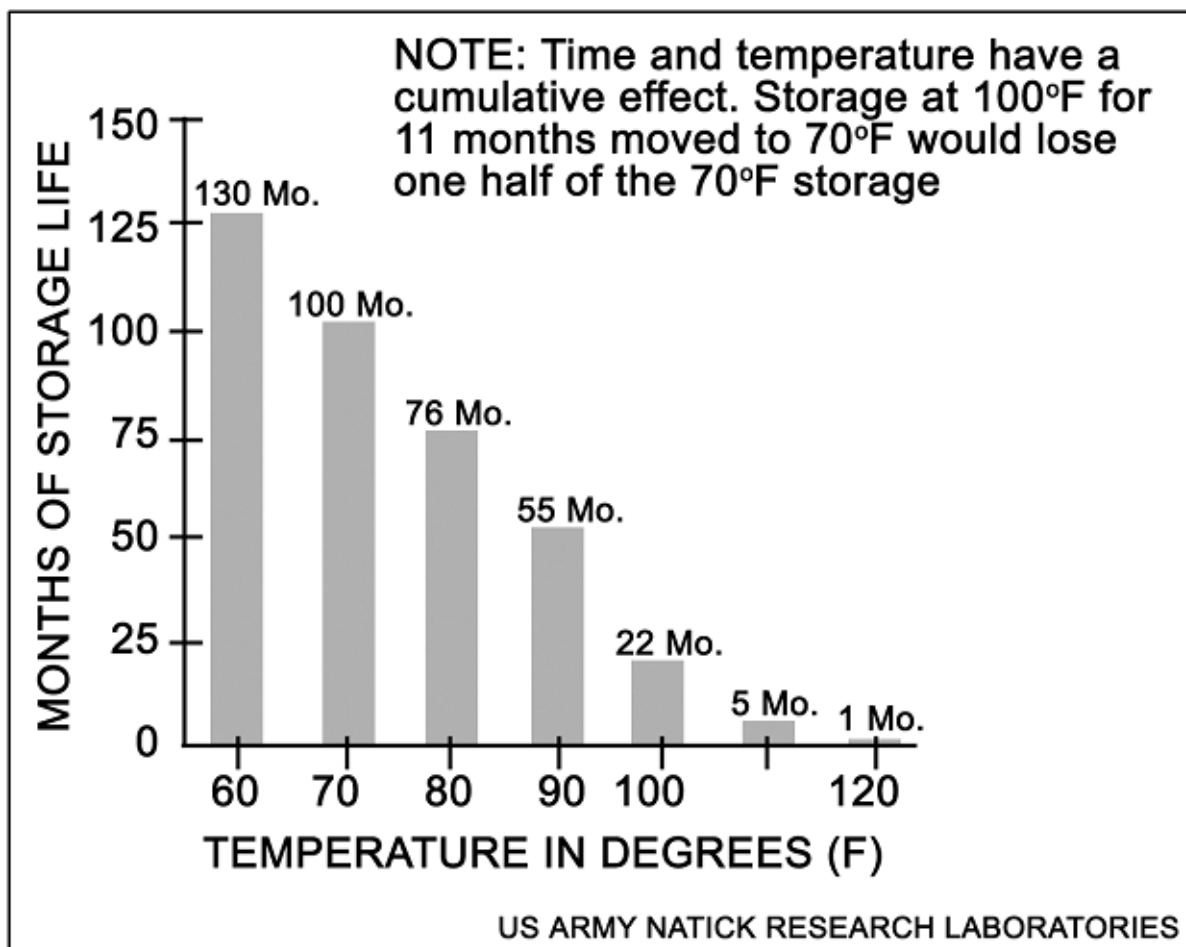
Modernization and reconstruction of modules affects BEAR assets. However, with joint deployments, some of the older joint service or legacy-type 550-person equipment may still have to be used and combined to provide a 1,100-person capacity. When old systems must be used, they can be laid out in planned clusters to make better use of less adequate supporting utility systems. Modernization efforts will change this, but under some conditions you may still have to plan for a cluster layout.



Attachment 6

RATIONS STORAGE LIFE VERSUS TEMPERATURE

Rations need to be protected from excessive heat. MREs can quickly lose shelf life when exposed to the high temperatures common in Southwest Asia and Africa.



UGR H&S and UGR-A rations have a shelf life of 18 months and 3-6 months (for the perishable portion of UGR-A) respectively at 80° F from the date of packing. Shelf life will degrade with temperature. General guidance is to check the date of the packaging and also check the condition of the packaging. Inspect for insect activity monthly during the hot months, and quarterly during the winter/cooler months. Conduct closed package condition of container inspections (cans, boxes, etc.). The "limiting items" for this ration are the *infestibles* -- those items in commercial packages. Even the #10 cans of vegetables and fruits can be considered a limiting item.

Attachment 7

DUAL 1,100-PERSON LAYOUT

The following general layout has been used to combine the functions of two Harvest Falcon legacy kitchens to increase overall efficiency. Similar changes are possible for BEAR 9-2 systems.

