

***Texas Task Force I
Urban Search & Rescue
TX-TF1***



Base of Operations Manual
Revised 03/01

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INTRODUCTION

The purpose of this document is to provide a guideline for establishing the Base of Operations. This document is designed in a manner to provide a step by step process utilizing available personnel based on the strategic plan. This process allows for a component of team managers to perform strategic planning while the Base of Operations is set up. In addition, this document allows coordinators to choose from two(2) options in order to set up the cache. These options were designed with the possibility of the immediate deployment of a Recon Team.

This manual will remain with the Technical Team Managers and on file with the Technical Documentation Forms. It will remain in the possession of these individuals until the site selection has been completed. Additional copies of the drawings and check-off sheets will be kept with the Technical Documentation personnel.

In order for this document to provide the needed assistance, we must try to follow the guidelines as set forth in this manual. If the manual is followed step by step, the BoO will be set up in a orderly and timely manner utilizing the best resources.

OVERVIEW

One of the most crucial supporting elements of a successful operation by a task force is the location and operation of the Base of Operations (BoO). The BoO serves the functions of equipment cache set-up area, command and control area, sleeping/resting/eating areas, refuge from the elements, communications link with the outside world, and many other functions. The correct site selection for supporting the working site is imperative, but it is one that can be easily missed if improper thought is given to its location.

As one of the functions of the IST Logistics Section, sites should be surveyed by IST personnel for potential task force BoO sites. The IST may have information available from the local jurisdiction regarding possible BoO sites. If not, the IST should begin the process of locating BoO sites for the incoming task forces. If this is not possible due to the large number of task forces on the incident or the wide-area scope of the disaster, then the task forces may have to find a location on their own. If there is no established location for the BoO at the time the task force leaves the mobilization center or staging area for their work location, it may be prudent for the task force to send out an advance team to provide reconnaissance for choosing an appropriate site.

Regardless of whether it is the IST or the task force personnel making the selection or if existing buildings are available, there are a number of general considerations that should be factored into the site. The most strategic factor for the placement of the BoO is its proximity to the potential/anticipated rescue work sites. There are two key factors: first, travel distance is critical and is variable based on transportation availability; and second, available transportation and accessibility will play an important role in the site selection process. If transportation is limited, the need to establish a forward base close to the anticipated work area should be considered. Transportation access or avenues should be considered as part of the location choice of the BoO.

As important as the proximity of the BoO work site is, it is also prudent to consider having the BoO some distance away from the work site. The site must provide a tranquil place where task force members can get restful sleep. It should be away from major highways, railroad tracks, and airports. It is extremely important for all members to get as much regular and adequate rest as possible. This makes for more productive work sessions and lessens the chance of injuries on site. It is also important that the members get physically away from the work area and are not forced to constantly view the site. This reduces the amount of stress that workers must deal with during the incident and gives them temporary refuge from the unpleasantness associated with working on site.

The site should be environmentally safe with no chance of contaminated run-off coming near the site. It should not be located near landfills, manufacturing plants, tank farms, or other such sites and should be located

upwind/upstream if nearby any facilities of potential release. It must be safe from the effects of rain run-off, snow build-up, exposure to high winds, etc. The BoO site should also be set up to provide as much natural security as possible. The BoO provides an excellent site for intruders and others who recognize it for its food, water, and equipment resources. These can be desirable after a widespread disaster. As much as possible, task force members must provide guard over the site. The IST or task force management should request professional security personnel or military guards to maintain security of the site at all times.

Placement of communications equipment such as repeaters and antennas on high ground will have a long-term impact on the overall operations. In general, establishment of the task force BoO on higher ground will usually enhance radio communications. Personnel must ensure that adequate space is available for equipment cache set up and maintenance, shelter of personnel and canine, the Task Force Control Center (TFCC), medical treatment area, food preparation and feeding area, toilet and sanitation area, and helicopter landing zone.

On specific instances, existing structures may be provided for the BoO site. The advance team or IST should consider in the reconnaissance the availability of useable structures for sleeping, cache set up, etc. Existing structures are preferred over the cache tents, but they must be assessed by the task force and the local jurisdiction as safe to use. Earthquake after-shocks must be considered in the final the decision as well as other events that may affect the stability of the building. The BoO should not be set up next to a high-rise building or other structures with the potential for failure. Often times, undamaged structures may be nearby that appear to be excellent sites for the BoO. If the task force desires existing buildings, permission must first be obtained from the local jurisdiction because there may have to be waivers on the zoning and occupancy of the building used. Other health and safety issues may be involved in using non-residential buildings.

If the cache tents are used, the space must be mostly level or have proper drainage so that rainwater does not flow into the tents or create a muddy area where there is heavy foot traffic.

ENROUTE TO THE DISASTER SITE

The following forms should be completed enroute to the disaster site to allow for the quick deployment of teams. These forms shall be completed by the Technical Team Manager in conjunction with the other Team Managers.

- 1) BoO Advance Team Assignment (Complete if site will need to be located upon arrival)
- 2) BoO Worksheet - Option 1 (Entire team is committed to BoO setup)
- 3) BoO Worksheet - Option 2 (Search/Recon Team is designated)

Note: Both Option 1 and Option 2 should be completed so the team will be flexible upon arrival.

BoO ADVANCE TEAM ASSIGNMENT SHEET

The Base of Operations Advance Team is sent ahead of the Task Force to locate suitable sites for team operations and housing.

The following personnel should comprise the BoO Advance Team.

Rescue Team Manager	1		Structural Engineer(1)	1	
Technical Team Manager	1		Medical Team Manager()	1	
Logistics Specialists	1		Planning Officer(1)	1	
Communication Specialist	1		Safety Officer	1	

The Advance Team shall be issued the BoO Recon Kit

The Advance Team shall utilize the "Task Force Base of Operations Location Checklist" to determine and document the site.

SELECTING THE BoO SITE

At the same time the TFL's are receiving their briefing from the local jurisdiction, and/or while the TF equipment cache is being unloaded, an advance team should be sent ahead of the arriving TF personnel and cache to provide reconnaissance for choosing an appropriate site for the TF Base Of Operations.

The following personnel should comprise the Advance Team. Complete the BoO worksheet for Advance Team Assignments. This worksheet should be completed prior to the arrival at the disaster site. This will be the responsibility of the Technical Team Manager in conjunction with the Task Force Leader.

___ one(1) Rescue Team Manager	___ One(1) Safety Officer
___ one(1) Technical Team Manager	___ one(1) Structural Engineer
___ one(1) Logistics Specialist	___ one(1) Medical Team Manager
___ one(1) Communications Specialist	___ one(1) Planning Officer

Utilizing the following resources and supplies, the Advance team should determine the best location for the Base of Operations for the TF.

1. TX-TF1 Base of Operations Manual
2. TF Base of Operations Location Checklist (FOG Manual White 1-5 and/or (Appendix). Additional copies are with the Technical Information Specialist.
3. Equipment Required: BoO Advance Kit -

(2) 100 ft. measuring tapes (2) rolls banner tape Polaroid Camera (1) Box of marking chalk Spray Paint	Clipboards (2) Binoculars (2) Backpack w/harness Base of Operations Signs
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D. Strategic Factors for the Placement of the BoO

1. Proximity to potential/anticipated rescue work sites.
Key Factors:
 - a. Travel distance (critical)
 - b. Available transportation
 - c. Access routes
 - d. Terrain/height of location
 - e. Personnel shelter (existing structure vs. tents)
 - f. Cache shelter (existing structure vs. tents)
 - g. Radio communications
 - h. Site safety/security
 - i. Health and Hygiene

2. BoO Layout Configuration
 - a. Operations area 110' X 110'
 - 1) Cache set-up and maintenance
 - 2) Task Force Command and Operations Center
 - 3) Medical treatment area
 - 4) Meeting/Dinning area

 - b. Living area 110' X 150'
 - 1) Shelter for personnel
 - 2) Shower and bathroom facilities
 - 3) Canine Medical/Relief Area

 - c. Helicopter LZ (option)
3. Once a site has been selected, complete the TF Base of Operations Location Checklist (FOG Manual White 1-5 and/or Appendix A)
4. Photograph the area
5. Layout and identify sections of the Base of Operations with paint and banner tape.
6. Mark ground with spray paint for each section of the Base of Operations and the location of the tents. Utilize one color to mark the perimeter of each area and the other color to mark the location of the tents.
7. Identify travel and access routes.
8. Identify fuel storage area remote from Base. Ensure a fire extinguisher is present.
9. Locate site for generators at the perimeter of the Base of Operations.
 - Close as possible to equipment being powered.
 - Provide fire extinguishers where needed
 - Keep cord runs out of walkways.
 - Keep away from sleeping areas.

BoO SITE SELECTION CHECKLIST

SITE LOCATION/ADDRESS: _____

BEST ACCESS ROUTE(S): _____

DISTANCE TO ANTICIPATED WORK SITES: _____

ADEQUATE SPACE AVAILABLE? _____

PERSONNEL SHELTER CONSIDERATIONS: _____

EXISTING STRUCTURES TENTS

CACHE SHELTER CONSIDERATIONS: _____

EXISTING STRUCTURES TENTS

RADIO COMMUNICATIONS CONSIDERATIONS: _____

(high ground is usually advantageous)

SITE SAFETY/SECURITY: _____

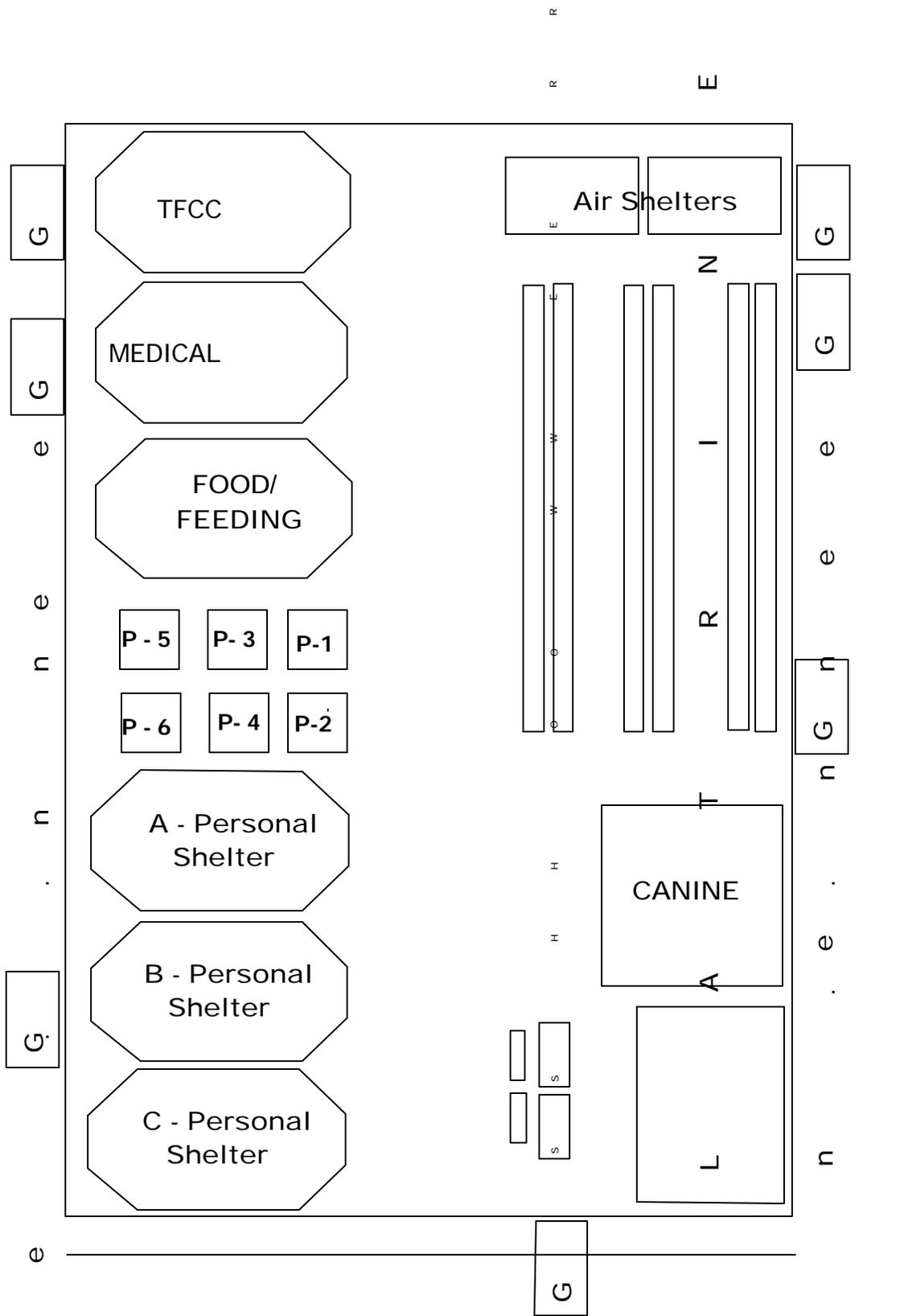
Any tall adjacent buildings/utilities creating hazard?

Terrain with regard to rain/water run-off?

Site appropriately separated from rescue work sites?

Security assistance request from military/local jurisdiction?

Haz-Mat/exposure concerns.



TASK FORCE BOO ASSIGNMENTS

The actual set up of the Base of Operations should be handled in a fashion based upon the priority of needs of the task force as it begins the mission. Certainly the task force is not fully effective without the use of the tools, equipment and supplies in the cache. Therefore, the cache area of the Base should receive attention first.

The cache set up organization, should be supervised by the task force Technical Team Managers and Logistics Specialists. In most cases, it will be necessary to assign additional personnel to assist in the set up of the cache due to its size and weight. As the cache area is developed, the initial set up is based upon prioritizing the equipment needs of the elements of the task force assigned immediate operational activities. This may include tools and equipment to support a structures triage team, search and reconnaissance team, and search operations or rescue operations, either separately or collectively.

An early consideration of the cache set up should be the shelter requirements for various cache elements. If an existing structure(s) can safely be used to house either some or the entire cache, this need is simplified. If not, separate tents should be erected for weather sensitive supplies and equipment, food and water provisions, and medical supplies, equipment and medicines, as a minimum.

The Base of Operations set up must consider the individual and varied needs of the different components of the task force. The advance recon team's evaluation and choice of site location will have a direct impact on the task force operations throughout the course of the mission. Serious consideration must be given to the size of the cache and its strategic location at the Base of Operations.

The location of the Task Force Control Center is a important consideration during the set up of the Base of Operations. The location should have been determined during the development of the Base of Operations Location Checklist/Sketch form. During the length of the mission, the Control Center will be the focal point for the task force and must be strategically located so as to be completely effective as a control point.

After the task force cache is set up and organized, and the Task Force Control Center is positioned and operational, the lodging requirements of the task force should be addressed. The determination of whether existing structures are available and could safely be used must be made. In general, smaller, wood framed structures may prove safe for cache and personnel shelter. The type of construction (i.e., unreinforced masonry, tilt-up construction, etc.), as well as the general condition of such, should be taken into account. If structures are not available or useable, a personnel shelter area should be established using tents appropriately placed and spaced, as denoted on the Base of Operations Location Checklist/Sketch form that was developed at the inception of the mission.

In addition, a food preparation and task force feeding area, and separate canine shelter/exercise and toilet/sanitation (trash) areas must be established. The site location for sleeping accommodations (tents vs. buildings) and food preparation and feeding areas should be chosen with considerations for the needs of the task force personnel (i.e., away from the mainstream of activity, Task Force Control Center, equipment cache area tool repair, etc.). Shelter for canine personnel and their animals may require special consideration.

A medical treatment area must be established within the Base of Operations as identified on the Site Location Checklist/Sketch form. Advice from the Medical Team Managers should be solicited prior to the area selection for the medical treatment area.

The main entrance should be near the main route of travel. Generators and lighting should be placed on the perimeter of the BoO as close as possible to the section being powered. This reduces tripping hazards and the amount of electrical cord required. The quietest generators should be used around the sleeping areas and the TFCC/communication area.

Throughout the course of the mission, task force supervisors should continually assess the support

requirements for the task force. Requests to the IST may be necessary for communications equipment, medical supplies and equipment, cache needs, or issues related to food, shelter and sanitation needs of the task force.

Set-Up Procedures

The Task Force Base of Operations Location Checklist/Sketch form can be used for the actual placement of the facilities within the BoO. When the full task force arrives and personnel are designated to begin the full setup, it will speed the entire process in that it will be evident exactly where each BoO function is to be located. The advance team shall have identified the initial layout and sections of the BoO with signs and banner tape. Task Force personnel can then follow the outline provided for each section of the BoO and where each tent will be set up. Areas that should have been marked are for TFCC, logistics & equipment cache, medical care, eating and sleeping, fuel storage, sanitation/hygiene areas, and canine shelter areas.

Once the site has been chosen by the Advance Team, one of the following options should be chosen based on the strategic plans.

Option 1

The entire task force commits to the BoO set-up. This is the recommended method. This allows the team to set-up the cache, logistics area, medical area, and command center in the quickest possible manner. This option enables the logistics staff to locate and account for equipment issued, the medical staff to set up their medical center to care for our own personnel, and the command staff to establish a base.

- 1) Strategic Planning of BoO Location
- 2) Overall BoO Set Up Coordination
- 3) Command and Operations Center
- 4) Logistics and Cache Set-up
- 5) Medical Center

OPTION 1 - BoO Setup With Complete Task Force

1. The following personnel will be available for strategic planning.

Task Force Leaders (2) Technical Team Manager (1) Medical Team Manager (1)	Rescue Team Managers (2) Search Team Managers (2) Planning Officers (2)
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2. The following personnel will be assigned to set up the BoO. The areas are listed with the personnel to be assigned to each.

Overall BoO Set-up Coordination

Technical Team Manager (1) Logistics Manager (1)	Safety Officers (2)
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Command and Operations Center

Communications Specialist (2) Technical Documentation (2)	Rescue Squad 1 (6)
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Logistics and Cache Set-up

Logistics Officer (2) Tech Search Specialist(2) Haz-mat Specialists (2)	Engineers (2) Heavy Rigging Specialists (2) Rescue Squads 2&3 (12)
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Medical Center & Hygiene Station

Medical Team Manager (1) Medical Specialists (4)	Canine Search Specialists (4) Rescue Squad 4 (6)
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Option 2

This option should be utilized if a Recon Team is needed immediately. The necessary equipment for the Recon Team to operate will be located, pulled, and issued prior to the BoO set-up. The remaining personnel will be assigned to setting up the BoO.

- 1) Recon Team Assigned
- 2) Logistics Staff Locate and Issue Equipment to the Recon Team:
- 3) Strategic Planning of BoO Location
- 4) Overall BoO Set Up Coordination
- 5) Command and Operations Center
- 6) Logistics and Cache Set-up
- 7) Medical Center

- 1. If assignments were not accomplished enroute, complete the BoO Assignment Worksheet which coincides with the strategic plan.
- 2. After completion of the above assignments, the following BoO areas must be set up. They should be setup in the order in which they are listed.
 - a. Meeting/Dining Area
 - b. Personnel Shelters
 - c. Shower/Bath Area
 - d. Canine Medical/Relief Area
 - e. Perimeter Fence and BoO Site Lighting
 - f. Helicopter Landing Zone

OPTION 2 - BoO Setup With Search/Recon Team Assigned

- 1. The Search/Recon Team consists of the following as listed in the Field Operations Guide.

Search Team Manager (1) Canine Search Specialists (2) Technical Search Specialist (1) Medical Specialist (1)	Structural Engineer (1) HazMat Specialist (1) Safety Officer (1) Rescue Specialist (1)
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- 2. The logistics staff will locate and issue the needed equipment for the Recon Team to operate.
- 3. The following personnel will be available for strategic planning.

Task Force Leaders (2) Technical Team Manager (1) Medical Team Manager (1)	Rescue Team Managers (2) Search Team Manager (1) Planning Officers (2)
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4. The following personnel will be assigned to set up the BoO. The areas are listed with the personnel responsible for each area.

Overall BoO Set-up Coordination

Technical Team Manager (1) Logistics Officers (2)	Safety Officer (1)
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Command and Operations Center

Communications Specialists (2) Technical Documentation (2)	Rescue Squad 1 (6)
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Logistics and Cache Set-up

Logistics Officers (2) Tech Search Specialist(1) Haz-mat Specialist (1)	Structural Engineer (1) Heavy Rigging Specialists (2) Rescue Squad 2&3 (12)
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Medical Center & Hygiene Station

Medical Team Manager (1) Medical Specialists (3)	Canine Search Specialists (2) Rescue Squad 4 (6)
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LOGISTICS AND CACHE AREAS

- A. Size of Area Required - Approximately 50 feet X 100 feet
- B. Cache Container Area
 - ___ Place containers in order by category and number
- C. Erect Logistics Tent
 - ___ Set up Zumro Air Tents
 - ___ Set up tables and provide chairs as needed
 - ___ Set up administrative kit
 - ___ Set up cache check-out/check-in documentation
 - ___ Set up maintenance area
- D. Power Supply
 - ___ If local power supply is available, set up generators as back-up as time permits
 - ___ Locate generator area outside BoO perimeter and set up generator
 - ___ Locate area for fuel supply storage minimum 100' from BoO
 - ___ Mark generator & fuel storage areas with "caution" and/or "haz mat" banner tape
 - ___ Run electrical cords to tent and site lighting to avoid foot traffic areas
 - ___ Provide fire extinguishers for generator and fuel storage areas
 - ___ Provide lighting to tent and cache storage areas
- E. Weather Protection
 - ___ Keep lids on containers when not being used.
 - ___ Ensure tarps or plastic sheeting is available to cover cache containers not in tents during inclement weather.
- F. Security
 - ___ Install perimeter fences as required and provide a single entry/control point to the cache area.
 - ___ Detail unassigned team members to watch cache storage areas until local military or security forces can be acquired.
 - ___ Cover or keep equipment out of sight whenever possible.
- G. Forward Equipment Staging Area
 - ___ Determine forward staging area location in close proximity to disaster/work site
 - ___ Set up inflatable tent, (Use 2 SCBA bottles for air supply, if needed)
 - ___ Set up perimeter fence around forward staging area and provide one entry point
 - ___ Establish area for generator and set up electrical cords as needed
 - ___ Set up lighting for tent and surrounding area as needed
 - ___ Obtain table(s) and chair(s) as needed from logistics
 - ___ Obtain equipment documentation and/or T-Cards for inventory control
 - ___ Obtain office supplies as needed from logistics administrative kit
 - ___ Arrange storage of cache equipment inside tent or perimeter fence as needed

TASK FORCE COMMAND AND COMMUNICATIONS CENTER

- A. Size of area required: Approximately 25 feet x 40 feet

- B. Layout Considerations
 - High ground is desirable
 - Identify high structures or elevated ground for communications antennas.

- C. Erect Command/Communications Tent
 - 19' x 35' Western Shelter Tent
 - Set up tables and provide chairs as needed
 - Set up Task Force Command administrative kit
 - Set up Tech Info work space
 - Set up Status Boards - White Boards & Personnel Accountability Boards
 - Set up Communications base station, BoO telephone system, administrative kit

- D. Electrical Power
 - If local electrical power is available, set up generators for back up as time permits
 - Locate generator(s) outside of BoO perimeter in quietest area possible
 - Mark generator & fuel storage areas with "caution" and/or "haz mat" banner tape
 - Run electrical cords to tent and site lighting to avoid foot traffic areas
 - Provide fire extinguishers for generator and fuel storage areas
 - Provide lighting to tent and antenna areas

- E. Antenna Farm
 - Locate area for erection of radio and satellite antennas
 - Mark area with "danger" banner tape to keep unauthorized personnel away from area

- F. Task Force Information Center
 - Erect task force information center outside of tent for periodic postings and notices
 - Use available plywood, posts, nails, etc. found on site or contact logistics

MEDICAL TREATMENT AREA

- A. Size of area required: Approximately 25 feet X 40 feet

- B. Erect Medical Tent
 - 19' x 35' Western Shelter Tent
 - Set up table and obtain chairs as needed from Logistics
 - Set up Medical Administrative Kit
 - Obtain 3 cots from Logistics
 - Set up medical treatment area as directed by team physician

- c. Electrical Power
 - If local electrical power is available, set up generators for back up as time permits
 - Locate generator(s) outside of BoO perimeter in quietest area possible
 - Mark generator & fuel storage areas with "caution" and/or "haz mat" banner tape
 - Run electrical cords to tent and site lighting to avoid foot traffic areas
 - Provide lighting and outlets as required.
 - Provide fire extinguishers for generator and fuel storage areas

- D. Hand Wash Station
 - Locate pressurized water source or utilize water supply bladder with sink unit
 - Set up Western Shelter Sink Station
 - Utilize necessary set up equipment and hoses
 - Provide fuels for water supply pump, if needed (Store fuel outside BoO perimeter!)
 - Set-up gray water bladder

- 5. Forward Rehab Area
 - Locate Forward Rehab Area in close proximity to disaster/work site & Logistics Forward Equipment Staging Area
 - Set up inflatable tent, (Use 2 SCBA bottles for air supply, get from logistics)
 - Obtain table(s) and chair(s) as needed from logistics
 - Set up treatment and rest areas as needed
 - Obtain supplies as needed from team physician in Medical Tent
 - Arrange storage of Medical equipment inside tent or perimeter fence as needed
 - Establish area for generator (or share from Forward Equipment Staging)
 - Obtain electrical cords as needed and place to avoid foot traffic areas
 - Set up lighting for tent and surrounding area as needed, contact Logistics
 - Obtain fans and water coolers from Logistics as needed for rehab of personnel

MEETING/DINING AREA

- A. Size of area required: 70 feet X 40 feet

- B. Erect Meeting/Dining Area Tent
 - ___ 19' x 35' Western Shelter Tent
 - ___ Set up table and aluminum tables from (Obtain from Logistics)
 - ___ Utilize empty equipment containers for seating or check with Logistics for any spare chairs
 - ___ Erect perimeter fence around entire Dining/Meeting area. Posts & fence from Logistics
 - ___ Provide only one entrance to area next to hand wash station between Medical tent and Dining/Meeting tent
 - ___ Install sign to warn all persons to wash hands before entering area. VERY IMPORTANT!!

- C. Electrical Power
 - ___ If local power is available, obtain electric cord from logistics
 - ___ If needed, obtain generator to provide power supply
 - ___ Place generator outside perimeter fence (can place in generator area with Medical & Command generators)

- D. Cooking Area Outside Tent
 - ___ Set up Camp Chef Stove
 - ___ Obtain propane cylinder from contact Logistics
 - ___ If cover is needed over cooking area, contact logistics for tarp

- E. Food Preparation Area
 - ___ Locate and assemble eating utensils and supplies needed to prepare and serve food products
 - ___ Place one day supply of Freeze Dried food under serving table
 - 1 - Breakfast
 - 1 - Lunch
 - 1 - Dinner
 - ___ Store remaining freeze-dried food product and water inside tent
 - ___ Store MRE's and MRE heat packs (KEEP DRY!) inside tent
 - ___ Fill coolers from as listed:
 - cold water (1)
 - hot water (1)
 - Gatorade (1)

- F. Trash Containment
 - ___ Trash bags are stored with kitchen supplies/equipment, tie to post to keep from spilling
 - ___ Locate any trash receptacles available at or near site (dumpsters, trashcans, boxes, etc.)
 - ___ Contact Logistics if additional receptacles are needed

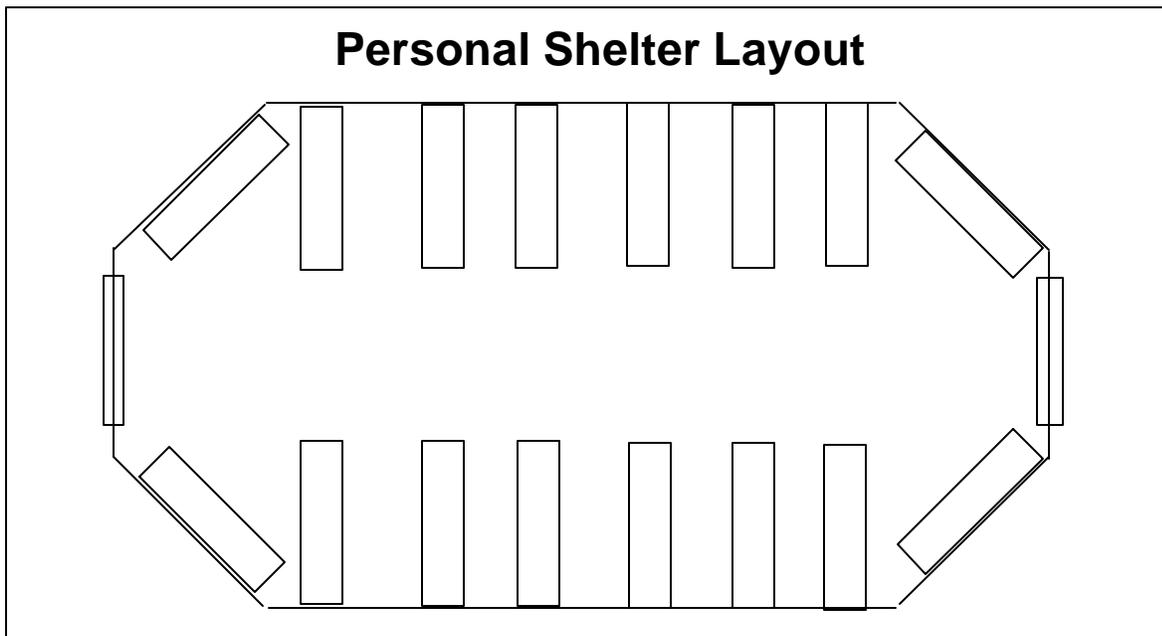
- G. Insect/Bacteria Control
 - ___ Entire area in and around tent and trash areas to be sprayed with 10% bleach solution at least every 12 hours to control insects and bacteria.
 - ___ Obtain bleach & sprayer from Logistics

PERSONNEL SHELTER REQUIREMENTS

- A. Size of area required: Approximately 50 feet X 110 feet.
- B. Erect Personnel Tents
 - ___ Personnel tents can be erected by each task force member, as time permits
 - ___ Each task force member will be issued his or her own sleeping bag
 - ___ One cot will be shared by the occupants of each tent
 - ___ Wool blankets can be issued, if needed
- C. Sleeping area considerations
 - ___ Locate on high ground or dig rain runoff trenches as necessary.
 - ___ Provide lighting for walkway areas, if necessary. BoO site lighting may be adequate.
- D. Personnel Tent Assignment
 - ___ Assign personnel tents per sheet as listed below
 - ___ Mark each tent with assignment number in order to quickly locate personnel
 - ___ Provide master list and site map near entrance to area for reference.

Personnel Shelter Assignments

A-Personal Shelter	Task Force Leaders (2) Rescue Team Managers (2) Search Team Managers (2) Planning Officers (2) Safety Officers (2) Technical Team Managers (2) Medical Team Managers (2) Tech. Infor. Specialists (2)	C-Personal Shelter	Squad 3 & 4 (12) Heavy Rigging Specialist (2) Communications Spec. (2) Canine Search Spec. (4) Medical Specialists (4) HazMat/WMD Specialist (4) Logistics Specialist (4) DAE's (4) DAE's (4)
B-Personal Shelter	Squad 1 & 2I (12) Structural Specialist (2) Technical Search Spec. (2)	Tent P-1 Tent P-2 Tent P-3 Tent P-4 Tent P-5 Tent P-6	



SHOWER/BATHROOM FACILITIES

- A. Size of area required: 25 feet X 40 feet.

- B. Erect Shower & Sink Station Tents (See Attachment "A")
 - Erect Western Shelter Shower Tents
 - Provide means for water runoff from shower tents. Dig trench just outside perimeter fence and mark area with "Danger" banner tape
 - Set up water heaters and propane cylinders
 - Locate pressurized water source or utilize water supply bladder with sink unit
 - Set up Sink Station
 - Utilize necessary set up equipment from
 - Set up Gray Water Bladder for sink station
 - Set up water heater and propane cylinder
 - Check with Logistics If lighting will be needed. BoO site lighting may be adequate.

- C. Disease & Bacteria Control
 - Obtain bleach/H₂O solution and sprayer to clean floors
 - Provide toilet paper, trash bags, paper towel, bath towels, and "Wet Wipes" for hygiene

- D. Erect Portable Toilets
 - Check with Logistics and determine if local vendor is supplying Portable Toilets
 - If not, set up Brief Relief Toilet Systems
 - Brief Relief systems utilize individual urination & defecation packets packaged with systems

- E. Disposal of Human Waste (Brief Relief systems utilized)
 - A 55-gallon drum or a waste container should be utilized to collect human waste after bathroom usage. If this is not available, a special holding area should be established.
 - Pick-up of human waste shall be done on a daily basis if not twice daily.
 - Brief Relief system utilizes biodegradable products and can be discarded with other everyday trash

CANINE RELIEF AREA

- A. Size of area required: 10' X 20'

- B. Erect Shelter
 - Obtain - Tent or Tarp from logistics
 - Canine food supplies
 - Canine medical supplies
 - Collapsible Kennel

- C. Lighting Requirements
 - Contact Logistics if lighting is needed. BoO site lighting may be adequate.

HELICOPTER LANDING ZONE

- A. Size of area required: 125 feet X 125 feet.

- B. Layout Considerations
 - 1. Confer with the Task Force Leader and Medical Team Managers about the location of the LZ. (The LZ should always be designated)

 - 2. Select a site sufficiently distant from the BOO that helicopter operations will not affect the BOO operations. Remember, helicopter down drafts throw dirt and debris, and can knock over equipment and tear tents. The noise may also be a consideration.

 - 3. Mark the corners of the LZ with brightly colored objects during the day and with lights at night. Ensure the LZ is large enough for the largest helicopter expected to arrive (min. 60 x 60 ft.)

 - 4. Ensure fire extinguishers or other means of fire extinguishment are located near the LZ.

 - 5. Security will be necessary at the LZ during any flight operations to ensure the safety of bystanders.

BoO CONSIDERATIONS & SPECIAL ISSUES

A. Security/Hazard Concerns

- Ensure all personnel in the Base of Operations are identifiable (badges, uniforms, etc.)
- Erect security fence using plastic fence and fence posts around the BoO perimeter.
- Establish a single entry/control point preferably at the command center
- Identify availability of local/military security personnel.
- Mark or identify any personnel hazards within or adjacent to the Base of Operations (i.e. tripping hazards, utilities, etc.)
- Provide trash bags, paper towels and/or "Wet Wipes" for hygiene.
- Isolate fuel storage.
- Ensure fire extinguishers are available.
- Keep all Task Force tools, supplies and equipment covered or out of sight as much as possible. (in the logistics area)
- Request additional lighting from local resources if necessary to ensure safety and/or security.
- Develop an emergency evacuation plan for the Base of Operations as soon as possible and brief ALL personnel.

B. Sanitation/Hygiene Needs

- Garbage bags and/or trashcans should be located throughout the Base of Operations.
- If possible, a trash truck or dumpster should be requested from local resources.
- Obtain a 55-gallon drum to incinerate trash. If a drum cannot be obtained a shallow pit can be dug and trash buried each night.
- Food waste will attract varmints and insects so it should be stored in closed containers and removed from the site daily. (Trash must be incinerated daily if pick-up is not available)
- Hand washing stations should be located in the following areas:
 - entrance to meeting/eating tent
 - entrance/exit to latrine facilities
- Decon & Boot washing station located at the entrance to the BoO

C. Canine Considerations

- Relief/Latrine area located outside, downhill, and downwind of the BoO
- Canine latrine area should be marked with banner tape

BASE OF OPERATIONS MANAGEMENT

The TFCC is the main control point for the task force operations. This control point can be as simple as a single tent or an existing, safe structure. The TFCC should become the command and coordination point for the Task Force Leader and accommodate the operations of the task force Communications Specialists and Planning Officer. The task force management should be situated in this area so that important decisions can be made quickly. The task force communications should be set up in an area in or near the TFCC. Communications should be established by hard-wire if possible to each sleeping tent, medical tent, logistics area, and any important functions of the BoO. Radio communication should be used primarily with the off-site work groups.

To reduce radio traffic as much as possible, telephones should be used to communicate with the BoO locations.

The TFCC should be staffed 24-hours a day from the time of set-up to demobilization. This is to maintain a contact point with the task force for communications from the IST, local incident commander, or the home jurisdiction. In addition, emergency announcements such as severe weather or after shocks need to be sent out quickly. A constant monitoring of the weather should be carried out in the TFCC so that warnings or BoO evacuations can be done in as little time as possible.

Accountability of all task force members should be done from the TFCC. The task force should have a strict policy about leaving the BoO site. Only those personnel with an official reason should be authorized to leave the BoO. Any personnel leaving the BoO site should be identified in some manner and recorded in the TFCC.

When personnel return, their status should be changed to indicate their presence in the BoO. At any time, the Task Force Leader should be able to quickly identify the personnel in the BoO and those off-site for any reason. This is important if a quick evacuation has to be done so that the task force management can account for all personnel.

DEMOBILIZATION

Upon demobilization, the BoO site should be restored to its original condition. This includes properly policing for trash and other remnants left behind. The task force management should ensure that the site looks as good or better than when the task force arrived. Remember that the task force should not be a burden to the locality.

This includes not leaving behind a site that requires the locals to clean up or restore it to its former condition.

Attachment "A" Addendum to BoO Plan

Shower and Sink Set-up Plan

This plan is intended for use by TX-TF1 personnel for the correct set-up of the BoO Shower and Sink System (FEMA # LD-0103.00 and LJ-0117.00). This plan is intended as a guide however geographical or other obstacles may require deviation from this plan.

Required Equipment

- Shower System- LD-0103.00 (includes 2-stall shower, Grey H2O bladder, potable H2O bladder, water heater, potable H2O pump, potable H2O hoses, "wye" valves, and Grey H2O hoses) There are 2 of these systems.
- Sink System- LJ-0117.00 (there are 2 of these)
- Propane Cylinder (2)-LJ-0123.00
- Zumbro Tent- LC-0107.01 (there are 2 of these)
- Hardigan boxes- 3 + empty boxes for elevation of flash heater and sinks.

Installation and Set-up Instructions

The shower and sink system must be arranged so that the Grey water bladder is below the grade level of the shower and sink to facilitate proper drainage of Grey water from the system. This means that if the grade of the land does not provide for the natural drainage, the showers must be elevated to provide the proper slope for drainage or the trash pump must be employed to remove the Grey water.

The shower system should be set-up inside an inflated Zumbro tent to provide shelter during inclement weather and to provide privacy while undressing and dressing. Grates should be placed in the floors of the showers and outside the shower door so that task force personnel do not have to stand in grey water.

The system requires the use of only 1 heater to provide hot water to the entire system this makes it possible to set up 2 separate systems in different locations provided an additional potable water source can be secured and a Grey water collection system can be secured as well.

Cold water is supplied to the flash heater from the potable water source through the external potable water pump (care should be taken to insure that the hoses used are for potable water not Grey water to prevent cross contamination of the hoses). Cold water is also supplied to the sink system directly from the external potable water pump.

There are 3 connections for water on the flash heaters; the connection on the far right is for cold water intake the 2 connections on the left are for hot water supplied from the heater. The hot water connection on the far left is used to supply the sinks and the hot water connection in the middle is used to supply the showers. The middle connection has the ability to have cold water introduced at varying rates to regulate the temperature provided to the showers. A "wye" should be used between the showers if both 2-stall units are placed in service together. If both showers are used they should be placed back-to-back about 24 inches apart with the floor drains located on the down slope side.

Grey water is collected in the Grey water bladder that must be located on a lower grade level than the sinks and showers. Again, if this cannot be accomplished using the natural grade the showers must be elevated to achieve proper drainage. Each sink should be located on top of 2 empty Hardigan boxes to provide the proper slope for drainage.

When placing the Grey water collection bladder keep in mind that during the deployment the bladder must be emptied. Try to place the bladder in an area that is adjacent to a hard surface for access by a pump truck. Please take care not to use potable water hoses for Grey water collection to prevent cross contamination.

The flash heater should be placed atop an empty Hardigan box to provide ease of access to all connections and for lighting. Follow the steps provide on the front of the flash heater for lighting. **NOTE: the flash heater only operates on demand when water is flowing from a hot water faucet or showerhead.** Once the propane cylinder has been attached to the flash heater the propane cylinder should be secured to the hardigan case to prevent accidental tipping. Security tape should be placed around the potable water bladder, flash heater, hoses, and Grey water bladder to prevent persons from entering and tripping over the system.

Heater Illustration



Shower and Sink Layout Illustration

