PHASE III – OPERATIONAL READINESS EXERCISE AND EVALUATION PROGRAM (OREEP)

A progressive exercise program management approach includes exercises anchored to a common set of objectives, built towards an increasing level of complexity over time, and involves the participation of multiple entities.

1-1. Exercise Design and Development

Exercise design requires the following:

- Assessing exercise needs
- Defining the scope of the exercise
- Defining exercise objectives
- Creating a scenario for the exercise

Exercise development requires the following:

- Creating exercise documentation
- Arranging logistics, actors, and safety
- Coordinating participants
- Other supporting planning tasks (e.g., training controllers, evaluators, and exercise staff).

I. Needs Assessment

The most effective way to design an appropriate exercise is to first assess the needs of the task force. The completion of a needs assessment will enable exercise planners to identify the following:

- The function(s) within the task force that requires exercising
- Potential exercise participants
- Existing exercise requirements and capabilities
- Possible hazards and the priority levels of those hazards

For example, if a task force has recently updated its mobilization plan, that plan should then be validated; then the design of an exercise should reflect findings of the needs assessment, and the execution of the exercise should test the plan.

II. Scope

Although the word "scope" can be defined in a variety of ways, it generally refers to the kind, rather than the number, of participants involved in an exercise (i.e., a Type I US&R team). However, other interpretations of the word "scope" may include the following:

- Size (local, national, regional)
- Number of task forces
- Task force functions
- Type of hazard

Exercise planners must keep the scope of the exercise manageable (neither too large nor too complex), selecting a specific scale or actions best suited for the exercise type, budget, and objectives.

III. Purpose and Objectives

A. Purpose

The purpose of an exercise should be captured in a simple phrase that communicates the intent of the exercise. This "purpose statement" is a broad statement that includes the targeted goals of the exercise. It does not describe in detail how the intent of the exercise will be achieved. The following is an example of an appropriately-written purpose statement:

"This exercise is designed to provide feedback regarding the proficiency of the tasks involved in critical US&R response operations. It is also a learning opportunity for task force members to examine the unique aspects of responding to collapsed structures."

B. Objectives

An objective is a description of the performance that is expected from participants. It specifically conveys how the exercise purpose will be achieved. Effective objectives:

- Define specific exercise goals,

- Provide framework for scenario development, and
- Provide exercise evaluation criteria.

The number of exercise objectives should be somewhat limited in order to enable a timely execution, facilitate the design of a reasonable scenario, and promote the successful completion of the exercise purpose.

The **SMART** acronym may be useful when defining objectives:

S imple	**The objective should not cover an area that is "too broad".**
M easurable	Evaluators must be able to determine whether the objective was achieved.
A chievable	The objective should not be too difficult to achieve.
R ealistic	The objective should present a realistic expectation of the situation.
T ask-oriented	The objective should focus on a behavior or procedure.

Objectives may be either discussion based or operations based. For example:

- Discussion-based objective:
  - "Evaluate the standard operating procedure (SOP) for mobilizing a Type I US&R team."
- Operations-based objective:
  - "Assess the capability of a Type I US&R team to establish and set-up a Type I Base of Operations (BoO)."
  - "Examine the abilities of the US&R team to search a collapsed structure and provide medical support and care to those extricated."

IV. Scenario

A scenario is the storyline that drives an exercise. It consists of three basic elements:

- General context or a comprehensive story
- Technical details of the story's conditions and events
- Conditions for assessing/demonstrating capabilities

Scenarios should meet the following criteria:

- Threat-based and performance-based
- Realistic
- Challenging—but not so demanding that participants become overwhelmed

A scenario should involve the participants, the threat, and the area identified in the scope.

Scenario narratives should engage exercise participants in a way that approximates real-world responses to emergencies within a US&R task force.

At a minimum, the narrative should address the following questions:

- Where does the initiating event take place?
- How dangerous and persistent is the emergency?
- What is the impact of the incident?
- What time of day does the event take place?
- What is the sequence of events?
- What other factors would influence emergency procedures?

1-2. Exercise Documentation

Exercise documents are the most tangible elements of exercise design and development. Different types of exercises require different types of documentation. Documents may range from simple sign-in sheets to exercise evaluation guides.

The Exercise Planning Team is responsible for producing exercise documentation. The Lead Planner assigns the responsibility for each document to individual members or groups.

I. Situation Manual

A Situation Manual (SITMAN) is the participant handbook used during discussion-based exercises. It provides background information on the scope, schedule, and objectives for the exercise. It also presents the scenario narrative to be used for participant discussions during the exercise.

II. Exercise Plan*

The Exercise Plan (EXPLAN) is the participant handbook used for operations-based exercises. The EXPLAN provides controllers, evaluators, players, and observers with information, such as the exercise purpose, scope, objectives, and logistical information.

III. Controller Evaluator Handbook*

Controller Evaluator (C/E) Handbooks supplement EXPLANs during operations-based exercises. The C/E Handbook contains additional detailed information about the exercise scenario and guides controllers and evaluators in their roles and responsibilities.

IV. Master Scenario Events List*

The Master Scenario Events List (MSEL) contains a chronological listing of the events and injects that drive operations-based exercise play.

V. Exercise Evaluation Guides*

Exercise Evaluation Guides (EEGs) provide evaluators with a checklist of critical tasks to be completed by participants during an exercise. EEGs contain the information to be discussed by participants, space to record evaluator observations, and questions to consider after the exercise.

**Minimum documentation required for a full-scale exercise (FSE)*

1-3. Conducting the Exercise

Discussion-based and operations-based exercises differ in their complexity and in their planning processes. For example, operations-based exercises usually require additional logistical considerations.

How the two types of exercises are conducted may also differ—particularly in the following areas:

- Time
- Venue(s)
- Equipment
- Type of task force(s) configuration and activities
- Number of planning team members and their assigned activities

I. Discussion-Based Conduct (Table Top Exercise)

Discussion-based exercise conduct involves the following:

- Site setup
- Guided presentation
- Facilitated/moderated discussion
- Wrap-up activities
- Exercise personnel

The majority of discussion-based "action" comes from moderated participant discussions, either as a whole group or in break-out sessions. Moderators and facilitators are essential to keeping the discussions on track to meet exercise objectives.

A. Site setup:

- Usually an indoor venue
- Includes registration, refreshments, and identification tags
- Requires audio/visual equipment and participant tables

B. Guided Presentation:

- A primary tool used for facilitating/moderating discussion
- Usually involves multimedia (with video, sound, and graphics)
- Often used to present scenario narratives (by module)

C. Facilitated/Moderated Discussion:

- Guided discussion aimed at meeting exercise objectives
- Style varies by exercise type (i.e., formal vs. informal)
- Often led by functional subject-matter experts

A facilitator should be an active listener, intervening in the discussion only to guide group activities and ensure that the participants achieve the stated goals

and/or objectives of that session. The group must be allowed to collectively reach its own conclusion(s).

The two proven methods of keeping discussions on track are described below:

- Facilitated discussions:
  - Separate, facilitated group discussions
  - Groups identified by functional expertise
  - Facilitated discussion of scenario and objectives
  - Recorder/notes (note-taker often present)
- Moderated discussions:
  - Results of facilitated discussions reported
  - All participants/groups involved
  - Group discussions summarized by group spokespersons
  - All participant discussions controlled by lead moderator

At times, a combination of both discussion styles may be appropriate to use.

D. Wrap-Up Activities:

- Distributing and reviewing participant feedback forms
- Conducting a "hot wash"
- Debriefing

Hot washes are participant feedback sessions that are conducted immediately following an exercise. They give players an opportunity to voice concerns and offer possible improvements while the experience is still fresh.

The debrief is a forum for planners, facilitators, controllers, and evaluators to review and provide feedback concerning the exercise.

Feedback forms, hot washes, and debriefings all provide vital information for the exercise planning team to begin the next stage of the exercise cycle—evaluation.

The hot wash and debrief have virtually the same purpose but are intended for different audiences. Hot washes are for players and occur immediately after the exercise has concluded. Debriefs are for "exercise management" and can take place on either the same day or weeks after the exercise.

E. Exercise Personnel:

- Presenters – deliver the exercise presentation
- Facilitators/moderators – lead group discussion
- Controllers – interpret rules and provide players with information
- Evaluators – observe and collect exercise data
- Players – discuss issues based on professional knowledge
- Observers/VIPs – view but do not participate in exercise

The positions of presenters, facilitators/moderators, and controllers may be combined depending on the size and scope of the exercise.

II. Operations-Based Conduct (Deployment Exercise)

The conduct of operations-based exercises involves the following:

- Site setup
- Exercise briefings
- Exercise play rules
- Wrap-up activities
- Controller/evaluator functions
- Use of Exercise Evaluation Guide (EEG)

The majority of operations-based conduct action involves the deployment and use of personnel, equipment, communications, and actual or simulated performance of operations.

A. Site Setup:

- Done by the planning team the day before conduct
- Usually an outdoor venue

The site setup may include the following:

- Response route – routes to the simulated incident

- Assembly area – location of exercise activities
- Assembly area – location of deployable resources participating in the exercise
- Observer/media area – designated viewing area
- Simulation cell – location generating scenario injects
- Parking

Coordinating logistics is a critical element in an operations-based exercise conduct due to the large number of personnel, transportation, and equipment involved.

B. Exercise Briefings:

- Train and/or inform exercise participants
- Provide safety information to all personnel
- Are different for controllers, evaluators, players, and actors
- Explain exercise play rules (which vary for each exercise)

C. Exercise Play Rules

Exercise play rules describe the appropriate participant behavior that is expected when physical contact is necessary or when participants either become overemotional or their actions excessive.

Play rules for operations-based exercises are more formal and stringent, because the exercises demand a higher level of intensity from both planners and participants.

Rules are established in advance of the exercise to give participants (such as law enforcement personnel or an actor portraying a barricaded hostage taker) a safety net to prevent physical harm to individuals or damage to property.

D. Wrap-Up Activities:

- Distributing and reviewing participant feedback forms
- Conducting a hot wash
- Conducting a debrief

E. Controller/Evaluator Functions

Controllers and evaluators have two primary responsibilities: Keeping an exercise on track and assessing performance. Both responsibilities are essential elements of capabilities building.

- Controllers:
  - Plan and manage exercise play
  - Set up and operate the exercise incident site
  - Sometimes simulate non-participating organizations
- Evaluators:
  - Track action relative to evaluation objectives
  - Identify any resolved and unresolved issues
  - Help analyze the exercise results
  - Participate in post-exercise meetings and critiques
  - Refrain from interference with exercise flow

Because of their familiarity with the exercise, planning team members are often selected to serve as controllers and evaluators.

F. Exercise Evaluation Guides

A critical document used by evaluators during exercise conduct is the Exercise Evaluation Guide (EEG).

EEGs provide structured evaluation measures of participant conduct, listing critical activities and tasks to be completed during an exercise.

EEGs include information regarding what evaluators should expect to see, provide space for the recording of observations, and supply a list of questions to address after the exercise as a first step in the analysis process. An EEG might include some of the following questions:

- Were roles and responsibilities of the various government agencies and private organizations clear?

- How were various decisions made?
- Who had authority?
- What information about the scenario, the weapon, the victims, and the risks to responders and the public was collected in the course of the exercise?

Each major emergency response core capability has its own EEG (e.g., search & rescue/land based). Other capabilities from official FEMA US&R directives or manuals may also be included. Which capabilities are tested and/or evaluated during an exercise will affect how many EEGs evaluators will need.

1-4. Exercise Evaluation

The exercise evaluation assesses the extent to which the exercise objectives (modules) have been achieved. It also identifies opportunities for improvement. Evaluators are able to make these determinations by:

- Observing the exercise and collecting supporting data,
- Gauging performance against expected outcomes, and
- Determining which changes are needed to ensure desired outcomes.

Evaluation is the yardstick by which a task force measures its capabilities. Good evaluations result in suggestions for filling and bridging capability gaps or making needed improvements. Such improvement might involve making changes that affect a task force's procedures, plans, staffing, equipment cache, communications, coordination, etc.

I. Evaluation Methodology

The evaluation methodology of the Department of Homeland Security assesses exercise performance at three levels.

A. Task level – the ability of individual players / groups or task forces to perform a required task during an exercise

B. Organization/discipline/function level – the ability of an organization (e.g., UT-TF1), discipline (e.g., HazMat), or function (e.g., HazMat decontamination of patients) to perform its role in responding to an event

C. Mission level – the ability of the task force as a whole (across all disciplines) to achieve expected outcomes in responding to an event/incident

During less complex exercises, not every level is assessed. Discussion-based exercises usually focus on mission-level issues.

The evaluation of discussion-based exercises is focused on the adequacy of and familiarity with the following:

- Organizational plans, policies, and procedures
- Resources and capabilities
- Interagency/inter-jurisdictional relationships

The evaluation of operations-based exercises is often focused areas such as the following:

- Mobility of SAR resources
- Effectiveness of Task Force management
- Ability to properly use equipment
- Cooperation among response agencies

II. Evaluation Process

The evaluation process consists of the following eight HSEEP steps:

1. Plan and organize the evaluation.

   The planning team determines which information should be collected, who should collect it, and how it should be collected.

2. Observe the exercise and collect data.

   System (peer) evaluators gather data by recording their observations during exercise play.

3. Analyze data.

   Evaluators analyze the following:

   - Expected versus actual performance
   - Lessons to be learned from conduct
   - Improvements to be made in performance and process

- Best practices to consider adopting

The Exercise Planning Team prepares its evaluation during the design and objectives development process.

4. Develop draft After Action Report (AAR).

   The evaluation team and/or planning team drafts the AAR, which is a summary of the exercise analysis that includes the following information:

   - A description of the events that occurred during exercise conduct
   - Exemplary practices
   - Issues that need to be addressed
   - Recommended improvements

5. Conduct After Action Conference.

   The exercise planners and/or evaluation team present the draft of the AAR to task force representatives for feedback and validation.

   The After Action Conference should always include task force representatives from the sponsoring/participating agencies that participated in the exercise.

6. Identify improvements to be implemented.

   During the After Action Conference, planners and evaluators create an improvement plan that includes the following information:

   - The next steps to be taken for improving performance
   - Which position or group should be responsible for implementing improvements
   - A timeframe for implementation of improvements

7. Finalize AAR and improvement plan.

   Planners and/or evaluators incorporate the results, corrections, or clarifications of the After Action Conference.

8. Track implementation.

Each task force establishes a process to implement and track its tasks identified on the improvement plan.

III. After Action Reports

The primary instrument of exercise evaluation is the After Action Report (AAR).

Often prepared by the members of the planning team and evaluation team, the After Action Report (AAR) provides task forces with feedback pertaining to exercise results and includes recommendations for improvement. An After Action Report should be prepared after every type of exercise and should include the following information:

- A summary of events that occurred during the exercise
- Feedback to participants regarding their performance
- Improvements for better preparedness and response

A task list and timeline of corrective actions, called the Improvement Plan (IP), is part of the AAR.

AARs generally include summaries and evaluations of the exercise scenario, player activities, preliminary observations, and major issues. AARs vary in size and detail, depending on the complexity of an exercise. Sources for AAR data include the following:

- Evaluator observations
- Exercise Evaluation Guides (EEGs)
- Hot wash, debrief, or participant feedback forms
- Plans and procedures from participant organizations

Drafts of AARs are presented during the After Action Conference. This forum allows major findings to be aired during a group discussion, which is intended to generate action items for the improvement plan.

The AAR uses organizations' plans, policies, and procedures to compare the actual results of an exercise with its intended outcome.

The following is the recommended HSEEP AAR format:

1. Executive summary

2. Exercise overview – includes background information; participating organizations, exercise conduct date and time, location, exercise type, hazard, evaluation methodology

3. Exercise goals and objectives

4. Exercise events synopsis – chronological synopsis of major events and actions

5. Analysis of mission outcomes – summarizes how the performance or nonperformance of tasks and interactions affected achievement of the mission outcomes

6. Analysis of critical task performance – summarizes and addresses issues regarding each task in terms of consequences, analysis, recommendations, and improvement actions

7. Conclusion

8. Appendix: Improvement Plan Matrix – provides a task list of recommendations, follow up actions, due dates, close out documents and responsible group assigned to each.

1-5. Evaluation Modules

I. **Mobilization** - Pre-deployment activities are actions taken to prepare the task force for deployment. Pre-deployment training and continuous exercise of deployment activities ensure these tasks are accomplished efficiently. This level of readiness requires; trained and motivated Sponsoring Agency staff, fully-qualified and deployable task force personnel, as well as strong relationships with supporting agencies. In addition, the task force must develop movement expertise, knowledgeable deployment support teams, deployment process improvement tools, and an understanding of the Federal Emergency Management Agency (FEMA) Urban Search and Rescue (US&R) Response System.

There are five steps in planning and preparation during the pre-deployment planning process:

1. **Understand the Mission(s):** The Task Force may be tasked to perform one or more types of search and rescue response missions. The Sponsoring Agency must prepare and mobilize the task force to support various missions.

2. **Team Structure**: Once specific mission(s) are identified, task force response capabilities are assessed and augmented as needed with appropriate resources to successfully respond.

3. **Refine Deployment Data:** The development of the Time-Phase Force Deployment Data (TPFDD/Aircraft Loading Data), multi-modal transportation requirements, and cache configuration for modular deployment should be accomplished both in advance and during deployment operations to continuously refine task force movement capabilities.

4. **Prepare the Team:** Personnel and equipment configurations are developed and prepared to ensure the right capabilities are in the proper combinations to meet operational objectives of specified mission(s). Additionally, personnel are trained and prepared to execute deployment operations.

5. **Schedule the Movement:** The Task Force must clearly and completely define their mobility requirements based on required mission response capabilities. Once the mode of movement is determined and scheduled, appropriate actions must be taken to coordinate that movement.

Effective mobilization operations will ensure personnel and equipment departs the Point of Embarkation (POE) and transition to the Point of Departure (POD) in a timely, safe, and efficient manner. In a perfect scenario, personnel arrive and remain at the POE no longer than required, prepare equipment, stage, and begin movement to meet deployment tasking as soon as possible.

I. Transportation of personnel and cache - The receipt of FEMA Activation Order (FEMA US&R Form 18-002) initiates POE operations and specifies the date and time on which the task force must arrive at the Point of Arrival (POA). Data is verified and equipment is inspected and configured for movement. Equipment is typically moved to the POA by organic and/or contract transport. Support requirements will be identified and addressed during pre-deployment planning and deployment exercises and included in the Task Force Mobilization Manual.

The point to point deployment phase begins with the departure from the POE and ends with arrival at the POA. During a typical deployment, the primary method of transport for personnel, equipment, vehicles, and sustainment move via ground transport. The alternate method of transportation will be via military or contracted airlift as directed in the FEMA Task Order.

II. Establishing a Base of Operations (BoO) -The actual set up of the BoO should be handled in a fashion based upon the priority of needs of the task force as it begins the mission. In most cases, it will be necessary to assign additional personnel to assist in the setup 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.

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 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.

A medical treatment area must be established within the BoO 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 Task Force Base of Operations Location Checklist/Sketch form can be used for the actual placement of the facilities within the BoO.

III. Onsite Operations

Onsite operations should be based on the following list of core competencies:

1. Search Operations
   A. Collapse Structure
   B. Wide Area Search
   C. Canine Search
   D. Technical Search
2. Building Marking Systems
   A. FEMA Building Marking System

B. Victim Marking System

3. Rescue Operations
   A. Rescue Ops Strategy and Tactics

B. Extrication from collapse structure

C. Boat Based SAR Operations

D. Delivery of Survivors

E. Special Needs Survivors

F. Handling of Human Remains

4. SAR Operations in a Contaminated Environment

A. Biological

B. Chemical Incidents

C. Radiological Incidents

D. Electromagnetic Pulse (EMP)

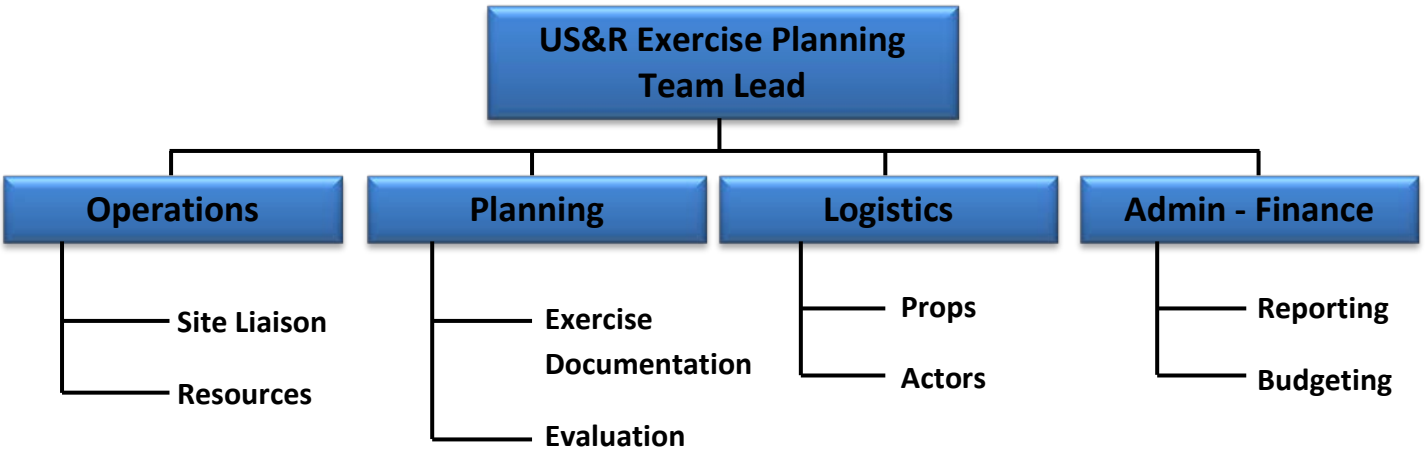
IV. Demobilization

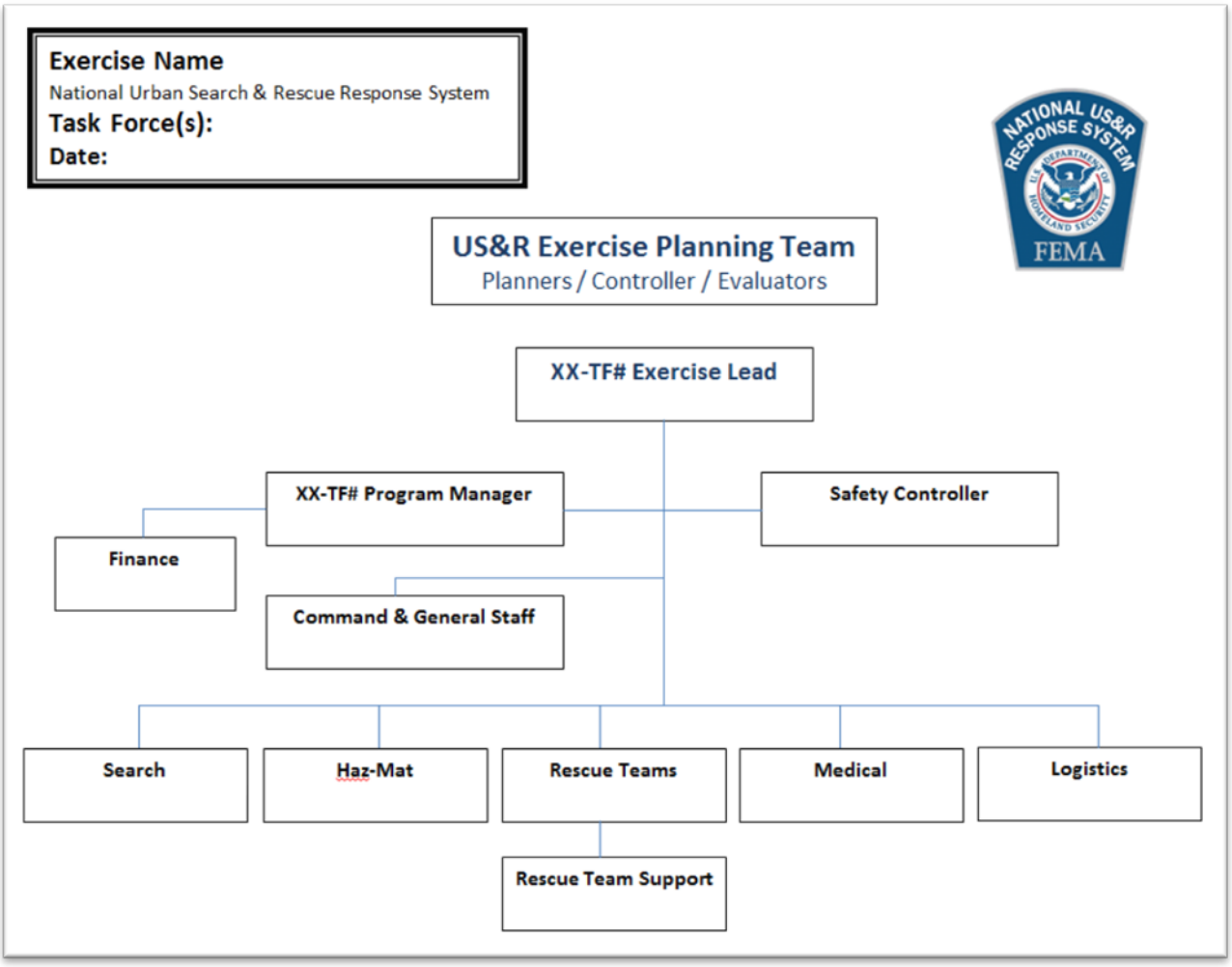
Complete all demobilization activities upon receiving Demobilization Orders (FEMA US&R Form 18-002) based on the following list of activities.

1. Deployment planning wrap-up
2. Cache repackaging
3. Transportation from POA
4. Post mission personnel and cache rehabilitation
    A. Medical Screening
    B. Personnel Rehabilitation
    C. Cache Rehabilitation
5. After Action Process

National US&R Operational Readiness Exercise & Evaluation Program			
Document Title	Exercise Usage	Distribution	Document Features
Exercise Evaluation Guidelines (EEG)	**All Evaluated Exercises**	**Limited:** Evaluators	Assist evaluators in assessing performance during an exercise
Situation Manual (SitMan)	**Discussion-based**	**Not Limited:** All exercise participants	Administrative details of the exercise
Multimedia Presentation	**Discussion-based**	**Not Limited:** All exercise participants	Support SitMan, summarizing all scenario and administrative information, enhances exercise realism with visual depiction of scenario, drive exercise
Controller/Evaluator Handbook (C/E) Handbook	**Operations Based**	**Limited:** Controller/Evaluators	Supplements ExPlan with administrative and scenario information
Exercise Plan (ExPlan)	**Operations Based**	**Not Limited:** Players / Observers	General exercise information but does not include scenario details, allow player to understand their roles in the exercise
Master Scenario Events List (MSEL)	**Operations Based**	**Limited:** Controller, evaluator, simulator	Chronological listing of events and injects to drive the exercise. Produced in long and short formats (quick reference list)

National US&R Operational Readiness Exercise & Evaluation Program			
Exercise Planning Conference	Planning	Exercise Type	Timing Prior Exercise
Initial Planning Conference (IPC)	• Identifies the US&R modules to be exercised and how they will be exercised • Identifies the Exercise Planning Team and assigns their responsibilities • Gathers information from the planning team on the exercise scope, design, objectives (modules), scenario, exercise location, schedule, duration, and details required to develop exercise documentation	ALL	Discussion-based; 3 months Operations-based: 6 months
Mid-Term Planning Conference (MPC)	• Resolves logistical and organizational issues that arise during the planning such as staffing, scenario and timeline development, scheduling, logistics, administrative requirements and draft documentation review. • Master Scenario Events List review	Operations-based	3 months
Final Planning Conference (FPC)	• Uses a forum to review the entire process and procedures for the exercise conduct, final drafts of exercise material and logistical requirements • Ensure there are no major changes made to the design or scope of the incident or to any supporting documentation	ALL	Discussion-based; 6 weeks Operations-based: 6 weeks


US&R Exercise Planning Team Lead
Operations
Planning
Logistics
Admin - Finance
Site Liaison
Resources
Exercise Documentation
Evaluation
Props
Actors
Reporting
Budgeting


Exercise Name
National Urban Search & Rescue Response System
Task Force(s):
Date:
US&R Exercise Planning Team
Planners / Controller / Evaluators
XX-TF# Exercise Lead
XX-TF# Program Manager
Safety Controller
Finance
Command & General Staff
Search
Haz-Mat
Rescue Teams
Medical
Logistics
Rescue Team Support