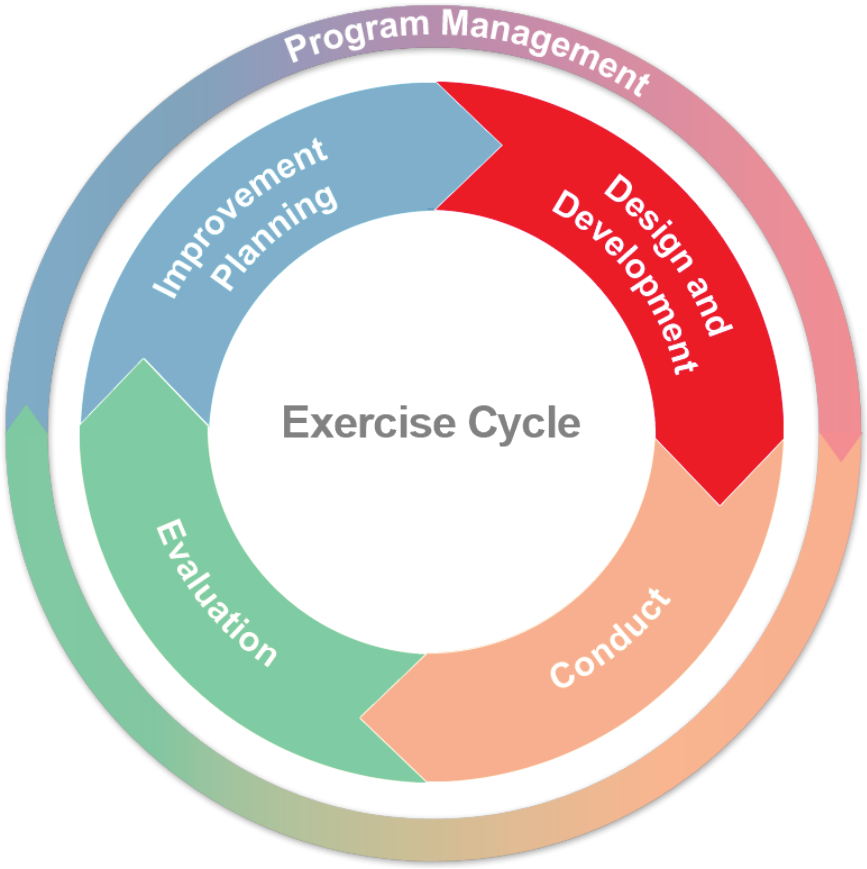

HSEEP Training

Module 3

Exercise Design and Development

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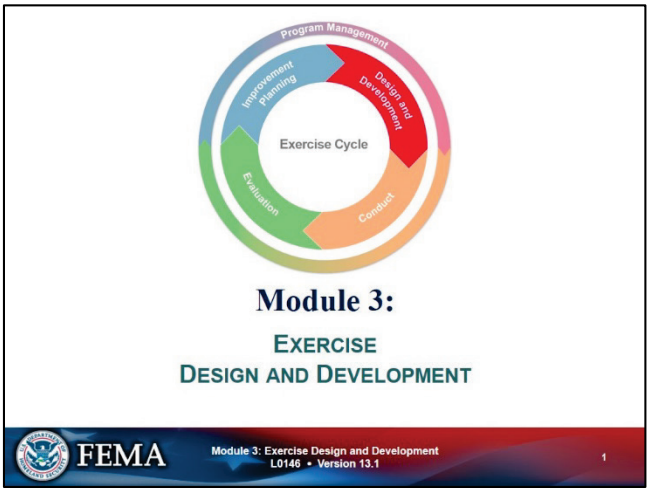

Module 3: HSEEP Exercise Design and Development

In the design and development phase of HSEEP, exercise practitioners use guidance provided by the sponsoring organization's senior elected and/or appointed officials, the exercise program priorities identified in previous Program Management activities, and the existing Training and Exercise Plan when designing individual exercises. Exercise planning teams apply guidance from senior officials to shape the key concepts and planning considerations for an individual exercise or series of exercises.

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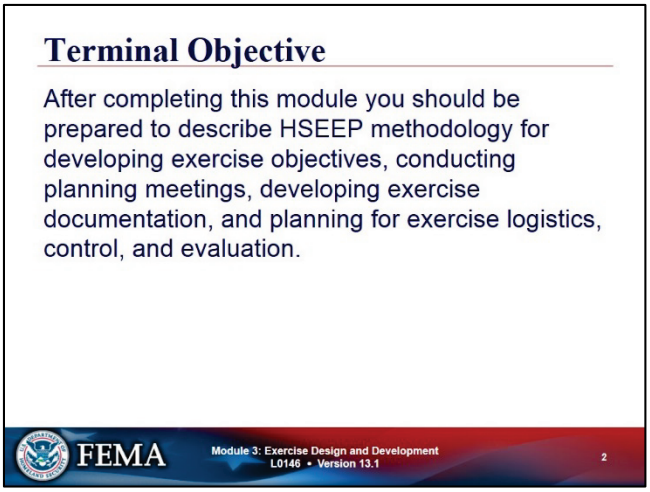

Module 3: Terminal Objective

After completing this module you should be prepared to describe HSEEP methodology for developing exercise objectives, conducting planning meetings, developing exercise documentation, and planning for exercise logistics, control and evaluation.

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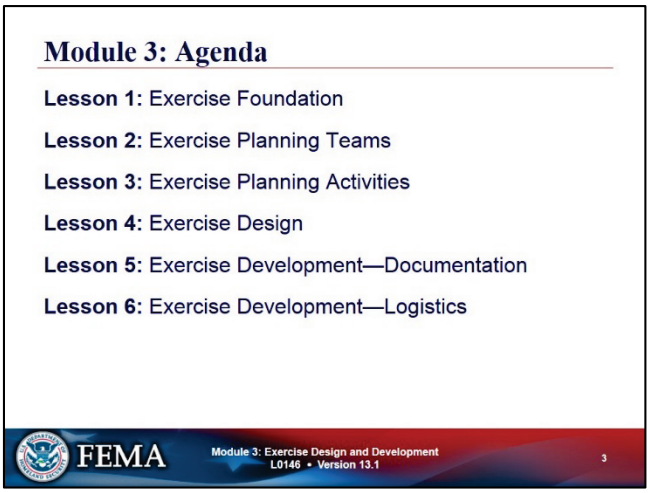
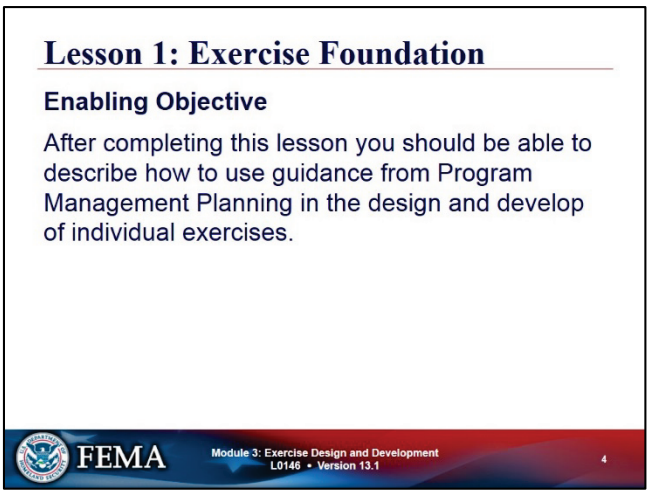


Lesson 1: Exercise Foundation	Lesson 4: Exercise Development
Lesson 2: Exercise Planning Teams	Lesson 5: Creation of Exercise
Lesson 3: Exercise Planning	Lesson 6: Exercise Logistics

Slide 4



Lesson 1: Exercise Foundation

Enabling Objective:

After completing this lesson you should be able to describe how to use guidance from Program Management Planning in the design and develop of individual exercises.

Slide 5

Key Design and Development Steps

The key steps of exercise design and development include:

- Setting the exercise foundation by reviewing elected and appointed officials' guidance, the Training and Exercise Plan (TEP), and other factors
- Selecting participants for an exercise planning team and developing an exercise planning timeline with milestones
- Developing exercise-specific objectives and identifying core capabilities based on the guidance of elected and appointed officials
- Identifying evaluation requirements
- Developing the exercise scenario
- Creating documentation
- Coordinating logistics
- Planning for exercise control and evaluation.

Engagement of senior officials is accomplished in large part prior to the selection of planning team members as part of prior program management foundational processes.

Slide 6

Exercise Foundation Key Factors

The exercise foundation is a set of key factors that drive the exercise design and development process. Prior to the beginning of its design, exercise program managers should review and consider the following items to set the foundation for an individual exercise:

- Multiyear TEP
- Jurisdiction's existing plans and procedures
- THIRA or other risk, threat and hazard assessments
- Past exercise AAR/IPs
- Grant or cooperative agreement requirements.

By reviewing these elements, exercise program managers can ensure the exercise builds and sustains a jurisdiction's capabilities while taking prior lessons learned into account in the exercise design process.

Once the planning team has been selected and convened, they will begin the design process with a review of information collected during the foundational phase. This is done to ensure each exercise adheres to the progressive approach and is designed with the appropriate level of scope and complexity within the range of exercises described in the Training and Exercise Plan.

Senior officials should be engaged as necessary throughout the design process to clarify and validate the exercise plan aligns with the intent and guidance of these officials.

For each exercise offering, the design and development process is initiated with selection of the Exercise Planning Team.

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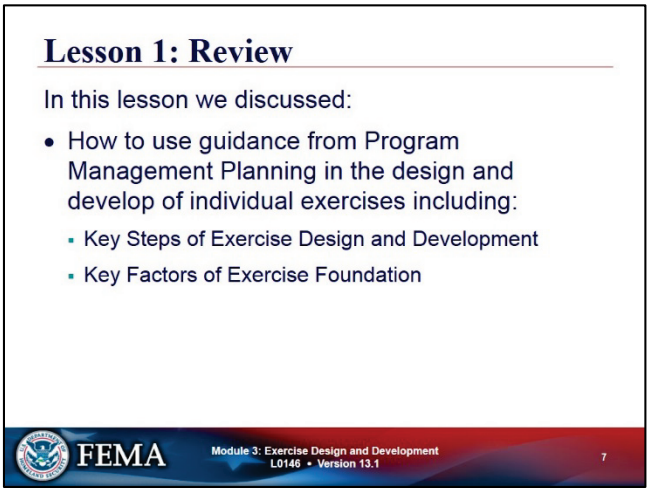

Lesson 1: Review

In this lesson we discussed:

- How to use guidance from Program Management Planning in the design and develop of individual exercises including:
- Key Steps of Exercise Design and Development
- Key Factors of Exercise Foundation

Questions?

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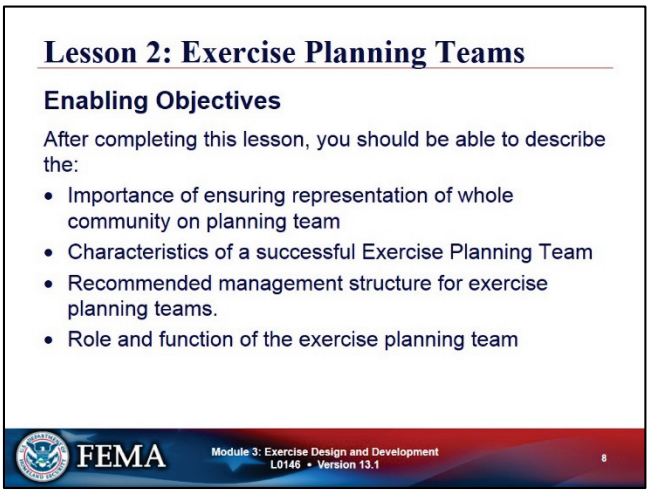

Lesson 2: Exercise Planning Teams

Lesson 2 introduces the Exercise Planning Team and their function within HSEEP methodology. After completing this lesson, you should be able to describe the:

- Importance of ensuring representation of the whole community on the planning team
- Role and function of the exercise planning team
- Role of team members as Trusted Agents
- Characteristics of a successful Exercise Planning Team
- Recommended management structure for exercise planning teams.

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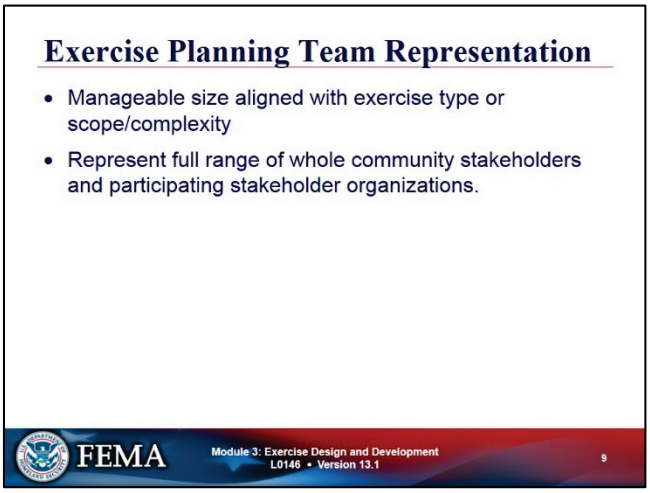

Exercise Planning Team Representation

The exercise planning team should be of manageable size yet represent the full range of participating organizations as well as other relevant stakeholders, and should be led and managed by an Exercise Director appointed by the sponsoring organization.

When selecting team members, it is important to incorporate whole community stakeholders, including support agencies/organizations including advocates for children, seniors, individuals with disabilities, those with access and functional needs, diverse communities, and people with limited English language proficiency.

For multi-jurisdictional exercises, planning team members should include representatives from each jurisdiction and participating functional areas or relevant disciplines who would normally be involved in the mission area activities to be evaluated during exercise play. The membership of an exercise planning team should be modified as necessary to fit the type or scope of an exercise, since this can vary considerably depending on the selected exercise type and complexity.

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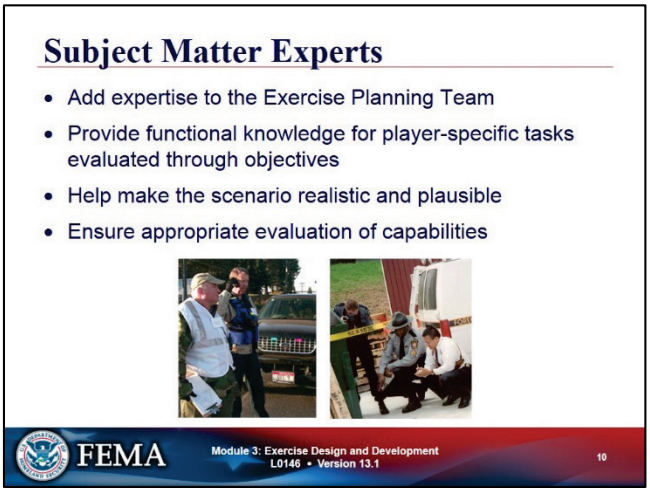

Subject Matter Experts (SMEs)

Depending on their area of experience, SMEs can be called upon to fulfill any of the roles in the planning team structure.

Their most important function is their ability to lend functional knowledge and expertise to the Exercise Planning Team to help make the scenario realistic and plausible by identifying player-specific actions/tasks used to evaluate capability. They may also provide local insights to make the scenario come alive for participants and to make sure the exercise remains within reasonable and realistic scope based on local response capabilities.

For example, a biological exercise would have a large role for hospitals and public health departments, but care must be taken not to overwhelm these assets when these entities are asked to participate in a full-scale exercise (FSE). This is one of the reasons early engagement of private sector organizations typically involved in real-world incidents is important to the exercise planning process as well as the design of the exercise.

Depending on the exercise type, some SMEs may be called upon to play a more active role in designing the exercise and planning the scope and conduct than others. For example, Public Health SMEs would provide functional knowledge necessary for creating scenario and event injects for a bioterrorism exercise.

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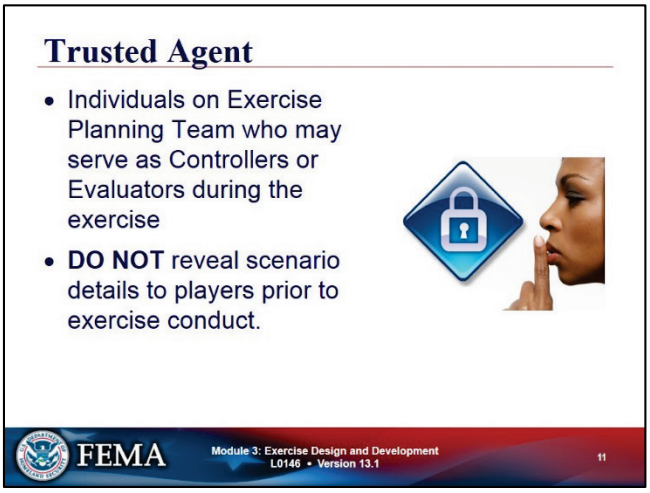

Trusted Agents

Since every exercise is designed as a testing process intended to validate the selected mission area capability, it is also important that every member of the exercise planning team, but especially those who participate in the conduct of the exercise, understand their role as "trusted agents." As a trusted agent, each member is expected to maintain the integrity and confidentiality of the intended evaluation process for the exercise. Team members must not reveal details or provide insights into the scenario to players or other personnel who are not members of the planning team.

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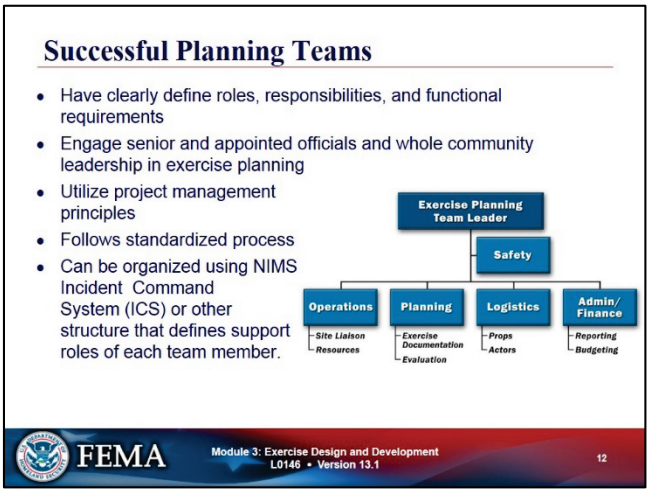

Successful Planning Teams

Regardless of the scale and complexity of an exercise, an exercise planning team is most effective when it adheres to a coherent organizational structure that clearly delineates roles, responsibilities and functional requirements for each role/position on the planning team.

Involvement of senior elected and appointed officials throughout the design process helps ensure the alignment of the exercise with the larger effort to meet mission capabilities.

Utilizing proven project management principles during the design and development ensures this phase of the exercise cycle is completed within the timeframes established for development. Effective project management ensures identification, development, and management of critical and supportive tasks; frequent communication about project status; and use of management plans and timelines (e.g., task schedules, Gantt charts).

When establishing the structure and organization of the planning team, exercise planners may elect to use the Incident Command System (ICS) structure, as established in the National Incident Management System (NIMS). With this structure the team can expand or contract to reflect the scope of the exercise and the available resources and personnel of the participating organizations, depending on available resources. This also allows some of the team members to fulfill multiple functions. Setting up the team using the Incident Command System (ICS) structure is not the only approach that can be taken, but it is a proven one. What is important is that the team functions properly to accomplish all aspects of the planning process.

Suggested Practice: You can use the Master Task List found on the HSEEP homepage as the basis of the exercise timeline—it makes it easier to assign responsibilities to team members without forgetting any of the critical design and development tasks.

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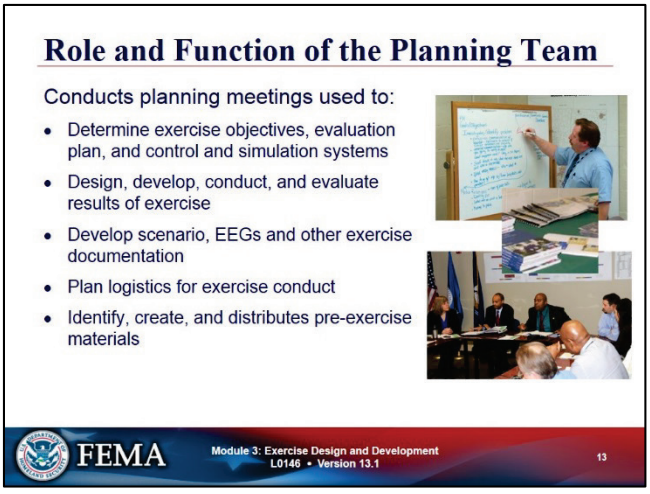

Role and Function of the Planning Team

The exercise planning team manages and is ultimately responsible for exercise design, development, conduct, and evaluation. Using the exercise program priorities and guidance from elected and appointed officials, the team conducts a series of planning meetings to determine the exercise objectives and core capabilities that will be assessed during exercise play; creates a realistic scenario to assess them; and

develops supporting documentation, processes, and systems that are used in evaluation, control, and simulation.

The team must identify Exercise Evaluation Guides (EEGs) by the Mission Area that will be assessed and develop these to ensure they can be used successfully to verify the capabilities exist.

Planning team members also help with developing and distributing pre-exercise materials and conducting exercise planning meetings, briefings, and training sessions.

As some of you may know from personal experience, being part of the planning team is often a work assignment added to each team member's normal job tasks/roles. Because of this it is important to ensure "buy-in" from each candidate for the planning team along with a commitment to be an active participant in the planning process. Each team member must understand the required time commitment and be willing and able to dedicate the time to serve on the Team.

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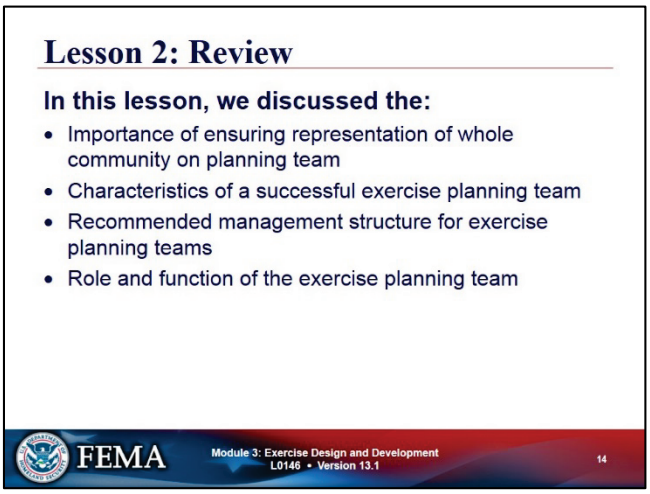

Lesson 2: Review

We've now reached the end of Lesson 1. We will continue to build on the knowledge we've gained about the Exercise Planning Team throughout the remainder of the course.

In this lesson, we discussed:

- Importance of ensuring representation of whole community on planning team
- Characteristics of a successful Exercise Planning Team
- Recommended management structure for exercise planning teams
- Role and function of the exercise planning team.

Questions?

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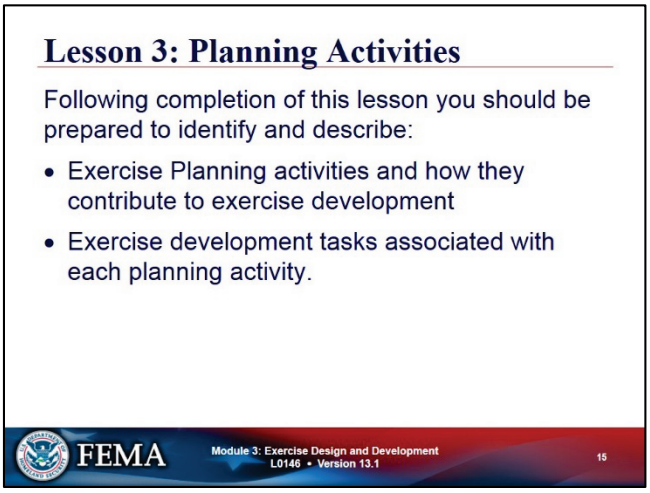

Lesson 3: Planning Activities

Following completion of Lesson 3 you should be prepared to identify and describe:

- Exercise planning activities and how they contribute to exercise development
- Exercise development tasks associated with each planning activity
- Timeframes for each activity and associated task(s).

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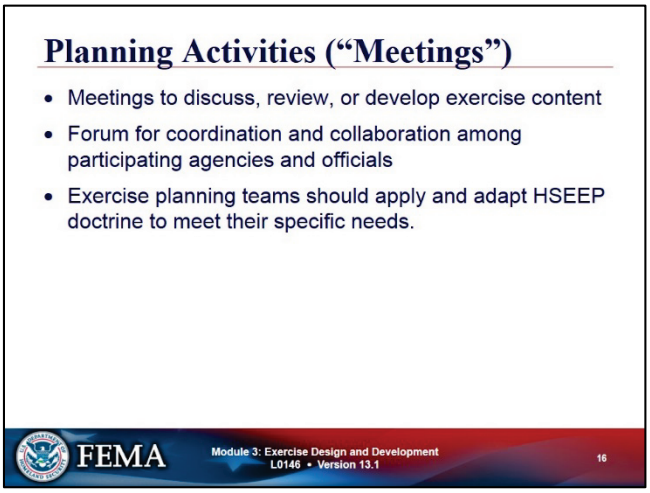

Planning Activities ("Meetings")

Planning Meetings are held to discuss, review, or develop exercise content. They are typically face-to-face meetings, and are crucial in both the initial and final stages of exercise development.

Developing an exercise is an intensive process, so these planning meetings are important for discussing, reviewing, or developing content.

Not all the work of developing an exercise can be done during these meetings, but these are a good place to assess progress, assign responsibilities, review completed work and establish deadlines. Once the exercise planning team is established, collaborative online meetings may be used to facilitate the exercise planning process.

Face-to-face meetings are a forum for coordination and collaboration among participating agencies and officials. It often brings together partners who have never worked together, but by the end of the exercise, relationships may have developed which are important not only for planning a successful, engaging exercise, but also for increasing the ongoing coordination and collaboration among these participating agencies and officials.

Exercise planning team are encouraged to apply and adapt HSEEP doctrine on exercise program management to meet their specific needs

NOTE: HSEEP has removed planning timelines, and planning team members must determine what timeframes are best to meet their specific needs.

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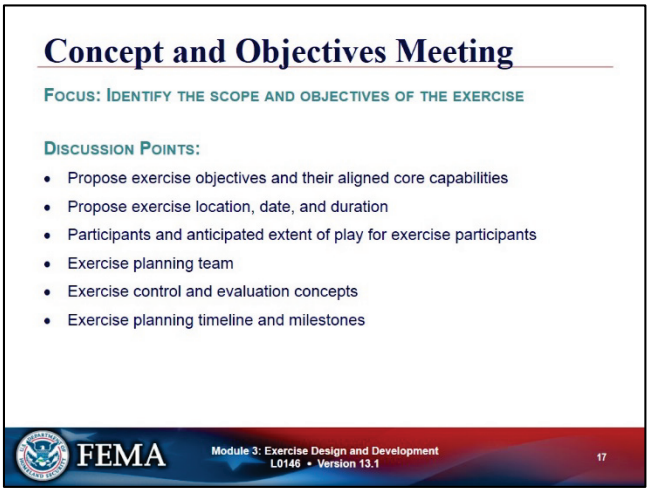

The **Concept and Objectives (C&O) Meeting:**
When/if held directly before the Initial Planning Meeting (IPM), the C&O Meeting marks the **formal beginning of the planning process.**

It should be held BEFORE the IPM whenever the scope dictates, such as for large-scale exercises, complex full-scale exercises (FSEs), or any high-profile exercise where high level support from executives or authorities is required.

Length and Location: Depending on the scope of the exercise, the C&O Meeting can run from 2 to 4 hours and is held in a location convenient to the senior officials who will attend.

Participants:

- Elected and appointed officials
- Representatives of the sponsoring organization
- Participating organizations, and
- Exercise Planning Team Leader

Discussion Points:

- Potential exercise scope
- Resources for design and development including EEGs by mission area targeted for use in exercise development
- Proposed exercise objectives and their aligned core capabilities
- Proposed exercise location, date, and duration
- Participants (players and potential actors) and anticipated extent of play for exercise participants
- Proposed composition of exercise planning team—including which communities of practice potential evaluators can be drawn from
- Exercise assumptions and artificialities related to the proposed conditions of play
- Exercise control and evaluation concepts
- Exercise security organization and structure
- Available exercise resources
- Exercise logistics
- Exercise planning timeline and milestones
- Local issues, concerns and sensitivities
- What **evaluation** method(s)/standards will be used to judge actions of participants
- Mission areas targeted for development of EEGs
- What kinds/types/areas of expertise will be required of Subject Matter Experts (SMEs)
- Determine **Security and logistics** for the proposed exercise venue
- Contingency plan
- Control concept

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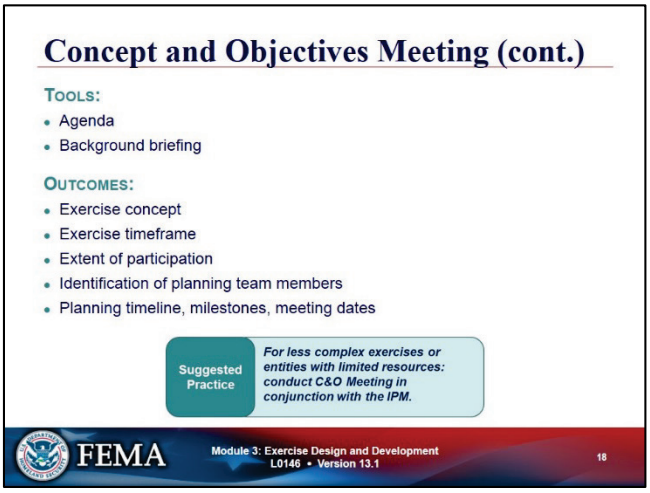

Concept and Objectives Meeting (cont.)

Tools:

The **primary tool** for these meetings is **a read-ahead packet** that includes the agenda and background/ rationale for conducting the exercise.

Outcomes of this meeting should be:

- An agreement regarding the exercise type, scenario, capabilities, tasks and objectives
- Consensus regarding the target exercise timeframe and the date and time of the next planning meeting
- Identification of participating entities.

Follow-up: Minutes from the meeting should be prepared and sent to participants within 4 working days of the meeting's conclusion.

Suggested Practice: For less complex exercises and for jurisdictions with limited resources, the C&O Meeting can be conducted in conjunction with the IPM.

Reference: See Sample Exercise Materials.

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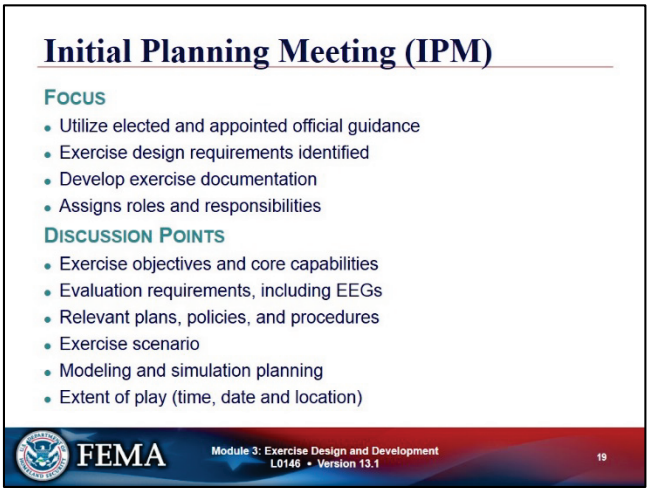

Initial Planning Meeting (IPM)

The IPM marks the **beginning of the exercise design process**, and preparation is the key to a successful IPM.

Its purpose is to determine exercise scope by getting intent and direction from elected and appointed officials, and gathering input from the exercise planning team; and to identify exercise design requirements and conditions (e.g., assumptions and artificialities), exercise objectives, participant extent of play, and scenario variables (e.g., time, location, hazard selection).

Focus: To gather input from Planning Team on the **scope, design requirements, and conditions** (such as assumptions and artificialities), **objectives**, level of participation and scenario variables (e.g., threat/hazard election). For **discussion-based exercises**, the IPM is typically the *only* opportunity the group has to meet before the FPM, where materials are reviewed. As such, it is important that the IPM be focused and well organized in order to capture all necessary information. Therefore, as with the C&O Meeting, having resources and tools prepared ahead of time is important.

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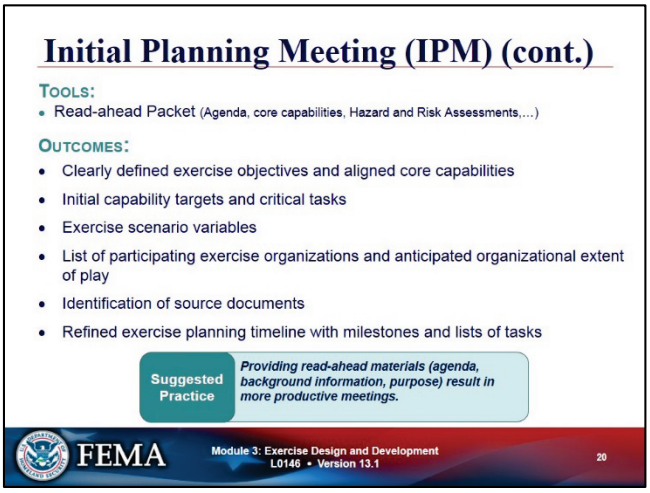

Tools:
The primary tools for the IPM are the read-ahead packet, agenda, core capabilities, threat and hazard information and the exercise planning timeline with milestones. A briefing is useful for presenting an overview of the exercise and meeting discussion points.

It's important to provide the read-ahead materials at least five days in advance of the meeting.

Each packet should contain:

- The meeting agenda
- A list of capabilities and tasks from the Exercise Evaluation Guides (EEGs) or copies of the EEGs that pertain to the capabilities to be validated
- Hazard information (if applicable to the exercise)
- For discussion-based exercises: the proposed room layout
- For operations-based exercises: a map of proposed exercise venue and description of the local environment
- A copy of the proposed project timeline for exercise design and development, and
- Copies of the presentation briefing to be used at the meeting.

Because face-to-face time at the meeting is limited, providing these materials beforehand gives participants a chance to formulate ideas and come prepared to contribute to the effort, thus increasing productivity of the time available during face-to-face sessions.

Outcomes:
The IPM results in desired outcomes, such as:

- Any outcomes listed in the C&O Meeting section above if a C&O Meeting was not conducted
- Clearly defined exercise objectives and aligned core capabilities
- Initial capability targets and critical tasks, which will be reviewed and confirmed prior to the next planning meeting

- Identified exercise scenario variables (e.g., threat scenario, scope of hazard, venue, conditions)
- A list of participating exercise organizations and anticipated organizational extent of play
- Draft Situation Manual (SitMan) or Exercise Plan (ExPlan)
- Identification and availability of all source documents (e.g., policies, plans, procedures) needed to draft exercise documents and presentations
- A refined exercise planning timeline with milestones
- Identification and availability of SMEs, as necessary, for scenario vetting and/or expert evaluation
- Determination of preferred communication methods among the exercise planning team
- Clearly identified and assigned responsibility for exercise logistical issues
- A list of tasks to be accomplished by the next planning meeting with established dates for completion and responsible planning team members identified
- An agreed-upon date, time, and location for the next planning meeting and the actual exercise.

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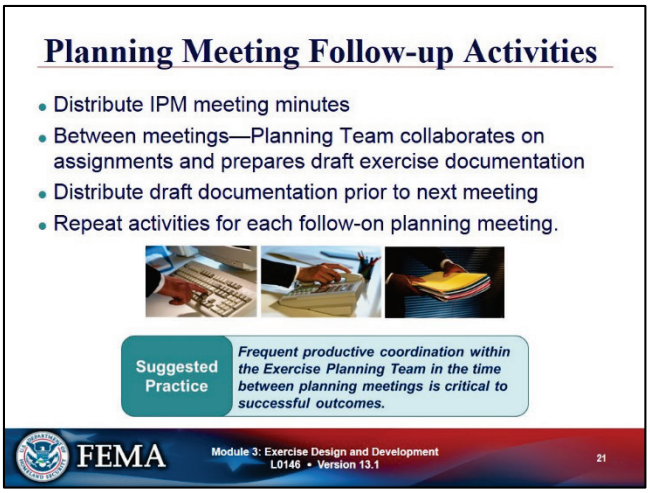

Planning Meeting Follow-up Activities

Minutes of the Initial Planning Meeting should be prepared and disseminated to team members. During the period between the IPM and the next planning meeting, team members are very busy reviewing reference documents, previous exercise plans and EEGs to draft their assigned exercise documents for review at next planning meeting. They continue to work on development of the exercise scenario, and to ensure realism may consult and collaborate with identified SMEs for assistance in creating plausible incident events for the scenario that reflect real-world response requirements.

The Planning Team Leader should encourage direct and **continual contact among all team members** and request periodic progress reports to identify outstanding information they require, and ensure those assigned logistical tasks for future planning meetings are on track for preparations required for next planning meeting.

During this period Exercise Planning Team members prepare their assigned draft exercise documents and presentations. To ensure productivity during the next planning meeting, team members should distribute their assigned document drafts to the team in advance of the next meeting so members can review and come prepared to provide comments and recommendations.

Best Practice: Frequent and productive coordination within the Exercise Planning Team in the time between the IPM and MPM is critical to successful project management and can help the MPM run more efficiently.

Reference: Sample IPM presentation can be found HSEEP homepage.

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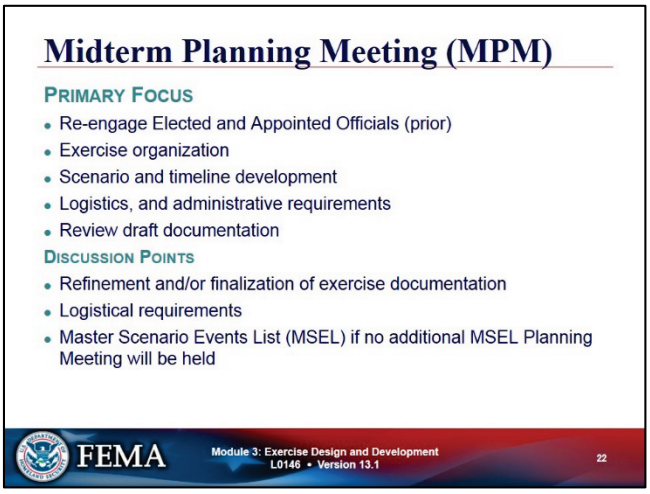

Midterm Planning Meetings (MPMs)

MPMs provide additional opportunities to engage elected and appointed officials and to settle logistical and organizational issues that may arise during exercise planning.

Primary Focus:
The MPM is a meeting to discuss exercise organization and staffing concepts, scenario and timeline development, scheduling, logistics, and administrative requirements. It is also held to review draft documentation. If only three planning meetings are scheduled (i.e., IPM, MPM, and Final Planning Meeting [FPM]), a portion of the MPM should be devoted to developing the MSEL, as needed. See the next section, MSEL Meeting, for more information.

Prior to the MPM, the exercise team leader should engage elected and appointed officials to provide awareness of the planning process, address any questions, and ensure alignment with guidance and intent.

Discussion Points:
Possible topics or issues for an MPM include the following:

- Comments on draft exercise documentation
- Construction of the scenario timeline—usually the MSEL—if an additional MSEL Planning Meeting will not be held
- Identification of exercise venue artificialities and/or limitations
- Agreement on final logistical items
- Assignment of additional responsibilities.

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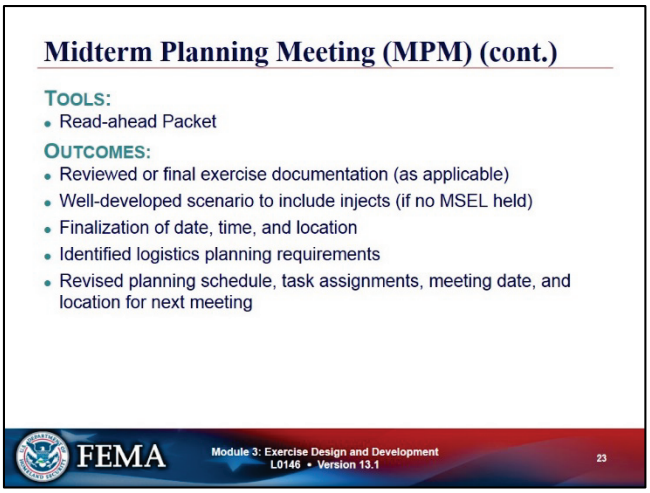

Midterm Planning Meeting (MPM) (cont.)

Tools:
MPM tools include, but are not limited to, an agenda, IPM minutes, draft scenario timeline, draft documentation (e.g., ExPlan, Controller/Evaluator [C/E] Handbook), and other selected documentation needed to illustrate exercise concepts and provide planning guidance.

Outcomes:
The following outcomes are expected from the MPM:

- Fully reviewed SitMan or ExPlan
- Draft Facilitator Guide or Controller/Evaluator (C/E) Handbook, including EEGs
- A fully reviewed exercise scenario timeline, which is typically the MSEL (if an additional MSEL Meeting will not be held)
- Well-developed scenario injects (imperative if an additional MSEL Planning Meeting is not scheduled)
- Agreement on the exercise site
- Finalization of date, time, and location of the MSEL Planning Meeting and/or FPM.

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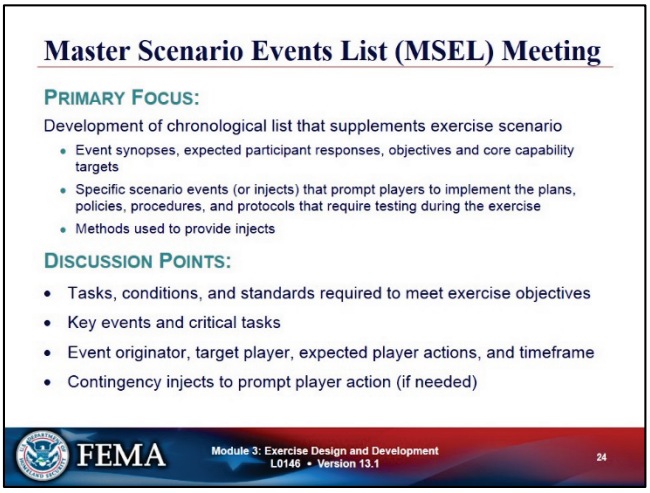

Master Scenario Events List (MSEL) Meeting

For more complex exercises, one or more additional planning meetings—or MSEL Meetings—may be held to review the scenario timeline. If not held separately, topics typically covered in a separate MSEL Meeting can be incorporated into the MPM and FPM.

Primary Focus:

The MSEL Meeting focuses on developing the MSEL—a chronological list that supplements the exercise scenario with:

- Event synopses
- Expected participant responses
- Objectives and core capabilities to be addressed,
- Responsible personnel.

It includes specific scenario events (or *injects*) that prompt players to implement the plans, policies, procedures, and protocols that require testing during the exercise, as identified in the capabilities-based planning process. It also records the methods that will be used to provide the injects (e.g., phone call, radio call, e-mail).

Discussion Points:

- Tasks, conditions and standards required to meet exercise objectives
- Key events and critical tasks
- Event originator, target player, expected player actions and timeframe
- Contingency injects to prompt player action (if needed)

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Master Scenario Event List (MSEL) Meeting (cont.)

Tools: Read-ahead packet with previous planning meeting minutes, draft exercise documents, MSEL template.

Outcomes:

- Scenario injects and timeline—injects are MSEL events that prompt players to implement the plans, policies, and procedures that planners want the exercise to validate. Exercise controllers provide injects to exercise players to drive exercise play toward achievement of objectives.
- Draft document revision
- Venue selection agreement
- Identified logistics planning requirements *(to support scenario)*

Suggested Practice: Early identification of the Template or System used for development and conduct.

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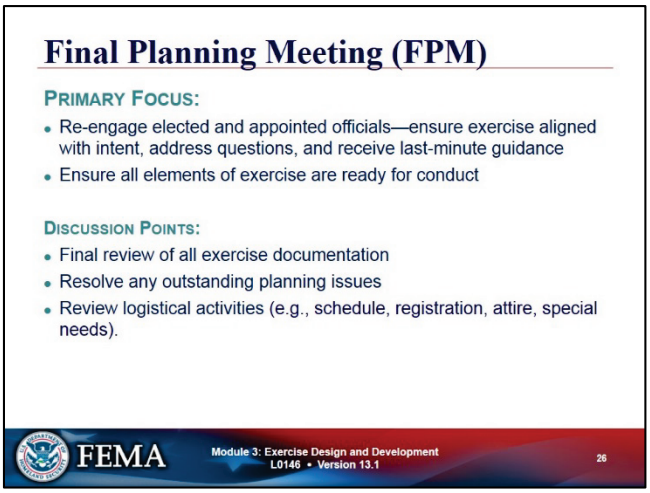


Final Planning Meeting (FPM)

The FPM is the final forum for reviewing exercise processes and procedures. Both before and after the FPM, the exercise team leader should engage elected and appointed officials to ensure that the exercise is aligning with their intent, address any questions, and receive any last-minute guidance.

Primary Focus:

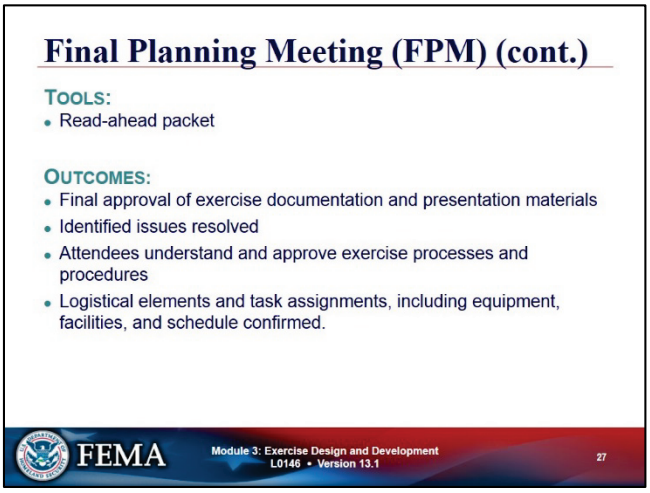
An FPM should be conducted for all exercises to ensure that all elements of the exercise are ready for conduct. Prior to the FPM, the exercise planning team receives final drafts of all exercise materials. No major changes to the exercise's design, scope, or supporting documentation should take place at or following the FPM. The FPM ensures that all logistical requirements have been met, outstanding issues have been identified and resolved, and exercise products are ready for printing.

Discussion Points:

The following items are addressed during the FPM:

- Conduct a comprehensive, final review and approve all remaining draft exercise documents (e.g., SitMan, MSEL, C/E Handbook, EEGs) and presentation materials
- Resolve any open exercise planning issues and identify last-minute concerns
- Review all exercise logistical activities (e.g., schedule, registration, attire, special needs).

Slide 27



Tools:
The primary tools for the FPM include IPM and/or MPM minutes, an agenda, and previously finalized and/or drafted exercise documents.

Outcomes:
The FPM should not generate any significant changes. The following outcomes are expected:

- Exercise documents and materials for production are approved
- Attendees understand and approve exercise processes and procedures
- Last-minute issues are identified and resolved
- Logistical elements, including equipment, facilities, and schedule, are confirmed.

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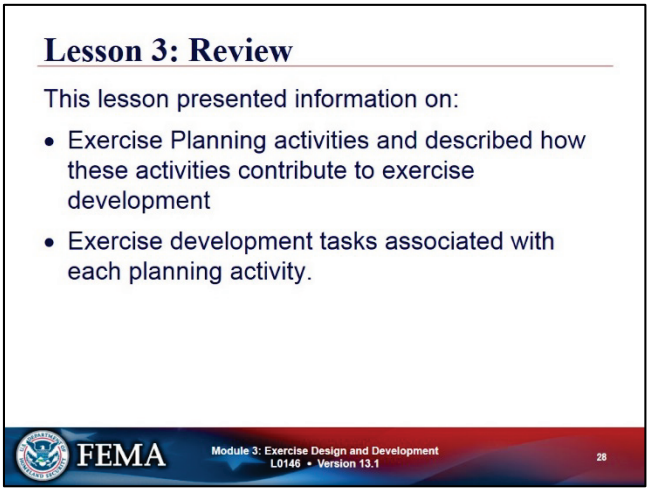

Lesson 3: Review

Items covered in Lesson 3 related to the planning activities necessary for each exercise development process include:

- Exercise Planning activities and descriptions of how these activities contribute to exercise development
- Exercise development tasks associated with each of these planning activities.

Questions?

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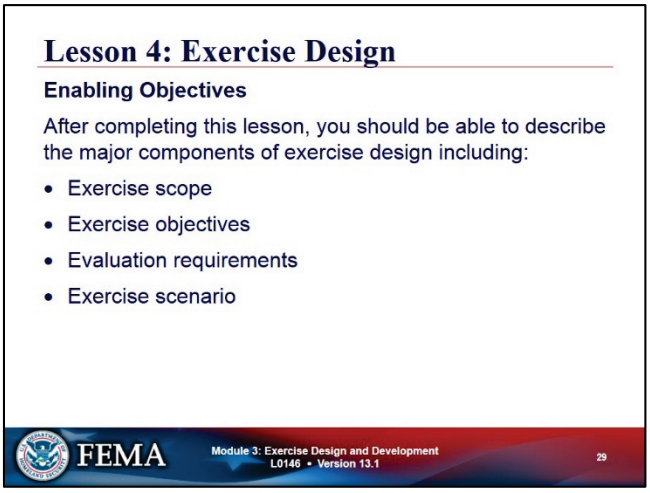

Lesson 4: Exercise Design

Lesson 4 will discuss the details and requirements of the exercise design process.

After completing this lesson, you should be able to describe the process used to:

- Select exercise type based on targets of your assessment process (plans or operations)
- Develop exercise objectives
- Identify specific tasks and measurement criteria for development of capabilities-based exercise objectives
- Develop a scenario and its supporting elements.

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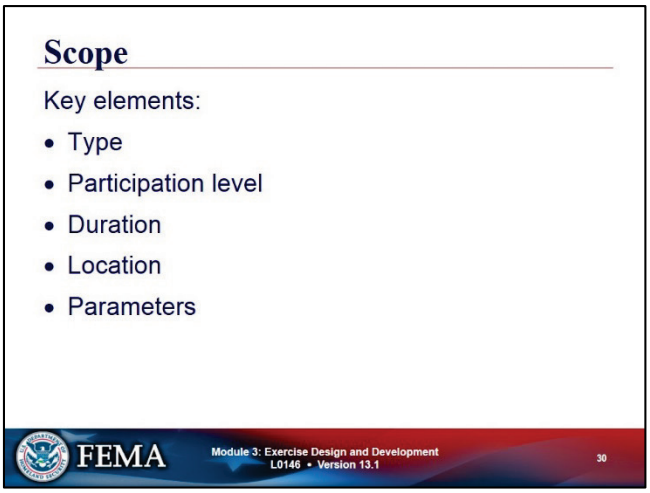


Exercise Scope

Determining exercise scope enables planners to "right-size" an exercise to meet the objectives while staying within the resource and personnel constraints of the exercising organizations. **Key elements in defining exercise scope include exercise type, participation level, exercise duration, exercise location, and exercise parameters.** Some of these elements are determined, or initially discussed, through program management activities or grant requirements. However, the exercise planning team finalizes the scope based on the exercise objectives. Alterations to the scope are reviewed with the exercise objectives in mind; planners must consider whether a change in the scope will improve or impede the ability of players to meet the objectives.

Exercise planners select the **exercise type** that is appropriate to the targeted capability process. A comprehensive, integrated exercise program will utilize a progression of exercise types chosen so that when done in series they address program priorities by assessing the full range of preparedness activities for each mission area—from underlying procedural concepts through full mobilization of stakeholder organizations.

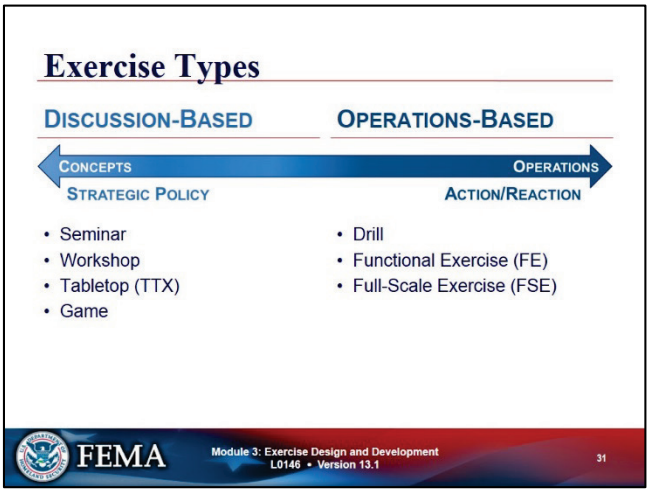
Participation level refers to the organizations and level of personnel (e.g., tactical operators, line supervisors, agency directors) participating in the exercise, as well as the general number of personnel who will participate in the exercise.

Duration should be determined by how long it will take to address the exercise objectives effectively. Resource constraints, including the opportunity cost of having employees away from their primary roles, should be factored into determining duration.

Locations suitable for the exercise should be discussed and decided on as the location chosen can necessitate limiting the scope or defining artificialities required to simulate real-world events.

The **exercise parameters** describe the activities that will be included in the exercise in order to meet planning and training requirements. These describe the scope of exercise activities that will keep the exercise to a manageable and realistic level.

Slide 31



Exercise Types

The exercise type is selected based on the purpose of the exercise. If the intent is to review and discuss a new policy, plan, or set of procedures, a discussion-based exercise may be appropriate. If the intent is to assess the responders' knowledge, skills and abilities in implementing a plan, policy, or set of procedures, an FE or FSE may be appropriate.

Exercise planners select the exercise type that is appropriate to the capabilities and risks that will be the focus of the exercise. A comprehensive, integrated exercise program will utilize a progression of exercise types chosen so that when done in series they address program priorities by assessing the full range of preparedness activities for each mission area—from underlying procedural concepts through full mobilization of stakeholder organizations.

Discussion-based exercises focus on strategic, policy-oriented issues and include seminars, workshops, tabletop exercises (TTXs), and games. These types of exercises are used to familiarize players with current plans, policies, agreements, and procedures or develop new plans, policies, agreements, and procedures. Facilitators/presenters usually lead the discussion, and are critical for keeping participants on track toward meeting exercise objectives.

Operations-based exercises are characterized by actual reaction to an exercise scenario designed to simulate a real-world event and may involve actual mobilization of personnel and resources. Operations-based exercises include drills, functional exercises (FEs), and full-scale exercises (FSEs). These are used to validate functional response actions where plans, policies, agreements, and procedures are implemented "as if" responding to actual incident. They are used to validate appropriateness of player actions based on assigned roles and responsibilities and are used to identify resource gaps across the

scope of response—including the policy and planning basis that sets forth standard operating procedures followed during response activities.

As you may expect, due to their scope and complexity the level of support and time needed to plan, design, develop and conduct operation-based exercises is considerably greater than those required for discussion-based exercises.

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Exercise Participation Level

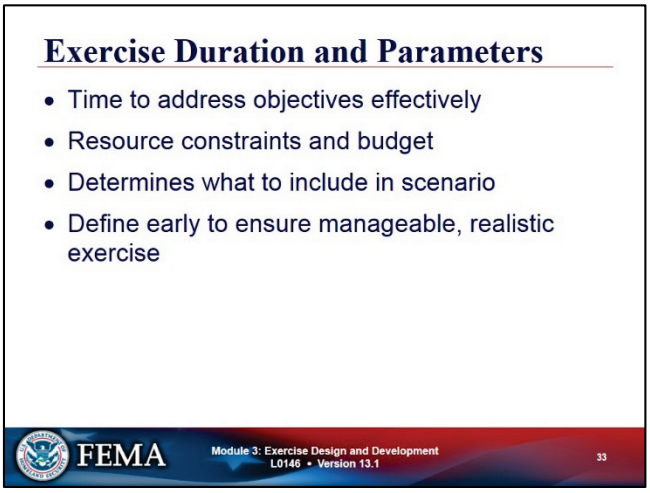
Active participation by appropriate entities and key leaders is paramount to meeting the exercise objectives successfully. Participation level refers to the organizations and level of personnel (e.g., tactical operators, line supervisors, agency directors) participating in the exercise, as well as the general number of personnel who will participate in the exercise.

At times, scheduling conflicts, real-world events, or other competing requirements will limit an organization's or key players' ability to participate in an exercise. In this case, exercise designers need to simulate the decisions and actions of those participants through an exercise SimCell. An Extent of Play Agreement (XPA) is a good way to define the level of participation.

Extent of Play Agreements

XPAs are used to define the organizations participating in the exercise as well as their extent of play (e.g., one fire station for 8 hours, county EOC activated at level A for 24/7 exercise operations). These agreements are formed between exercise participants and the exercise sponsor, and can be vital to the planning of an exercise, recruitment of evaluators, and development of support requirements.

Slide 33

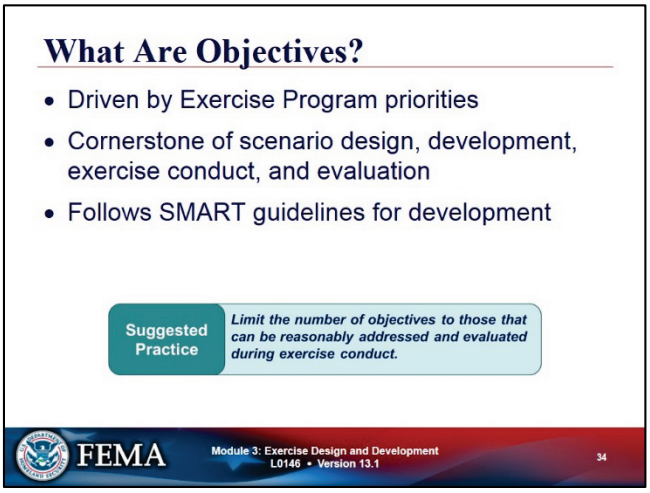


Exercise Duration and Parameters

When selecting the exercise duration, the planning team should determine how long it will take to address the exercise objectives effectively. Discussion-based exercises and some drills are generally shorter, ranging from a couple of hours to a full day. FEs and FSEs may take longer. Prevention-focused FEs that exercise the intelligence and information sharing core capability may last up to 30 days with limited duration of play each day. Resource constraints, including the opportunity cost of having employees away from their primary roles, should be factored into determining duration.

Establishing exercise parameters assists planners in identifying what should be included in an exercise scenario based on the objectives and scope and what should not be exercised. Often there is a desire to add exercise activities that fall outside of the scope of the exercise to meet diverse planning and training requirements. While these activities may be useful to a jurisdiction, they may impact the ability of players to meet exercise objectives or may reduce the benefit of the exercise by diluting its focus. Clearly defining the exercise scope early in the design process will help exercise planners keep the exercise to a manageable and realistic level.

Slide 34



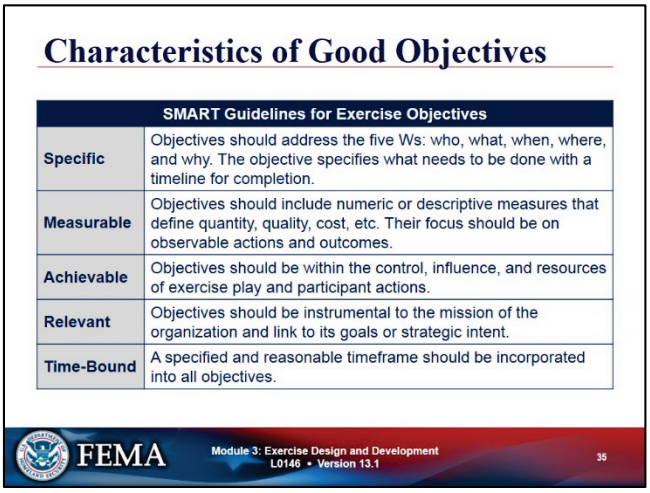
What Are Objectives?

Exercise Objectives

Based on direction from elected and appointed officials, the exercise planning team selects one or more exercise program priorities on which to focus an individual exercise. These priorities drive the development of exercise objectives, which are distinct outcomes that an organization wishes to achieve during an exercise. Exercise objectives should incorporate elected and appointed officials' intent and guidance, and exercise participants' plans and procedures, operating environment, and desired outcomes. Generally, planners should select a reasonable number of specific, measurable, achievable, relevant, and time-bound (SMART) exercise objectives to facilitate effective scenario design, exercise conduct, and evaluation.

Suggested Practice: Limit the number of objectives to enable exercise conduct, facilitate reasonable scenario design, and adequately support successful completion of exercise goals.

Slide 35



Characteristics of Good Objectives

An objective should state who should do what under what conditions, according to which standards. The **SMART** acronym can be used to create objectives.

The S-M-A-R-T Model for development of objectives stands for:

Specific—Objectives should address the five Ws—-who, what, when, where, and why. The objective specifies what needs to be done with a timeline for completion.

Measurable—Objectives should include numeric or descriptive measures that define quantity, quality, cost, etc. Their focus should be on observable actions and outcomes.

Achievable—Objectives should be within the control, influence, and resources of exercise play and participant actions.

Relevant—Objectives should be instrumental to the mission of the organization and link to its goals or strategic intent.

Time-Bound—Objectives must include specified and reasonable timeframes where appropriate for completion of associated task(s) that will determine satisfactorily completion.

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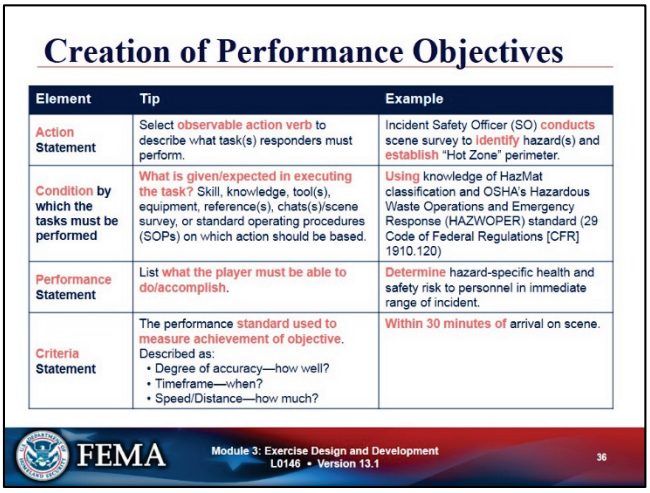

Creation of Performance Objectives

Performance objectives should describe **what players should know or do under specific conditions in response to an event,** real-world or within an exercise scenario. Each objective should support the overall objective of the planned exercise.

When developing objectives, it helps to first consider the **specific tasks related to the capability to be tested** and determine an **observable action verb** that describes each task. As you can see in the example presented here, these action verbs are: **conducts, identify, and establish**.

In keeping with the specific aspect of SMART objectives, the next item to identify is the **condition** by which the task must be performed. This establishes the **expected skill**, knowledge, tool, or SOP the player/responder is expected to demonstrate knowledge of in performance of the task. In our example the Incident Safety Officer is expected to use knowledge of HazMat classification and OSHA HazMat Responder Safety Codes (to identify the specific safety threat for the incident and appropriate health and safety measure to use in response to the incident).

The **performance statement** describes what the player/responder must be able to accomplish overall by using the knowledge/skill and task actions required to meet the objective. In our example the SO is expected to **determine** hazard-specific health and safety risk to personnel in immediate range of the incident **in order to fulfill the specific task of establishing a "Hot Zone" safety perimeter** to protect responders and general public.

The **criteria statement** describes the particular criteria within the performance of the tasks that is used to measure the achievement of the overall objective. It's often not enough simply to know *how* to do a task; it's often critical to know ***"how well"*** or within ***"what timeframe"*** the task must be completed to fulfill the objective. In our example this means our SO **must fulfill all the tasks associated with the objective** and set up the Hot Zone **within 30 minutes of arrival** on the incident scene.

After each of these elements have been identified, the performance objectives can be created -- usually starting with the **performance statement** that identifies the ultimate goal of the objective -- and using each identified element, creating an objective that specifically describes the observable and measurable tasks, conditions and criteria required to successfully fulfill the objective.

Example:
The Incident Safety Officer (SO) will conduct a scene survey to determine hazard-specific health and safety risk to personnel in response to, and within 30 minutes of arrival on scene, using HazMat classification and 29 CFR 1910.120, identifying hazards and establishing a Hot Zone perimeter.

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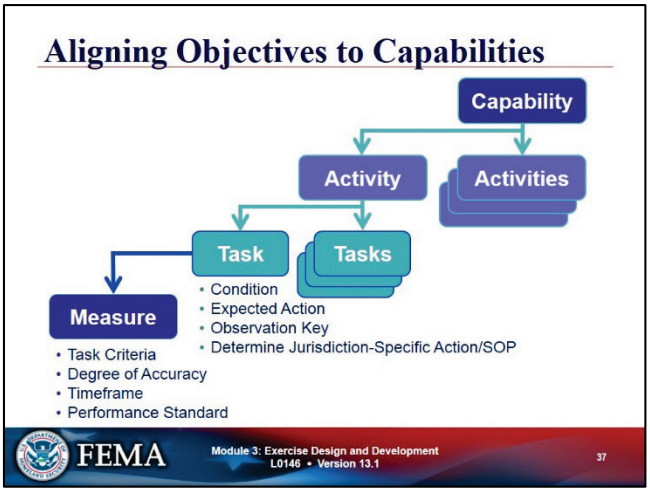


Aligning Objectives to Capabilities

Aligning objectives to a common set of capabilities enables:

- Systematic tracking of progress over the course of exercise programs and/or cycles
- Standardized exercise data collection to inform preparedness assessments
- Fulfillment of grant or funding-specific reporting requirements.

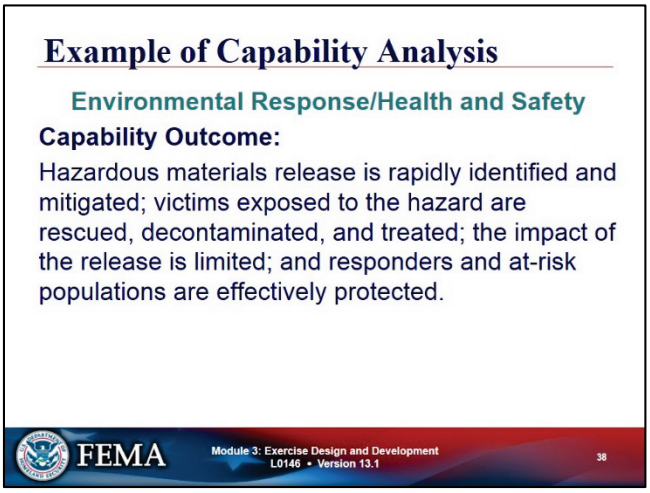
So let's review the steps necessary to target objectives to the capability targeted by your exercise:

- Select/identify the core capability based on the type and scope of the intended exercise—the capability that your jurisdiction decided to focus on at the **Initial Planning Meeting (IPM)**.
- Identify the associated activities necessary to address the capability.
- For each activity, identify the individual critical tasks that must be successfully undertaken to demonstrate the capability.
- For each of these tasks, identify the condition, actions that demonstrate task proficiency and incorporate any jurisdiction-specific action or SOP—these provide the ***observation keys*** evaluators would focus on in order to determine successful completion of the tasks.
- Identify the performance standard that defines the measure or criteria used to create a performance statement describing how the task/activity is to be demonstrated and evaluated.

This analysis provides the information required to develop objectives that meet the characteristics of SMART objectives described previously.

Let's review a sample process for development of exercise objectives. To do this we're going to reference a sample jurisdiction.

Slide 38



Example of Capability Analysis

In this example the planning team selected capabilities based on the type and scope of the exercise they were planning on conducting.

During their initial **Concept and Objectives Meeting (C&O)** the decision was made to validate the following capabilities during their annual exercises:

- On-Scene Incident Management
- Environmental Response/Health and Safety
- Medical Surge.

We're going to look at how they developed objectives for the second capability—Environmental Response/Health and Safety—and see how they tailored their exercise objectives for exercise conduct.

After identifying the core capability to be validated in their exercise, the planning team's next step was to use the targeting process we just discussed to analyze the specific tasks associated with the selected capability: Environmental Response/Health and Safety

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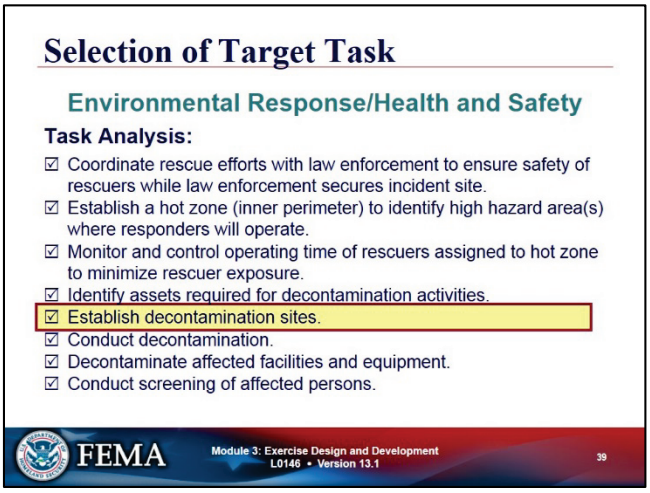

Selection of Target Task

As the planning team looks at the list of tasks associated with the targeted capability, they determine which task will be the focus of the objective they will develop. This process will be repeated for each objective developed for the exercise. Liberty County/Central City selected the fifth **Environmental Response/Health and Safety** task: *"Establish decontamination sites."*

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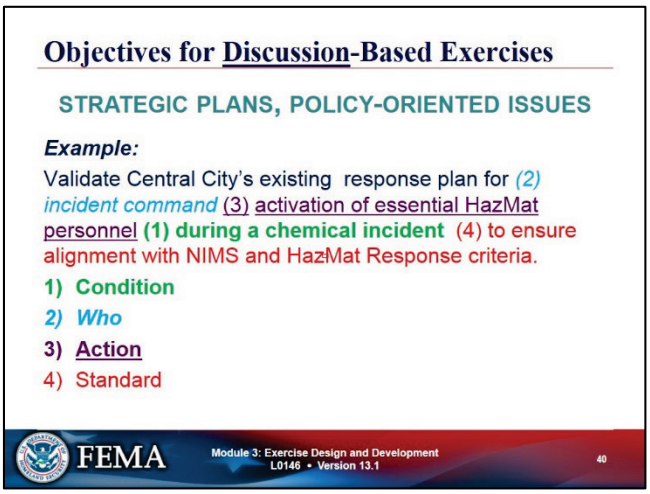


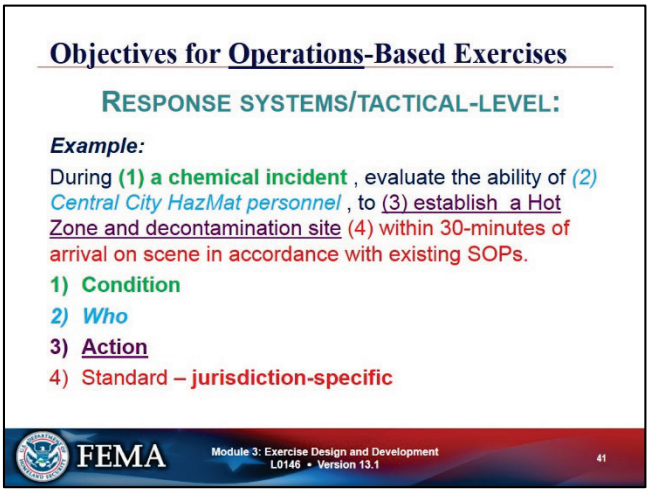
Objectives for Discussion-Based Exercises

The next few slides will include reference colors and numbering to help you identify the **conditions, responsible party, and player action and standard** on which the assessment of player actions would be determined for each objective.

This example is an objective created for a discussion-based exercise that focuses on strategic plans, or policy-oriented issues.

When designing a discussion-based exercise, be sure not to select objectives that can only be evaluated during operations-based exercises and require meeting tactical standards such as response times and proper use of equipment.

Slide 41



Objectives for Operations-Based Exercises

Objectives for operations-bases exercises typically focus on integration of multiple entities systems- and tactical-level issues.

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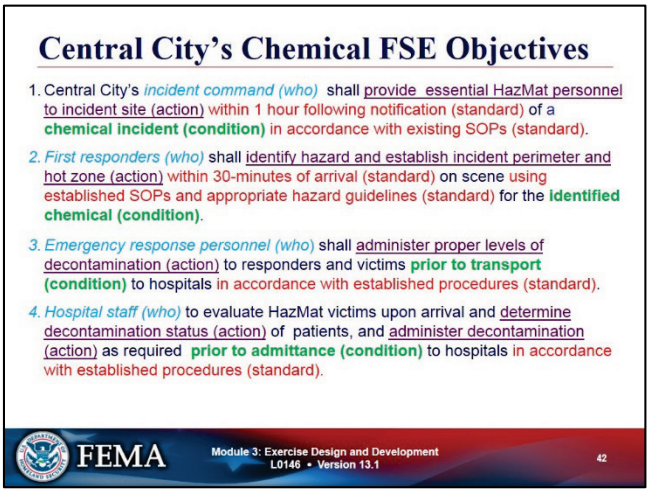


Central City's Chemical FSE Objectives

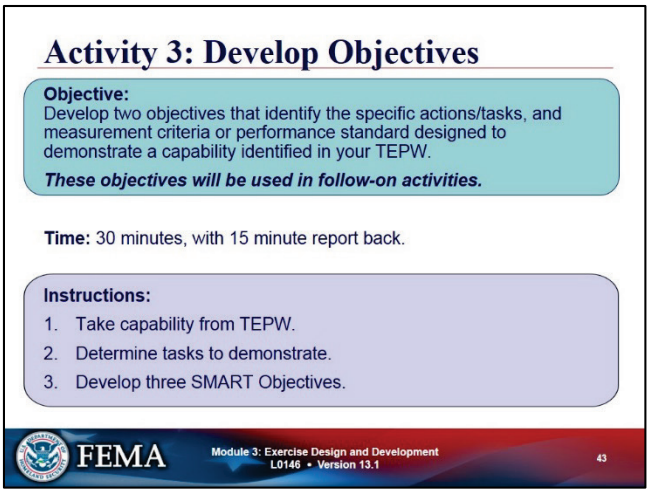
After targeting objectives to capabilities, Central City developed three objectives for its exercise. These objectives are:

- Evaluate the ability of Central City's ***incident command (who)*** to provide essential HazMat personnel to incident site (action) ***within 1 hour following notification (standard)*** of a **chemical incident (condition)** ***in accordance with existing SOPs (standard)***.
- Evaluate the ability of ***first responders (who)*** to identify hazard and establish incident perimeter and hot zone (action) ***within 30-minutes of arrival (standard)*** on scene ***using established SOPs and appropriate hazard guidelines (standard)*** for the ***identified chemical*** **(condition)**.
- Evaluate ability of ***emergency response personnel (who)*** to administer proper levels of decontamination (action) to responders and victims ***prior to transport*** **(condition)** to hospitals ***in accordance with established procedures (standard)***.
- Evaluate ability of ***hospital staff (who)*** to evaluate HazMat victims upon arrival and determine decontamination status (action) of patients***, and*** administer decontamination (action) as required ***prior to admittance*** **(condition)** to hospitals ***in accordance with established procedures (standard)***.

Now we're going to use an activity to attempt to give each group the opportunity to practice developing objectives.

Slide 43

Activity 3



Activity: Develop Objectives

The purpose of this activity is to identify capabilities and develop exercise objectives to support your most complex exercise in your Training and Exercise Plan.

Group members will brainstorm objectives for a full-scale operations-based exercise. Each group will develop 2-3 objectives and the group recorder will write them down.

Report-back—During the report-back phase, each group will describe:

- How the team went about developing their objectives
- Why the objectives were selected
- Was there disagreement in the group

- How could the process be done differently
- How will success be measured in the execution of the objectives

Next we'll discuss how exercise objectives are used to develop an exercise scenario.

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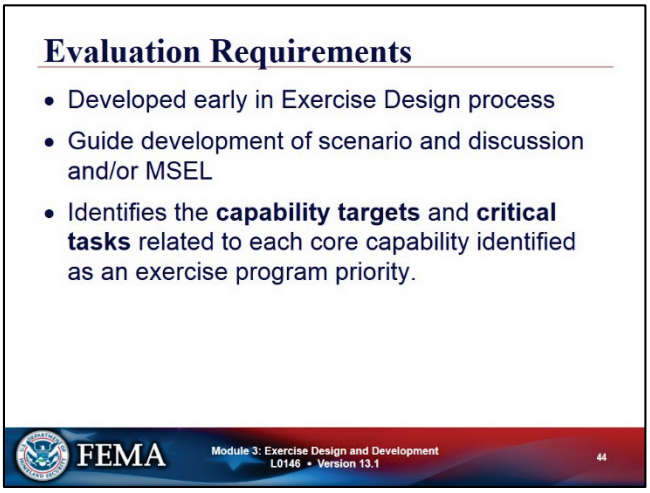


Evaluation Requirements

It is important to develop exercise evaluation requirements early in the design process, as they will guide development of the exercise scenario, discussion questions, and/or MSEL. Evaluation requirements clearly articulate what will be evaluated during the exercise and how exercise play will be assessed. This information is documented in the EEGs.

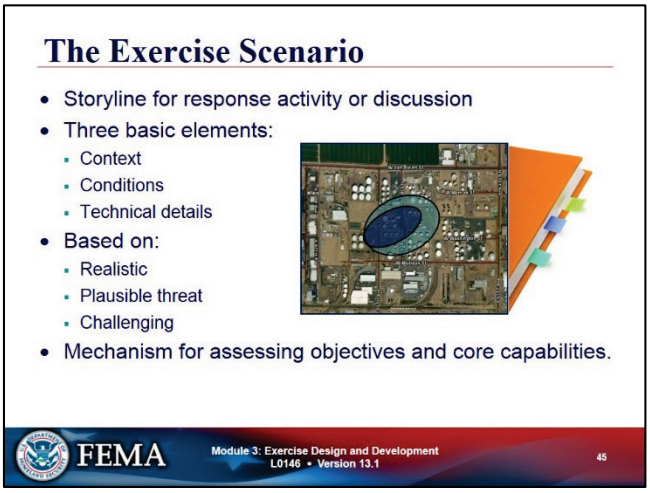
Once the exercise planning team aligns objectives to core capabilities, it identifies which capability targets and critical tasks for each core capability are being addressed by the exercise.

Capability targets are the performance thresholds for each core capability; they state the exact amount of capability that players aim to achieve. Generally, these targets are based on targets identified as part of an organization's or jurisdiction's THIRA or other threat and hazard identification or risk assessment process. Evaluators use these performance thresholds to validate successful completion of critical tasks associated with each core capability.

Critical tasks are the distinct elements required to perform a core capability. Critical tasks may be derived from Mission Area Frameworks, organizational operations plans or SOPs, or discipline-specific standards.

The exercise planning team will develop Exercise Evaluation Guides (EEGs) for use by Exercise Evaluators during the exercise. The EEGs will be specific and/or critical tasks associated with each capability target and the standards used as a basis for the performance thresholds. Development of EEGs will be covered in Module 5, which describes the Evaluation process in greater detail.

Slide 45



The Exercise Scenario

A scenario is **an outline or model of the simulated sequence of events for the exercise**. It can be written as a narrative or depicted by an event timeline. For discussion-based exercises, a scenario provides the backdrop that drives participant discussion, and is contained in a SitMan. For operations-based exercises, a scenario provides background information and storyline about the incident catalyst(s) of the exercise—the overall scenario is provided in the C/E Handbook, and specific scenario events are contained in the MSEL.

Exercise planners should select and develop scenarios that enable an exercise to assess objectives and core capabilities. All scenarios should be realistic, plausible, and challenging; however, designers must ensure the scenario is not so complicated that it overwhelms players

Scenarios contain **three basic elements:**

- The general **context or comprehensive story** of the incident event
- **Conditions** that will allow players to demonstrate proficiency and competency in demonstrating the core capabilities and meeting objectives
- **Technical details** necessary to accurately depict scenario conditions and events—including timelines of events that occur across the exercise.

The focus during development is to ensure that the scenario facilitates assessment of exercise objectives and core capabilities. Because of this, exercise planners should refrain from developing the scenario until after the scope and objectives of the exercise have been clearly defined. Furthermore, scenarios should be constructed to avoid any sensitivity that may arise, such as the use of real names of terrorist groups or sensitive venues.

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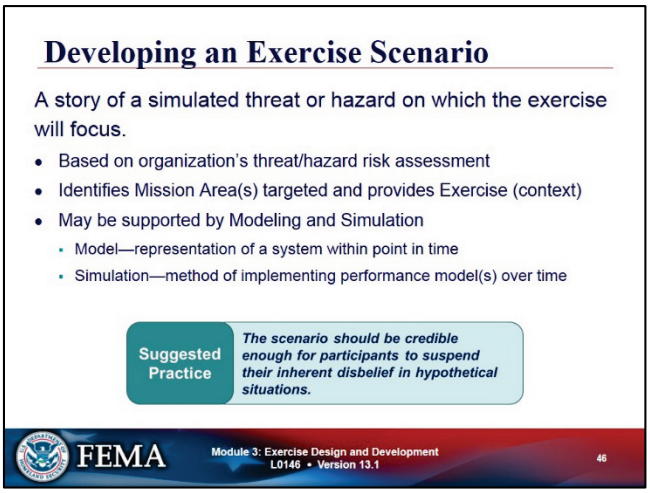

Developing an Exercise Scenario

Threat or Hazard

The scenario is developed to address the type of threat or hazard selected as the target for the exercise during the design phase.

Each type of emergency has its own strengths and weaknesses when it comes to evaluating different aspects of prevention, protection, mitigation, response, and recovery. The exercise planning team should select the scenario topic that best assesses the objectives and core capabilities for the mission area on which the exercise will focus.

Modeling and Simulation

Utilizing modeling and simulation can bring versatility, cost savings, and fidelity to exercises. A **model** is a **representation of a system at a point in time or space** intended **to expand an understanding of the real system**. **Simulation** is a method of **implementing the performance of a model, or combination of models, over time**. Modeling and simulation support decision-making processes by providing human and/or computer feedback to players during exercise play, thus dynamically representing the impact of their decisions. For example, human-based simulation during exercises is often manifested through the SimCell, which represents nonparticipating entities. An example of a computer-based simulation could include wind damage and storm surge forecasting models developed by the National Oceanic and Atmospheric Administration, which enable simulation of the effects a hurricane may have on coastal communities.

Modeling and simulation can also be applied in situations where reality cannot be achieved. For example, for safety reasons a bioterrorism exercise cannot be conducted by releasing a deadly virus into the environment. However, it is still important to exercise the capabilities necessary to respond to this type of scenario. The use of modeling and simulation can realistically replicate variables such as disease propagation, radiation, and chemical attacks.

The level of detail provided in the scenario should reflect real-world uncertainty and be designed to ensure that the scope of the exercise remains within an appropriate **scope or magnitude** so it can be implemented without overwhelming (or failing to challenge and sufficiently test) local response assets.

The narrative should present the response story by describing the:

- Probable threat/hazard which provides the context within which responders must operate.
- Response objectives developed to demonstrate the capability that describes the activities required to satisfy the capability requirements.
- Expected actions describing the specific tasks related to each objective necessary that would demonstrate proficiency in the related task.
- Technical details that define the requirements or standard by which the evaluation will be made, which will be described in detail in the MSEL.

These identify player activities and decision-making opportunities and are those which must occur to accomplish each objective in order to adequately evaluate the capability.

So for operational tasks associated with each objective you need to consider:

- What is the action?
- Who is responsible for the action?
- When should the action take place?
- How long should the action take and how much time is actually available?
- What has to happen before?
- What happens after?
- What resources does the person/entity performing the action need?

In other words, work through the scenario in advance to make sure it accomplishes what you want it to and actually tests and validates the intended objectives.

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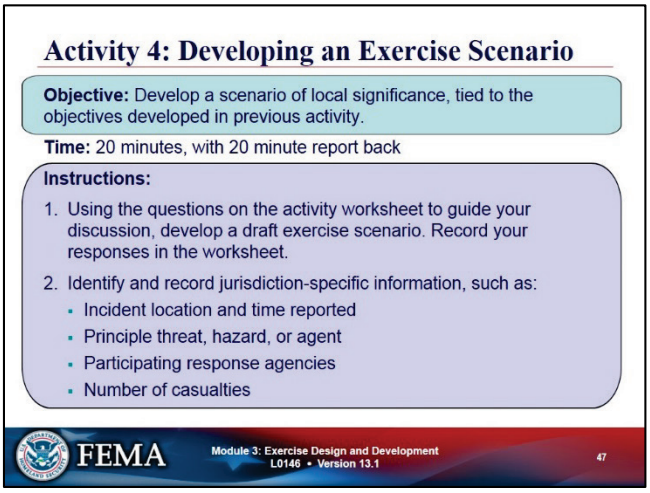
Activity 4



Activity: Developing an Exercise Scenario

Building on the objectives developed in the previous activity, next is another Breakout Session where participants will work in groups to identify a scenario for your exercise.

ACTION:

Activity Instructions:

Based on the summaries of the National Planning Scenarios, group members should work together to customize one of the scenarios for your most complex operations-based exercise, making sure to identify the following:

- Threat/hazard/agent
- Participating agencies
- Number of casualties
- Incident location.

Report Back Instructions:

A representative from each group should report back on specific insights or lessons learned from the activity only if they feel this information benefits the entire audience.

- Groups should review information about their mock jurisdiction to ensure the scenario is of local interest and considers the threat/vulnerabilities in their jurisdictional identity.
- The scenario should be based on information from the 15 National Planning Scenarios but should be tailored to meet the size and capabilities of the jurisdiction.
- During the report back session, groups are encouraged to reflect on the scenario development process.
  - How could the process be improved?
  - What additional information would have been helpful?
  - What challenges were encountered?

- Scenarios should be detailed enough to prime the exercise participants for exercise play and direct their thinking process.
- The scenario should have elements that require performance of the tasks identified in previous activities from the Universal Task List (UTL).

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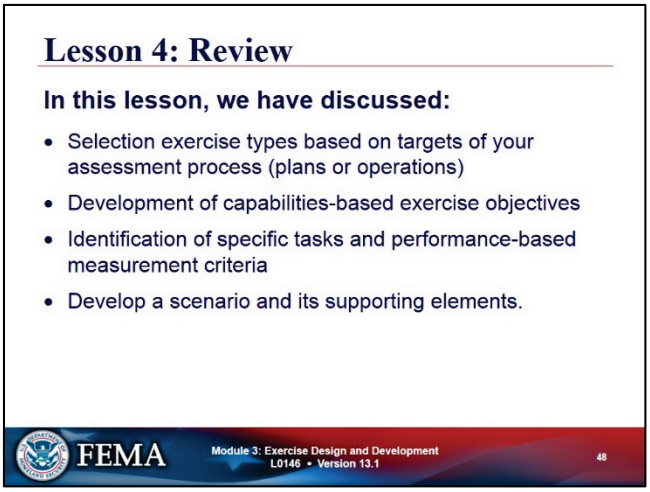

Lesson 4: Review

Lesson 4 discussed the details and requirements of the exercise development process including:

- Selection exercise types based on targets of your assessment process (plans or operations)
- Development of capabilities-based exercise objectives
- Identification of specific tasks and performance-based measurement criteria
- Develop a scenario and its supporting elements.

Questions?

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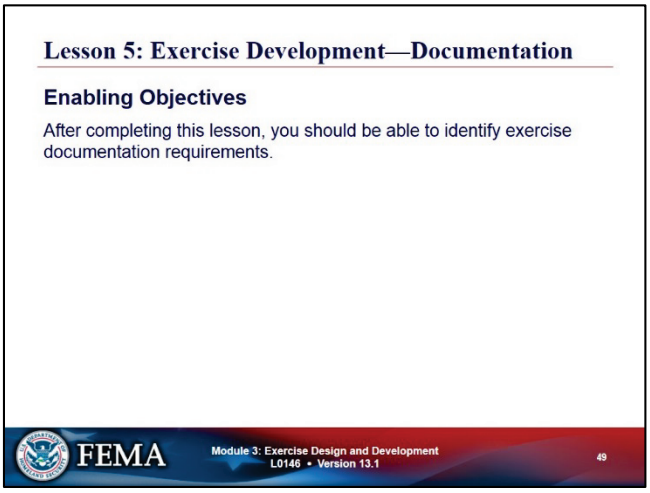

Lesson 5: Exercise Development – Documentation

After completing this lesson, you should be able to identify:

- Requirements for exercise documentation, personnel, and logistics for discussion-based exercises.
- Requirements for exercise documentation, personnel, venue control and logistics for operations-based exercises.

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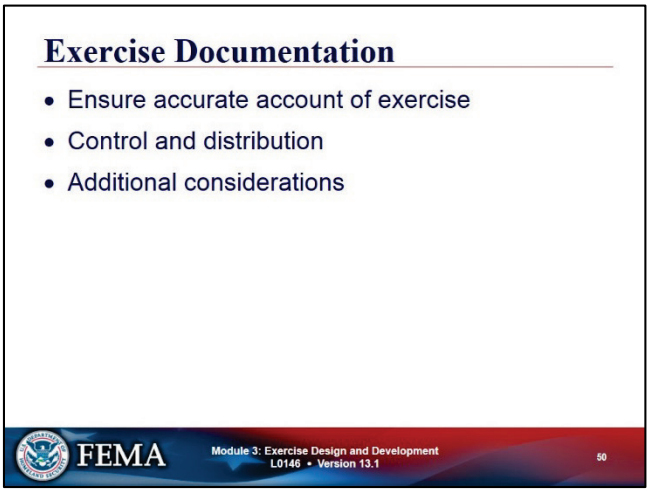

Exercise Documentation

Comprehensive, organized exercise documentation is critical to ensure an accurate account of the exercise is preserved. This in turn allows organizations to leverage past documentation to support future exercises and, more importantly, ensures that all critical issues, lessons learned, and corrective actions are appropriately captured to support improvement efforts.

While most exercise materials are not sensitive or classified, some materials (e.g., scenario details) may necessitate restrictions on distribution. It is important for the planning team to determine security requirements related to sensitive documents including:

- Identification and marking rules and requirements,
- Access and dissemination
- Storage
- Disposal
- Incident reporting.

Consideration should also be given to the accessibility of presentations and documents, such as making information available in alternative formats (e.g., large print, compact disc, Braille), closed captioning or another form of text display, or the provision of sign language interpreters.

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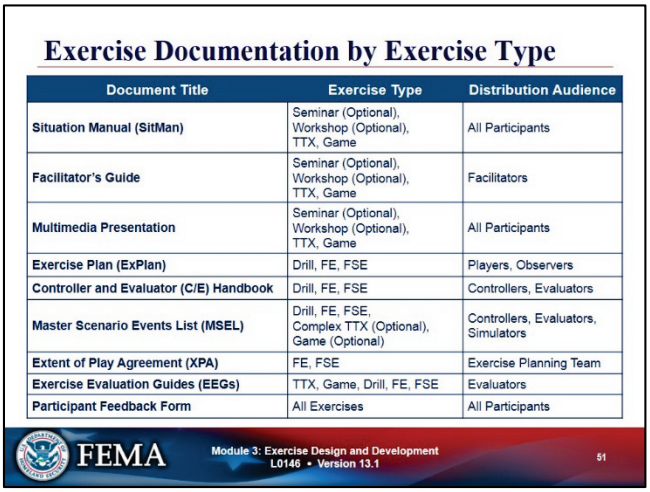

Exercise Documentation by Exercise Type

This table lists the key exercise design and development documents identified by the exercise type and relevant audience.

HSEEP Sample Materials include templates to assist exercise planners and planning teams in the production of exercise documents.

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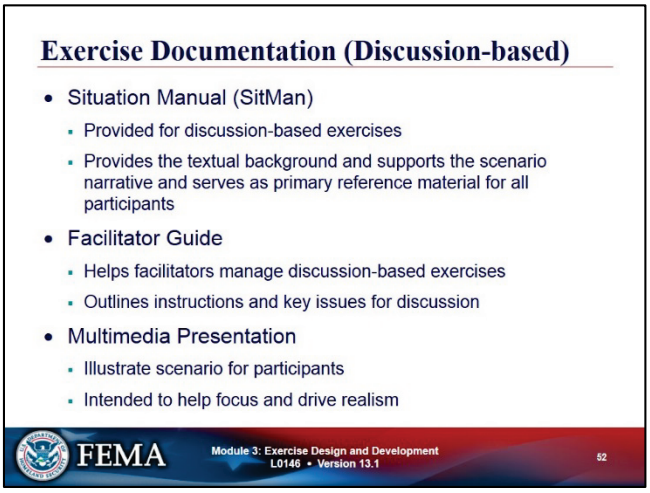

Exercise Documentation (Discussion-based)

SitMans are provided for discussion-based exercises as the core documentation that provides the textual background for a facilitated exercise. The SitMan supports the scenario narrative and serves as the primary reference material for all participants during conduct.

The i**ntroduction** provides an overview of the exercise—including scope, objectives and core capabilities, structure, rules, and conduct—as well as an exercise agenda. The next section of the SitMan is the **scenario**, which may be divided up into distinct, chronologically sequenced modules. Each module represents a specific time segment of the overall scenario, based on exercise objectives and scenario requirements.

Each module is followed by discussion questions, usually divided by organization or discipline. Responses to the modules' discussion questions are the focus of the exercise, and reviewing them provides the basis for evaluating exercise results. These discussion questions should be derived from the exercise objectives and associated core capabilities, capability targets, and critical tasks documented in each EEG.

The SitMan generally includes the following information:

- Exercise scope, objectives, and core capabilities
- Exercise assumptions and artificialities
- Instructions for exercise participants
- Exercise structure (i.e., order of the modules)
- Exercise scenario background (including scenario location information)
- Discussion questions and key issues
- Schedule of events.

SitMan reference appendices may include, but are not limited to:

- Relevant documents regarding plans, SOPs, etc.
- Jurisdiction- or organization-specific threat information

- Material Safety Data Sheet6
- A list of reference terms or agent.

Facilitator Guide
A Facilitator Guide is designed to help facilitators manage a discussion-based exercise. It usually outlines instructions and key issues for discussion during the event and provides background information to help the facilitator answer questions from participants or players. This guide may also include an evaluation section that provides evaluation staff members with guidance and instructions on evaluation or observation methodology to be used as well as essential materials required to execute their specific functions.

Multimedia Presentation
Multimedia presentations are often used to illustrate the general scenario for participants. They are given at the Start of Exercise (StartEx) and support the SitMan. The presentation should concisely summarize information contained in the written documentation. Like the SitMan, the multimedia presentation is also divided into distinct, chronologically segmented modules that, when combined, create the entire scenario.

This presentation typically contains, at a minimum, the following information:

- Introduction
- Exercise scope, objectives, and core capabilities
- Exercise play rules and administrative information
- Modules that describe the scenario.

The presentations are intended to help focus and drive the exercise as well as add realism. A/V enhancements to a presentation include video or sounds that convey information to participants.

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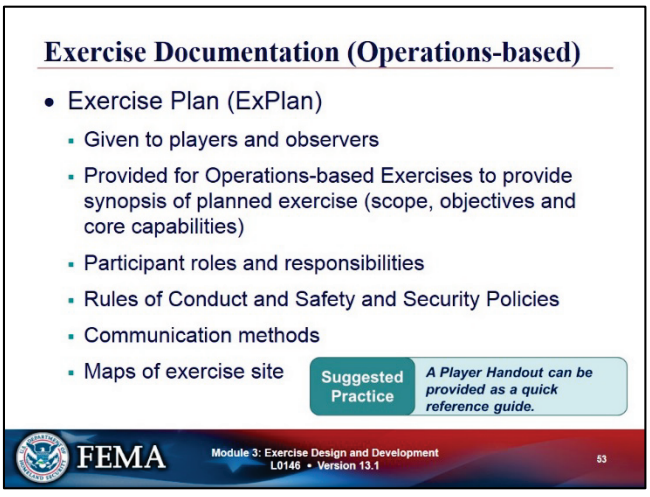

Exercise Documentation (Operations-based)

ExPlans are provided for operations-based exercises to provide participants with a synopsis of the exercise. They are published and distributed to the participating organizations following development of

most of the critical elements of the exercise. The ExPlan is intended to be seen by the exercise players and observers—therefore, it does not contain detailed scenario information that may reduce the realism of the exercise. Players and observers should review all elements of the ExPlan prior to exercise participation.

An ExPlan typically contains the following sections:

- Exercise scope, objectives, and core capabilities
- Participant roles and responsibilities
- Rules of conduct
- Safety issues, notably real emergency codes and phrases, safety controller responsibilities, prohibited activities, and weapons policies
- Logistics
- Security of and access to the exercise site
- Communications (e.g., radio frequencies or channels)
- Duration, date, and time of exercise and schedule of events
- Maps and directions.

Player Handout

The Player Handout provides key information to exercise players. A Player Handout can supplement the SitMan or ExPlan by providing a quick reference guide to logistics, agenda or schedule, and key contact data for players.

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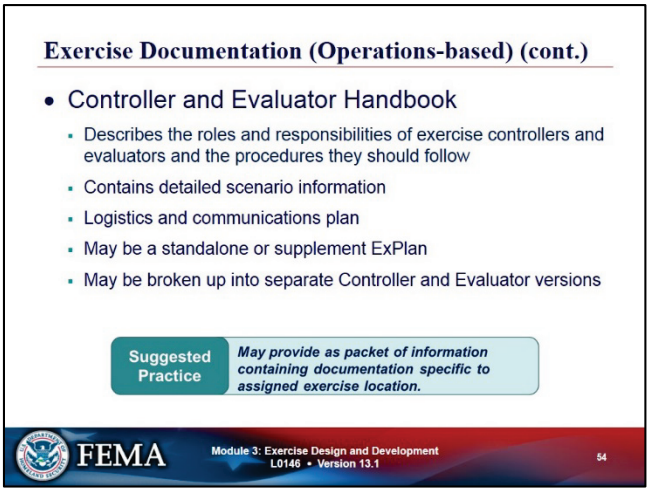

Exercise Documentation (Operations-based) (cont.)

Controller and Evaluator Handbook

The C/E Handbook describes the roles and responsibilities of exercise controllers and evaluators and the procedures they should follow. Because the C/E Handbook contains information about the scenario and about exercise administration, it is distributed to only those individuals designated as controllers or evaluators. The C/E Handbook may supplement the ExPlan or be a stand-alone document. When used as a supplement, it points readers to the ExPlan for more general exercise information, such as participant

lists, activity schedules, required briefings, and the roles and responsibilities of specific participants. Used as a stand-alone document, it should include the basic information contained in the ExPlan, and detailed scenario information.

The C/E Handbook usually contains the following sections:

- Assignments, roles, and responsibilities of group or individual controllers and evaluators
- Detailed scenario information
- Exercise safety plan
- Controller communications plan (e.g., a phone list, a call-down tree, instructions for the use of radio channels)
- Evaluation instructions.

The Controller portion of the C/E Handbook, sometimes known as Control Staff Instructions (COSIN), provides guidelines for control and simulation support and establishes a management structure for these activities. This section provides guidance for controllers, simulators, and evaluators on procedures and responsibilities for exercise control, simulation, and support. The Evaluation portion of the C/E Handbook, sometimes known as the EvalPlan, provides evaluation staff members with guidance and instructions on evaluation or observation methodology to be used, as well as essential materials required to execute their specific functions.

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Master Scenario Events List (MSELs)

A MSEL is typically used during operations-based or complex discussion-based exercises and contains a chronological listing of the events that drive exercise play.

At a minimum each MSEL entry should contain the following:

- Scenario time
- Event synopsis
- Controller responsible for delivering the inject, with controller or evaluator special instructions (if applicable)
- Intended player (i.e., agency or individual player for whom the MSEL event is intended)
- Expected participant response (i.e., player response expected upon inject delivery)
- Objective, core capability, capability target, and/or critical task to be addressed (if applicable)
- Notes section (for controllers and evaluators to track actual events against those listed in the MSEL, with special instructions for individual controllers and evaluators).

Scenario timelines listed in a MSEL should be as realistic as possible and based on input from SMEs. If the activity occurs sooner than the MSEL writers anticipated, then controllers and evaluators should note the time it occurred, but play should not be interrupted.

Controllers delivering MSEL injects will either be co-located with players in the venue of play, or they will reside in a SimCell. A SimCell is a location from which controllers deliver messages representing actions, activities, and conversations of an individual, agency, or organization that is not participating in the exercise but would likely be actively involved during a real incident. Prior to StartEx, the mechanisms for introducing injects into exercise play should be tested to ensure that controllers are aware of the procedures for delivering MSEL injects and that any systems that will be used to deliver them are functioning properly.

There are three types of MSEL items that facilitate exercise play.

The three types of descriptive MSEL events that support exercise play include:

Contextual injects introduced to a player by a controller to help build the exercise operating environment and/or keep exercise play moving. For example, if the exercise is designed to test information-sharing capabilities, a MSEL inject can be developed to direct an actor to portray a suspect by behaving suspiciously in front of a law enforcement player.

Expected action events reserve a place in the MSEL timeline and notify controllers when a response action would typically take place. For example, during an FSE involving a chemical agent, establishing decontamination is an expected action that the players will take without the prompting of an inject.

Contingency injects are provided by a controller or simulator to players to ensure play moves forward to adequately evaluate performance of activities. For example, if a simulated secondary device is placed at an incident scene during a terrorism response exercise, but is not discovered, a controller may want to prompt an actor to approach a player to say that he or she witnessed suspicious activity close to the device location. This should prompt the responder to discover the device and result in subsequent execution of the desired notification procedures.

MSELs are typically produced in long formats, short formats, or both. Short-form MSELs usually list injects in a single row in a spreadsheet format. These can be used as a quick-reference guide during exercise play or projected onto a large screen in a control cell or SimCell. Long-form MSELs are used when greater detail is necessary; they include more detailed descriptions, exact scripting language for actors and simulators, and more detailed descriptions of expected actions.

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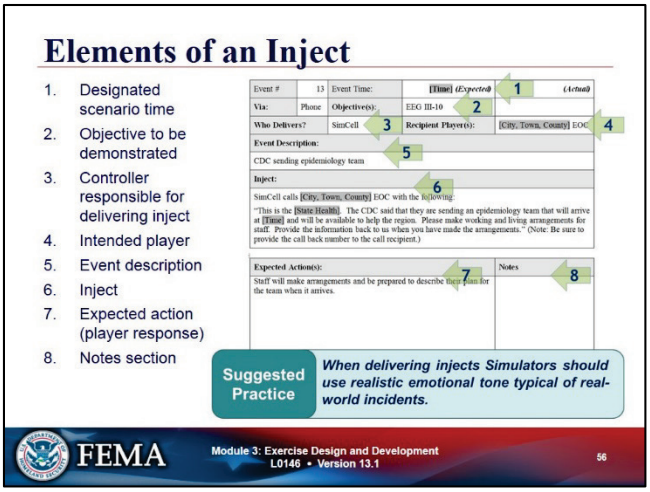

Elements of an Inject

Injects are representative actions and scenario elements that drive the exercise play. The MSEL injects do three things:

- Link simulation to action
- Enhance exercise experiences for players
- Reflect an incident or activity that will prompt players to implement the policy or procedure being tested.

Injects should include the following elements:

Designated scenario time—when the event should take place. If the activity occurs sooner than the time designated in the MSEL controllers and evaluators note the time it occurred as "actual," but play should not be interrupted.

Event synopsis/description—what will occur?

Controller responsible for delivering inject—and what means are used to stimulate the behavior (e.g., course of play, telephone call, actor, video)?

Expected action—what action will the players take—identify **tasks, conditions, and standards** set forth by each exercise objective (as determined during the IPM). A **task** consists of performing a behavior that demonstrates the ability to accomplish an objective. A **condition** is the environment in which a task is performed; it can be established by the scenario or through the MSEL. **Standards** are the criteria by which each task is evaluated.

Intended player—who should receive and act on the inject

Objective to be demonstrated—which objective does this inject satisfy?

Notes section—blank space for the controllers to enter notes.

If scenario conditions do not stimulate the appropriate behavior, the Controller must attempt to use a contingency inject to try to move play forward in a manner that will permit Evaluators to determine if tasks were completed successfully.

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How to Develop a MSEL

When developing a MSEL, consider the following:

- Review capabilities to be evaluated and validated
- Identify chronology of key actions that must occur prior to a planned event occurrence–how one event would drive follow-on events–for realism
- Anticipate Player actions–Identify information resources Controller will need to provide for players to act
- Compile all MSEL events into single list–vet with exercise planning team
- Refine selected MSEL events–create detailed long version.

Once the MSEL is drafted, the Exercise Planning Team should coordinate and sequence entries and resolve any conflicts between events, thus forming a credible and challenging MSEL that will enhance the exercise experience for the players.

It is essential that the final MSEL be reviewed with quality assurance procedures in mind.

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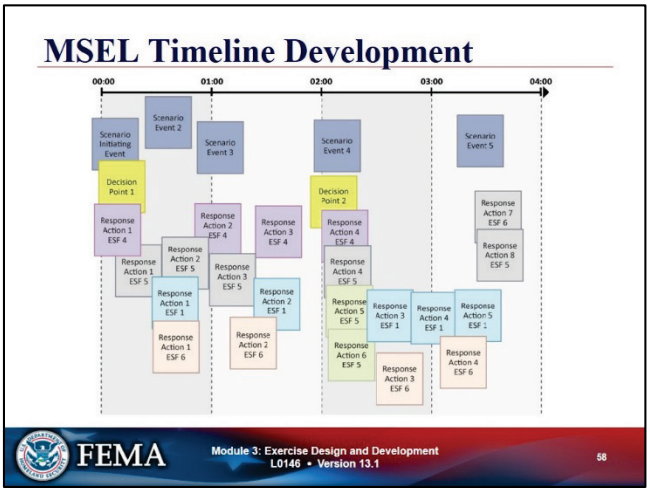

MSEL Timeline Development

This is an example of one method that can be used to aid in the development of the MSEL.

Using a whiteboard, easel pages, or cards taped to a wall with painters tape:

- Create a timeline that represents each hour and segment of hour of the proposed exercise.
- Identify each event, decision point and event action across the exercise Scenario.
- Write each event, decision point or action on post-it notes or index cards
- Organize these by placing each card under the timeline where they are expected to occur.

Note: Using separate color notes to represent each agency/organization involved in the response can help in providing a visual representation of the activities and who takes action in response to each Scenario event.

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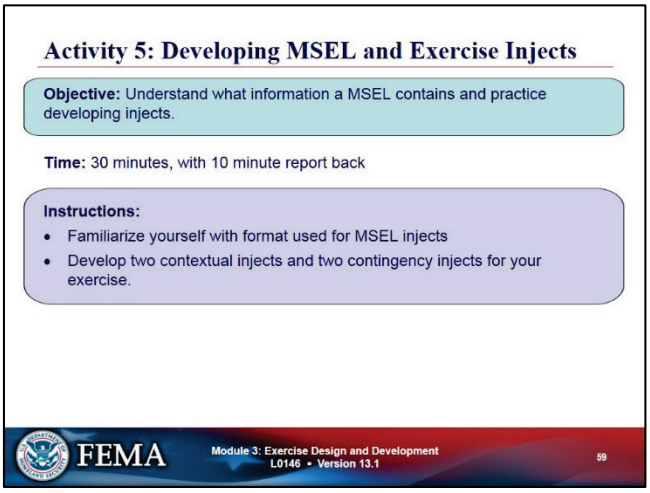
Activity 5



Activity: Developing MSEL and Exercise Injects

This activity will use another Breakout Session to practice developing MSEL injects.

You will be working in your assigned group to develop 4 MSEL injects for a Full Scale Exercise (FSE). You should develop **2 Contextual Injects** and **2 Contingency Injects**.

Report-Back Session—Group representative presents/describes completed worksheet. Each group should discuss challenges or recommendations for development of exercise injects.

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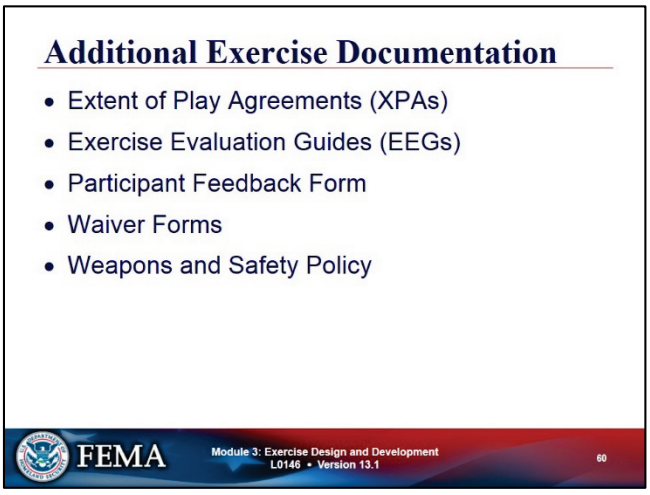

Additional Exercise Documentation

Extent of Play Agreements

XPAs can be used to define the organizations participating in the exercise as well as their extent of play (e.g., one fire station for 8 hours, county Emergency Operations Center [EOC] activated at Level A for 24/7 exercise operations). These agreements are formed between exercise participants and the exercise

sponsor, and can be vital to the planning of an exercise, recruitment of evaluators, and development of support requirements.

Exercise Evaluation Guides
EEGs are intended to help evaluators collect relevant exercise observations. These documents are aligned to objectives, and document the related core capability, capability target(s), and critical tasks. More information on EEGs will be provided in Module 5: Exercise Evaluation.

Participant Feedback Form
At the end of an exercise, participants may receive a Participant Feedback Form that asks for input regarding observed strengths and areas for improvement that players identified during the exercise. Providing Participant Feedback Forms to players during the exercise wrap-up activities allows them to provide their insights into decisions made and actions taken. A Participant Feedback Form also provides players the opportunity to provide constructive criticism about the design, control, or logistics of the exercise to help enhance the planning of future exercises.

At a minimum, the questions on the Participant Feedback Form solicit the following:

- Strengths and areas for improvement pertaining to the implementation of participating agencies and organizations' policies, plans, and SOPs
- Impressions about exercise conduct and logistics.

Information collected from feedback forms contributes to the issues, observations, recommendations, and corrective actions in the After Action Report/Improvement Plan (AAR/IP). Feedback forms can be supplemented by the conduct of a Hot Wash immediately following the exercise, during which facilitators, controllers, and evaluators capture participant perspectives on the key strengths and areas for improvement identified during the exercise.

Waiver Forms
Each actor should receive a waiver form prior to the exercise. Signing this form waives liability for all exercise planners and participants. Exercising entities should use discretion when recruiting actors under the age of 18 because of additional challenges and concerns related to liability. If the exercise requires volunteers younger than 18 years old, parents or legal guardians must sign their waiver forms.

Weapons and Safety Policy
All exercises, where applicable, should employ a written weapon and safety policy that is in accordance with applicable state or local laws and regulations. Exercise sponsors should coordinate the application of this policy with the appropriate safety and/or legal departments as necessary.

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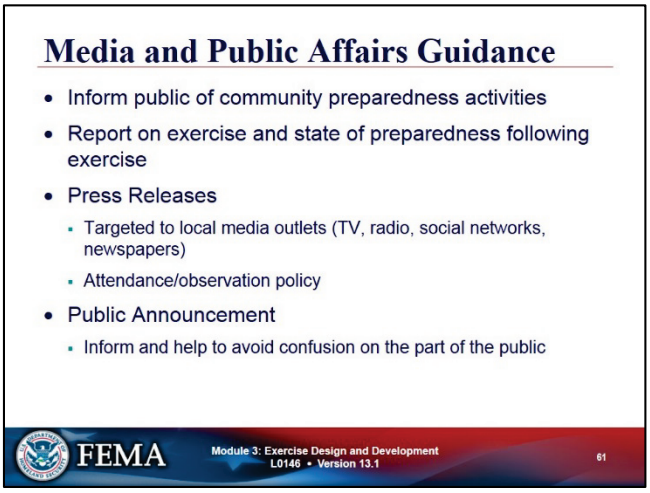

Media and Public Affairs Guidance

Members of the media have the unique ability to fulfill an important function before, during, and after an exercise. Prior to an exercise, they inform the public that an exercise will take place, and raise public awareness that the community is preparing for disasters. During an exercise, they can facilitate the validation of public information plans and procedures. Following an exercise, the media may release details to the host community on the state of its preparedness, if the exercise planning team leader provides such information. Therefore, exercise sponsors should work to incorporate media-related issues into exercise planning.

Press Release

Prior to an exercise, the exercise planning team should develop a written press release to disseminate to media outlets, including web-based and/or social media outlets, as appropriate. This release informs the media and the public about general exercise information. Additionally, this information can be distributed to observers, elected and appointed officials, and other VIPs. This release should *not* contain detailed scenario information, such as the type of threat or hazard, nor should it contain information that might hinder meeting exercise objectives if a participant were to see it.

Typically, the contents of a media or public information release include the following:

- Introduction, including sponsor and exercise program information
- Exercise scope and objectives
- General scenario information
- Participating agencies or disciplines.

Public Announcement

Public announcements should be made prior to any exercise involving public space or space that will be viewable by the public. This precaution helps avoid confusion on the part of the public. It will also help the public avoid congestion near the exercise site by providing suggestions for alternate routes.

Announcements can be made through local media, through mass mailings or pamphlets, and/or on signs near the exercise site.

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Media Policy

The agency or organization sponsoring the exercise should decide whether to invite media representatives to the exercise. If invited, media representatives should have an opportunity prior to the exercise to conduct interviews with key planners and participants.

At discussion-based exercises, media representatives should not be present during the discussion of any potentially sensitive information, and filming exercise conduct should be avoided so as not to inhibit or hinder discussion or the flow of play.

During operations-based exercises, media representatives may be allowed to film certain activities but should be cautioned not to interfere with exercise play or film any sensitive operations. Unless media representatives are invited to participate in the exercise, a guide—typically a public information officer or designee—should escort media representatives at all times. If mock media or exercise controllers simulating the real-world media are employed during an exercise to test public affairs training, they should be kept completely separate from any real-world media representatives who may be observing the exercise.

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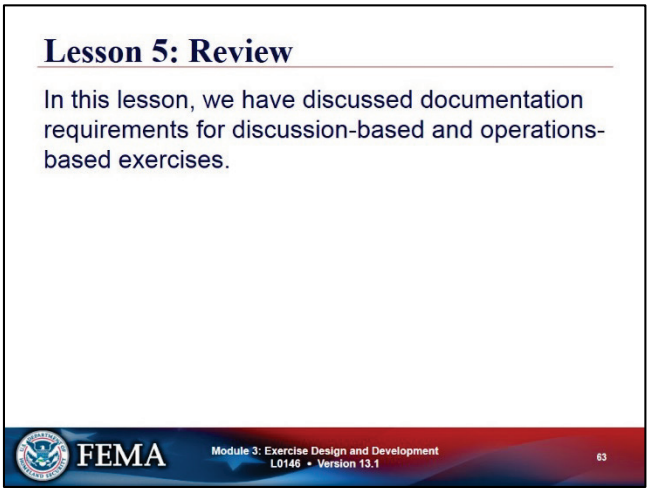

Lesson 5: Review

In this lesson, we have discussed:

- How to develop the documentation for operations-based exercises
- Development of exercise injects—contextual and contingency
- The personnel involved in operations-based exercises
- The logistical support needed for operations-based exercises.

Questions?

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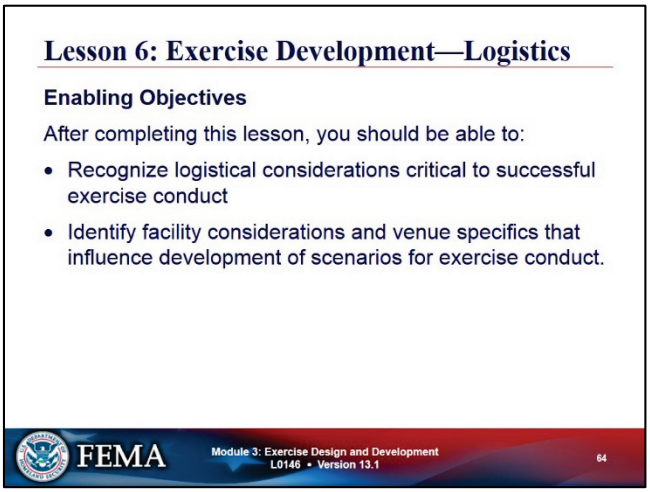

Lesson 6: Exercise Development—Logistics

Exercise development involves planning for the critical elements of exercise conduct: logistics, control, and evaluation. Logistical details are important, but often overlooked, aspects of an exercise. Logistics drive exercise development and can be a factor in determining the scope of operations-based exercises.

Logistics can make the difference between a smooth, seamless exercise and one that is confusing or even unsafe.

After Lesson 6 you should be able to:

- Recognize logistical considerations critical to successful exercise conduct
- Identify facility considerations and venue specifics that influence development of scenarios for exercise conduct.

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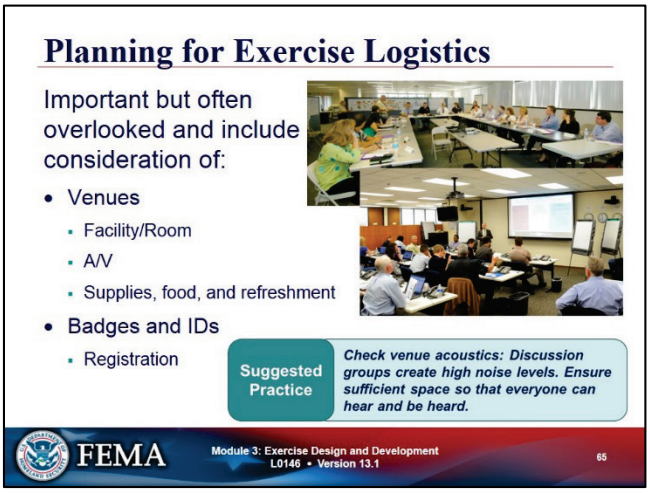

Planning for Exercise Logistics

Logistical details are important, but often overlooked, aspects of an exercise. They can make the difference between a smooth, seamless exercise and one that is confusing or even unsafe.

Venue

Facility and Room

Meetings, briefings, and exercises should be conducted in facilities that are appropriate for the exercise scope and attendance. Planners should also ensure that all environmental and historical preservation documentation is completed if required. Facilities should be reserved solely for exercise purposes and should be accessible to all participants and free from distractions.

When selecting a facility and room for exercise planning or conduct, planners should account for the following considerations:

- Ensure there are enough tables and chairs for every relevant participant—the facility selected should have rooms available that are large enough to accommodate all participants and be free from outside distractions. If participants are uncomfortable, distracted, or cannot hear the facilitator or each other, they will not be productive. Check with facilities management to determine what kinds of other meetings are being held at the same location to determine if there may be activities that would be a distraction to participants. To further reduce distractions you may want to ask participants to turn off mobile devices before they enter the exercise room.

- Arrange tables to best suit the meeting or exercise (e.g., U-shaped layout for exercises requiring facilitation and participant interaction). Make sure sound checks are performed at various locations around the room to ensure participants will be able to hear the facilitator. Obtain an amplified sound system to use at the venue if necessary.
- Select a facility with room acoustics that facilitate ease of discussion. The layout of tables for group activities and presenter area will be determined by the type and purpose of the exercise.

Audio/Visual Requirements
A/V requirements are identified during the design phase, including individuals assigned to ensure equipment is properly functioning.

Supplies, Food, and Refreshments
Exercise planners should not assume participants will bring necessary supplies with them. Writing utensils, notepads, easels, copies of plans and procedures, name badges, and any other equipment deemed necessary should be procured prior to exercise conduct and provided to participants.

The exercise planning team should also consider whether food and refreshments can be provided for participants and observers, in accordance with applicable funding guidance or venue policies. For discussion-based exercises, it is often beneficial to have a working lunch provided to minimize disruption to play. For operations-based exercises, hydration of participants is an important consideration.

Badging and Identification
For security purposes, all exercise participants should wear some form of identification. Although some players may wear their uniforms, badges are typically used to identify each exercise participant by name and organization. Where appropriate, name tents should be placed on tables prior to StartEx to ensure proper seating arrangements. Additionally, each table should have a table tent identifying the organization or functional area seated at that table.

Registration and Table/Breakout Identification
Participants register upon arrival, for both identification and security reasons. Each participant should, at minimum, provide their name, organization, telephone number, and e-mail address. The exercise planning team retains copies of the sign-in sheets so that participants can receive follow-up correspondence such as thank-you notes, certificates of completion, copies of the AAR/IP, and invitations to future planning meetings and exercises.

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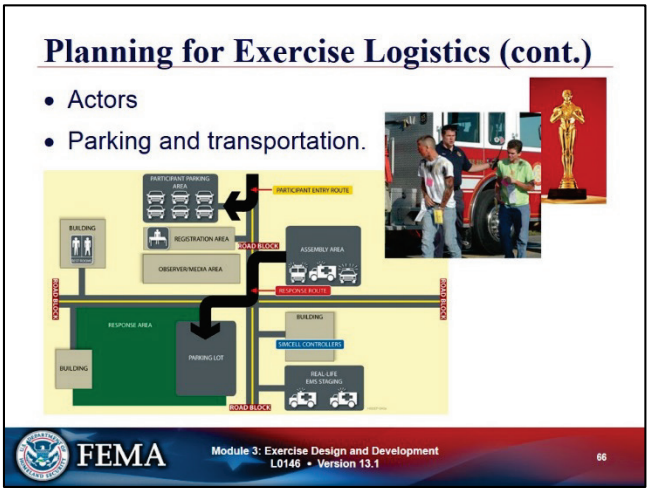

Planning for Exercise Logistics (cont.)

Actors

Volunteer actors provide added realism and prompt players to provide simulated victim care. Exercise planning team members can recruit them from local colleges and universities, medical and nursing schools, drama clubs, theaters, civic groups, emergency response academies, and Federal and State military units. Consideration should be given to soliciting volunteer actors from within the access and/or functional needs population to provide an opportunity to practice meeting the needs of these individuals in a variety of operational environments.

Prior to the exercise, actors should receive the following:

- Waiver forms for signature, clearing liability for exercise planners and participants
- Actor instructions including information on when to arrive, where to report, and other logistical details
- Symptomatology cards containing the signs and symptoms the actor will portray, as well as information for medical providers.

Parking, Transportation, and Designated Areas

Established parking areas should be clearly labeled for use by participants arriving in personal vehicles. If required, law enforcement personnel should be available to help direct vehicles to proper parking areas.

Operations-based exercises may also have several key areas for exercise conduct. Designated exercise areas should be clearly marked, and can include:

- **Exercise Assembly Area.** This is a gathering place for all deployable resources that will be playing in an exercise. The purpose of the exercise assembly area is to gather all resources and personnel near the exercise site prior to StartEx for safety briefings, weapons checks, and to ensure that resources and personnel are transported in a safe and unhurried manner.
- **Operations Area.** This is a large space where tactical operations—such as decontamination, triage, or render-safe procedures—take place.

- **Response Route.** This is the path traveled by responding emergency units from the Assembly Area to the exercise site during a response-focused exercise.
- **Observer/Media Area.** This is a designated area that provides observers and real-world media representatives with a view of the exercise but prevents them from interfering with exercise play.

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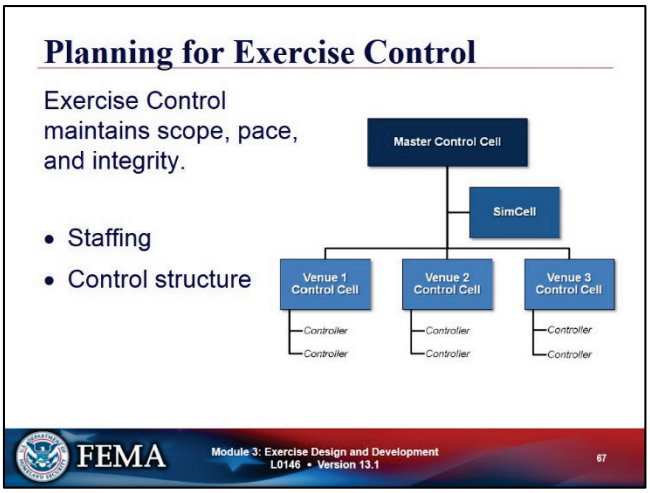

Planning for Exercise Control

Exercise control maintains exercise scope, pace, and integrity during conduct under safe and secure conditions. Key elements of exercise control include controller staffing, structure, training, communications, and safety and security.

Staffing

The planning team identifies the number of controllers needed during the exercise to deliver and track information. As a guiding principle, at least one controller should be present at every venue whenever possible. In addition to controlling the flow of information and release of MSEL events, positioning a controller at every site helps ensure the exercise is conducted safely with proper security controls.

During discussion-based exercises, the control staff provides the facilitation. If participants divide into groups for part of conduct, a facilitator is assigned to each group. A complex multijurisdictional FSE, on the other hand, may require hundreds of controllers at field and headquarters play sites, as well as additional controllers in control cells, to coordinate among the various play sites or serve in a SimCell. Resource constraints may make placing a controller at every site challenging. Multitasking personnel to serve as both a controller and an evaluator can help. While not desirable, exercise planners may also assign selected players to serve as controllers. Such players/controllers would need to understand clearly how to separate the roles to avoid feeding advance information into play or otherwise harming exercise integrity.

The *control structure* is the framework that allows controllers to communicate and coordinate with other controllers at other play sites or at a control cell to deliver and track exercise information. For discussion-based exercises, the structure is usually minimal. For operations-based exercises, however, the control structure may need to be fairly substantial to allow for proper coordination.

In an exercise involving field and headquarters play among multiple organizations in one location, a control cell serves as a central node for sharing information among controllers at the various sites and for putting all of the information together to form a common exercise picture. If an exercise contains multiple jurisdictions, particularly multiple levels of government in different geographic locations, it may be beneficial to establish multiple *venue control cells* that communicate and coordinate with each other through a *master control cell*. When an exercise does require establishment of multiple control cells, it is important to define their roles and relationships, including their decision-making hierarchy.

A *SimCell* is used to generate injects, receive player responses, and provide information in place of nonparticipating organizations that would likely participate actively if exercise events were real. Physically, the SimCell is a working location for a number of qualified professionals who portray these non-participating organizations. These professionals are knowledgeable of the organizations they are portraying, and they deliver injects in a realistic fashion. Depending on the type of exercise, the SimCell may require a telephone, computer, e-mail account, radio, or other means of communication.

When developing the control structure, exercise planners should consider their resource environment. Ideally, a control cell will contain a point of contact (POC) or a liaison representing each participating organization. In exercises involving a mix of classified and unclassified information, it may be required to separate control cells, with appropriate security firewalls set up to handle classified and unclassified information. Moreover, if an exercise uses a SimCell to drive exercise play, a determination needs to be made how to staff and integrate it into the broader control structure.

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Planning for Exercise Control (cont.)

Controller Training

If all exercise controllers can be recruited from the exercise planning team, there is little need to develop and provide special training for controllers. If, however, controllers are recruited from participating entities or other sources outside the planning team, it is very beneficial to provide some level of advance training to ensure that controllers understand the exercise, their role in it, and what they need to do.

The training generally includes a basic primer on the exercise design and all of the developed aspects of exercise control, including the scenario, information delivery methods, control staff, structure, and communications plan. Controllers are also trained to use the documents (e.g., MSEL) and the facilities (e.g., SimCell) that will help them control the exercise.

Communications Plan

The best-designed exercise control structure staffed by the most experienced exercise practitioners will fail if controllers cannot communicate effectively and efficiently. A communications section in the C/E Handbook or COSIN serves as a communications plan by telling controllers who to communicate with, what they need to communicate, and how they will communicate. This communications section may include:

- **Controller Communications.** Controllers at field or headquarters play sites may need to communicate with controllers at other sites or only with a control cell. Control cells will need to be able to communicate with all controllers at field or headquarters play sites, internally, and with other control cells if appropriate. Controllers and control cells may also need to communicate with players through means other than face-to-face interaction.
- **Timing and Content of Communications.** While controllers should communicate exercise events as they occur, establishing a regular communications schedule with defined information requirements will help to ensure effective information flow.

- **Communications Methodology.** Communications may occur by phone, radio, e-mail, over a networked system, or a mix. Controllers and control cells will need to be equipped to use the designated method(s) of communication.

Safety and Security

Controllers also play an important role in ensuring that the exercise is conducted safely in a secure environment. In exercises involving potentially dangerous field play or the use of classified materials, the control team designates a safety and/or security controller(s) to focus on those areas of control.

Safety

Safety is the most important consideration in planning any exercise. For operations-based exercises, consideration should be given to the following to help ensure a safe environment:

- Appoint a safety controller(s).
- Dedicate non-exercise participating advanced life support or basic life support ambulance unit(s) for real-world emergencies that may occur during the exercise.
- Identify real-world emergency procedures with a code word or phrase.
- Outline safety requirements and policies.
- Consider other safety issues outside the scope of exercise control (e.g., weather, heat stress, hypothermia, etc.).

Security

Because of the sensitive nature of many exercises, it is important for the exercise site to be secure. Local law enforcement can provide site security where appropriate. Exercises often also involve sensitive or classified information or procedures. For all exercises involving sensitive or classified information, exercise planners should identify and adhere to appropriate security standards to ensure that this information is not compromised. Such measures can include conducting registration prior to a discussion-based exercise, ensuring that uninvited or unregistered individuals do not participate, or having law enforcement or security guards monitor and control access to a play site for the duration of the exercise.

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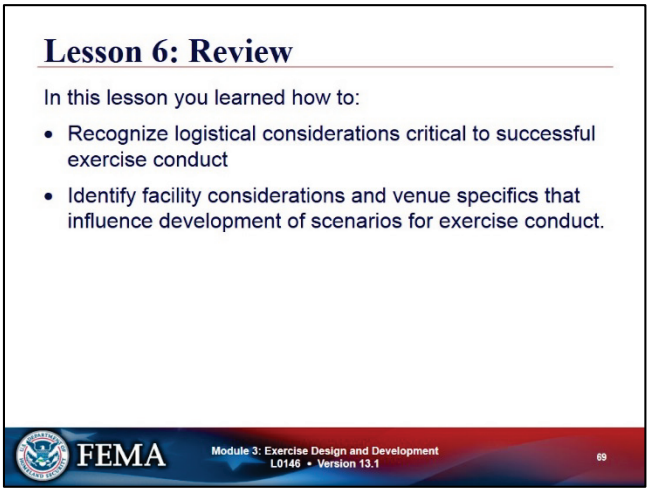

Lesson 6: Review

In Lesson 6, Exercise Logistics, you learned how to:

- Recognize logistical considerations critical to successful exercise conduct
- Identify facility considerations and venue specifics that influence development of scenarios for exercise conduct.

Questions?

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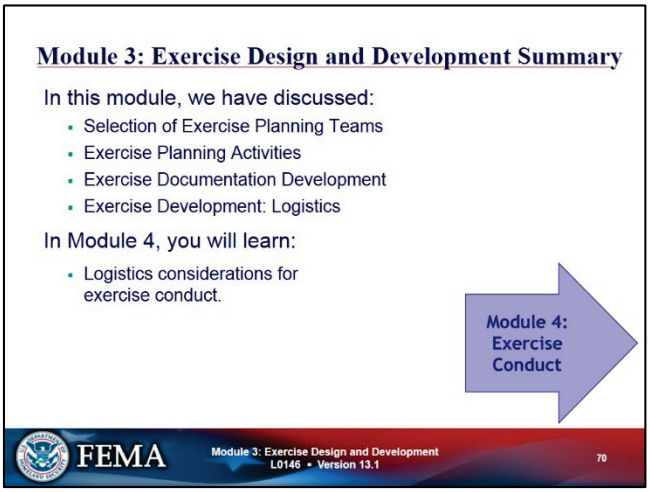

Module 3: Exercise Design and Development Summary

In this module, we have discussed

- Exercise Planning Team and Events
- Exercise Design Activities
- Logistics Planning
- Exercise Documentation
- Exercise Development.

In our next module we will learn about the logistic considerations of exercise conduct.

NOTES:

Acronyms

Acronym	Definition	First Appearance in Module
A/V	Audio/Visual	3
AAM	After-Action Meeting	6
AAR	After-Action Report	1
C&O	Concept and Objectives	3
C/E	Controller/Evaluator	3
COSIN	Control Staff Instructions	3
CPG	Comprehensive Preparedness Guide	2
DHS	Department of Homeland Security	1
EEGs	Exercise Evaluation Guides	1
EMI	Emergency Management Institute	1
EndEx	End of Exercise	4
EOC	Emergency Operations Center	2
EvalPlan	Evaluation Plan	3
ExPlan	Exercise Plan	3
FE	Functional Exercise	2
FEMA	Federal Emergency Management Agency	1
FPM	Final Planning Meeting	3
FSE	Full Scale Exercise	2
HazMat	Hazardous Materials	3
HSEEP	Homeland Security Exercise Evaluation Program	1
ICS	Incident Command System	2
IP	Improvement Plan	1
IPM	Initial Planning Meeting	3
IT	Information Technology	2
MAA	Mutual Aid Agreement	2
MOA	Memorandum of Agreement	2
MOU	Memorandum of Understanding	1
MPM	Mid-Term Planning Meeting	3
MSEL	Master Scenario Events List	3
NEP	National Exercise Program	1
NIMS	National Incident Management System	3
NOAA	National Oceanic and Atmospheric Administration	3
NPD	National Preparedness Directorate	1
NPS	National Preparedness System	1
OSHA	Occupational Safety and Health Administration	3
POC	Point of Contact	3

Acronym	Definition	First Appearance in Module
PPD-8	Presidential Policy Directive 8	1
SAA	State Administrative Agency	1
SimCell	Simulation Cell	3
SitMan	Situation Manual	3
SMART	Specific, Measureable, Achievable, Relevant, and Time-Bound	3
SME	Subject Matter Expert	3
SO	Incident Safety Officer	3
SOPs	Standard Operating Procedures	1
StartEx	Start of Exercise	3
TEP	Multi-year Training and Exercise Plan	1
TEPW	Training and Exercise Planning Workshop	1
THIRA	Threat and Hazard Identification and Risk Assessment	2
TTX	Tabletop Exercise	2
VIP	Very Important Person	3
XPAs	Extent of Play Agreements	1