**Extreme-Emergency-Educator – Help Documentation (Name subject to change)**

Authored by Regan Potangaroa (Software Producer) and edited by Lachlan Keene & Tom Buurmans (Software Developers) – software developer name disclosure subject to change

**The Purpose of this Software**

Scenarios and simulations are one key pillar of humanitarian training and the Extreme-Emergency-Educator has been written and written to assist that process. It does it by first automating and taking over the methodical component of injecting into a scenario; second by setting up a debriefing framework designed by the author of the scenario it allows for deeper learning for the participants because of the depth of the debrief; third, it allows scenarios to be repeated and thus learning for the author when these are compared; finally fourth, it allows for research to be conducted using the scenario as a platform. These are in addition to the usual insights that emerge from the use of scenarios for training and also for testing proposed response plans.

The Extreme-Emergency-Educator also allows scenarios at two different levels. The first level is as a Table Top Exercise TTX that does not require an internet connection, only requiring a single Windows 10 Based Computer. The second level requires a Computer with Windows 10 as the operating system as Host/HQ, a standard LAN (A network of computers that share the same router with no further setup required) and up to 6 Allocated Roles in which utilise up to 6 Computer Devices (irrespective of Operating System, with Google Chrome to connect to the HQ Server with the URL supplied by HQ). (Please note that no external internet connection is needed to run this software in any cirumstances). There is a range of training contexts and situations that this software could be used in (and perhaps this is its fifth advantage). Consequently, TTX scenarios could be in run in an office with minimal setup and logistics; or in the field in a response situation: for up to 15 participants. On the other hand it could also be used for multi groups (up to 6) within an agency or multiple agencies of up to 60 people.

Documents such as HSEEP[[1]](#footnote-1) could be used to design such scenarios and to align with that process a similar naming convention has been used for Extreme-Emergency-Educator.

The program has been developed by Lachlan Keene, Tom Buurmans, Riley Grice, Daniel Miller, Nathan Ellison, produced by Professor Regan Potangaroa based on his experience ostensibly for RedR Australia as part of ENGR301/ENGR302 supervised by Senior Lecturer James Quilty, at the Victoria University Of Wellington. “Developer/Lecturer name disclosure subject to change.”

**Disclaimer**

We are not responsible for any mishaps that could eventuate from the use of this program clause that you have- please discuss with James. – NOTE: Will get back to you on this - Lachlan

**Role of Exercises**

Exercises play a vital role in preparedness by enabling whole community stakeholders to test and validate plans and capabilities, and identify both capability gaps and areas for improvement. A well-designed exercise provides a low-risk environment to test capabilities, familiarize personnel with roles and responsibilities, and foster meaningful interaction and communication across organisations. Exercises bring together and strengthen the whole community in its efforts to prevent, protect against, mitigate, respond to, and recover from all hazards. Overall, exercises are cost-effective and useful tools that help organisations practice and refine their collective capacity to achieve the core capabilities.

**Application**

It is anticipated that this program could be used by emergency and disaster responding agencies, research teams, NGOs and INGOs. Hence it has a wide coverage.

**HQ**

**Process of Getting The Software Started**

1. Open the folder Extreme-Emergency-Educator – folder name subject to change
2. Double click the file called “Extreme-Emergency-Educator Run.bat” – file name subject to change
3. Wait for the program to open in your browser (If it does not open in Chrome, copy the URL and paste it into Chrome)

**Process of Creating a new scenario**

1. From the landing page: Click the “Create A Scenario” button
2. Click “Create New Scenario”
3. “Online Option” – Change whether this scenario will be using multiple computers (true) or a single computer (false) And Click Submit
4. “Title Option” – Modify the scenario title to your liking And Click Submit
5. “Duration Option” – Specify the duration of this simulation in hours and minutes And Click Submit
6. “Hours in a Simulation Day Option” – Specify how many real time hours equals a simulated day And Click Submit
7. “NGOs Option” – For each new NGO you want to add, specify there name and a passkey (used for ngos to login to the simulation with) And Click Submit
8. “Events Option” – For each new event that you want add, specify the NGO recipient, Event Subject, Event Time, Event Media file type (document / .pdf, video / .mp4, image / .jpg), File – the media file And Click Submit
9. “Library Option” – For each new library item, specify the subject, Event Media file type (document / .pdf, video / .mp4, image / .jpg), File – the media file And Click Submit. These are used for scheduling events during the simulation.
10. Once you have constructed the simulation to your liking click save and the simulation .zip file will download to your computer shortly, this file will most likely will be in your downloads folder.

**Process For Editing An Existing Scenario File**

1. From the landing page: Click the “Create A Scenario” button
2. Click “Edit Existing Scenario”
3. Choose an existing simulation .zip file for uploading
4. Click Begin
5. **Same as from step 3 of creating new scenario above**

**Running a Scenario HQ – Online**

1. Loading Scenario
   1. From the landing page: Click the “Start A New Scenario” button
   2. Choose an existing online type simulation .zip file for uploading
   3. Click Begin
2. Connect NGOs
   1. Communicate the displayed URL to NGO’s.
   2. Click on the “Show NGO passkeys” button displayed next to the URL and pass on to teams – yet to be implemented. This needs to be entered to log in as the correct NGO at the URL.
3. Starting the simulation
   1. Once everyone is connected and ready, you can select the play icon to start running the simulation.
   2. You can select to view either the simulated or real countdown timer.
   3. You can pause the simulation at any point and start again when ready.
4. Using the timeline
   1. The timeline displays all scheduled events, zoom in with your mouse’s scroll wheel and drag the timeline around to scrub through it.
   2. To edit events, click the event on the timeline to bring up the popup editor.
   3. You can cancel by clicking on the “x” in the top right hand of the popup; delete the event by clicking “Delete”; update the event by filling in the form and clicking “Update”.
   4. You can add a new event by clicking the + icon in the top right corner of the timeline to open the add new event from library interface – yet to be finalised
5. Messaging
   1. Once an NGO connected, they will appear on the communication side bar, click on them to start chatting with them.
   2. Enter a message in the text box.
   3. Choose either “Send” (to send the message to the selected NGO) or to “Send To All” (send the inputted message to all NGO’s as a broadcast).
6. The events inbox
   1. This is where NGO event responses will appear. Use the drop down to filter inbox items.
   2. Clicking on an event response will show response messages from that NGOs event.
   3. You can then respond to the NGO’s response using the text box and send button at the bottom of the inbox. This will be sent to the NGO.
   4. You can also click the view event button, which displays the events associated media file.
7. Once a scenario has concluded, a simulation review pdf document will start downloading. Once downloaded, opening it will show a report of the completed simulation. – yet to be implemented

**Running a Scenario HQ – Offline**

1. From the landing page: Click the “Start A New Scenario” button
2. Choose an existing offline type simulation .zip file for uploading
3. Click Begin
4. Open a new tab using the URL link provided for however many NGO’s are a part of this simulation (**See step 1 of Running A Scenario NGO Offline**)
5. **See step 5 of Running a Scenario HQ – Online Onwards.**

**Other program features**

Such as the colouring, back ground context audio such as sirens, meetings riots would be a great feature, need to be mentioned here.

* Click on the colour icon in the top right-hand corner of the page to select a theme colour. This can be done at any time.
* To change the logo navigate to the program directory then /DisasterSimulatorNodeJSServer/resources/assets – subject to change and replace the “placeholder\_logo.png” with your own logo, make sure to save it with the same name and format.
* Any audio events will automatically play through NGO device speakers once sent from the timeline.

**NGO**

**Online**

1. Connecting
   1. Open chrome and go to the URL that was supplied to you by your HQ.
   2. Input the passkey that was supplied to you by your HQ.
   3. Click Send.
2. Messaging
   1. The communication box can be used to send messages to the HQ or other NGOs. Do this by selecting who you would like to contact in the sidebar, composing a message in the text box and sending it by clicking on “Send”.
3. Event inbox
   1. The inbox is where occurred events will appear. These will display in the side bar, click on them to open.
   2. Click the view event button to display the event media file. Event responses will be displayed below.
   3. You can then choose to submit a new response by using the text box and send button at the bottom of the inbox. Make sure to choose a tag that you think best suits this event when submitting a message.
4. Every real time hour a popup will show asking you to report your status to HQ.

**Offline**

1. Using the tab that was opened by your HQ input your passkey, keep track of this tab as it will be your NGO tab.
2. **See step 4 of Running a Scenario Ngo Online Onwards**

The following bit in purple has been cut from HSEEP as a guide and template (we don’t need to agree with it and should change where we feel it needs to be) to be modified to suit our situation

**Background**

A TTX is intended to generate discussion of various issues regarding a hypothetical, simulated emergency. TTXs can be used to enhance general awareness, validate plans and procedures, rehearse concepts, and/or assess the types of systems needed to guide the prevention of, protection from, mitigation of, response to, and recovery from a defined incident. Generally, TTXs are aimed at facilitating conceptual understanding, identifying strengths and areas for improvement, and/or achieving changes in perceptions. During a TTX, players are encouraged to discuss issues in depth, collaboratively examining areas of concern and solving problems.

TTXs can range from basic to complex. In a basic TTX, the scenario is presented and remains constant—it describes an emergency and brings discussion participants up to the simulated present time. Players apply their knowledge and skills to a list of problems presented by the facilitator; problems are discussed as a group; and resolution is reached and documented for later analysis. In a more advanced TTX, play advances as players receive pre-scripted messages that alter the original scenario. A facilitator usually introduces problems one at a time in the form of a written message, simulated telephone call, videotape, or other means. Players discuss the issues raised by each problem, referencing established authorities, plans, and procedures for guidance. Player decisions are incorporated as the scenario continues to unfold. During a TTX, all participants should be encouraged to contribute to the discussion and be reminded that they are making decisions in a no-fault environment. Effective TTX facilitation is critical to keeping participants focused on exercise objectives and associated capability targets.

Functional Exercises FEs are designed to validate and evaluate capabilities, multiple functions and/or sub-functions, or interdependent groups of functions. FEs are typically focused on exercising plans, policies, procedures, and staff members involved in management, direction, command, and control functions. In FEs, events are projected through an exercise scenario with event updates that drive activity typically at the management level. An FE is conducted in a realistic, real-time environment; however, movement of personnel and equipment is usually simulated. FE controllers typically use a Master Scenario Events List (MSEL) to ensure participant activity remains within predefined boundaries and ensure exercise objectives are accomplished. Simulators in a Simulation Cell (SimCell) can inject scenario elements to simulate real events.

Full-Scale Exercises FSEs are typically the most complex and resource-intensive type of exercise. They involve multiple agencies, organizations, and jurisdictions and validate many facets of preparedness. FSEs often include many players operating under cooperative systems such as the Incident Command System (ICS) or Unified Command. In an FSE, events are projected through an exercise scenario with event updates that drive activity at the operational level. FSEs are usually conducted in a real-time, stressful environment that is intended to mirror a real incident. Personnel and resources may be mobilized and deployed to the scene, where actions are performed as if a real incident had occurred. The FSE simulates reality by presenting complex and realistic problems that require critical thinking, rapid problem solving, and effective responses by trained personnel. The level of support needed to conduct an FSE is greater than that needed for other types of exercises. The exercise site for an FSE is usually large, and site logistics require close monitoring. Safety issues, particularly regarding the use of props and special effects, must be monitored. Throughout the duration of the exercise, many activities occur simultaneously

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 Type A first step in defining exercise scope is determining what exercise type to conduct. 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 of a plan, policy, or set of procedures, an operations-based exercise may be appropriate.

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 will need to simulate the decisions and actions of those participants through an exercise SimCell. An Extent of Play Agreement (XPA) defines the level of participation. Exercise Duration 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.

Exercise Parameters Exercise parameters clearly outline 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 in order to meet diverse planning and training requirements. While these activities may be useful to an organization, 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.

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.

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. 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. 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 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. A scenario consists of three basic elements: (1) the general context or comprehensive story; (2) the required conditions that will allow players to demonstrate proficiency and competency in conducting critical tasks, demonstrating core capabilities, and meeting objectives; and (3) the technical details necessary to accurately depict scenario conditions and events. The exercise planning team ensures that the design effort is not characterized by a fixation on scenario development; rather, 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 avoid any sensitivity that may arise, such as the use of real names of terrorist groups or sensitive venues.

Threat or HazardThe first step in designing a scenario is determining the type of threat or hazard on which the exercise will focus. 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 choose a threat or hazard that best assesses the objectives and core capabilities on which the exercise will focus. The identification of this threat or hazard scenario should also be based on the organization’s threat/hazard identification and risk assessment.55 For further guidance on identifying and assessing risks and associated impacts, please refer to the DHS Comprehensive Preparedness Guide 201: Threat and Hazard Identification and Risk Assessment Guide, First Edition, April 2012. Developing and maintaining these risk analyses is an essential component of

Homeland Security Exercise and Evaluation Program3-13 the National Preparedness System, as they enable organizations to identify potential events that would stress their core preparedness capabilities. Modeling and Simulation When incorporated into the development of the scenario and overall exercise design, 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 supports 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 a hurricane’s effects 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. 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 exercise sponsor(s) to understand the specific requirements for security marking rules and requirements, access and dissemination, storage, disposal, and incident reporting of sensitive documents. 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.

**Evaluation Process-How does it work and how is it set up**

Explain the tag system, the timing for say SITREPS or other named email injects. – Unsure what to state here

**Program Improvement**

We need to write something about any feed back in the furture:Ideas and suggestions for improvement should be emailed to Prof Regan Potangaroa at [regan.potangaroa@vuw.ac.nz](mailto:regan.potangaroa@vuw.ac.nz) – will update this

**Terms as per HSEEP[[2]](#footnote-2)**

We need to review and cut and include as we see fit the purple sections below. HSEEP is designed a tool for compliance and hence references many of the management and setup roles that we do not want/need to have. However, connection and use of standard terms as per HSEEP would be good.

Contextual Inject Contextual injects are 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.

Contingency Inject Contingency injects are events that a controller provides to a player if the players get off track or do not take an action that is necessary for the continuation of the exercise. This ensures that play moves forward, as needed, 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.

Control Staff Instructions (COSIN)The COSIN contains guidance that controllers, simulators, and need concerning procedures and responsibilities for exercise control, simulation, and support. The COSIN provides guidelines for control and simulation support and establishes a management structure for these activities.

Controller/Evaluator (C/E) BriefingThe C/E Briefing is a pre-exercise overview for controllers, evaluators, and the exercise administrative staff. The briefing summarizes the C/E Handbook (or the COSIN and EvalPlan) and focuses on explaining the roles and responsibilities of controllers and evaluators.

Controller/Evaluator (C/E) DebriefingThe C/E Debriefing provides a forum for functional area controllers and evaluators to review the exercise. The exercise planning team leader facilitates this debriefing, which provides each controller and evaluator with an opportunity to provide an overview of the functional area they observed and to discuss both strengths and areas for improvement. During the debriefing, controllers and evaluators complete and submit their EEGs and their Participant Feedback Forms. Debriefing results are captured for inclusion in the AAR/IP.

Controller/Evaluator (C/E) HandbookThe C/E Handbook specifically describes the roles and responsibilities of exercise controllers and evaluators and the procedures they must follow. Because the C/E Handbook contains information about the scenario and about exercise administration, it is distributed to only those individuals specifically designated as controllers or evaluators.ControllersIn operations-based and some complex discussion-based exercises, controllers plan and manage exercise play, set up and operate the exercise incident site, and possibly take the roles of individuals and agencies not actually participating in the exercise. Controllers direct the pace of exercise play, provide key data to players, and may prompt or initiate certain player actions and injects to the players as described in the MSEL to ensure exercise continuity. Controllers issue exercise materials to players as required, monitor the exercise timeline, and supervise the safety of all exercise participants. Controllers are the only participants who should provide information or direction to players. All controllers should be accountable to one senior controller.

Core CapabilitiesDistinct critical elements necessary to achieve the National Preparedness Goal.

Corrective ActionCorrective actions are the concrete, actionable steps outlined in an IP that are intended to resolve preparedness gaps and shortcomings experienced in exercises or real-world events.

Critical TasksCritical 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.

D DrillA drill is a coordinated, supervised activity usually employed to validate a specific operation or function in a single agency or organization. Drills are commonly used to provide training on new equipment, develop or validate new policies or procedures, or practice and maintain current skills.

E End of Exercise (EndEx) The official conclusion of an exercise.Evaluation Plan (EvalPlan)The EvalPlan is typically used for exercises of a large scope and scale.

An EvalPlan provides evaluation staff with guidance and instructions on evaluation or observation methodology to be used as well as essential materials required to execute their specific functions.

Evaluation TeamThe evaluation team consists of evaluators trained to observe and record participant actions. These individuals should be familiar with the exercising jurisdiction’s plans, policies, procedures, and agreements.

EvaluatorEvaluators, selected from participating agencies, are chosen based on their expertise in the functional areas they will observe. Evaluators use EEGs to measure and assess performance, capture unresolved issues, and analyze exercise results. Evaluators passively assess and document players’ performance against established emergency plans and exercise evaluation criteria, in accordance with HSEEP standards and without interfering with exercise flow.

EventWithin the MSEL, an event is an expected action that is anticipated to take place during an exercise.

ExerciseAn exercise is an instrument to train for, assess, practice, and improve performance in prevention, protection, mitigation, response, and recovery capabilities in a risk-free environment. Exercises can be used for testing and validating policies, plans, procedures, training, equipment, and interagency agreements; clarifying and training personnel in roles and responsibilities; improving interagency coordination and communications; improving individual performance; identifying gaps in resources; and identifying opportunities for improvement.

Exercise Assembly AreaThe exercise assembly area is a gathering place for all deployable resources that will be playing in an exercise. The purpose of the 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.

Exercise Assembly Area ControllerThe exercise assembly area controller is responsible for the logistical organization of the exercise assembly area, including placement locations for units entering the exercise assembly area, release of dispatched units into the field, and coordination of pathways and overall safety within the assembly area.

Exercise DirectorThe Exercise Director oversees all exercise functions during exercise conduct; oversees and remains in contact with controllers and evaluators; debriefs controllers and evaluators following the exercise; and oversees setup and cleanup of the exercise as well as positioning of controllers and evaluators.

Exercise Evaluation Guide (EEG)EEGs provide a template for observing and collecting exercise data in relation to objectives and associated core capabilities. EEGs typically identify targets and critical tasks for exercise objectives and core capabilities and enable evaluators to capture structured and unstructured data regarding exercise performance. Evaluators should develop and customize EEGs to meet the unique objectives of their exercise and to reflect jurisdiction-specific capability targets.

Exercise Plan (ExPlan)An ExPlan is a general information document that helps operations-based exercises run smoothly by providing participants with a synopsis of the exercise. It is published and distributed to the participating organizations following development of most of the critical elements of the exercise. In addition to addressing exercise objectives and scope, an ExPlan assignsactivities and responsibilities for exercise planning, conduct, and evaluation. 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.

Exercise Planning TeamThe exercise planning team is responsible for the successful execution of all aspects of an individual exercise. The planning team determines exercise objectives and core capabilities, creates a realistic scenario to achieve the exercise objectives, and develops documents to guide exercise conduct and evaluation. The planning team’s organization and management principles should include clearly defined roles and responsibilities and a manageable span of control.

Exercise Play AreaThe exercise play area is the site or facility where the bulk of tactical player activities and tasks are demonstrated during an exercise.

Exercise Play RulesExercise play rules are the parameters that exercise participants follow during the exercise. Exercise play rules describe appropriate exercise behavior, particularly in the case of real-world emergencies.

Exercise Program ManagementExercise program management is the process of overseeing a variety of individual exercises and supporting activities sustained over time. An effective exercise program helps whole community stakeholders maximize efficiency, resources, time, and funding by ensuring that individual exercises are part of a coordinated, integrated approach to building, sustaining, and delivering core capabilities.

Exercise Program ManagerThe exercise program manager develops a self-sustaining exercise program through program budget management oversight, exercise conduct, and improvement tracking monitoring and reporting.

Exercise Project ManagementExercise project management is the act of engaging in design and development, conduct, evaluation, and improvement planning for an individual exercise. Effective project management ensures that all aspects of planning and executing an individual exercise are done efficiently and are grounded in common approaches and best practices.

Expected Action Event An expected action event serves as a holding place in the MSEL and notifies controllers of when an expected action should occur.

F Facilitated DiscussionA facilitated discussion is the focused discussion of specific issues through a facilitator with functional area or subject-matter expertise.

FacilitatorDuring a discussion-based exercise, the facilitator(s) is responsible for keeping participant discussions on track with exercise objectives and ensuring all issues and objectives are explored as thoroughly as possible within time constraints. If an exercise uses breakout groups, more than one facilitator may be needed.

Final Planning Meeting (FPM)The FPM is the final forum for reviewing exercise processes and procedures. 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 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.Full-Scale Exercise (FSE)FSEs are typically the most complex and resource-intensive type of exercise. They involve multiple agencies, organizations, and jurisdictions and validate many facets of preparedness. FSEs often include many players operating under cooperative systems such as the Incident Command System or Unified Command.

Functional Exercise (FE) Functional exercises are designed to validate and evaluate capabilities, multiple functions and/or sub-functions, or interdependent groups of functions. FEs are typically focused on exercising plans, policies, procedures, and staff members involved in management, direction, command, and control functions. In FEs, events are projected through an exercise scenario with event updates that drive activity at the management level. An FE is conducted in a realistic, real-time environment; however, movement of personnel and equipment is usually simulated.

G GameA game is a simulation of operations that often involves two or more teams, usually in a competitive environment, using rules, data, and procedures designed to depict an actual or hypothetic situation. Games explore the consequences of player decisions and actions and are therefore excellent tools to use when validating or reinforcing plans and procedures or evaluating resource requirements.

Ground TruthThe ground truth is comprised of the detailed elements of a prevention exercise scenario that must remain consistent during exercise development and conduct to ensure that realism is maintained and objectives may be met in the unscripted move-countermove exercise environment. The ground truth includes the scenario timeline, local threat environment, simulated threat group, and individual adversary profiles and relationships. Once composed, the ground truth is used as the basis for MSEL development and red team operations planning, if applicable.

Ground Truth AdvisorIn prevention exercises, the ground truth advisor tracks how the adversary (i.e., red team) and exercise participant moves and countermoves change the fabric of the exercise environment, potentially creating additional truths. To ensure consistency, each unscripted MSEL inject should be vetted by the ground truth advisor.

H Homeland Security Exercise and Evaluation Program (HSEEP)HSEEP is a program that provides a set of guiding principles for exercise programs, as well as a common approach to exercise program management, design and development, conduct, evaluation, and improvement planning.

Hot WashA Hot Wash is a facilitated discussion held immediately after an exercise among exercise players. It captures feedback about any issues, concerns, or proposed improvements players may have about the exercise. The Hot Wash is an opportunity for players to voice their opinions on the exercise and their own performance.

I Improvement Plan (IP)The IP identifies specific corrective actions, assigns them to responsible parties, and establishes target dates for their completion. The IP is developed in conjunction with the After-Action Report.

Initial Planning Meeting (IPM)The IPM marks the beginning of the exercise development phase. An IPM’s purpose is to determine exercise scope by gathering input from the exercise planning team; design requirements and conditions (e.g., assumptions and artificialities); objectives; extent of play; and scenario variables (e.g., time, location, hazard selection). The IPM is also used to develop exercise documentation by obtaining the planning team’s input on exercise location, schedule, duration, and other relevant details.

InjectInjects 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. Injects can be written, oral, televised, and/or transmitted via any means (e.g., fax, phone, e-mail, voice, radio). Injects can be contextual or contingency.

L Lead EvaluatorThe lead evaluator should participate fully as a member of the exercise planning team and should be a senior-level individual familiar with all relevant issues associated with the exercise, including plans, policies, and procedures of the exercising organizations; Incident Command and decision-making processes of the exercising organizations; and interagency and/or inter-jurisdictional coordination issues relevant to the exercise. The lead evaluator should have the management skills needed to oversee a team of evaluators over an extended process as well as the knowledge and analytical skills to undertake a thorough and accurate analysis of all capabilities being tested during an exercise.

Logistics SectionThe Logistics Section of the exercise planning team provides the supplies, materials, facilities, and services that enable the exercise to function smoothly without outside interference or disruption. This section consists of two subsections: service and support. The service subsection provides transportation, barricading, signage, food and drinks, real-life medical capability, and exercise security. The support subsection provides communications, purchasing, general supplies, management of VIPs, observer processing, and recruitment and management of actors.

M Master Scenario Events List (MSEL) The MSEL is a chronological timeline of expected actions and scripted events to be injected into exercise play by controllers to generate or prompt player activity. It ensures necessary events happen so that all objectives are met. Larger, more complex exercises may also use a procedural flow, which differs from the MSEL in that it contains only expected player actions or events. The MSEL links simulation to action, enhances exercise experience for players, and reflects an incident or activity meant to prompt players to action.

MSEL MeetingThe MSEL Meeting may be held in preparation for more complex exercises to review the scenario timeline and focus on MSEL development. A MSEL Meeting can be held in conjunction with or separate from the MPM to review the scenario timeline for the exercise.

Midterm Planning Meeting (MPM)The MPM is a planning meeting for exercises. It is used to discuss exercise organization and staffing concepts; scenario and timeline development; and scheduling, logistics, and administrative requirements. It is also a session to review draft documentation.

MitigationThe capabilities necessary to reduce loss of life and property by lessening the impact of disasters.

Moderated DiscussionA moderated discussion is a facilitated, discussion-based forum where a representative from each functional area breakout presents to participants a summary and results from a group’s earlier facilitated discussion. During moderated discussions, spokespersons summarize the facilitated discussion, present key findings and issues, and discuss any unresolved issues or questions. At the end of the moderated discussion period, the floor is open for questions.

N National Exercise Program (NEP)The NEP’s mission is to serve as the principal exercise mechanism for examining the preparedness and measuring the readiness of the United States across the entire homeland security enterprise by designing, coordinating, conducting, and evaluating a progressive cycle of exercises that rigorously test the Nation’s ability to perform missions or functions that prevent, protect against, respond to, recover from, and mitigate all hazards.

National Incident Management System (NIMS)The NIMS standard was designed to enhance the ability of the United States to manage domestic incidents by establishing a single, comprehensive system for incident management. It is a system mandated by Homeland Security Presidential Directive 5 (HSPD-5) that provides a consistent, nationwide approach for Federal, State, local, tribal, and territorial governments; the private sector; and nongovernmental organizations to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity.

National Preparedness Goal (Goal) The National Preparedness Goal defines the core capabilities necessary to prepare for the specific types of incidents that pose the greatest risk to the security of the Nation. The Goal emphasizes actions aimed at achieving an integrated, layered, and all-of-Nation preparedness approach that optimizes the use of available resources. Specifically, the Goal defines success as: A secure and resilient Nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk.

National Preparedness SystemThe National Preparedness System is an integrated set of guidance, programs, and processes that will enable the Nation to meet the National Preparedness Goal.

O ObjectivesObjectives are the distinct outcomes an organization wishes to achieve during an individual exercise. Objectives should reflect the exercise sponsor’s specific needs, environment, plans, and procedures, while providing a framework for scenario development and a basis for evaluation. Objectives can be based on outcomes from a THIRA, from Homeland Security Strategies, and other preparedness documents. Planners should create objectives that are specific, measurable, achievable, relevant, and time-bound (SMART) and should limit the number of exercise objectives to enable timely exercise conduct, facilitate reasonable scenario design, and support successful evaluation.

ObserverObservers do not directly participate in the exercise; rather, they observe selected segments of the exercise as it unfolds, while remaining separated from player activities. Observers view the exercise from a designated observation area and are asked to remain within the observation area during the exercise. A dedicated controller or public information officer should be assigned to manage these groups. In a discussion-based exercise, observers may support the development of player responses to the situation during the discussion by delivering messages or citing references.

Observer BriefingAn Observer Briefing is generally conducted the day of an exercise and informs observers and VIPs about program background, scenario, schedule of events, observer limitations, and any other miscellaneous information. Participant Handouts and ExPlans or SitMans, depending on the type of exercise being conducted, are often distributed during this briefing.Observer/Media AreaThis 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.

Operations SectionThe Operations Section of the exercise planning team provides most of the technical or functional expertise for both scenario development and evaluation. This includes development of the MSEL.

P ParticipantParticipants are the overarching group that includes all players, controllers, evaluators, and staff members involved in conducting an exercise.

Participant Feedback FormPlayers and observers receive a Participant Feedback Form after the end of the exercise 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 Hot Wash allows them to provide evaluators with 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 future exercises. Information collected from feedback forms contributes to the issues, observations, recommendations, and corrective actions in the After-Action Report/Improvement Plan.

Planning MeetingsEffective exercise design and development involve a combination of exercise planning meetings. These meetings bring together the full range of exercise stakeholders to discuss and agree on key aspects of the exercise’s design and development. Various factors—including exercise scope, type, and complexity—inform the types of meetings needed, and exercise planners should tailor the planning meeting schedule to suit the particular nature of the exercise.

Planning SectionThe Planning Section of the exercise planning team is responsible for compiling and developing all exercise documentation. To accomplish this effectively, the Planning Section also collects and reviews policies, plans, and procedures that will be assessed in the exercise. This group is also responsible for planning exercise evaluation. During the exercise, the Planning Section may be responsible for developing simulated actions by agencies not participating in the exercise and for setting up a SimCell as required.

PlayerPlayers have an active role in preventing, responding to, or recovering from the risks and hazards presented in the scenario, by either discussing or performing their regular roles and responsibilities. Players initiate actions that will respond to and/or mitigate the simulated emergency.

Player BriefingA Player Briefing is held immediately before an exercise and addresses individual roles and responsibilities, exercise parameters, safety, badges, and any other logistical items. For a drill or full-scale exercise, Player Briefings typically occur in the exercise assembly area.

PreparednessThe actions taken to plan, organize, equip, train, and exercise to build and sustain the capabilities necessary to prevent, protect against, mitigate the effects of, respond to, and recover from those threats that pose the greatest risk to the security of the Nation.

PreventionThe capabilities necessary to avoid, prevent, or stop a threatened or actual act of terrorism.

Prevention ExercisesPrevention exercises may focus on issues that pertain to information and intelligence sharing, credible threats, surveillance, and/or opposing forces.

PropsProps are nonfunctional replications of objects. The presence or discovery of props requires certain actions by exercise players. Examples of props include simulated bombs, bomb blast debris (shrapnel), mannequins or body parts, and foam bricks and beams. Simulants that mimic the effects of chemical or radiological hazards or that cause a positive reading of an actual detection device are also considered props.

ProtectionThe capabilities necessary to secure the homeland against acts of terrorism and manmade or natural disasters.

R Recovery The capabilities necessary to assist communities affected by an incident to recover effectively.

ResponseThe capabilities necessary to save lives, protect property and the environment, and meet basic human needs after an incident has occurred.

Rolling Summary ReportThe rolling summary report is an analysis of outcomes across a series of exercises. The report includes an analysis of issues, trends, and key outcomes from all exercises listed in an organization’s multi-year TEP. It is developed and updated periodically (e.g., quarterly or biennially), depending on the number of exercises conducted

1. Homeland Security Exercise and Evaluation Program (HSEEP) April 2013 [https://www.fema.gov/media-library-data/20130726-1914-25045-8890/hseep\_apr13\_.pdf accessed on sept 2019](https://www.fema.gov/media-library-data/20130726-1914-25045-8890/hseep_apr13_.pdf%20accessed%20on%20sept%202019). [↑](#footnote-ref-1)
2. Homeland Security Exercise and Evaluation Program (HSEEP) April 2013 <https://www.fema.gov/media-library-data/20130726-1914-25045-8890/hseep_apr13_.pdf> accessed on sept 2019. [↑](#footnote-ref-2)