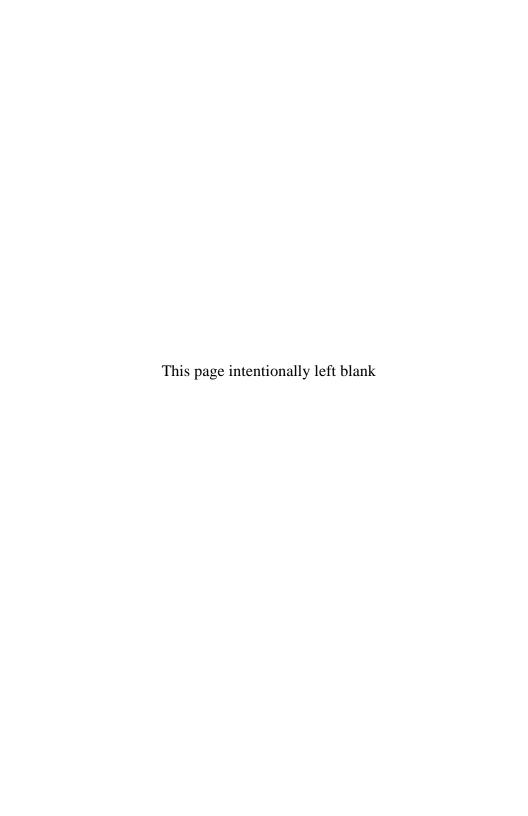
Simulation Instructor-Controller Handbook



MAGTF Staff Training Program (MSTP)

U.S. Marine Corps 15 May 2023

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UNITED STATES MARINE CORPS MSTP Division (C 467) 2301 Little Road Quantico, Virginia 22134-5001

15 May 2023

FOREWORD

- 1. PURPOSE: To describe the duties and responsibilities of simulation instructor-controllers in MSTP supported exercises.
- 2. SCOPE: This pamphlet provides an overview of MSTP exercise design, a description of exercise and simulation control organizations, and a discussion of the duties and responsibilities of simulation instructor-controllers. It supplements the MSTP Exercise SOP.
- 3. SUPERSESSION: Not applicable.
- 4. CHANGES. MSTP encourages recommendations for improvements to this pamphlet from commands as well as from individuals. Reproduce the attached User Suggestion Form and forward to:

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Recommendations may be sent electronically to: MSTP OPS@usmc.mil.

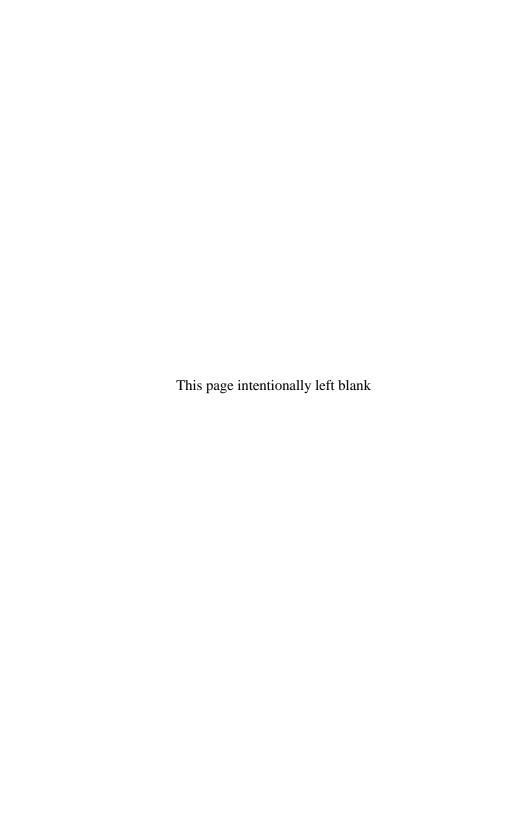
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Colonel, U.S. Marine Corps

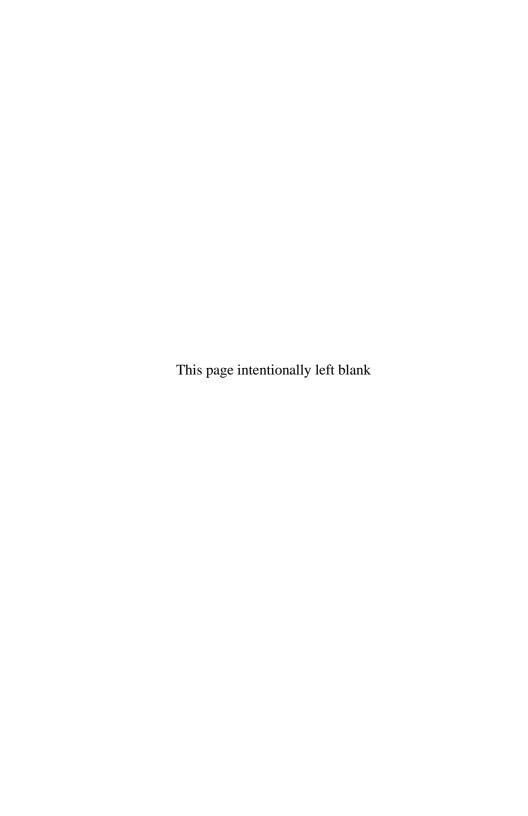
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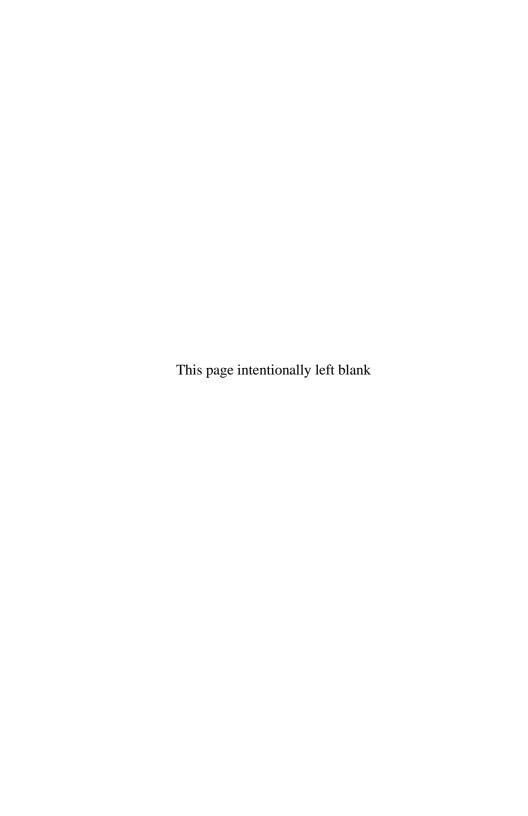


Table of Contents

| D | T |
|--------|---|
| Pari | |
| 1 41 1 | |

| Overv | iew | 1 |
|-------|---|----|
| 1001 | Introduction | 1 |
| 1002 | What is MSTP? | 1 |
| 1003 | Types of Exercises | 3 |
| 1004 | Who's Who in an MSTP Supported Exercise | 5 |
| 1004a | Exercise Director | 5 |
| 1004b | Deputy Exercise Director | 5 |
| 1004c | Highly Qualified Expert-Senior Mentors | 6 |
| 1004d | Exercise Control Officer | 6 |
| 1004e | Simulation Control Officer | 7 |
| 1004f | Battle Manager | 7 |
| 1004g | Master Scenario Events List Manager | 8 |
| 1004h | Observer Trainer Collectors | 8 |
| 1004i | Adversary Forces Lead | 8 |
| 1004j | Exercise Support Officer | 9 |
| 1004k | Senior Analyst | 9 |
| 1005 | Key Organizations | 9 |
| 1005a | Higher and Adjacent Headquarters | 9 |
| 1005b | White Cell | 9 |
| 1005c | Exercise Intelligence Cell | 10 |
| 1005d | MAGTF Branch | 10 |
| 1005e | Adversary Force | 11 |
| 1005f | Exercise Control Section | 11 |
| 1005g | Exercise Support | 11 |
| 1005h | Subordinate Unit Response Cell | 11 |
| 1005i | Systems Control | 12 |

| Part I | | |
|--------|--|------|
| Exerci | se Construct | 13 |
| 2001 | Simulation Center Organization | 13 |
| 2002 | Simulation Center Personnel | 14 |
| 2002a | Simulation Control Officer | 14 |
| 2002b | Senior Controller | 15 |
| 2002c | Technical Control | 16 |
| 2003 | Subordinate Unit Response Cell Personnel | 16 |
| 2003a | Subordinate Unit Response Cell Officer in Charge | 16 |
| 2003b | Response Cell Controller | 16 |
| 2003c | Simulation Instructor-Controller | 17 |
| 2003d | Terminal Operator | 17 |
| 2004 | Exercise Simulation Support Systems | 18 |
| 2005 | Games and Players | 21 |
| | | |
| Part I | П | |
| Roles | and Responsibilities | 22 |
| 3001 | Subordinate Unit Response Cell Officer in Ch | arge |
| | Duties | |
| 3002 | Simulation Instructor Controller Duties | 23 |
| 3003 | Actions Before the Exercise Begin | 26 |
| 3003a | Prepare the Subordinate Unit Response Cell | 26 |
| 3003b | Communication Exercise | 28 |
| 3003c | Staff Exercise | . 29 |
| 3003d | Information Flow Exercise | 29 |
| 3003e | Rehearsal/Mini-exercise | 29 |
| 3004 | Actions during the Exercise | 30 |
| 3004a | Intelligence Build and Warm Start | 30 |
| 3004b | Making the Exercise as Realistic as Possible | 31 |
| 3004c | Subordinate Unit Response Cell Initiative | 31 |
| 3005 | Actions after the Exercise | 32 |

| 3005a Facilitated After Action Review | 32 |
|---|---------------|
| 3005b Final Exercise Report | 33 |
| Appendix A – Subordinate Unit Response Co Examples | ell Checklist |
| SURC Set Up Checklist | A-1 |
| SURC COMMEX Checklist | A-3 |
| SURC STAFFEX Checklist | A-4 |
| SURC INFOFLOWEX Checklist | A-5 |
| Appendix B – Glossary | |
| Section I Acronyms | B-1 |
| Section II Definitions | B-4 |

Part I Overview

1001. Introduction

This pamphlet is intended to help prospective instructor-controllers (ICs) understand their duties and the critical roles they will play during a simulation-supported exercise. This pamphlet is organized in three parts: (1) Overview; (2) Exercise Construct; and (3) Roles and Responsibilities. "Overview" provides a summary of MSTP and its role in exercise design and execution. "Exercise Construct" describes the IC workplace, subordinate unit response cells (SURCs) and how it integrates with other MSTP exercise billets. "Roles and Responsibilities" discusses specific duties as well as the IC's role in the preparation, execution, and post-execution phases of an MSTP supported exercise.

This handbook supplements the MSTP Exercise Standing Operating Procedure (EXSOP). It contains details about the role of the SURC and duties of members not described in the EXSOP. If any conflicts occur between this pamphlet and the EXSOP, the EXSOP takes precedence.

1002. What is MSTP?

Per Marine Corps Order (MCO) 1500.53B dated 5 Mar 2013, MSTP provides "training in Marine Air Ground Task Force (MAGTF) operations across the range of military operations, within the context of a Joint and/or Combined Task Force Environment, to improve the warfighting skills of senior commanders and their staffs." MSTP is a part of Training and Education Command (TECOM) at Quantico, Virginia and consists of approximately 100 personnel including Marines, government service civilians, and civilian contractors. The

Table of Organization also includes a naval medical service officer, surface warfare officer, and an Army logistics officer. Finally, when needed for exercises, MSTP employs an individual mobilization augmentee (IMA) detachment and accesses a variety of governmental and non-governmental personnel to role play higher and adjacent headquarters (H&AHQ), the National Command Authority (NCA), and supporting non-governmental organizations (NGOs). The specific scenario and training objectives contained in the exercise determine the required amount of support.

MSTP's main effort is to provide support to Marine Corps Forces. Training in support of Marine Corps Forces will be provided in the form of a comprehensive (but adaptable) five-part training package delivered to MAGTF (Marine Expeditionary Force (MEF)/Marine Expeditionary Brigade (MEB)) commanders and staffs at least once every two years as directed per MCO 1500.53B. Training for major subordinate commands (MSCs) will occur in conjunction with MAGTF command element (CE) training (assisted by other TECOM training organizations), and tailored to address the unique capabilities and requirements of each organization. The MAGTF staff training package can be modified as required by the supported commander. This training package can exist alone (as a Command Post Exercise (CPX)) or within a larger exercise construct.

The five-part training package consists of the following: command, control, communications, cumputers and intelligence / information management / combat operations center (C4I/IM/COC) workshops, warfighting seminar, planning practical application (PPA), CPX, a facilitated afteraction review (FAAR), and the final exercise report (FER). Figure 1-1 shows how MSTP organizes to support an exercise.

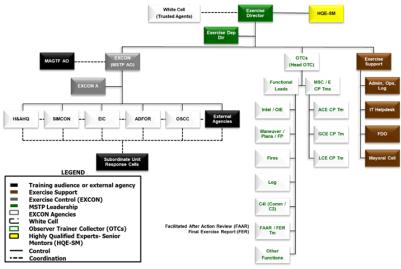


Figure 1-1: Typical MSTP Exercise Organization

1003. Types of Exercises

In accordance with MCO 3500.11G, MSTP is tasked to support service-level training exercises (SLTE) in which the training audience includes a MEF or MEB CE. Most notably, these include Marine Expeditionary Force Exercises (MEFEX), Expeditionary Brigade Exercises (MEBEX), and MAGTF Warfighting Exercises (MWX). The MEFEX/MEBEX is the USMC's capstone mission-essential task list (METL) based multi-echelon unit training exercise. It serves as a key tool for the MEF/MEB commanding general to maximize training results, update the training assessment, and focus training preparation priorities for wartime missions. in MEFEX/MEBEX may be standalone Marine Corps training, or it may link to a Joint Staff J7 directed exercise. The MWX is a force-on-force exercise conducted at MAGTF Training Center (MAGTFTC), 29 Palms, California. The MWX is designed to

challenge a general officer-level command against a peer adversary in a free-play environment.

MSTP develops an exercise scenario based on combatant commander operation plans through a series of working groups and conferences. The scenario development process entails building scripted material, known as storylines, designed to address specific training goals. A storyline consists of a series of related scenario events that drive the training audience (TA) towards a desired action. The master scenario events list (MSEL) consolidates these scenario events. Staff vignettes can augment storylines to ensure the exercise addresses all MAGTF exercise objectives and training goals.

One task as an IC is to filter the information coming out of the simulation, ensuring that the SURC passes it on to the respective TA COC per the unit's established tactical standing operating procedure (TACSOP) via the appropriate tactical means. ICs are expected to ensure the translation of information produced by the simulation into a believable and credible format for the COC. ICs must also be prepared to 'role-play' in the case of a simulation failure or to provide information the simulation cannot replicate.

ICs are responsible for the injection of an event, originating from the MSELs assigned to their respective SURC. The term "MSEL" refers to the "list" and the scripted events taken from the list. Exercise controllers develop and chronologically organize MSEL injects to initiate and support specific "storylines." The simulation control officer (SCO) may direct SURCs to input MSEL injects into the exercise to create situations the TA is expected to respond to. ICs must understand the storyline that a MSEL inject supports and coordinate its injection at the right time and place to create the desired effect(s).

Depending on the nature of the exercise, simulation output and scripted material may be used in different proportions. MAGTF Tactical Warfare Simulation (MTWS), the current USMC aggregate simulation, is designed to support kinetic interactions and logistic operations that populate the exercise common operational picture (COP). MTWS is not capable of supporting all non-kinetic interactions. Kinetic-centric exercises typically rely heavily on simulation output, and non-kinetic-centric exercises rely more on scripting. The majority of MSTP supported MEB and MEF level exercises are a blend of both simulation-driven kinetic events and white cell scripted non-kinetic events.

1004. Who's Who in an MSTP Supported Exercise. ICs must understand the roles of key players in an MSTP supported exercise.

a. Exercise Director

The MSTP Director is a Marine Corps Colonel who serves as the exercise director. The director is responsible for the overall conduct of the exercise. The director oversees the design and execution of an exercise in order to accomplish MEF/MEB training objectives and meet the goals of MCO 1500.53B. The exercise director keeps the MEF/MEB commander apprised of exercise matters, chairs the "white cell" and approves the form and content of the FAAR and the FER.

b. Deputy Exercise Director

The MSTP Deputy Director, also a Marine colonel, serves as deputy exercise director. The deputy supports the director in providing oversight for the design and execution of an exercise, ensuring accomplishment of the MEF/MEB's training objectives and meeting the goals of MCO 1500.53B. The deputy supervises exercise planning, coordination, and execution; approves resource allocation; and keeps the MSTP Team

focused on MEF training objectives. The deputy also supports development of the form and content of the FAAR and the FER.

c. Highly Qualified Expert-Senior Mentors

The Highly Qualified Expert-Senior Mentors (HQE-SMs) are retired Marine generals or Navy admirals who provide expert input for MSTP and the TA. Their exact roles vary between exercises. At times they may serve as mentors providing advice and assistance. At other times they may role play as commanding generals providing commander's intent and giving operational planning team (OPT) guidance. Regardless of their role in the exercise or event, MSTP support to the HQE-SMs reaches across various venues and is not solely an exercise support function.

The HQE-SMs assist observer trainer collectors (OTCs), participate in white cell meetings, evaluate the progress of the exercise, and provide feedback to the exercise director and deputy exercise director. Additionally, they provide input to the FAAR and FER.

d. Exercise Control Officer

The exercise control officer (EXCON) conducts the exercise in accordance with the exercise director's guidance and MEF/MEB training objectives. EXCON supervises the overall development, structure, and conduct of the exercise across all phases. EXCON develops planning objectives and milestones for pertinent exercise activities, creating a realistic and challenging training environment. EXCON defines the "noncompetitive" and "competitive" environment while directing intelligence systems, employing exercise model workarounds and scripting as required. EXCON prepares planned exercise events and cues the MSTP team to future activities. EXCON resolves conflicts and participates in all white cell meetings.

e. Simulation Control Officer

The SCO is a Marine officer/civilian and has overall responsibility for modeling and simulation (M&S) activities associated with the exercise. The SCO facilitates exercise flow and ensures exercise objectives are met. The SCO ensures adherence to simulation "rules and workarounds," and makes recommendations to EXCON regarding the adjudication process. The SCO considers requests for "immediate" or "magic" actions and implements workarounds for activities current modeling and simulation systems cannot support. In addition, the SCO, as required, attends white cell meetings.

f. Battle Manager

The battle manager (BATMAN) manages the scenario during the exercise to ensure the TA achieves its exercise objectives and training goals. BATMAN participates in scenario development, exercise planning book review, and the MSEL scripting conferences. The BATMAN's duties include:

- Supervising the daily activities of the battle management cell.
- Maintaining the information required to initiate a manual backup plan in the event of a simulation failure.
- Managing the sequencing and timing of MSEL injects during the CPX.
- Producing and coordinating insertion of MSEL inputs with EXCON.
- Screening H&AHQ, adversary forces (ADFOR), and external agency coordination cell products prior to EXCON review.
- Assisting EXCON in adjudicating the outcomes of simulated engagements as required.

 Coordinating with EXCON to prepare information in support of the morning spin- up briefs and nightly azimuth checks.

g. Master Scenario Events List Manager

The MSEL manager coordinates and tracks all storylines in an exercise. The MSEL manager oversees MSEL application tools, synchronizes MSEL injects, updates and tracks MSEL releases, and posts the daily MSEL status.

h. Observer Trainer Collectors

OTCs observe the training audience, facilitate training where required, and collect information related to exercise objectives and training goals. OTCs will comment in writing on every relevant MET, Marine Corps Task, and Training and Readiness event or measure that falls within the purview of their functional area. The written reports that OTCs produce during the final exercise (FINEX) inform the FAAR and FER efforts.

i. Adversary Forces Lead

The ADFOR lead is responsible for planning, portraying, and fighting the designated ADFOR in accordance with the exercise director's guidance. The ADFOR lead develops the ADFOR concept of operations (CONOPS) and monitors the training of ADFOR response cell personnel. The ADFOR lead directs ADFOR operations during the exercise, disseminates ADFOR taskings derived from white cell meetings, and adjusts "ground truth" to optimize training. At daily meetings, the ADFOR lead briefs ADFOR and green cell operations. Green cells provide information to the exercise to aid the TA in working with civilian agencies, international organizations, or other cultural groups. Green cells can include other governmental agency players; e.g.,

United States Agency for International Development and civilian agencies like the Red Cross.

j. Exercise Support Officer

Exercise Support is a function of the MSTP Operations Branch. Typically, the MSTP Operations Officer or Deputy Operations Officer serves as the Exercise Support Officer while deployed. The Exercise Support Officer oversees task-organized teams of Exercise Support personnel that provide MSTP administrative, logistics, and security assistance throughout the Exercise Life Cycle (ELC). The Exercise Support personnel will assist with normal Exercise Support functions as required.

k. Senior Analyst

The senior analyst is an experienced contractor responsible for producing the FAAR and FER. The senior analyst coordinates observation collection efforts and identifies possible FAAR themes. The senior analyst works closely with the head OTC, the OTC for each MAGTF element, and the exercise director.

1005. Key Organizations

In addition to the key individuals, ICs should become familiar with these key organizations:

a. Higher and Adjacent Headquarters

The H&AHQ interacts with the TA to simulate higher headquarters, adjacent units, supporting forces, and their subordinate elements. The H&AHQ may also inject exercise MSEL injects per EXCON guidance.

b. White Cell

The white cell serves as an on-call forum for executive-level control of the exercise. The white cell is a neutral entity designed

to maintain the continuity and integrity of the exercise. The Exercise Director convenes white cells as required to address unforeseen events or outcomes that may jeopardize the accomplishment of the exercise objectives. The white cell is normally comprised of EXCON, SCO, the head OTC and TA trusted agents, and may include the Exercise Director, Deputy Exercise Director, or HQE-SMs as needed. The white cell may include additional MSTP and TA personnel as required. Any MSTP team member can recommend convening the white cell. White Cell decisions can range from a simple scenario event inject to decisions by the exercise director to reconstitute forces for simulation anomalies or to intervene in the exercise for unanticipated actions.

c. Exercise Intelligence Cell

The exercise intelligence cell (EIC) simulates the collection and reporting of MEF organic intelligence, surveillance, and reconnaissance (ISR) assets. In addition, the EIC may task organize to simulate and coordinate H&AHQ and national ISR collection and reporting. The EIC focuses on execution of the MEF's intelligence collection plan and dissemination of collected information to the TA in accordance with the MEF's intelligence dissemination matrix.

d. MAGTF Branch

The MAGTF Branch provides OTCs to observe, collect, and analyze information from the exercise to help train the supported unit staff. The MAGTF Branch includes the Senior Analyst Group (SAG) and supports planning conferences, the warfighting seminars, the planning practical application, and orders crosswalk events. The OTCs usually work in the MEF and/or MSC COCs. Their collected data forms the baseline for the FAAR and FER.

e. Adversary Force

The ADFOR plans, portrays, and fights the designated ADFOR in accordance with the Exercise Director's guidance. The ADFOR executes their CONOPS during the exercise, performing white cell taskings, and adjusting "ground truth" to optimize training.

f. Exercise Control Section

The Exercise Control Section supports EXCON in accordance with the Exercise Director's guidance and MEF/MEB training objectives. The EXCON Section develops the overall exercise structure and organizes the exercise across all phases. The EXCON Section supports the development of planning objectives and milestones for pertinent exercise activities, creating a realistic and challenging training environment. The EXCON Section directs intelligence systems and employs exercise simulation workarounds and scripting as required. The EXCON Section supports planned exercise events and cues the MSTP team to future activities.

g. Exercise Support

Exercise support is an *ad hoc*, task-organized team that oversees MSTP administration, logistics, and security concerns during exercise execution. Typically, the MSTP Operations Branch provides exercise support while deployed for an exercise.

h. Subordinate Unit Response Cell

A SURC is a small team of military professionals who represent the functions of a subordinate unit during an exercise. In short, the SURCs role-play the regiments, groups, battalions, squadrons, and companies in both simulation and information management during the exercise.

i. Operational Systems Control Center

The Operational Systems Control Center (OSCC) is responsible for the planning, installation, and maintenance of the EXCON network in support of MSTP's mission. OSCC traditionally supports the data, voice, and video requirements for EXCON elements and the coordination of network support for SURC and OTC workspaces.

Part II Exercise Construct

Having described how MSTP is organized to support an exercise, the next chapter will review exercise-specific organizations and billets.

2001. Simulation Center Organization

Figure 2-1 depicts a Simulation Center organization.

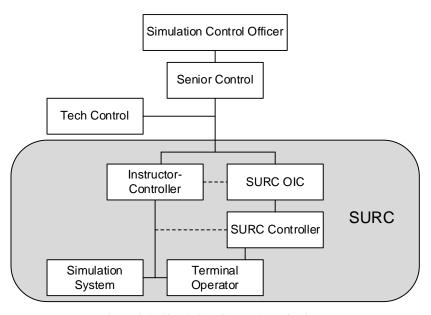


Figure 2-1: Simulation Center Organization

The SURC is the operational element of simulation control. It consists of an IC, SURC officer-in-charge (OIC), response cell controller (RCC) and terminal operators (TOs). SURCs represent subordinate units (regiments, battalions, groups,

squadrons, combat logistics units, etc.) of the MEF/MEB, its MSC(s), and other role-playing entities. SURCs are physically separated from the TA. SURCs enter tactical direction and operations orders into the simulation while providing information to the TA, such as subordinate unit locations, battle damage assessment (BDA), enemy contact, supply status, personnel status, etc. SURCs interact with the TA to maximize realism by reducing the TA's awareness of the simulation. Information is passed using doctrinally correct report formats or other reporting means required per the TA's SOP. Other types of response cells include blue force and ADFOR. Blue force response cells simulate friendly forces (to include higher headquarters, adjacent, and allied units). ADFOR cells simulate the enemy.

2002. Simulation Center Personnel

The simulation center includes hardware, software, personnel, and facilities used to plan, operate, control, and manage the simulation. ICs should be familiar with the duties of other simulation center members.

a. Simulation Control Officer

Billet description (See 1004e). SCO responsibilities include:

- Recommending SURC organization and manning.
- Supervising lead simulation center personnel.
- Defining equipment, layout, setup and personnel augmentation requirements.
- Overseeing the set-up and training of SURCs.
- Verifying availability of required equipment to support simulation control center operations at the exercise site.
- Inputting MSEL injects through the SURCs.

- Develop briefing products as required.
- Inputting formal AAR items as required.
- Maintaining an audit of all inputs to the simulation.
- Providing representation at all white cell meetings.

b. Senior Controller

The Senior Controller (SC) is an experienced IC who understands warfighting functions and can operate comfortably at strategic, operational, and tactical levels of war. The SC facilitates the exercise flow and ensures exercise objectives are met. The SC is responsible to the SCO. Responsibilities include:

- Respond to SCO tasking.
- Act as SCO during the SCO's absence.
- Supervise simulation database production and adjustments.
- Supervise set up and operation of the simulation(s).
- Ensure all simulation system(s) are operational.
- Input the exercise database(s) into the simulation.
- Monitor simulation progress and recommend any adjudication caused by simulation(s) or modeling anomalies.
- Provide technical advice on effective input for requisite scripted items.
- Coordinate and direct all simulation center MSEL inputs.

 Assign, supervise, and direct technical control (TC) and ICs.

c. Technical Control

Technical control is responsible for configuration of simulation equipment, including testing data communications to ensure data flows from the server to simulation workstations. Additionally, TC is responsible for starting the server, loading the simulation database, starting and stopping the simulation, clock management, simulation software monitoring, and troubleshooting hardware problems at the exercise site. TC is also responsible for simulation feeds to C4I equipment.

2003. Subordinate Unit Response Cell Personnel. The following paragraphs will describe the various billets within the SURC.

a. Subordinate Unit Response Cell Officer in Charge

The SURC OIC supervises the warfighting activities of the SURC and makes decisions regarding simulation activities to support exercise unit battle plans and orders. The SURC OIC works closely with the IC to prepare the SURC for successful participation in the exercise. The SURC OIC is normally a Marine Corps or other service officer.

b. Response Cell Controller

RCCs work under the supervision of the SURC OIC and direct TO activities in the simulation per the TA's plans and orders. Since TOs may not possess the tactical experience or military knowledge the RCC possesses, RCCs must deliver commands and instructions that an inexperienced person can easily understand. The RCC controls information output to the TA providing realism and the desired degree of simulation transparency. Typical controllers in a SURC include operations

officer, fires officer, intelligence officer, etc. RCCs are usually Marines but can come from the other services as well.

c. Simulation Instructor-Controller

The IC is responsible for the SURC's simulation support to the exercise. The IC uses previous experience, understanding of warfighting dynamics, and systems knowledge to transform systems data into useful information for simulation supported exercises. The IC trains and supervises SURC personnel and maintains a log of significant events. The IC ensures SURC personnel are always aware of the status of simulation system(s). The IC ensures SURC personnel translate orders they receive into simulation inputs that will enable a transparent computer interface with the COC. The IC reports directly to the SC, or when absent, to the SCO.

d. Terminal Operator

The TOs are normally sourced from the MEF/MEB or one of its MSCs. The TOs input player commands into the simulation as directed by the RCC. All TOs should be knowledgeable and experienced in the warfighting area the SURC simulates. Prior to the start of the exercise, TOs are trained on the simulation they will operate. TOs must understand how to input function specific commands and be able to interpret the format and information presented in the reports they receive. In exercises in which simulation activity is limited, ICs may also dual-hat as TOs.

2004. Exercise Simulation Support Systems

MSTP currently uses the MTWS as its primary exercise simulation. MTWS is a computer assisted command and control training system that the Marine Corps has been using since the mid-1990s. MTWS provides training stimuli for staff elements

from battalion to MEF level. It provides multi-sided, real-time battlespace capabilities across all phases of military operations and has the ability to populate current C4I systems such as Command and Control Personal Computer (C2PC).

MSTP may use portions of the Joint Live Virtual Constructive (JLVC) Federation to provide greater resolution to the TA in specific war fighting functions. Some examples include:

- Joint Semi-Automated Forces (JSAF). JSAF is a Navy developed and approved sea domain simulation for training, analysis, experimentation, and mission rehearsal. JSAF is a component of the Navy Continuous Training Environment Navy Training Baseline software. It simulates air-land-sea operational forces with interactions among entities. JSAF is normally used to represent the maritime domain but may represent all or portions of the air and space domains, as well. JSAF entities can be controlled separately or organized into appropriate units for a given mission.
- Joint Conflict and Tactical Simulation (JCATS). JCATS is an Army approved land domain simulation, modeling to the level of individual personnel and platforms. It depicts ground and Special Operations Forces during Joint Staff, NATO, and Army training detailed events. **JCATS** can simulate environments, to include buildings, bridges, and tunnels (sub-surface), as well as the movement of entities and units throughout building complexes. JCATS entities separately or organized be controlled appropriately sized units for a given mission.
- Air Warfare Simulation (AWSIM). AWSIM is the official Air Force approved air domain model, simulating down to the individual platform level for

training and mission rehearsal. It is designed to stimulate Combined Air Operations Center staff functions but can also federate to virtual flight simulators. AWSIM simulates day and night operations, weather conditions, and high-resolution terrain. It can also stimulate Theater Battle Management Core System (TBMCS) and other aviation centric C4I systems.

- **Space Constructive Environment** Air and **Information Operations Suite (ACE-IOS).** ACE-IOS is a simulation that primarily emulates aviation centric intelligence capabilities but can also do ground intelligence reporting: unmanned aircraft systems, U-2, Joint Surveillance Target Attack Radar (JSTARS), Airborne Warning and Control System (AWACS), EA-18G, and recon teams. It provides information to the TA via pilot inflight reports, end of mission reports, reconnaissance exploitation reports (RECCEXREP), imagery interpretation reports, tactical reports, and SALUTE type reports. It can create ground fixed targets. These targets can be attacked through the JLVC Federation by MTWS, JSAF, AWSIM, and JCATS aircraft or indirect fire weapons. It can also detect ground forces of other federates (MTWS/JCATS) in the federation. It can automatically or manually ingest a modernized integrated database (MIDB). The suite generates messages the user can automatically sort and distribute through emails. It provides some cyber capability that can help reduce the scripting effort. The joint virtual editing tool facilitates managerial oversite and control of information generated by ACE-IOS.
- **Joint Defense Logistics Model.** The Joint Defense Logistics Model (JDLM) assists with the training and understanding of distribution and transportation management processes. It has unlimited national stock

numbers (NSNs) and Department of Defense identification codes (DODICs) for customer use. It levels of maintenance (field portrays sustainment). It models class IX repair parts by NSN for specific faults on major end items. Maintenance personnel connect to specific repair requirements by MOS. JDLM trains medical regulating and logistics processes and portrays all four medical roles. It performs personnel accounting by grade and MOS. It allows collection and processing of human remains by table of organization and equipment (TO&E)/modification table of organization and equipment (MTOE), a capability of a mortuary affairs unit. These capabilities allow MSTP to train at a much more detailed level of logistics than MTWS currently supports.

Automated Scripter Simulator Exercise Trainer (ASSET). The Automated Scripter Simulator Exercise Trainer (ASSET) is a windows-based application developed by the National Reconnaissance Office (NRO) that allows the operator to script friendly and enemy force movements and then simulate the collection and dissemination of signals intelligence (SIGINT) and imagery intelligence (IMINT) based on the script. It transforms intelligence events into standard protocol chronological allows injection messages and messages directly into tactical data processors or through the Integrated Broadcast System (IBS). It can also receive data from other simulations and quickly convert the inputs into United States message text format (USMTF) used by intelligence systems throughout the Department of Defense (DOD) to provide situational awareness to exercise operators during scripted events. M&S currently uses ASSET, but many of the actions are input manually into the simulation.

These simulations can be integrated via the JLVC Federation, a configuration of joint and service simulations and software used to represent the joint battlespace to support joint and combatant command exercises. MSTP can support CPXs using MTWS as a stand-alone simulation system or as part of a JLVC Federation.

2005. Gamers and Players

While working on exercises conducted in conjunction with other services, ICs may encounter the terms "gamer" and "player" (U.S. Army Terminology). Gamers work with the simulation. Military staff personnel in the SURCs are Gamers, and SURCs are sometimes called Gamer Cells. Player is another name for the TA. Players operate from a COC for the exercise just as they would for an actual operation. The simulation should appear transparent to the TA. Gamers, with the help of the simulation system, represent subordinate units that players command. Figure 2-2 illustrates the relationship between the simulation, gamers, and players.

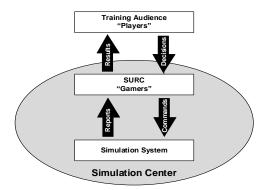


Figure 2-2: Gamers and Players

Part III Roles and Responsibilities

This section details duties of the SURC OIC and IC. In addition, this section delineates SURC OIC and IC duties in relation to different phases of an exercise.

3001. Subordinate Unit Response Cell Officer in Charge Duties

The SURC OIC retains tactical control of the SURC and is responsible for its overall performance. The SURC OIC supervises the warfighting activities of the SURC and makes decisions regarding simulation activities to support TA battle plans and orders. Prioritized SURC OIC duties include:

Operations

- Ensure the proper execution of operations (steadystate and tasked) that support exercise battle plans and orders in the simulation.
- Coordinate with the IC to prepare the SURC and provide the best training possible for the TA.
- Ensure the SURC conducts activities in a realistic manner to maximize simulation transparency.
- Obtain relevant documents from the TA required to operate the SURC (e.g., operation order [OPORD], annexes, SOPs, and report templates).
- Ensure timely and realistic submission of reports to the TA.
- Role-play as required.
- Obtain and execute the air tasking order/ground tasking order (if applicable).

• Systems

- Be familiar with the capabilities and limitations of the simulation system (normally MTWS).
- Validate the data in MTWS is correct prior to the start of the exercise (STARTEX).
- o Ensure SURC C4I systems are functional.
- Ensure the submission of System Authorization Access Requests (SAAR) for all SURC personnel.

Accountability

- Produce a SURC recall roster and provide a daily morning report to EXCON.
- o Obtain a TA directory.
- Ensure proper handling and disposal of classified material.

• Administration

- o Take notes and provide input for the AAR.
- o Ensure the SURC spaces are kept clean.
- Manage personnel schedules to support chow and rest cycles.

3002. Simulation Instructor Controller Duties

The IC is responsible for supervising SURC simulation support and supporting the SURC OIC in the execution of his/her duties. Prioritized IC duties include:

Support to training

- o Train and supervise SURC members.
- Cue the appropriate OTC to significant events.
- Organize and supervise SURC operations, to include the physical layout of the cell and billet responsibilities.

- o Inform SURC personnel about exercise rules and protocols.
- o Supervise SURC role-play efforts.
- Review and supervise MSEL injection in a manner which supports the storyline and exercise objectives.

• Systems

- Ensure SURC members are aware of the status of simulations operating in the cell.
- Verify their portion of the exercise data base (task organization & TO/TE etc.).
- o Ensure information passes appropriately and in accordance with the communications plan.

• Administration

- Ensure the SURC is aware of security policies and procedures.
- Support after action report (AAR) preparation by observing, recording, and reporting significant events.
- o Attend SURC meetings convened by SC.

The remainder of this section explains IC duties in relation to different phases of an exercise.

DOs

- Do stay impartial. MSTP desires the TA do well but asking leading questions or giving away the exercise-path can alter the decision-making process of the staff and adversely affect the training provided by the exercise.
- **Do** take copious notes. Observations may become a critical data point for another IC or provide valuable information to the AAR.
- **Do** role-play when appropriate. Make it real for the participants in the exercise.
- **Do** know and understand the reports that are generated from the simulation.
- Do use the TA's SOPs and tactics.
- **Do** know the rules and workarounds for the simulation.
- Do report events in the model as if they were real. If there are any questions regarding a particular situation, refer to the SC.
- **Do** always use correct communication procedures.
- **Do** be patient and let the simulation work.
- Do ensure the SURC is aware of adjudication procedures.
- **Do** ensure understanding of any MSEL injects assigned to the SURC, such that they are input in a manner that produces the desired effect.

Table 3-1: Simulation Instructor-Controller "DOs"

Don'ts

- **Don't** coordinate between SURCs when TA coordination is appropriate.
- Don't send simulation printouts to the TA.
- Don't make TA decisions in the simulation center.
- Don't discuss TA performance outside of EXCON.
- Don't report information verbatim from the simulation or state, "the computer says..."
- Don't engage in simulation "gamesmanship."
- **Don't** report events that are judged unreasonable or are model anomalies without checking with the SC.
- Don't get emotionally involved or lose bearing.
- Don't use the words "model," "simulation," or "game" to anyone external to the simulation center.
- Don't input a MSEL inject that is misunderstood or not directed to input.

Table 3-2: Simulation Instructor-Controller "DON'Ts"

3003. Actions Before the Exercise Begins

ICs must accomplish several tasks prior to STARTEX to ensure the SURC is prepared to participate. ICs will supervise setup of the SURC and lead the cell through a series of pre-exercise events.

a. Prepare the Subordinate Unit Response Cell

Prior to departing for the exercise, ICs should read and understand the exercise simulation control plan (SCP). It contains essential information required to prepare the SURC. The SCP includes information such as a calendar of exercise events, a simulation center diagram, SURC training assignments, SURC checklists, etc.

Upon arrival at the exercise site, MSTP will conduct pre-exercise operations. Some pre-exercise operations will be in-progress, and others are completed. For example, MSTP conducts pre-exercise training to provide SURC OICs, RCCs, and TOs required skills to operate the simulation and to explain responsibilities of SURC personnel. This instruction normally includes formal computer-based training with practical applications designed to integrate SURCs into the command and control structure of the exercising unit. Each cell will validate its portion of the database to ensure the correct unit force list, task organization, and locations. ICs may be tasked to assist with the training operation or may arrive after this training is complete.

Upon arrival at the SURC, ICs will be expected to supervise completion of a SURC setup checklist. The contents of each checklist will vary depending on the exercise and SURC functional support area. Some items may be completed before arrival; for example, technical personnel will normally establish the simulation system(s) in SURC spaces prior to SURC personnel arrival. ICs should validate that simulation workstations in the cell

are properly configured. If required, coordinate necessary adjustments with TC. Ensure to keep senior control appraised of the setup status of the SURC as SURC setup checklist items are completed. Appendix A provides examples of the SURC set up checklist.

Prior to STARTEX, MSTP normally conducts four pre-exercise events with successful completion of each event a prerequisite for continuing on to the next event. First, a communication exercise (COMMEX) is conducted to test system performance and connectivity for C4I and simulation systems. Next, a staff exercise (STAFFEX) will use the TA command's information system directory to validate exercise communications. The third is an information flow exercise (INFOFLOWEX) that validates communication links between participating exercise staffs with an exchange of exercise related information and verification of the database. The final pre-exercise event is a rehearsal/mini-exercise (MINIEX) used to practice the training unit's plan as stated in their OPORD before the start of the exercise.

At the conclusion of each pre-exercise event, the exercise director and the MEF/MEB staff complete an assessment to determine if the TA is ready to proceed to the next event. Pre-exercise schedules are published in the simulation control plan for each exercise. For detailed information on the pre-exercise events, see the MSTP EXSOP and applicable letters of instruction (LOIs).

Each of these pre-exercise events uses a corresponding SURC checklist that ICs will complete (see Appendix A for examples). Checklists are developed and distributed as a joint effort between SIMCON and EXCON. Note that some SURCs may have checklist items unique to that cell. In cases where a checklist item does not apply to the cell, mark the item "N/A."

As with all SURC checklists, ensure to keep the SC apprised of the status of the SURC during pre-exercise events.

b. Communication Exercise

The COMMEX validates the proper installation and operation of communications equipment. It provides personnel the opportunity to operate equipment within the context of exercise communication and simulation architectures. Exercise participants establish communication with supported headquarters operating systems used in actual operations. COMMEX also allows MSTP to establish communications between its main forward site, the simulation center, H&AHQ, and the MEF/MSC field site as well as workspaces allocated to the OTC(s) at their respective command posts. ICs support the following SURC OIC responsibilities during COMMEX:

- Understand SURC C4I requirements (voice, data, and network) and identify any perceived shortfalls to senior control.
- Coordinate with the TA to facilitate C4I installation and testing.
- Establish C4I connectivity (all systems) with respective TA element(s).
- Populate, validate, and update information applicable to the SURC in the exercise information systems directory (ISD).
- Assess the SURC layout and coordinate changes with the simulation center or TC as appropriate.

c. Staff Exercise

A STAFFEX is conducted to validate exercise communications with TA elements. IC responsibilities during STAFFEX include:

- Validate members of the SURC can identify and communicate with their corresponding TA staff member.
- Validate connectivity using all C4I systems.
- Validate the exercise ISD.

d. Information Flow Exercise

The INFOFLOWEX is conducted to exchange exercise-related information (situation reports, intelligence reports, fire support coordination information, etc.). The INFOFLOWEX allows SURCs to demonstrate and refine their procedures with the simulation and interactions with the TA. IC responsibilities during INFOFLOWEX include:

- Manage execution of scenario test scripts.
- Exchange exercise-related information with the TA.
- Validate/refine exercise information exchange procedures with the TA.

e. Rehearsal/Mini-exercise

The rehearsal is conducted to practice the training unit's plan as stated in their OPORD before actual execution. The rehearsal provides additional training to refine communication, reporting, and simulation procedures. Rehearsal outcomes may or may not be included in the exercise proper. IC responsibilities during the rehearsal include:

• Manage and refine SURC operational procedures.

- Manage and refine exercise information exchange procedures with the TA.
- Resolve any outstanding problems.

3004. Actions During the Exercise

During the course of the exercise, ICs facilitate smooth exercise operations and support the TA while meeting the training objectives. ICs monitor and supervise SURC personnel to ensure that their SURC stays manned throughout the exercise. The SURC OIC supervises watch/shift turnover briefs as required for active duty SURC members.

TOs report simulation results to the RCC. The RCC in turn provides information to the TA. Both the IC and SURC OIC ensure information derived from the simulation system is reported to the TA in a realistic manner. It is imperative that the SURC translate simulation data into language the TA would realistically expect to receive (raw simulation output should never be passed directly to the TA). In addition, SURCs should use appropriate report formats supplied by the TA. ICs review all MSEL injects assigned to the SURC and coordinate MSEL inputs at the appropriate time and place. In the event of a simulation pause, the IC supervises SURC efforts to script realistic activity output until the simulation system is operational.

a. Intelligence Build and Warm Start

An exercise may begin with two related activities: the intelligence build and warm start. The intelligence build is that period where only ISR assets operate or move to collect intelligence. No combat action takes place during an intelligence build, and the SCO may schedule portions of the intelligence build to occur before the exercise officially begins.

The warm start is the gradual build-up of activity at the start of the exercise. Both the intelligence build and warm start increase the TA's situational awareness.

The warm start begins with all communication systems functioning and all COC(s) and SURCs fully manned. At first, activities are restrained to allow the TA to adjust to their battle rhythm. Activity will gradually increase as the warm start progresses until all restraints are removed. During this time, an IC should facilitate the internal battle rhythm of the SURC and advise the SURC OIC of appropriate actions and activity.

b. Making the Exercise as Realistic as Possible

A stream of perfect simulation system output reports will give the SURC a perfect picture of the situation. Providing the TA a perfect picture is unrealistic and undesirable. SURCs must ensure information passed is as similar as possible to what they would receive in real-world operations. In war, information reaches the commander and the staff in pieces that are frequently inaccurate and nearly always incomplete. The staff must then assemble the pieces in a way that will produce an accurate picture of the battlespace. When selecting information to provide the TA (and to what degree it might be distorted), ICs and SURC OICs must rely on judgment and experience while keeping exercise objectives in mind. When in doubt, SURC OICs and ICs may coordinate with EXCON, BATMAN, and SIMCON to determine what information is appropriate to pass to the TA.

c. Subordinate Unit Response Cell Initiative

The SURC OIC, like any combat commander, must make realistic decisions within the bounds of the commander's intent and keep higher and adjacent units informed of SURC actions. When appropriate, the SURC OIC will take the initiative and make independent decisions. On other occasions the SURC OIC will

simply follow orders. For example, if the SURC OIC receives orders to begin movement, the order passes to the TO in order to initiate a unit move. The SURC OIC does not need to request permission or need to wait for instructions to do so. Likewise, if any unit comes under fire or encounters the enemy, the SURC should take immediate action per SOPs and employ sound tactical principles, to include submitting appropriate reports in a realistic manner. The SURC OIC should not take the initiative to the point of changing the MEF/MEB scheme of maneuver or fire support plan; but when the tactical situation changes, the SURC OIC should request an appropriate change in orders.

Note: simulation systems do not respond to inspired leadership or heroic actions. If the assigned unit does not hold an assigned position or reach a phase line, and the failure is not due to any inadequate simulation input, it does not reflect adversely on SURC performance. The goal of an exercise is not to "win the game." The goal is to provide MAGTF staff training. In this sense, SURC personnel must let the simulation operate and allow the TA to formulate decisions.

3005. Actions After the Exercise

Following the end of the exercise (ENDEX), SURC OICs and ICs collect and handle classified material as directed by EXCON. ICs secure battle simulation center and MSTP equipment and compile all SURC notes and observations in preparation for the FAAR and FER. All simulation systems remain in place and electronically connected until the SCO directs otherwise.

a. Facilitated After Action Review

The FAAR provides initial exercise feedback to the MAGTF and MSC commanders and their staffs. MSTP conducts the FAAR with the TA at or near the training site soon after

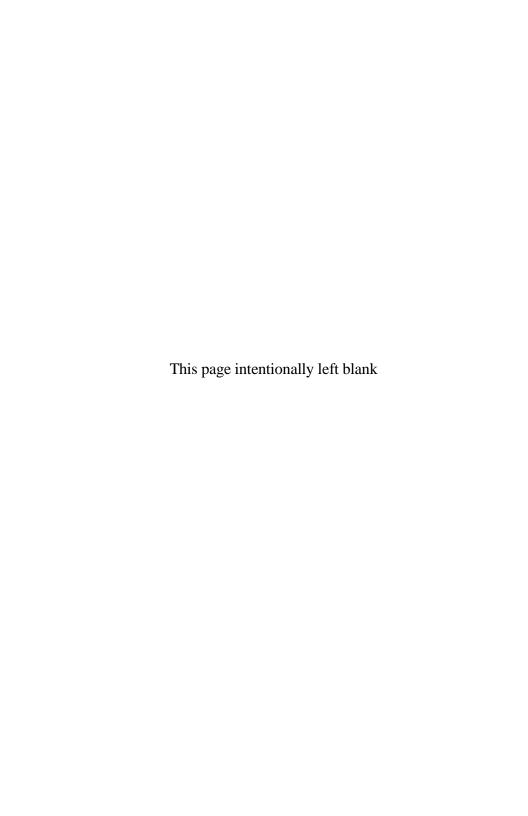
ENDEX. The FAAR contains analysis and synthesis of data collected during the exercise. The exercise director facilitates the FAAR. The FAAR is not an evaluation but provides an extension of the learning process. It is the first opportunity to reinforce lessons learned. The FAAR focuses on training objectives, includes a discussion of noteworthy events, and is presented in a way that encourages open discussion.

MSTP conducts an internal AAR shortly after return to Quantico. The internal AAR focuses on how MSTP can improve the exercise. ICs are encouraged to submit input for the FAAR, the FER, and the internal AAR.

The MSTP Modeling and Simulation (M&S) Section conducts its own model and technical AAR. The cell leads collect data and develop an UNCLASSIFIED report in the format prescribed by senior control prior to the end of the exercise.

b. Final Exercise Report

MSTP produces a final exercise report approximately 30 days after conclusion of an exercise. The FER is a written report that summarizes MSTP's observations from the exercise. The exercise director signs the FER and sends it directly to the MAGTF commanding general.



Appendix A Subordinate Unit Response Cell Checklist Examples

The following are examples of a Ground Maneuver SURC checklist. Note that checklist items will vary depending on the exercise and the type of SURC functional support area needed.

| | SURC Setup Checklist |
|---|---|
| | MDS SET-UP: PLAYBOX, CONTROLLER, MAPS, CBT |
| | As SURC TOs CHECK-IN PER ESMD (ENTER PERSONNEL ON ESMD TAB) |
| | As SURC OIC & RCCs CHECK-IN per ESMD (ENTER PERSONNEL ON ESMD TAB) |
| | SURC MEMBERS HAVE APPROPIATE SAAR'S SIMULATION CENTER ADMINISTRATIVE |
| _ | BRIEF COMPLETED (REST ROOMS, FOOD, SUPPLIES, HOUSEKEEPING AND PARKING) |
| | ESTABLISH SURC RECALL ROSTER (ENTER RECALLL DATA ON ESMD TAB) |
| | OIC AND RCCs_ COMPLETED "OIC & CONTROLLER TRAINING |
| | ALL TOS HAVE COMPLETED MTWS FUNCTIONAL AREA CBT |
| | SURC PERSONNEL ISSUED COPY OF EXERCISE RULES AND MTWS WORKAROUNDS |
| | SURC AWARE OF SECURITY POLICIES AND PROCEDURES (BURN BAG, SHREDDERS, & COPIERS) |

| C-3 SYSTEMS INSTALLATION IN PROGRESS (VOIP, SVOIP, SIPR, CXI, TRANSVERSE / MACO CHAT, C2PC) |
|--|
| CLC2S AND TCPT INSTALLED AND OPERATING |
| SURC OIC/RCCS HAVE ACCESS TO GTO AND/OR LANDING PLAN |
| SURC OIC HAS CURRENT REPORT TEMPLATES (BATTLE RHYTHM): OP ORDERS, TACTICAL SOPS, FRAGOS, HHQ REPORT TEMPLATES |
| PROVIDE EXERCISE DIRECTORY INPUT TO SENIOR CONTROL (VOIP, SVOIP, CHAT, EMAIL, FREQs, POTs) |
| SURC Staff HAVE ACCESS TO STARTEX UNIT ORGANIZATION, UNIT LAYDOWN, MAJOR EQUIPMENT DENSITY LIST AND CSS SUPPORT CONCEPT (LOG SUPPORT/MSTP PLANNING BOOK) |

SURC COMMEX Checklist C-3 SYSTEMS INSTALLED AND CHECKED (VOIP, SVOIP, SIPR/CXI, AFATDS. TBMCS/ESTAT/WARP, TPCT) SURC HAS COPY OF EXERCISE COMM PLAN PLAIN OLD TELEPHONE SYSTEMS (POTs) TESTED AND WORKING VOICE OVER INTERNET PROTOCAL (VOIP) **TESTED AND WORKING** SECRET VOICE OVER INTERNET PROTOCAL (SVOIP) TESTED AND WORKING SIPR COMPUTERS INSTALLED AND ACCOUNTS LOGGED INTO AFATDS INSTALLED, WORKING AND MISSIONS PASSED (IF APPLICABLE) CLC2S INSTALLED AND WORKING (IF APPLICABLE) IOS/C2PC INSTALLED AND WORKING (TRACKS PASSED)

SURC STAFFEX Checklist SURC OIC/RCCs AND STAFF PROFICIENT WITH INSTALLED C2 SYSTEMS SURC PERSONNEL SHIFTS ESTABLISHED AND CONFIRMED EXERCISE DIRECTORY RECEIVED (VOIP, SVOIP, CHAT, EMAIL, FREQs, POTs) SVOIP OPERATIONS CONFIRMED (OTHER SURCs, SIM CONTROL, COCs, ACE, MLG AND H&AHQ) COMMUNICATION ESTABLISHED WITH HIGHER HEADQUARTERS

| SURC INFOFLOWEX Checklist | | | | |
|---------------------------|--|--|--|--|
| | CONFIRMED REPORTS SENT AND RECEIVED FROM GCE/MHG TA | | | |
| | EXECUTE UNIT MOVEMENT REPORT | | | |
| | EXECUTE UNIT CONTACT REPORT | | | |
| | EXECUTE UNIT CASUALTY REPORT | | | |
| | EXCUTE MED/CAS EVAC REPORT | | | |
| | EXECUTE ARTILLARY / CAS REQUEST REPORT | | | |
| | RECEIVED DIRECTION FROM GCE/MHG TA | | | |
| | VALIDATED INFORMATION FLOW VIA SVOIP AND SIPR/CENTRIX CHAT WITH: RCS, SIM CONTROL, GCE COCs, ACE, MLG, H&AHQ | | | |
| | SURC VALIDATED INFORMATION FLOW VIA SIPR OUTLOOK EMAIL | | | |

Appendix B Glossary

Section I Acronyms

| | after action report |
|---------|---|
| ACE-IOS | air and space constructive environment |
| | - information operations suite |
| ASSET | . automated scripter simulator exercise trainer |
| | airborne warning and control system |
| AWSIM | air warfare simulation |
| | adversary forces |
| | battle manager |
| | battle damage assessment |
| | command and control personal computer |
| C4I | command, control, communication, computers, |
| | and intelligence |
| | |
| | combat operations center |
| | communication exercise |
| | concept of operations |
| | common operational picture |
| | command post exercise |
| | Department of Defense |
| | Department of Defense Identification Code |
| | exercise intelligence cell |
| | exercise life cycle |
| | end of exercise |
| | exercise control |
| | exercise standing operating procedure |
| | facilitated after action review |
| | final exercise report |
| | final exercise |
| | fragmentary order |
| GCE | Ground Combat Element |

| H&AHQ | higher and adjacent headquarters |
|----------------|--|
| ННО | higher headquarters |
| HQE-SM | highly qualified expert-senior mentor |
| IBS | integrated broadcast system |
| | on)instructor-controller |
| | information management |
| IMA | individual mobilization augmentee |
| IMINT | imagery intelligence |
| ISR | intelligence, surveillance, and reconnaissance |
| | EX information flow exercise |
| JCATS | joint conflict and tactical simulation |
| | joint defense logistics model |
| | joint live virtual constructive |
| | joint semi-automated forces |
| JSTARS | joint surveillance target attack radar system |
| LOI | letter of instruction |
| | |
| | Marine Air-Ground Task Force training center |
| | |
| | |
| | |
| | Marine Expeditionary Force |
| | Marine Expeditionary Force Exercise |
| | mission essential task list |
| | modernized integrated database |
| | mini-exercise |
| | modeling and simulation |
| | major subordinate command |
| | master scenario events list |
| | |
| | modification table of organization and equipment |
| MTWS | |
| N // X X / X / | warfare simulation |
| | MAGTF Warfighting Exercise |
| | national command authority |
| NGU | non-governmental organization |
| | |

| NRO | |
|--------------|--|
| NSN | national stock number |
| OIC | officer-in-charge |
| OPORD | operation order |
| OPT | operational planning team |
| OCSS | Operational Systems Control Center |
| | observer trainer collector |
| | planning practical application |
| RECCEXREP | reconnaissance exploitation report |
| | response cell controller |
| | system authorization access request |
| | senior analyst group |
| SALUTE | size, activity, location, unit identification, |
| | time, and equipment |
| SC | senior controller |
| SCO | simulation control officer |
| SCP | simulation control plan |
| | signals intelligence |
| | simulation |
| | simulation control |
| | service-level training exercise |
| | staff exercise |
| | start of the exercise |
| | subordinate unit response cell |
| | training audience |
| | tactical standing operating procedure |
| | Theater Battle Management Core System |
| | technical control |
| TECOM | Training and Education Command |
| | terminal operator |
| | Table of Organization and Equipment |
| USMTF | United States message text format |

Section II Definitions

A

after action review – A traditional method for leaders to gather and share information in a unit (after any operational or training event) about what went right, what did not go right, and why events proceeded as they did. After action reviews disseminate lessons learned in order to improve performance. Also called **AAR**.

 \mathbf{C}

combat operations center – The primary operational agency required to control the tactical operations of a command that employs ground and aviation combat, combat support, and logistics combat elements or portions thereof. The combat operations center continually monitors, records, and supervises operations in the name of the commander and includes the necessary personnel and communications to do the same. Also called **COC**.

D

defense – A coordinated effort by a force to defeat an attack by an opposing force and prevent it from achieving its objectives.

 \mathbf{E}

exercise – A military maneuver or simulated wartime operation involving planning, preparation, and execution that is carried out for the purpose of training and evaluation. See also **maneuver**. (JP 3-0)

I

intelligence – 1. The product resulting from the collection, processing, integration, evaluation, analysis, and interpretation

of available information concerning foreign nations, hostile or potentially hostile forces or elements, or areas of actual or potential operations. 2. The activities that result in the product. 3. The organizations engaged in such activities. (JP 2-0)

individual mobilization augmentee – An individual reservist attending drills who receives training and is preassigned to an Active Component organization, a Selective Service System, or a Federal Emergency Management Agency billet that must be filled on, or shortly after, mobilization. Also called **IMA.** (JP 4-05)

M

Marine Air-Ground Task Force – The Marine Corps' principal organization for all missions across the range of military operations, composed of forces task-organized under a single commander capable of responding rapidly to a contingency anywhere in the world. The types of forces in the Marine airground task force (MAGTF) are functionally grouped into four core elements: a command element, an aviation combat element, a ground combat element, and a logistics combat element. The four core elements are categories of forces, not formal commands. The basic structure of the MAGTF never varies, though the number, size, and type of Marine Corps units comprising each of its four elements will always be mission dependent. The flexibility of the organizational structure allows for one or more subordinate MAGTFs to be assigned. In a joint or multinational environment, other Service or multinational forces may be assigned or attached. Also called MAGTF. See also aviation combat element: command element; ground combat element; logistics combat element; Marine expeditionary brigade; Marine expeditionary force; Marine expeditionary force (Forward); Marine expeditionary unit; special purpose Marine air-ground task force.

Marine Expeditionary Brigade – A Marine air-ground task force that is constructed around an infantry regiment reinforced, a composite Marine aircraft group, and a combat logistics regiment. The Marine expeditionary brigade (MEB), commanded by a general officer, is task-organized to meet the requirements of a specific situation. It can function as part of a joint task force, as the lead echelon of the Marine expeditionary force (MEF), or alone. It varies in size and composition and is larger than a Marine expeditionary unit but smaller than a MEF. The MEB is capable of conducting missions across the range of military operations. In a joint or multinational environment, it may also contain other Service or multinational forces assigned or attached to the Marine air-ground task force. Also called MEB.

Marine Expeditionary Force – The largest Marine air-ground task force and the Marine Corps' principal warfighting organization, particularly for larger crises or contingencies. It is task organized around a permanent command element and normally contains one or more Marine divisions, Marine aircraft wings, and Marine logistics groups. The Marine expeditionary force is capable of missions across a range of military operations, including amphibious assault and sustained operations ashore in any environment. It can operate from a sea base, a land base, or both. In a joint or multinational environment, it may also contain other Service or multinational forces assigned or attached to the Marine air-ground task force. Also called MEF.

Marine Expeditionary Unit – A Marine air-ground task force (MAGTF) that is constructed around an infantry battalion reinforced (a ground combat element (GCE)), a composite squadron reinforced (an air combat element or ACE), and a task-organized combat logistics battalion (logistics combat element or LCE). It normally fulfills the Marine Corps' forward sea-based deployment requirements. The Marine expeditionary unit provides an immediate reaction capability for crisis response and is capable of limited combat operations. In a joint or multinational

environment, it may contain other Service or multinational forces assigned or attached to the Marine air-ground task force. Also called **MEU**.

Mission-Essential Task List – The list of a command's essential tasks with appropriate conditions and performance standards to assure successful mission accomplishment. Also called **METL**.

N

nongovernmental organization — A private, self-governing, not-for-profit organization dedicated to alleviating human suffering; and/or promoting education, health care, economic development, environmental protection, human rights, and conflict resolution; and/or encouraging the establishment of democratic institutions and civil society. Also called **NGO**. (JP 3-08)

\mathbf{o}

operation – 1. A sequence of tactical actions with a common purpose or unifying theme. (JP 1) 2. A military action or the carrying out of a strategic, operational, tactical, service, training, or administrative military mission. (JP 3-0)

T

technical control – The performance of specialized/professional service or the exercise of professional guidance/direction through the establishment of policies and procedures. Also called **TECHCON**.