



EASTSIDE MAYHEM EXERCISE SERIES

After Action Report

Day 1: Govalle

November 1, 2016



Report Date: February 2017

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EXERCISE OVERVIEW



Exercise Overview

Exercise Name	Eastside Mayhem: Day 1—Govalle
Exercise Date	November 1, 2016
Exercise Location	Govalle Water Treatment Plant; Austin, Texas
Scope	This was one of three operations-based regional exercises testing multi-jurisdictional response to chemical, biological, radiological, nuclear, and explosive (CBRNE) incidents. This particular exercise included a terrorist incident component as well. This exercise was held for four hours at the Govalle Water Treatment Plant. Players representing key participants of regional CBRNE response drove the action of the exercise, while evaluators followed the process and decision making sequence. During the exercise, evaluators witnessed and documented the response actions of multiple agencies as they approached and responded to the realistic scenario.
Purpose	To validate current policies and procedures, to identify gaps, and to develop potential solutions in order to advance the Capital Area Council of Government (CAPCOG) region’s CBRNE procedures and the coordination between multiple agencies.
Mission Area(s)	Response
Core Capabilities	Environmental Response/Health and Safety Operational Coordination Operational Communications
Objectives	<ul style="list-style-type: none"> • Upon arriving at a hazmat incident involving multiple fatalities, the Regional Standardization of Equipment and Training (ReSET) CBRNE group will secure and preserve the scene, ID/classify hazardous materials, and remove casualties from an immediately dangerous to life or health (IDLH) environment. • The ReSET CBRNE group will coordinate operations amongst all agencies on scene, conduct joint operations using common operating methods and equipment, and will make proper notifications for assistance requests. • The ReSET CBRNE group will establish common communications with each other and with all other participating agencies as soon as possible upon arrival.
Threat or Hazard	CBRNE/Terrorist

Scenario

An eighteen-wheel box truck is transporting hazardous materials to businesses in the United States from Mexico. Inside the truck, in the 15 to 20 feet of the trailer closest to cab, are 25 people.

A passerby sees a cloud of smoke and what is determined to be hydrochloric acid coming out of the back of the truck and notices a person on the ground outside of the back door.

Austin Fire Department gets the initial call and puts in a call to San Marcos. San Marcos is called as the first Chemical Biological Radiological Nuclear Explosive (CBRNE) team.

The San Marcos CBRNE team accesses the truck and discovers dead bodies in the front of the truck. There are many pallets with 55 gallon drums full of chemicals that the team must maneuver through to get to the bodies.

San Marcos contacts the Austin Fire Department and Williamson County for assistance due the length of the call and the need to collect/document evidence in a chemical atmosphere.

Due to the mass fatality, the regional justice of the peace is notified of the incident. The Federal Bureau of Investigations (FBI) is notified of the incident due to the individuals found in the truck. The regional justice of the peace and the medical examiner's office work with the CBRNE teams to identify the evidence they may need, such as the truck's cameras, as the bodies are being processed out of the truck.

The deceased victims' bodies have chemicals that must be removed before being turned over the medical examiner's office and/or funeral homes. The 6th CBRNE Enhanced Forced Protection (CERFP) is called in to assist with the decontamination of the bodies, using the team's decontamination trailer.

A complete master scenario events list (MSEL) is available upon request.

Sponsor

Capital Area Council of Governments (CAPCOG)

Participating Jurisdictions

Agency	Number of Participants
Austin Fire Department (Fire, HazMat, Aerial)	20
CAPCOG	3
Cedar Park	5
Chemical, Biological, Radiological, Nuclear and High Yield Explosive (CBRNE) Enhanced Response Force Package (CERFP)	20
City of San Marcos Fire Department	12
Georgetown	4
Hutto Fire Rescue	3
Law Enforcement Standardization of Equipment & Training (LESET)	10
National Oceanic and Atmospheric Administration (NOAA)	2
Regional Standardization of Equipment & Training (ReSET)	6
Round Rock Fire Department Hazardous Materials Team	4
Texas Department of Public Safety (DPS)/Texas Division of Emergency Management (TDEM)	2
Travis County	3
Williamson County Communications	3
Williamson County EMS	4
Williamson County HazMat	2

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EXECUTIVE SUMMARY



Executive Summary

Purpose

On Tuesday, November 1, 2016, the Capital Area Council of Governments (CAPCOG) hosted *Eastside Mayhem: Day 1—Govalle* as part of a three-day exercise series to validate current regional operations in response to chemical, biological, radiological, nuclear, and explosive (CBRNE) incidents.

The overall purpose of this regional full scale exercise (FSE) was to enhance the region's capability to respond to CBRNE incidents through practicing and testing notification procedures, hazard identification, establishing and maintaining unified command, and responding to the exercise scenario according to agency standard operating guidelines (SOGs).

Exercise Goal

The goal of this regional FSE series was to provide regional response organizations within the CAPCOG region the opportunity to assess procedures, validate information, and highlight gaps (both knowledge and processes) related to CBRNE incidents.

Structure

This exercise was one of three FSEs in a series that simulated potential real-world events. Each exercise was preceded with a participant briefing and exercise site tour and was followed by a hot wash. The exercise began with an inject to call dispatch describing the exercise scenario and concluded four hours later.

Twenty-eight controllers/evaluators observed and captured the events of the exercise. The evaluators were asked to provide responses and feedback after the exercise on overall exercise play, as well as specific information on the identified exercise focus areas.

This after action report and improvement plan (AAR/IP) was developed to document areas of strength and gaps witnessed during the exercise, and potential solutions to those gaps. This information was captured in a formal evaluation, as well as discussed during an after-action meeting held on December 16, 2016.



Exercise site, including the eighteen-wheeler to be used in exercise play.

Exercise Core Capabilities and Objectives

The exercise objectives outlined in Table 1 describe the expected outcomes for the exercise. The objectives were linked to the Federal Emergency Management Agency's (FEMA's) Core Capabilities. The objectives and aligned capabilities were guided by the Exercise Planning Team. A matrix of core capability performance can be found in Appendix C.

Table 1: Exercise Objectives and Associated Capabilities

Core Capability	Exercise Objective
Environmental Response/Health and Safety (HazMat)	Upon arriving at a hazmat incident involving multiple fatalities, the ReSET CBRNE group will secure and preserve the scene, ID/classify hazardous materials, and remove casualties from an IDLH environment.
Operational Coordination	The ReSET CBRNE group will coordinate operations amongst all agencies on scene, conduct joint operations using common operating methods and equipment, and will make proper notifications for assistance requests.
Operational Communications	The ReSET CBRNE group will establish common communications with each other and with all other participating agencies as soon as possible upon arrival.

Summary Analysis

Strengths identified in the exercise include:

1. Exercise players successfully utilized placards and shipping papers.
2. Decontamination (Decon) teams selected and utilized appropriate PPE.
3. CERFP successfully and seamlessly integrated into incident operations and operated under the regional unified command.
4. Exercise players were able to establish unified command promptly upon the arrival of multiple agencies within the command post.
5. Decon teams integrated into the system seamlessly.
6. Regional CBRNE response notifications were made appropriately and quickly.
7. Austin Fire Department (AFD) and Williamson County (Wilco) correctly dispatched channels to ensure local and regional responders had common communications.

Areas for improvement identified in the exercise include:

1. Local response agencies did not have necessary standard equipment in backup response vehicles.
2. Regional response teams did not follow medical monitoring guidelines prior to donning PPE.
3. Regional teams would benefit from having CBRNE incident approach procedures reinforced.
4. Response personnel did not demonstrate standard chemical ID protocols.
5. Operations level first responders did not utilize the standard five step process.
6. Regional teams demonstrated initial challenges integrating operationally.
7. Evidence collection processes and procedures were not consistent between CERFP, law enforcement agencies, and the justice of the peace.
8. Entry teams did not have standard communication equipment and failed to perform adequate checks prior to entry.

The following sections provide an overview of the performance related to each core capability and associated exercise objective, highlighting strengths and areas for improvement.



CAPABILITY ANALYSIS



Capability Analysis

Core Capability 1: Environmental Response/Health and Safety (HazMat)

The strengths and areas for improvement for the core capability aligned to this objective are described in this section. Recommendations associated with areas for improvement are provided in **bold** text.

Associated Objective:

Upon arriving at a CBRNE incident involving multiple fatalities, the ReSET CBRNE group will secure and preserve the scene, ID/classify hazardous materials, and remove casualties from an immediately dangerous to life or health (IDLH) environment.

Strengths

The partial capability level can be attributed to the following strengths:

Strength 1: Exercise players successfully utilized placards and shipping papers.

Strength 2: Decon teams selected and utilized appropriate PPE.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area of Improvement 1:

Local response agencies did not have necessary standard equipment in backup response vehicles.

Analysis:

Observers noted equipment deficits in responding teams during the exercise that could have been hazardous in a real event. Specifically, one team lacked radiation pagers and pH/fluoride paper when entering the site. In observations following the exercise, the lack of equipment was attributed to using a backup truck during the exercise, but nevertheless could have been detrimental in a real-world event. **Standard equipment and equipment checklists for each truck should be present to ensure even backup trucks have the right equipment, including the appropriate number of radiation pagers and pH/fluoride paper. If not enough of this equipment exists in agencies' caches, enough should be acquired to stock all trucks.**

Area of Improvement 2:

Regional response teams did not follow medical monitoring guidelines prior to donning PPE.

Analysis:

In response to the exercise scenario, players appropriately chose Level A suits for use during the exercise. However, players failed to perform the required medical evaluations before suiting up and preparing to



Teams enter the eighteen-wheeler.

approach the incident. PPE, especially Level A, creates added physiological stress for the individuals wearing it. As such, teams must go through the proper medical evaluation to ensure they are physically in a state suitable to be wearing and conducting operations in PPE. Neglecting to conduct this evaluation allows for the possibility of potential avoidable danger to responders during the incident. **Local jurisdictions should reinforce PPE donning/doffing procedures, including required medical evaluations, through the development and facilitation of trainings.**

Area of Improvement 3:

Regional teams would benefit from having CBRNE incident approach procedures reinforced.

Analysis:

Guidelines for approaching a CBRNE incident involves entry teams taking an uphill, upwind approach. While some teams took proper precaution, evaluators identified gaps in following this procedure. Entry objectives were not firmly established before the first entry team approached, which normal protocol would dictate. Teams were also seen entering simulated chemical smoke, resulting in unnecessary risk. While the smoke used for simulation in the exercise was the same used for responders during simulated fires, for the purposes of the exercise, players should not have walked into the smoke without knowing if it was hazardous. Lastly, while teams did properly select to setup AreaRAEs for the incident, the AreaRAEs were setup too far from the tanker for maximum benefits. **Local jurisdictions should reinforce training regarding entry into CBRNE incidents.**

Area of Improvement 4:

Response personnel did not demonstrate standard chemical ID protocols.

Analysis:

Standard guidelines state that in identifying proper classification of an unknown hazardous substance, after the preliminary reading of the placard, responders should utilize Spilfyter® chemical classifier strips along with pH/fluoride paper in the initial assessment, then HazMat 360 as the final step in chemical classification. While responders identified the chemical using the placard on the tanker and performed analysis with pH paper, standard protocol should still be followed to fully classify the chemical. **Additional training should be provided to reinforce standard protocols relating to chemical ID and classification.**

Area of Improvement 5:

Operations level first responders did not utilize the standard five step process.

Analysis:

Standard guidelines within the region require response personnel to follow the standard five step process following a CBRNE incident. Several exercise incidents occurred because of deviation from this protocol. First, backup responders lacked proper equipment, including rad pagers and pH paper. Next, exercise participants were initially confused when encountering the bodies at the exercise site, failing to attempt to rescue. Both incidents would have been avoidable if the 5-step process would have been followed. **Local jurisdictions should undertake a training and exercise initiative to practice and reinforce the 5-step process, primarily with operations level responders.**

Core Capability 2: Operational Coordination

The strengths and areas for improvement for the core capability aligned to this objective are described in this section. Recommendations associated with areas for improvement are provided in **bold** text.

Associated Objective:

The ReSET CBRNE group will coordinate operations amongst all agencies on scene, conduct joint operations using common operating methods and equipment, and will make proper notifications for assistance requests.

Strengths

The partial capability level can be attributed to the following strengths:

Strength 1: CERFP successfully and seamlessly integrated into incident operations and operated under the regional unified command.

Strength 2: Exercise players were able to establish unified command promptly upon the arrival of multiple agencies within the command post.

Strength 3: Decon teams integrated into the system seamlessly.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area of Improvement 1:

Regional teams demonstrated initial challenges integrating operationally.

Analysis:

Exercise evaluators noted there was a long period of time after command had given the order to make entry before the first entry was made. This may have been due partially to last-minute exercise player modifications, but also can be attributed to unfamiliarity between the teams and confusion over roles and responsibilities. This issue was amplified with the further inclusion of military personnel. **Teams within the region would benefit from additional training on unified command procedures.**

Area of Improvement 2:

Evidence collection processes and procedures were not consistent between CERFP, law enforcement agencies, and the justice of the peace.

Analysis:

Currently, evidence collection is performed under different processes and procedures between various local agencies and military responders. During the exercise, the differences in body decontamination and evidence collection resulted in a lack of coordinated effort, which potentially could have resulted in a loss



Exercise players decon and collect evidence from a body.

of evidence. **To ensure that local evidence collection procedures are met, the region should create procedures to allow for a unified effort between CERFP, the local justice of the peace, and all law enforcement agencies. To reinforce these procedures, CERFP needs to be trained in evidence collection and processes to allow for improved integration with local agencies.**

Core Capability 3: Operational Communications

The strengths and areas for improvement for the core capability aligned to this objective are described in this section. Recommendations associated with areas for improvement are provided in **bold** text.

Associated Objective:

The ReSET CBRNE group will establish common communications with each other and with all other participating agencies as soon as possible upon arrival.

Strengths

The partial capability level can be attributed to the following strengths:

Strength 1: Regional CBRNE response notifications were made appropriately and quickly.

Strength 2: Austin Fire Department (AFD) and Williamson County correctly dispatched channels to ensure local and regional responders had common communications.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area of Improvement 1:

Entry teams did not have standard communication equipment and failed to perform adequate checks prior to entry.

Analysis:

Ensuring properly functioning communication equipment is an essential task prior to entering CBRNE incidents. Evaluators noted that the first entry team only had one radio for two people and that one radio was not working. Standard protocol is one radio per person and three radio checks prior to entry. Had this occurred in a real-world situation, these responders would have been in the midst of managing a CBRNE incident without a means to communicate with anyone else at the site. To ensure properly functioning communication equipment, **local agencies should train on standard equipment procedures prior to entry. Entry teams must be equipped with adequate communications equipment prior to entry to ensure that communication is maintained.**



CONCLUSION



Conclusion

Eastside Mayhem: Day 1—Govalle

This exercise provided a unique opportunity to integrate regional and local jurisdictional CBRNE response agencies in a FSE activity. Participants were able to engage in notification procedures to correct response agencies, recognize situational hazards, establish unified command, and perform activities according to SOGs to meet the exercise's needs. Exercise players and observers were able to identify areas of improvement relating to training, equipment, and operational guidelines. The findings provide regional and local agencies with an adequate focus for future trainings to improve upon, including entry and approach principles, chemical ID and classification protocols, the five-step process, unified command, and unified evidence collection. Corrective actions also suggest that the need for additional equipment and procedures for regional and local jurisdiction CBRNE response agencies exists.

Response agencies were able to successfully support the incident's needs with an effective and efficient response. By adding additional training, equipment, and procedures in the exercise's areas of improvement, regional response teams will be better able to properly address future CBRNE situations.



APPENDICES



Appendices

Appendix A: Acronyms

Table 2: Acronyms

Acronym	Term
AAR/IP	After Action Report/Improvement Plan
AFD	Austin Fire Department
CAPCOG	Capital Area Council of Government
CBRNE	Chemical, Biological, Radiological, Nuclear, and Explosive
CERFP	CBRNE Enhanced Forced Protection
Decon	Decontamination
FBI	Federal Bureau of Investigations
FEMA	Federal Emergency Management Agency
FSE	Full Scale Exercise
HazMat	Hazardous Materials
IDLH	Immediately dangerous to life or health
LESET	Law Enforcement Standardization of Equipment & Training
MSEL	Master Scenario Events List
NOAA	National Oceanic and Atmospheric Administration
PPE	Personal Protective Equipment
ReSET	Regional Standardization of Equipment and Training
SOGs	Standard Operating Guidelines
TDEM	Texas Division of Emergency Management
Wilco	Williamson County

Appendix B: Capabilities Defined

The core capabilities addressed in this exercises are defined below.

Table 3: Core Capabilities Defined

Core Capability	Definition
Environmental Response/Health and Safety (HazMat)	Conduct appropriate measures to ensure the protection of the health and safety of the public and workers, as well as the environment, from all-hazards in support of responder operations and the affected communities.
Operational Coordination	Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.
Operational Communication	Ensure the capacity for timely communications in support of security, situational awareness, and operations by any and all means available, among and between affected communities in the impact area and all response forces.

Appendix C: Capability Analysis Matrix

Aligning exercise objectives and Core Capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis. Table 2 includes the exercise objectives, aligned Core Capabilities, and performance ratings for each core capability as observed during the exercise and determined by the evaluation team.

Table 4: Analysis of Core Capabilities

Objective	Core Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
1. Upon arriving at a hazmat incident involving multiple fatalities, the ReSET HazMat group will secure and preserve the scene, ID/ classify hazardous materials, and remove casualties from an IDLH environment.	Environmental Response/Health and Safety (HazMat)			M	
2. The ReSET HazMat Group will coordinate operations amongst all agencies on scene, conduct joint operations using common operating methods and equipment, and will make proper notifications for assistance requests.	Operational Coordination		S		
3. ReSET HazMat group will establish common communications with each other and with all other participating agencies as soon as possible upon arrival.	Operational Communications		S		

Ratings Definitions:

- **Performed without Challenges (P):** The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws.
- **Performed with Some Challenges (S):** The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in

accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.

- **Performed with Major Challenges (M):** The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws.
- **Unable to be Performed (U):** The targets and critical tasks associated with the core capability were not performed in a manner that achieved the objective(s).

Appendix D: Improvement Plan

This IP has been developed specifically for CAPCOG region as a result of the *Eastside Mayhem: Day 1—Govalle* conducted on November 1, 2016

Figure 1: Analysis of Core Capabilities

Capability	Issue/Area for Improvement	Corrective Action	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Environmental Response/Health and Safety (HazMat)	Local response agencies did not have necessary standard equipment in backup response vehicles.	Develop equipment checklists and ensure all trucks are properly equipped with necessary equipment.	ReSET	ReSET Chair	11/2016	11/2017
		Acquire additional radiation pagers for agencies' caches.	ReSET	ReSET Chair	11/2016	11/2018
	Regional response teams did not follow medical monitoring guidelines prior to donning PPE.	Develop and facilitate trainings on proper PPE donning/doffing procedures, including required medical evaluations.	ReSET	ReSET Chair	11/2016	11/2018
	Regional teams would benefit from having HazMat situation approach procedures reinforced.	Reinforce training regarding CBRNE incident entry.	ReSET/LESET	ReSET Chair/LESET Chair	Ongoing	Ongoing
	Response personnel did not demonstrate standard chemical ID protocols.	Provide additional training on standard chemical ID and classification protocols.	ReSET	ReSET Chair	11/2016	11/2017
	Operations level first responders did not utilize the standard five step process.	Provide trainings and opportunities to exercise the 5-step process for operations level responders.	ReSET	ReSET Chair	11/2016	1/2017

Capability	Issue/Area for Improvement	Corrective Action	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Operational Coordination	Regional teams demonstrated initial challenges integrating operationally.	Provide additional training on unified command within the region.	CAPCOG	Eric Carter, CAPCOG Homeland Security Director	Ongoing	Ongoing
	Evidence collection processes and procedures were not consistent between CERFP, law enforcement agencies, and the justice of the peace.	Create, train on, and utilize unified evidence collections processes for CERFP, local justices of the peace, and law enforcement agencies.	ReSET/LESET/Joint Terrorism Task Force	ReSET Chair/LESET Chair/JTTF Representative	11/2016	11/2018
Operational Communications	Entry teams did not have standard communication equipment and failed to perform adequate checks prior to entry.	Reinforce training on communications equipment procedures.	ReSET	ReSET Chair	11/2016	11/2017