



MassDEP Geographic Response Plan – 2014 Buzzards Bay/Cuttyhunk Pond GRP Exercise

After-Action Report/Improvement Plan

October 30, 2014

The After-Action Report/Improvement Plan (AAR/IP) aligns exercise objectives with preparedness doctrine to include the National Preparedness Goal and related frameworks and guidance. Exercise information required for preparedness reporting and trend analysis is included; users are encouraged to add additional sections as needed to support their own organizational needs.

EXERCISE OVERVIEW

Exercise Name	2014 Buzzards Bay/Cuttyhunk Pond GRP Exercise
Exercise Dates	September 3, 2014
Scope	This exercise is a Full Scale Exercise, planned for approximately six hours in Gosnold, MA (Cuttyhunk Island) and upon the waters of Cuttyhunk Pond and Cuttyhunk Island. Exercise play is limited to Cuttyhunk Pond and Cuttyhunk Island and adjacent shoreline.
Mission Area(s)	Response
Core Capabilities	Environmental Response/Health and Safety, Operational Coordination, Operational Communications
Objectives	<p>Objective 1: Demonstrate the ability to deploy oil spill equipment from one or more MassDEP pre-positioned oil spill response trailers utilizing common Geographic Response Plan (GRP) tactics.</p> <p>Objective 2: Demonstrate the ability to assemble a spill response organization utilizing Incident Command System (ICS) principles through development and execution of an Assignment List (ICS 204) and implementation of on-site incident management and tactical operations.</p> <p>Objective 3: Demonstrate the ability to effectively communicate between multiple local, state, and federal agencies including fire departments, police departments, harbor masters, and other state and federal first responders using both UHF and VHF communications.</p>
Threat or Hazard	Discharge of oil into a navigable waterway
Scenario	An oil spill has occurred in Buzzards Bay and is migrating toward Cuttyhunk Island. Town of Gosnold personnel and the New Bedford Fire Department will utilize GRP BB-53 to deploy protective booms to protect sensitive resources in and near Cuttyhunk Pond.
Sponsor	Massachusetts Department of Environmental Protection. Program funds will be utilized for first responder backfill and overtime costs.
Participating	Participating organizations included:

Organizations

- Gosnold Emergency Management
 - Gosnold Fire Department (GFD)
 - Gosnold Police Department/Harbormaster (GPM)
 - New Bedford Fire Department (NBFD)
 - MassDEP
 - U.S. Coast Guard Sector Southeastern New England (USCG)
 - U.S. Coast Guard Sector Long Island Sound (USCG)
 - Moran Environmental Recovery (MER)
 - Nuka Research and Planning Group, LLC (Nuka Research)
- Note: See Appendix B for participant count

Point of Contact

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ANALYSIS OF CORE CAPABILITIES

Aligning exercise objectives and core capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis. Table 1 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 2 includes compiled data from the Exercise Evaluation Guide (EEG) including the organizational capability targets, associated critical tasks, and observations as observed during the exercise and determined by the evaluation team.

Objective	Core Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
Demonstrate the ability to deploy oil spill equipment from one or more MassDEP pre-positioned oil spill response trailers utilizing common Geographic Response Plan (GRP) tactics.	Environmental Response/Health and Safety	P			
Demonstrate the ability to assemble a spill response organization utilizing Incident Command System (ICS) principles through development and execution of an Assignment List (ICS 204) and implementation of on-site incident management and tactical operations.	Operational Coordination	P			
Demonstrate the ability to effectively communicate between multiple local, state, and federal agencies including fire departments, police departments, harbormasters, and other state and federal first responders using both UHF and VHF communications	Operational Communications	Not Assessed			
<p>Ratings Definitions:</p> <ul style="list-style-type: none"> 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 					

Objective	Core Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
<p>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.</p> <ul style="list-style-type: none"> • 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). 					

Table 1. Summary of Core Capability Performance

Core Capability	Organizational Capability Target	Associated Critical Tasks	Observation Notes
Environmental Response/ Health and Safety	Overview of Response Equipment	<ul style="list-style-type: none"> • Access Mass DEP Trailer • Identify boom and sorbents • Connect boom together • Connect towing bridle to boom • Connect components of anchor system together 	<ul style="list-style-type: none"> • Performed without Challenges (P) • All skills successfully demonstrated during exercise • Excellent Training from MER • Full participation by students in demonstration portion of the instruction. • Area for Improvement: Would be useful to have demo ASTM connectors for students. • Area for Improvement: Would be useful to use small sections of line for students to tie their own knots for practice.
	Basic Booming Operations	<ul style="list-style-type: none"> • Transport and tow boom. • <i>Critical Task:</i> Anchoring and Connecting boom to shore • <i>Critical Task:</i> Safe vessel and crew operations. (Refer to ICS-208) 	<ul style="list-style-type: none"> • Performed without Challenges (P) • Boat and shore crews effectively and safely performed all tasks. • Shore team did an excellent job of connecting boom to shore. • Area for Improvement: Could use monkey fist/heaving lines to facilitate transfer of boom from boat to shore. • Area for Improvement: Trailers could use serrated knives as standard equipment.
	Implement Tactics in GRP	<ul style="list-style-type: none"> • Deploy Exclusion Boom Tactic • Deploy Deflection Boom Tactic • Deploy Diversion Boom Tactic 	<p>EX 01 deployment,</p> <ul style="list-style-type: none"> • Performed without Challenges (P) • Tactic proved to be successful • Best Practice: used mooring ball with line attached to it for heaving line. • Boom got twisted during initial deployment into water but boat crews did a great job of untangling it. • Best Practice: Discussed moving concrete block on beach to location where it can be permanent mooring point for boom. <p>DV-02b deployment</p> <ul style="list-style-type: none"> • Performed without Challenges (P) • Tactic proved to be successful.

Core Capability	Organizational Capability Target	Associated Critical Tasks	Observation Notes
			<ul style="list-style-type: none"> • Would be useful for trailers to carry PPE (Hardhat, safety glasses & gloves) to ensure safer operations for driving rebar into ground with sledgehammer. • Area for Improvement: Shore tie rebar was difficult to keep in place in aggregate/gravel. Much more successful in sand.
Operational Coordination	Create and Execute An Assignment List (ICS 204)	<ul style="list-style-type: none"> • Fill out ICS 204 • Assignments in ICS 204 are followed and on-scene adjustments. • Participants demonstrate command and control of exercise 	<ul style="list-style-type: none"> • Not Assessed
Operational Communications	Effectively Communicate Using UHF and VHF equipment	<ul style="list-style-type: none"> • Create Communications Plan • Communicate with other participants using organic UHF equipment • Communicate with other participants using organic VHF equipment 	<ul style="list-style-type: none"> • Performed without Challenges (P) • Communications interoperability between departments was seamless. VHF channel 81 was used effectively with all equipment working properly. • Strong comms between shore and water crews. • UHF Equipment not utilized • Area for Training Improvement: Cuttyhunk Emergency Manager separated from Exercise Control Personnel, creating comms gap because Exercise Control couldn't contact boat offshore deploying DV boom.

Table 2. EEG Summary

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

Objective 1: Demonstrate the ability to deploy oil spill equipment from one or more MassDEP pre-positioned oil spill response trailers utilizing common Geographic Response Plan (GRP) tactics

The strengths and areas for improvement for each core capability aligned to this objective are described in this section.

Core Capability 1: Environmental Response/Health and Safety

Strengths

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

Strength 1: Participants from multiple agencies (Gosnold Fire Department and Harbormaster and New Bedford Fire Department, MassDEP, USCG) worked together to accomplish goal

Strength 2: All participants conducted the deployment safely.

Areas for Improvement

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

Area for Improvement 1: Having demonstration ASTM connectors for students would facilitate training by allowing students to have hands on participation in a shorter time.

Reference: Massachusetts Geographic Response Plan Tactics Guide

Analysis: Demonstration equipment does not exist.

Area for Improvement 2: Would be useful to use small sections of line for students to tie their own knots for practice.

Reference: Massachusetts Geographic Response Plan Tactics Guide

Analysis: Demonstration equipment does not exist.

Area for Improvement 3: Would be helpful to use monkey fist/heaving lines to facilitate transfer of boom from boat to shore.

Reference: Massachusetts Geographic Response Plan Tactics Guide

Analysis: Demonstration equipment does not exist.

Area for Improvement 4: Would be helpful to have serrated knives as standard equipment in each trailer to facilitate line cutting.

Reference: Massachusetts Geographic Response Plan Tactics Guide

Analysis: Demonstration equipment does not exist.

Objective 2: Demonstrate the ability to effectively communicate between multiple local, state, and federal agencies including fire departments, police departments, harbor masters, and other state and federal first responders using both UHF and VHF communications

The strengths and areas for improvement for each core capability aligned to this objective are described in this section.

Core Capability 2: Operational Coordination

Strengths

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

Strength 1: All personnel were clear on assignments during the exercise.

Areas for Improvement

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

Area for Improvement 1: None

Analysis: N/A

Core Capability 3: Operational Communications

Strengths

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

Strength 1: Communications interoperability between departments was seamless. VHF channel 81 was used effectively with all equipment working properly.

Strength 2: Strong communication between shore and water crews.

Areas for Improvement

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

Area for Improvement 1: Cuttyhunk Emergency Manager (EM) separated from Exercise Control Personnel, creating comms gap with boat offshore deploying DV boom.

Analysis: Due to the unique nature of life on Cuttyhunk Island, personnel shoulder many responsibilities beyond their primary job. The EM fulfills many different roles on the island and is forced to juggle numerous responsibilities. During a shift in the deployment location, the EM (who was acting as the IC and was the only person with a handheld VHF radio) broke away from the exercise group to address other town issues. This resulted in a communications gap between shoreside personnel and the vessels deploying boom. The shoreside team was able to convey deployment instructions by voice after one of the vessels came close enough to shore to allow

voice communication. The EM did return to the deployment site after several minutes and effective communication between the IC, shoreside team, and vessels resumed. This highlighted the need to ensure that all participants stay actively engaged in the exercise and to ensure that adequate communication equipment is provided to key participants including the IC, shore team leader, and exercise controllers to avoid communication gaps.

APPENDIX A: IMPROVEMENT PLAN

This IP has been developed specifically for the Town of Gosnold and City of New Bedford following the Massachusetts Department of Environmental Protection 2014 Buzzards Bay/Cuttyhunk Pond GRP Exercise conducted on September 3, 2014.

Core Capability	Issue/Area for Improvement	Corrective Action	Capability Element ¹	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Core Capability 1: Environmental Response/Health and Safety	1. Having demonstration ASTM connectors for students would facilitate training by allowing students to have hands on participation in a shorter time.	Either purchase connectors from manufacturer, if possible, or harvest connectors from decommissioned boom for training purposes.	Equipment	MassDEP	Steve Mahoney		
Core Capability 1: Environmental Response/Health and Safety	2. Would be useful to use small sections of line for students to practice tying knots.	Provide small sections of line for students to use for knot tying practice.	Equipment	MassDEP	Steve Mahoney		
Core Capability 1: Environmental Response/Health and Safety	3. Would be useful to include heaving lines in the trailer inventory to facilitate passing of boom from the shore to boats.	Include heaving lines as standard equipment for all trailers in MassDEP inventory.	Equipment	MassDEP	Steve Mahoney		
Core Capability 1: Environmental Response/Health and Safety	4. Would be helpful to have serrated knives as standard equipment in each trailer to facilitate line cutting.	Include serrated knives as standard equipment for all trailers in MassDEP inventory.	Equipment	MassDEP	Steve Mahoney		
Core Capability 3: Environmental Response/Health and Safety	1. Cuttyhunk Emergency Manager (EM) separated from Exercise Control Personnel, creating comms gap because Exercise Control couldn't contact boat offshore deploying DV boom.	During operational briefing, ensure all key participants have radios and ensure all participants remain engaged in the exercise until completion.	Training	Nuka Research	Mike Popovich		

¹ Capability Elements are: Planning, Organization, Equipment, Training, or Exercise.

APPENDIX B: EXERCISE PARTICIPANTS

Participating Organizations	
Federal	Participant Count
United States Coast Guard Sector Southeastern New England	5
United States Coast Guard Sector Long Island Sound	2
State	
Massachusetts Department of Environmental Protection (MassDEP)	3
Nuka Research and Planning Group, LLC (contractor for MassDEP)	3
Moran Environmental Recovery (contractor for MassDEP)	2
Town of Gosnold, MA	
Gosnold Fire Department	6
Gosnold Harbormaster	3
City of New Bedford, MA	
New Bedford Fire Department	4
TOTAL	28

APPENDIX C: EXERCISE EVALUATION FORM

Massachusetts DEP 2014 Buzzards Bay GRP Exercise - EVALUATION

Gosnold/New Bedford – Cuttyhunk Pond GRP Exercise		Exercise date: 03SEP14	
Instructions to Participants: Complete this form based on your observations of the GRP exercise.			
Evaluator Name:		Evaluator Organization:	
What was your role in exercise? (responder, observer, facilitator, etc.)			
What was your level of spill response experience prior to this exercise? NONE TRAINING ONLY SOME SPILL RESPONSE A LOT			
Please check a box to respond to the following.		YES	NO
1. I feel more prepared to deploy oil spill response equipment now than I did prior to this exercise.			
2. I have a better understanding of spill response tactics than I did prior to this exercise.			
3. I would participate in future oil spill response equipment or Geographic Response Plan deployments at other sites.			
4. The objectives were clearly explained and the deployment exercise met the objectives.			
5. The exercise was conducted safely.			
Based on your experience today, would you feel comfortable setting a similar boom array during an actual incident? NOT AT ALL A LITTLE MODERATELY VERY			
Please evaluate how well the Cuttyhunk Island Landing Staging Area worked for deploying and demobilizing boom from the trailer for this deployment: <input type="checkbox"/> <u>Ideal</u> staging area for boom for this tactic. <input type="checkbox"/> <u>Sufficient</u> as a staging area for boom for this tactic. <input type="checkbox"/> <u>Not sufficient</u> as a staging area for boom for this tactic.			
Did the Exercise Plan (map diagram) provide clear direction as to how and where to deploy the boom? If not, please identify problems & suggest improvements.			

**PLEASE USE THE BACK OF THIS PAGE
FOR ANY ADDITIONAL COMMENTS**

	Yes	No
Prior Oil Spill Experience	92%	2%
More Prepared after Exercise	100%	0%
Better Understanding of Deploying Spill Response Tactics	100%	0%
Participate in Future GRP Deployments	91%	9%
Field Objectives Clearly Explained and/or Met	100%	0%



24 Respondents

Based on experience today, comfort level with setting a similar boom array in actual incident

