

**Assonet Bay (MHB-12) Geographic Response Plan  
Deployment Exercise**

**August 12, 2013**

**AFTER ACTION  
REPORT/IMPROVEMENT PLAN**

**September 2013**



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## HANDLING INSTRUCTIONS

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2. The information gathered in this AAR/IP is unclassified.
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## EXECUTIVE SUMMARY

The Massachusetts Department of Environmental Protection Assonet Bay (MHB-12) Geographic Response Plan (GRP) Deployment Exercise occurred on August 12, 2013. The goal was to deploy a diversion booming array, utilizing as many responders as possible from three towns in the Mount Hope Bay Region (Berkley, Dighton, Freetown) to exercise the existing Mount Hope Bay Geographic Response Plan MHB-12 developed for Assonet Bay (Figure 1) and provide hands-on experience for oil spill first responders.

Figure 1. Assonet Bay GRP (MHB-12)



The Massachusetts Department of Environmental Protection (MassDEP) GRP Program exercise at Assonet Bay (MHB-12) was developed to exercise local area first responder's Inter-Agency Planning and Resource Coordination, Communication, and Oil Spill Preparedness capabilities. The Exercise Planning Team (EPT) was comprised of several agencies, including the Berkley, Dighton and Freetown Fire Departments, the Dighton Harbormaster, the MassDEP, the United States Coast Guard Sector Southeastern New England, and Nuka Research and Planning Group, LLC (Nuka Research).

In preparation for this exercise, Initial, Mid-Term, and Final Planning Conferences were held.

The Initial Planning Conference (IPC) was held on April 10, 2013 at the Berkley Fire Department in Berkley, MA. A Mid-Term Planning Conference (MPC) was held on June 19, 2013 at the Berkley Fire Department and the Final Planning Conference (FPC) was held on August 7, 2013 via teleconference.

During the course of the IPC the EPT discussed and determined:

- Exercise scope
- Exercise objectives
- Design requirements and conditions including:
  - Timing of the exercise in relation to tidal schedule
  - Potential use of an oil surrogate to simulate spilled oil and determine efficacy of the booming strategy

During the MPC, the EPT further refined the exercise tasks and objectives and determined:

- Exercise scenario and schedule
- Manpower and vessel needs
- Logistical issues including identification of staging and field locations.
- Administrative and documentation requirements and assignments.

During the FPC, a comprehensive review of all exercise objectives was conducted as well as detailed, final discussions to review logistics and resolve all open issues.

Based on the EPT's deliberations, the following objectives were developed for the Assonet Bay (MHB-12) site:

- Objective 1: Foster Inter-Agency Planning and Coordination by providing the opportunity for local responders to work with Federal (USCG) and State (MassDEP) responders to plan for and deploy a GRP protective booming tactic during a simulated incident.
- Objective 2: Promote Resource Coordination among local responders by coordinating use of assets from multiple towns. (See Table 1 and Figures 1 - 5).
- Objective 3: Improve local Oil Spill Preparedness by deploying equipment from one or more MassDEP provided Oil Spill Response trailers, providing participants hands-on experience mobilizing and demobilizing boom in the field, and providing an opportunity



to evaluate the effectiveness of the DV01b booming tactic (as depicted on the MHB-12 GRP) and identify any modifications necessary.

Note: During the development phase of this exercise, a site survey of Hathaway Park was conducted by Nuka Research to prepare for the exercise and observe river conditions including current speed and water depth and general site characteristics at the park. During this site survey, Nuka Research determined that the point of land immediately to the west of the Hathaway Park boat ramp, where the DV01b tactic is depicted on the MHB-12 GRP, was not an ideal location to set-up diversion booming with shoreside recovery due to the fact that this shoreline area is marshy with heavy growth of reeds and marsh grass. For this reason, the DV01b tactic was modified and shifted to the east as depicted in Figure 2.

The exercise objectives focused on inter-agency coordination and resource coordination for the purpose of improving initial response capacity to oil spills in the towns of Berkley, Dighton, and Freetown.

Figure 2. Modified DV01b tactic as tested



Image Courtesy of Nuka Research and Planning Group



## SECTION 1: EXERCISE OVERVIEW

### Exercise Details

#### Exercise Name

Massachusetts Department of Environmental Protection Assonet Bay (MHB-12) GRP Deployment Exercise

#### Type of Exercise

Full Scale Exercise

#### Exercise Start Date

August 12, 2013

#### Exercise End Date

August 12, 2013

#### Duration

5 hours

#### Location

The exercise in-briefing took place at the Freetown Fire Department Station 1 in the town of Assonet, MA, with the field exercise following at nearby Hathaway Park.

#### Sponsor

The MassDEP was the sponsor of the exercise, with input from the participating towns, the U.S. Coast Guard, the Southeast Regional Planning & Economic Development District (SRPEDD), and facilitation by Nuka Research.

#### Program

Massachusetts GRP Exercise Program

#### Mission

This exercise was designed to provide an opportunity for municipal first responders to practice protective booming of a sensitive area in response to a simulated oil spill.

#### Capabilities

Planning, Communications, On-Site Incident Management, and WMD and Hazardous Materials Response and Decontamination.

#### Scenario Type

The scenario is a simulated oil spill following a tank truck rollover on Route 24 that threatens the Assonet River and incorporates the deployment of protective booming tactics and strategies as outlined in the Assonet Bay (MHB-12) GRP.

## Exercise Planning Team

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## Participating Organizations

Participating organizations included:

- Berkley Fire Department
- Dighton Fire Department
- Freetown Fire Department
- Dighton Harbormaster
- Massachusetts Department of Environmental Protection
- Moran Environmental Recovery
- Dominion Energy/Brayton Point
- Nuka Research and Planning Group, LLC
- United States Coast Guard Sector Southeastern New England

## Number of Participants

- Players: 31
- Controllers: 1

- Facilitators: 3
- Observer/Evaluators: 3

## SECTION 2: EXERCISE DESIGN SUMMARY

### Exercise Purpose and Design

Geographic Response Plans (GRP) are tactical oil spill response plans tailored to protect a specific sensitive area from impacts following a spill. GRPs are developed by collaborative work groups that include local, state, and federal agencies, natural resource organizations, spill response organizations, and the oil industry. GRPs are incorporated into the state/federal Area Contingency Plans for oil spill and hazardous materials response. The Area Contingency Plan implements the National Contingency Plan and aligns with the National Response Framework. Once the GRPs have been published in the Area Plan, the next step in the planning and preparedness process involves exercising the GRPs to (1) field verify the resources and tactics identified in the GRP and (2) provide an opportunity for local responders to practice deploying spill response equipment utilizing an ICS framework.

The MassDEP GRP Exercise Program is currently in the fifth year of field exercises involving local fire, harbor, police, shellfish, and emergency management personnel along with state and federal agencies (Mass Division of Marine Fisheries, U.S. Coast Guard, Mass Environmental Police, National Oceanic and Atmospheric Administration). The exercise design, facilitation, planning, and reporting are funded by MassDEP. Participating towns may receive HSEEP grant funding to cover overtime and backfill costs.

The purpose of these exercises is twofold; 1) Test existing GRPs developed as part of the MassDEP GRP Program between 2009 and 2012 to determine their efficacy, and 2) Provide an opportunity for local first responders to improve skills utilizing the pre-positioned oil spill response equipment provided to them by MassDEP.

### Exercise Objectives, Capabilities, and Activities

Capabilities-based planning allows for EPTs to develop exercise objectives and observe exercise outcomes through a framework of specific action items that were derived from the Target Capabilities List (TCL). The capabilities listed below form the foundation for the organization of all objectives and observations in this exercise. Additionally, each capability is linked to several corresponding activities and tasks to provide additional detail.

Based upon the identified exercise objectives below, the EPT decided to demonstrate the following capabilities during this exercise:

- **Objective 1:** Foster Inter-Agency Planning and Coordination by providing the opportunity for local responders to work with Federal (USCG) and State (MassDEP) responders to plan for and deploy a GRP protective booming tactic during a simulated incident.
  - **Planning:**
    - Successfully demonstrate the ability to plan and coordinate a multi-

- town/multi-jurisdictional exercise
  - Initial, Mid-Term, and Final Planning Conferences as outlined above under Executive Summary.
- **On-Site Incident Management:**
  - Develop Incident Action Plan (IAP);
- **Objective 2:** Promote Resource Coordination among local responders by coordinating use of assets from multiple towns.
  - **Communications:**
    - Assign common operating frequency (800 Mhz) for Command and Operations;
    - Supply radios as needed to support interoperable communications; and
    - Communicate effectively during drill between shoreside/on-water responders, the Incident Commander (IC), and exercise controllers and facilitators.
  - **Objective 3:** Improve local Oil Spill Preparedness by deploying equipment from one or more MassDEP provided Oil Spill Response trailers, providing participants hands-on experience mobilizing and demobilizing boom in the field, and providing an opportunity to evaluate the effectiveness of the DV01b booming tactic (as depicted on the MHB-12 GRP) and identify any modifications necessary.
    - **On-Site Incident Management:**
      - Develop and Maintain Training and Exercise Programs;
      - Implement On-Site Incident Management;
      - Execute Plan.
    - **WMD and Hazardous Materials Response and Decontamination:**
      - Develop and Maintain Training and Exercise Programs;
      - Direct WMD and Hazardous Material Response and Decontamination Tactical Operations;
      - Activate WMD and Hazardous Material Response and Decontamination;
      - Conduct Mitigation Activities;
      - Demobilize WMD and Hazmat Response and Decontamination.

## Scenario Summary

The scenario involved a tank truck rollover that occurred on Route 24 Northbound in the vicinity of the Route 24 overpass at the eastern branch of the Assonet River. The incident resulted in a 3,000 gallon No. 2 fuel oil spill that threatened the Assonet River and Assonet Bay area as outlined in the Assonet Bay GRP (MHB-12). Local responders from the Berkley, Dighton, and Freetown Fire Departments, and the Dighton Harbormaster were directed by the IC (Freetown



FD Chief) to deploy tactic DV-01b from GRP MHB-12 (Figure 1) as modified (Figure 2). The Exercise Planning Team developed an Incident Action Plan (IAP), which was utilized and modified as necessary during the exercise. A safety officer from the Freetown Fire Department was assigned, and after initial safety and operations briefings, the field responders transported, deployed, evaluated, demobilized, and stored the boom and anchors used in the exercise (See Figures 6-13). An oil surrogate (peat moss) was deployed (See Figure 11) to evaluate the effectiveness of the strategy as deployed. Professional spill responders from Moran Environmental Recovery provided assistance and direction to the town responders. Personnel from Nuka Research and MassDEP acted as controllers and facilitators, providing direction, answering questions, and managing the exercise timetable.

After the boom was loaded back in the trailer, there was a post-exercise Hot Wash, during which participants were asked to share any insights learned during the exercise and/or any suggestions on modifications needed to successfully deploy the tactic (See Figure 13). There was a group of observer/evaluators who observed part or all of the exercise and were asked to fill out evaluation forms. The observers included representatives from the Coast Guard, MassDEP, Dominion Energy/Brayton Point, and members of the Berkley, Dighton and Freetown Fire Departments.

Figure 3. Equipment Overview with Berkley and Dighton Oil Spill Response Trailers



Photo Courtesy of United States Coast Guard



Figure 4. Equipment Overview



Photo Courtesy of Nuka Research and Planning Group

Figure 5. Hands-On Equipment Familiarization



Photo Courtesy of Nuka Research and Planning Group



Figure 6. Preparing to Deploy Oil Containment Boom



Photo courtesy of United States Coast Guard

Figure 7. Multiple Towns and Agencies Work Together to Deploy Oil Spill Containment Boom



Photo Courtesy of Nuka Research and Planning Group



Figure 8. Multiple Towns and Agencies Work Together to Deploy Oil Spill Containment Boom



Photo courtesy of Nuka Research and Planning Group

Figure 9. Multiple Towns and Agencies Work Together to Deploy Oil Spill Containment Boom



Photo courtesy of Nuka Research and Planning Group



Figure 10. DV01b Booming Strategy Deployed



Photo courtesy of Nuka Research and Planning Group

Figure 11. Oil Surrogate (Peat Moss) Approaches Oil Containment Boom



Photo courtesy of Nuka Research and Planning Group



Figure 12. Participants Demobilize, Rinse, and Re-Pack Oil Containment Boom



Photo courtesy of Nuka Research and Planning Group

Figure 13. Post-Exercise Hot Wash



Photo courtesy of Nuka Research and Planning Group

<b>Berkley</b>	<b>Dighton</b>	<b>Freetown</b>	<b>MassDEP</b>
Spill Response Trailer	Engine Truck	Spill Response Trailer	Spill Response Trailers
FD Vessel - 12' Zodiac	Harbormaster Vessel - 19' Mako	FD Vessel – 14' Boston Whaler	Exercise facilitators
Fire/Rescue Ambulance		Engine Truck (rinse boom)	Spill response contractor/trainer
		Fire/Rescue Ambulance	

Table 1: Assets Supplied for Exercise by Town/Agency

## SECTION 3: ANALYSIS OF CAPABILITIES

This section of the report reviews the performance of the exercised capabilities, activities, and tasks. In this section, observations are organized by capability and associated activities. The capabilities linked to the exercise objectives of the Assonet Bay (MHB-12) GRP Deployment Exercise are listed below, followed by corresponding activities. Each activity is followed by related observations, which include references, analysis, and recommendations.

### Capability 1: Planning

**Capability Summary:** The Planning capability was implemented during pre-exercise planning conferences and during the full-scale exercise. The capability required Fire Chiefs and local officials from Lynn, Revere and Saugus to identify objectives, select an exercise location, select a GRP tactic to be tested, and assign manpower, vessels, and other resources to support the exercise. Effective pre-planning led to a successful exercise.

**Activity 1.1:** Initial and Mid-Planning Conferences to discuss site selection, exercise objectives and other issues outlined above in the Executive Summary.

**Observation 1.1:** Strength: Representatives from all communities worked well together, offering suggestions and weighing the merit of each before accepting or rejecting them and providing alternatives.

**References:** Homeland Security Exercise and Evaluation Program, Volume II, February 2007

**Analysis:** Town-level objectives were well aligned and exercise design proceeded smoothly. All fire or harbor departments committed manpower and vessels to the exercise. There was agreement that the exercise should provide an opportunity for broad participation by as many local responders as possible including Harbormasters, who, in the case of Berkley, Dighton, and Freetown, are not full-time employees.

**Recommendations:** Consider future multi-jurisdictional oil spill response operations-based exercises, including drills and functional exercises.

**Activity 1.2:** Mid-Term and Final Planning Conferences to assign manpower and equipment, work through exercise logistics, and additional activities outlined above in the Executive Summary.

**Observation 1.2:** Strength: All communities coordinated and integrated town equipment, vessels, and manpower. Multi-jurisdictional strike teams were assembled creating a training environment that fostered mentoring between responders with varying levels of experience.

**References:** Homeland Security Exercise and Evaluation Program, Volume II,

**February 2007**

**Analysis:** Logistical pre-planning led to a smooth exercise. Each community supplied vessels, equipment and responders, providing an opportunity to work together in a strike team setting with mixed crews from all towns.

**Recommendations:** Continue to periodically test GRPs and conduct exercises using spill response equipment and multi-jurisdictional approach.

## **Capability 2: Communications**

**Capability Summary:** On-water spill response operations require a common tactical communications capability so that responders from multiple agencies can work together safely and effectively on the water and shoreline, and so that the Incident Command can maintain situational awareness of tactical operations.

**Activity 2.1:** Assign Communications Channels:

- All participants utilized the same frequency (Bristol County Fire Network Central)

### **Observation 2.1:**

Strength: In this exercise, all participants shared the same frequency. Hand-held and vessel mounted radios were available to all participants and utilized the Bristol County Fire Network Central. The geographic proximity and the nature of the ICS structure made sharing the same frequency efficient and ensured timely communications between the IC, Safety Officer, and all strike team elements.

**References:** Homeland Security Exercise and Evaluation Program, Volume II, February 2007, National Incident Management System

**Analysis:** All participants maintained good radio discipline minimizing radio “chatter” and confining radio communications to essential information. This practice was evident throughout the exercise, during which Incident Command as well as exercise controllers and facilitators monitored radio communications and observed that while the responders communicated key information needed to deploy the boom, they did so quickly, succinctly, and without undue extraneous chatter.

**Recommendations:** None

**Activity 2.2:** Future exercises to reinforce good practices.

### **Observation 2.2:**

Strength: Berkley, Dighton, and Freetown utilize a common Fire Network Channel for communications. In previous exercises involving other towns and municipalities, having the capability and equipment to communicate on a common operating channel or channels has



proved problematic. In these cases, county EMA and other entities have participated and provided communication equipment in the form of portable radios and other communications suites to facilitate multi-jurisdictional communications. For the purposes of the exercise, Revere Fire provided portable radios for all participants. All radios utilized the Bristol County Fire Network Central.

**References:** Homeland Security Exercise and Evaluation Program, Volume II, February 2007, National Incident Management System

**Analysis:** The assignment and tracking of radios for interoperable communications provided a workable solution to address the fact that both towns share tactical frequencies among their UHF radios. There were sufficient handheld radios available to ensure that all crews (vessel and shore) could communicate with the IC, Safety Officer, and exercise controllers and facilitators.

**Recommendations:** None

**Activity 2.3:** Communicate Effectively During Drill Between On-Water/Shoreside Responders and IC.

**Observation 2.3:**

Strength: Incident Command shared information concisely and clearly between responders on vessels and shoreside.

**References:** Homeland Security Exercise and Evaluation Program, Volume II, February 2007, National Incident Management System

**Analysis:** Common operational practices between the three fire departments and previous coordination helped to ensure that radio communications were streamlined and effective. Incident Command and Safety Officer maintained good situational awareness throughout the exercise.

**Recommendations:** None

### Capability 3: On-Site Incident Management

**Capability Summary:** MassDEP has developed a community-based oil spill response capacity throughout coastal regions of the state by providing oil spill response equipment trailers to local fire departments, developing GRPs (tactical plans to protect sensitive areas from oil spill impacts), and providing initial training to local first responders. This full-scale exercise provided a key link by allowing first responders from the communities of Berkley, Dighton, and Freetown to work together in a ICS-based scenario to exercise their ability to deploy boom from a state spill response trailer during a mock oil spill. This spill response program requires that towns be able to work together, since a major oil spill may require significant mutual aid and assistance. This field exercise provided a realistic scenario for first responders from Berkley, Dighton, and Freetown to work together to improve their spill response capacity.

**Activity 3.1:** Develop Incident Action Plan (IAP)/ Implement On-Site Incident Management

**Observation 3.1:**

Area for Improvement: Incident Command/Incident Management objectives not fully exercised.

**References:** Homeland Security Exercise and Evaluation Program, Volume II, February 2007, National Incident Management System, GRP MHB-12

**Analysis:** During the exercise design phase a basic IAP, including ICS forms 201-206, was completed by the EPT. On the day of the exercise, controllers and facilitators along with the Fire Chiefs from Berkley, Dighton, and Freetown finalized field assignments by completing the ICS-204 based on personnel and resources on-scene. Assignments included an Incident Commander, Safety Officer, and vessel and shoreside strike teams. While most past GRP exercises allow for a more robust ICS implementation, this group of first responders had never deployed this equipment before and personnel from Nuka Research, Moran Environmental Recovery, and MassDEP provided more direction to the participants during the boom deployment. This structure did not allow participants to fully exercise ICS principles and full command and control between the IC and strike team elements.

**Recommendations:** For future GRP exercises, design and plan the exercise so there is a balance between implementation of ICS principles and opportunity for direction and control of the exercise by first responder personnel who utilize ICS on a regular basis with the need to include instructional training elements to ensure that participating first responders learn and understand how this equipment is to be used.

### Activity 3.2: Execute Plan

#### Observation 3.2:

Strength: Vessel and shore-based Strike teams worked well together to implement the booming tactic/strategy.

**References:** Homeland Security Exercise and Evaluation Program, Volume II, February 2007, National Incident Management System, GRP MHB-12

**Analysis:** The primary objective of GRPs is to deploy boom ahead of an oil spill to prevent or reduce negative impacts to environmentally sensitive areas. Successful deployment of GRP booming tactics requires that the boom be effectively anchored and positioned so that it will divert, deflect, or exclude oil from the identified sensitive area (s). This exercise provided the chance to test the tactic and evaluate its effectiveness in this area and in these weather conditions. The diversion boom configuration in Assonet Bay (MHB-12) was deployed by two vessels (Dighton Harbormaster and Freetown Fire) and one shoreside team (multi-jurisdictional). On-water strike team elements coordinated their activities towing, anchoring, and positioning boom and generally worked well together throughout the deployment and retrieval phases of the exercise.

Following deployment of the modified DV01b strategy, a surrogate, in the form of peat moss, was used to simulate floating oil and assess the effectiveness of a diversionary booming strategy in this location. Surrogate was deployed upstream from the diversionary boom by personnel aboard the Dighton Harbormaster vessel. The surrogate was deployed in two upstream locations; relatively close to the upstream end of the boom anchored at the south shoreline of the river and farther upstream and across the river perpendicular to the center of the channel. The surrogate deployed near the boom was driven by the current into and along the boom face and collected at the desired collection point where the boom was anchored to the seawall. The surrogate deployed farther upstream was driven by the current along the northern shore of the river, around the point of land just west of the boat ramp, and eventually collected in the boat ramp. This demonstrated that in the absence of containment boom, the boat ramp area could be considered a natural collection point under certain conditions. The surrogate test validated the effectiveness of the DV01b strategy as modified.

**Recommendations:** Conduct future GRP deployment exercises to keep boom deployment skills current and to test GRP strategies at other locations. Improve boom deployment and tending skills by deploying existing GRPs that call for and incorporate boom arrays in different configurations and tending throughout the tide. Deployment of longer boom arrays and those that are relatively more complex (cascade arrays) should not be confused with towing longer sections of boom; a practice that is discouraged. For

towing purposes, both due to the relatively small size of vessel used by local first responders, harbor masters and others, and due to relative lack of boom towing experience amongst first responders, towed boom segments do not exceed 200 ft. Utilization of surrogate(s) to assess boom effectiveness should be incorporated as much as practicable in future exercises.

MassDEP will change the DV01b booming strategy for Assonet Bay (MHB-12) and update the GRP document.

## **Capability 4: WMD and Hazardous Materials Response and Decontamination**

**Capability Summary:** MassDEP has developed an oil spill response capacity throughout coastal regions of the state by providing oil spill response equipment trailers to local fire departments, developing GRPs (tactical plans to protect sensitive areas from oil spill impacts), and providing initial training to local first responders. This functional exercise provided a key link by allowing first responders from different agencies within the Boston Harbor region to work together to exercise their ability to deploy boom from an oil spill response trailer during a mock oil spill. This community-based spill response program requires that towns and agencies be able to work together, since a major oil spill may require significant mutual aid and assistance. This field exercise provided a realistic scenario for the agencies to work together to improve their spill response capacity.

### **Activity 4.1: Direct/Activate WMD and Hazardous material Response and Decontamination Tactical Operations**

#### **Observation 4.1:**

Strength: Participants from all three towns were assigned by the IC, participating fire chiefs, and the exercise controller to on-water strike teams and shoreside strike teams. The two on-water strike teams who were assigned to boom deployment were comprised of one Freetown Fire vessel and one Dighton Harbor Master vessel. The Dighton Harbor Master vessel included personnel from Berkley, Dighton, and Freetown to promote inter-jurisdictional cooperation. A third on-water strike team (Berkley Fire vessel) served as the safety vessel. The shoreside strike teams were also comprised of participants from different towns and worked well together throughout the exercise.

**References:** Homeland Security Exercise and Evaluation Program, Volume II, February 2007, National Incident Management System, GRP MHB-12

**Analysis:** The process of assigning responders to various strike teams provided an opportunity for the departmental leadership to consider the strengths and abilities of their responders for various spill response functions. The GRP provided a tactical plan that was ready for field implementation. Each team was comprised of responders from each participating community to promote interagency coordination. The Freetown Fire Chief

acted as IC and a Freetown Fire Department Lieutenant acted as Safety Officer.

**Recommendations:** Continue to promote inter-departmental coordination and cross-pollination during future GRP exercises. Adequate pre-planning and identification of personnel to fill key Command-level, Section, Division, and Group leadership positions is critical to exercise success and should be accomplished at the Final Planning Conference.

**Activity 4.2:** Demobilize WMD and Hazmat Response and Decontamination

**Observation 4.2:**

Strength: The boom was offloaded, staged, deployed, retrieved, rinsed and restowed without incident.

**References:** GRP MHB-12A

**Analysis:** Demobilization of boom can be time-consuming and tedious. In this exercise, demobilization and transport was done primarily by hand as the boom itself was deployed directly off the boat ramp at Hathaway Park with the oil spill equipment trailer immediately adjacent to the ramp. Long distance towing was not required either as the deployment location was immediately adjacent to the boat ramp. Responders worked well throughout this process, showing strong teamwork. Freetown Fire provided an engine to support boom rinsing.

**Recommendations:** None

## SECTION 4: CONCLUSION

This was a useful and successful exercise. Limitations in the ability to deploy the DV01b strategy as written were identified during the exercise-planning phase and modifications were made prior to the exercise as indicated above in the Executive Summary. This exercise exposed first responders to the unique challenges in deploying oil containment boom, familiarized them with the pre-positioned oil spill equipment provided to them by MassDEP, and provided an opportunity to work with other local municipalities. All three communities worked together seamlessly. The boom deployment was accomplished relatively quickly and safely under ideal weather conditions. Hathaway Park proved to be an adequate staging area.

Weather conditions for the GRP deployment exercise at Assonet Bay (MHB-12) were ideal. The current speed was negligible and there was very little wind, which made deployment and demobilization relatively easy. The group demonstrated the capability to assign participants to various roles, including IC, Safety Officer, vessel-based and shore responders, strike teams, and observers. Equipment from the Berkley Oil Spill Response trailer was deployed from vessels provided by all three communities, and participants became more familiar with deploying, setting, and demobilizing boom, anchors, and floats. The Incident Command communicated effectively and clearly with both vessel-based and shore-based responders. Interagency communications were successful, using handheld UHF radios and available Bristol County Fire Network Central

Lessons learned from this exercise included but were not limited to:

- Responders were able to work well in strike team setting that mixed responders from all three towns.
- The Assonet River and Assonet Bay is a popular destination for boaters, kayakers, and canoeists and Hathaway Park boat ramp is a convenient location for launching and retrieving. Local First Responders should be cognizant of this and, in the event of future exercises and or actual incidents, ensure that adequate notification is provided to locals identifying alternate launch or haul-out locations when Hathaway Park is utilized as a staging area.
- Exercise Facilitators and the Exercise Planning Team should structure these exercises in a way that provides a training benefit to First Responders who have never deployed oil spill containment boom before while at the same time incorporating ICS and incident management elements that allow first responders to direct certain aspects of exercise activity utilizing the skills they already possess.
- Additional equipment including additional crown anchor buoys and lines as well as D-rings can make towing, setting, and adjusting the boom easier for First Responders. This additional equipment is not currently provided in the pre-positioned trailers.
- Hathaway Park is a good staging area and Freetown Fire Department Station 1 is an adequate potential temporary Incident Command Post.



## APPENDIX A: IMPROVEMENT PLAN

This IP has been developed specifically for Massachusetts, Essex and Suffolk Counties, as a result of the Massachusetts Department of Environmental Protection Assonet Bay (MHB-12) Geographic Response Plan Exercise conducted on August 12, 2013. These recommendations draw on both the After Action Report and the After Action Conference.

### Improvement Plan Matrix

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
Capability 3: On-Site Incident Management	1. Incident Command/Incident Management objectives not fully exercised.	3.1 Balance exercise design to facilitate training while incorporating incident management objectives	3.1.1 Design and staff exercises with appropriate training and incident management elements and objectives	On-Site Incident Management	MassDEP	DEP representative	August 2013	August 2014
Capability 3: On-Site Incident Management	2. Vessel and shore-based strike teams work well together to deploy tactic/strategy	3.2 Existing DV-01b strategy was modified prior to exercise	3.2.2 MassDEP will change the DV01b booming strategy for Assonet Bay (MHB-12) and update the GRP document.	On-Site Incident Management	MassDEP	DEP representative	August 2013	August 2014





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## APPENDIX B: LESSONS LEARNED

While the After Action Report/Improvement Plan includes recommendations which support development of specific post-exercise corrective actions, exercises may also reveal lessons learned which can be shared with the broader homeland security audience. The Department of Homeland Security (DHS) maintains the *Lessons Learned Information Sharing* (LLIS.gov) system as a means of sharing post-exercise lessons learned with the emergency response community. This appendix provides jurisdictions and organizations with an opportunity to nominate lessons learned from exercises for sharing on *LLIS.gov*.

For reference, the following are the categories and definitions used in LLIS.gov:

- **Lesson Learned:** Knowledge and experience, positive or negative, derived from actual incidents, such as the 9/11 attacks and Hurricane Katrina, as well as those derived from observations and historical study of operations, training, and exercises.
- **Best Practices:** Exemplary, peer-validated techniques, procedures, good ideas, or solutions that work and are solidly grounded in actual operations, training, and exercise experience.
- **Good Stories:** Exemplary, but non-peer-validated, initiatives (implemented by various jurisdictions) that have shown success in their specific environments and that may provide useful information to other communities and organizations.
- **Practice Note:** A brief description of innovative practices, procedures, methods, programs, or tactics that an organization uses to adapt to changing conditions or to overcome an obstacle or challenge.

### Exercise Lessons Learned

The entire MassDEP GRP development and testing program should be considered a best practice as it provides a model for other states to follow. This program is unlike any other in the country in that it provides a comprehensive method to:

- Develop and test Geographic Response Plans for oil spills
- Train first responders on boom deployment basics as well as specific GRP tactics

Additionally, MADEP:

- Provides equipment in the form of pre-positioned and fully stocked pollution response trailers that are assigned to select Massachusetts coastal communities
- Provides long-term maintenance and support of the equipment via a maintenance and equipment replacement program

This program has proven highly successful and garnered praise from the international community. In 2011, MADEP and Nuka Research and Planning Group, (the contractor

overseeing the project) submitted a white paper (later approved and entered as a poster) at the International Oil Spill Conference in Portland, OR in 2011. The poster was entitled “Approaches to Development and Testing of Geographic Response Plans in Massachusetts and Rhode Island” and won first place in the Preparedness category.

## APPENDIX C: EXERCISE EVALUATION FORM

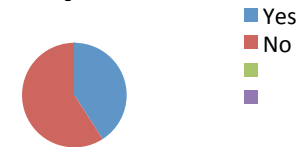
**Massachusetts GRP Deployment Exercise - EVALUATION**

<b>Mount Hope Bay Region GRP: Mount Hope Bay (SS-12)</b>		
<b>Towns: Berkley, Dighton, Freetown</b>		<b>Test date: August 12, 2013</b>
Instructions to Evaluators: 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.		<input type="checkbox"/> <input type="checkbox"/>
2. I have a better understanding of spill response tactics than I did prior to this exercise.		<input type="checkbox"/> <input type="checkbox"/>
3. I would participate in future oil spill response equipment or Geographic Response Plan deployments at other sites.		<input type="checkbox"/> <input type="checkbox"/>
4. The objectives were clearly explained and the deployment exercise met the objectives.		<input type="checkbox"/> <input type="checkbox"/>
5. The exercise was conducted safely.		<input type="checkbox"/> <input type="checkbox"/>
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 <b>Hathaway Park</b> worked for deploying and demobilizing boom from the trailer for this deployment: ___ Ideal staging area for boom for this tactic. ___ Sufficient as a staging area for boom for this tactic. ___ Not sufficient 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**

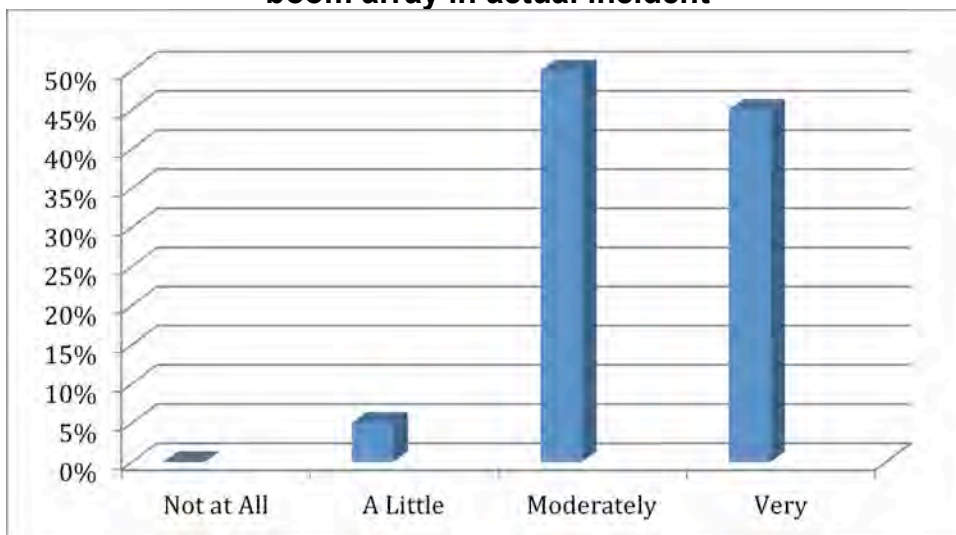
	Yes	No
Prior Oil Spill Experience	41%	59%
More Prepared after Exercise	95%	5%
Better Understanding of Deploying Spill Response Tactics	95%	5%
Participate in Future GRP Deployments	100%	0%
Field Objectives Clearly Explained and/or Met	100%	0%

### Prior Spill Experience



22 Respondents

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



### Hathaway Park as Staging Area



## APPENDIX D: EXERCISE EVENTS SUMMARY TABLE

### Schedule of Events

Time	Personnel	Activity	Location
<b>August 12, 2013</b>			
0800	All	Mobilize and Stage Equipment	Freetown FD/ Hathaway Park
0900	All	Conduct Operational Overview/Briefing	Freetown FD Station 1
1030	All	Mobilize to Hathaway Park	Freetown FD Station 1
1045	All	Conduct equipment familiarization (at Oil Spill equipment trailer)	Hathaway Park
1115	All	Safety and Operational Briefing	Hathaway Park
1130	All	Deploy modified Diversion (DV) tactic at DV01b. Evaluate configuration.	Hathaway Park/Assonet River
1230	All	<b>LUNCH</b>	Hathaway Park/Assonet River
1300	All	Deploy surrogate (peat moss) and evaluate effectiveness of DV01b strategy	Hathaway Park/Assonet River
1315	All	Demobilize DV01b, rinse and repack equipment	Hathaway Park/Assonet River
1345	All	Hot Wash/Complete and turn in all Participant Feedback Forms	Hathaway Park
1400	All	Demobilize/Adjourn	Hathaway Park
<b>Upon completion of the DRAFT AAR</b>			
Not time specific	Controllers, evaluators, and elected and appointed officials	Controller and Evaluator After Action Review	Via E-mail

### Tides (Fall River, MA – 12AUG13)

HIGH				LOW			
AM	ft	PM	ft	AM	ft	PM	ft
<b>12:03</b>	4.5	<b>12:35</b>	4.9	<b>5:10</b>	0.2	<b>5:47</b>	0.5

## APPENDIX E: ACRONYMS

### Acronym Table

Acronym	Meaning
DV	Diversion booming
EPT	Exercise Planning Team
EMA	Emergency Management Agency
FPC	Final Planning Conference
GRP	Geographic Response Plan
IAP	Incident Action Plan
IPC	Initial Planning Conference
IC	Incident Command(er)
LL	Lessons Learned
MassDEP	Massachusetts Department of Environmental Protection
MPC	Mid-Planning Conference
MHB	Mount Hope Bay
SRPEDD	Southeast Regional Planning & Economic Development District
TCL	Target Capabilities List
UHF	Ultra High Frequency
USCG	United States Coast Guard
VHF	Very High Frequency