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# MassDEP Geographic Response Plan – 2018 Dartmouth/Westport First Responder Exercise

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After Action Report  
May 08, 2018

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

<b>Exercise Name</b>	2018 Dartmouth/Westport First Responder Exercise
<b>Exercise Date</b>	May 8, 2018
<b>Scope</b>	This exercise is a Full Scale Exercise, planned for approximately six hours in Dartmouth, MA and upon the waters of the Apponagansett River. Exercise play is limited to the Apponagansett River and the adjacent shoreline.
<b>Mission Area(s)</b>	Response
<b>Core Capabilities</b>	Environmental Response/Health and Safety, Operational Coordination, Operational Communications.
<b>Objectives</b>	<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 execution of an Incident Briefing (ICS 201) 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, harbormasters, and other state and federal first responders using VHF and UHF communications.</p>
<b>Threat or Hazard</b>	Discharge of oil into a navigable waterway
<b>Scenario</b>	An oil spill has occurred that threatens the Apponagansett Bay in the vicinity of Apponagansett River. The Dartmouth and Westport Fire Departments and Harbormaster staffs will deploy protective booming to protect sensitive resources in the Apponagansett River.
<b>Sponsor</b>	Massachusetts Department of Environmental Protection (MassDEP).

**Participating Organizations**

Participating organizations will include:

- Dartmouth District 1 Fire Department (DFD1)
- Dartmouth District 2 Fire Department (DFD2)
- Dartmouth Harbormaster (DHM)
- Westport Fire Department (WFD)
- MassDEP
- U.S. Coast Guard Sector Southeastern New England (USCG)
- Moran Environmental Recovery (MER)
- Nuka Research and Planning Group, LLC (Nuka Research)

Nuka Research and Planning Group, LLC (Nuka Research) Note: See Appendix B for participant count.

**Point of Contact**

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First responders from Dartmouth and Westport attend classroom instruction prior to deploying boom in Apponagansett Bay.



Dartmouth Harbormaster and Fire Department (District 1) vessels work together to deploy boom.



Photos courtesy of Nuka Research & Planning Group

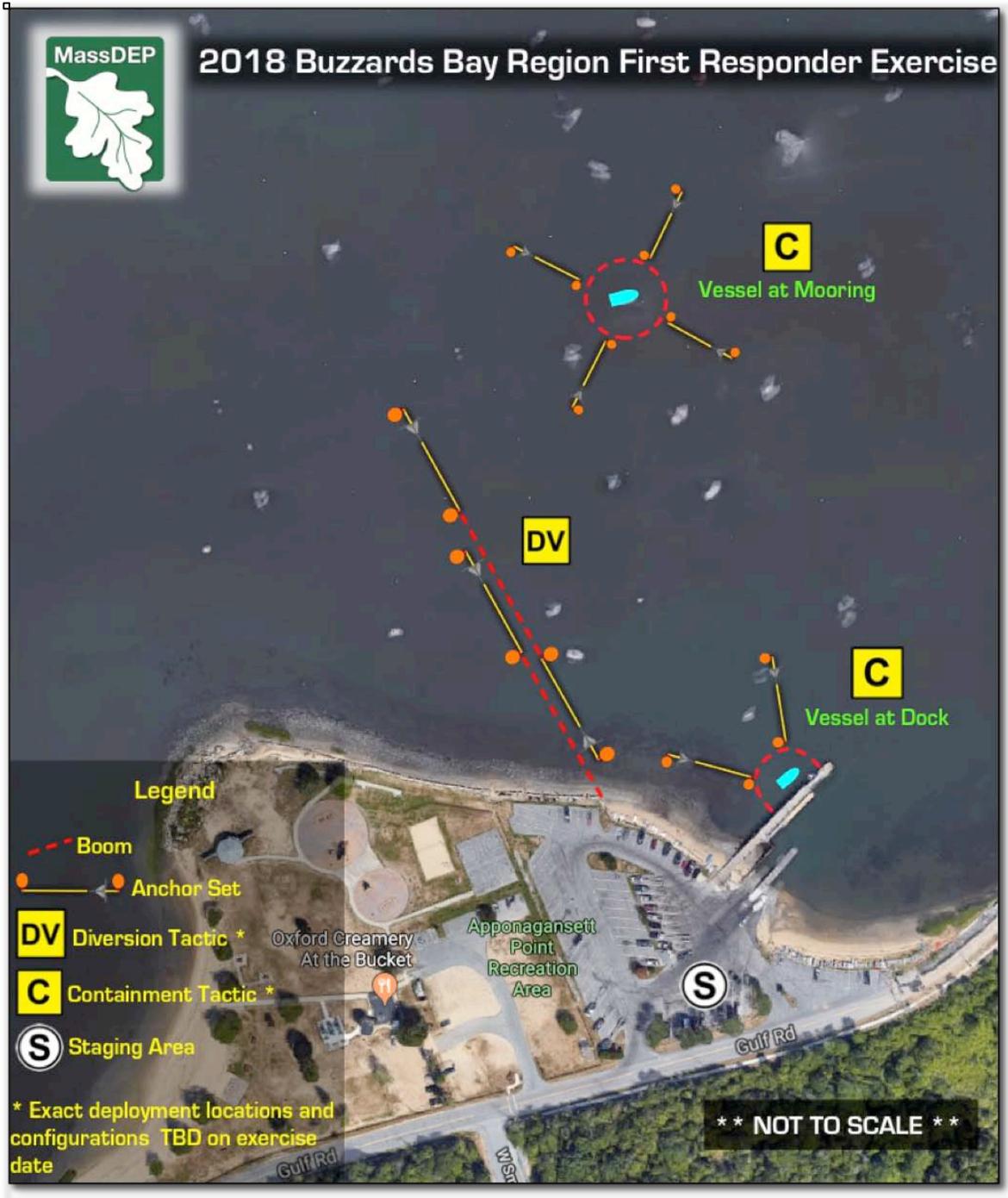


Figure 1. Tactical Plan for Dartmouth/Westport First Responder Exercise

## 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 execution of an Incident Briefing (ICS 201) 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, police and harbor master departments using VHF and UHF communications	Operational Communications	P			
<p><b>Ratings Definitions:</b></p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> <li>• 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).</li> </ul>					

**Table 1. Summary of Core Capability Performance**

Core Capability	Organizational Capability Target	Associated Critical Tasks	Observation Notes
<b>Environmental Response/ Health and Safety</b>	<b>Overview of Response Equipment</b>	<ul style="list-style-type: none"> <li>• Access Mass DEP Trailer</li> <li>• Identify boom and sorbents</li> <li>• Connect boom together</li> <li>• Connect towing bridle to boom</li> <li>• Connect components of anchor system together</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Performed Without Challenges (P)</b></li> <li>• Performed without Challenges (P)</li> <li>• Active participation by all exercise players in trailer equipment demonstrations. Use of skill stations resulted in increased engagement of participants.</li> <li>• MassDEP trailers were easily accessible and marked. All boom components identified and discussed for instructional purposes. All response equipment readily available and in good condition with the following exceptions:</li> <li>• There was not a post driver in the Dartmouth District 2 trailer. <b>Recommendation:</b> <u>Provide a post driver for the Dartmouth District 2 trailer.</u></li> <li>• There were only three anchors in the Dartmouth District 2 trailer. <b>Recommendation:</b> <u>Provide additional anchors for the Dartmouth District 2 trailer.</u></li> <li>• Participation by the Fire and Harbormaster Departments from Dartmouth and Westport were excellent and they worked well together. All exercise participants were extremely engaged and actively involved.</li> </ul>
	<b>Basic Booming Operations</b>	<ul style="list-style-type: none"> <li>• Transport and tow boom.</li> <li>• Anchoring and Connecting boom to shore</li> <li>• Safe vessel and crew operations. (Refer to ICS-208)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Performed Without Challenges (P)</b></li> <li>• Participants were very proficient with boom connection and anchoring. Shore team did an outstanding job on the shore anchor. Boom was effectively anchored to the shore for the diversion tactic.</li> <li>• Trailer team worked well together. They successfully deployed boom from the Dartmouth Fire District 2 trailer and recovered/decontaminated it as well.</li> <li>• All boat operators were extremely skillful when towing boom during diversion and containment evolutions.</li> <li>• Trip lines were used and this made anchoring evolutions much safer and adjustments much easier.</li> <li>• Safety officer did an excellent job. No safety issues observed.</li> </ul>
	<b>Implement Tactics</b>	Diversion Boom	<ul style="list-style-type: none"> <li>• <b>Performed Without Challenges (P)</b></li> <li>• Diversion tactic modified by environmental conditions in an easterly direction due to wind and current conditions. Modification extremely successful in capturing surrogate when it was deployed. Shore teams outstanding in deploying and recovering boom. Trailer team worked very effectively to recover boom while containment tactic was being deployed.</li> <li>• Jet skis were effectively used in several instances during this exercise. They provided a security presence, were able to operate in very shallow water and were used to deploy the surrogate.</li> </ul>

	<b>Implement Tactics (cont)</b>	Containment Boom	<ul style="list-style-type: none"> <li>• <b>Performed without Challenges (P)</b></li> <li>• Containment boom was deployed around mooring ball simulating a vessel leaking oil. Response vessels effectively contained the simulated vessel. Shape of containment boom took some time to develop and the boat crews learned many lessons. Trip lines were used to effectively create a narrow triangle shape to contain simulated spilled oil. Improved methods to deploy containment tactics were discussed in the hot wash.</li> </ul>
<b>Operational Coordination</b>	<b>Create and Execute An Assignment List (ICS 201)</b>	<ul style="list-style-type: none"> <li>• Fill out ICS 201</li> <li>• Assignments in ICS 201 are followed and on-scene adjustments.</li> <li>• Participants demonstrate command and control of exercise</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Performed without Challenges (P)</b></li> <li>• IC and Safety Officer were very effective in directing the exercise, which involved multiple assets and multiple towns. All units operated in a safe manner.</li> <li>• Tasking was clear. Assignments were followed and adjustments were rapidly/effectively made by boat crews and shore teams.</li> </ul>
<b>Operational Communications</b>	<b>Effectively Communicate Using VHF equipment</b>	<ul style="list-style-type: none"> <li>• Create Communications Plan</li> <li>• Communicate with other participants using organic UHF or VHF equipment</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Performed without Challenges (P)</b></li> <li>• Communications plan was followed as designed. All participants used the Fireground frequencies on portable radios or voice communications when appropriate for exercise communications.</li> </ul>

Table 2. Summary of Organizational Capability Targets and Associated Critical Tasks

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:** Participation by the Fire, Police and Harbormaster Departments from Dartmouth and Westport were excellent and they worked well together. All exercise participants were extremely engaged and actively involved.

**Strength 2:** Hands on training at multiple stations was very effective. Many participants had never connected the boom together. The anchor station benefitted greatly from the diagram/job aid depicting how to put together an anchor system.

#### **Areas for Improvement**

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

**Area for Improvement 1:** Provide a post driver and additional anchors for the Dartmouth District 2 trailer.

**Reference:** Massachusetts GRP Tactics Guide.

**Analysis:** All equipment was readily available in both trailers with the exception of the post driver. Also, there were only 3 anchors in the trailer. At least 2 additional anchors would provide more flexibility in deploying the 500 feet of boom located in the trailer.

## **Objective 2: Demonstrate the ability to assemble a spill response organization utilizing Incident Command System (ICS) principles through development and execution of an Incident Briefing (ICS 201) and implementation of on-site incident management and tactical operations.**

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:** The Incident Commander and Safety Officer were very effective in directing the exercise, which involved multiple assets and multiple towns. Tasking was clear. Assignments were followed and adjustments were rapidly/effectively made by boat crews and shore teams. All units operated in a safe manner.

#### **Areas for Improvement**

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

**Area for Improvement 1:** None

**Reference:** N/A

**Analysis:** N/A

## **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 VHF communications**

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

### **Core Capability 3: Operational Communications**

#### **Strengths**

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

**Strength 1:** Communications plan was followed as designed. All participants used the Fireground frequencies on portable radios or voice communications when appropriate for exercise communications.

## Areas for Improvement

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

**Area for Improvement 1:** None

**Reference:** N/A

**Analysis:** N/A

Dartmouth and Westport first responders set up a shore anchor to fasten boom to the shoreline.



Photo courtesy of Nuka Research & Planning Group

Westport Fire Department jet skis tow boom off the shore in shallow water.



Photo courtesy of Nuka Research & Planning Group

The Incident Commander provides an operational brief prior to deploying boom.



Photo courtesy of Nuka Research & Planning Group

Exercise participants get hands on experience connecting boom segments together.



Photo courtesy of Nuka Research & Planning Group

## APPENDIX A: IMPROVEMENT PLAN

This IP has been developed specifically for the municipalities of Dartmouth and Westport following the MassDEP GRP Exercise conducted on May 8, 2018.

Core Capability	Issue/Area for Improvement	Corrective Action	Capability Element <sup>1</sup>	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Core Capability 1: Environmental Response/Health and Safety	1. Post Pounder for Dartmouth District 2 trailer	Provide a post driver for the Dartmouth District 2 trailer.	Equipment	MER	John Duponte	6/01/18	9/15/18
	2. Anchors for Dartmouth District 2 trailer	Provide additional anchors for the Dartmouth District 2 trailer.	Equipment	MER	John Duponte	6/01/18	9/15/18
Core Capability 2: Operational Coordination	None.	None.	N/A	N/A	N/A	N/A	N/A
Core Capability 3: Operational Communications	None.	None.	N/A	N/A	N/A	N/A	N/A

<sup>1</sup> Capability Elements are: Planning, Organization, Equipment, Training, or Exercise.

## APPENDIX B: EXERCISE PARTICIPANTS

Participating Organizations	
Town of Dartmouth, MA	Participant Count
Dartmouth Fire Department (District 1)	8
Dartmouth Fire Department (District 2)	9
Dartmouth Harbormaster	1
Town of Westport, MA	
Westport Fire Department	9
<b>TOWN PARTICIPANTS</b>	<b>27</b>
Federal	
United States Coast Guard (USCG)	2
State	
Massachusetts Department of Environmental Protection (MassDEP)	2
Nuka Research and Planning Group, LLC (contractor for MassDEP)	3
Moran Environmental Recovery (contractor for MassDEP)	2
<b>TOTAL</b>	<b>36</b>

41% of first responders reported having previous GRP exercise experience.

# APPENDIX C: EXERCISE EVALUATION FORM

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**MassDEP  
Geographic Response Plan (GRP)  
Exercise and Testing Program**

**Participant Feedback Form**

<b>1</b> Strongly disagree	<b>2</b> Mildly disagree	<b>3</b> Neutral	<b>4</b> Mildly agree	<b>5</b> Strongly agree
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Please use the above rating scale to answer the questions for each of the following topics.

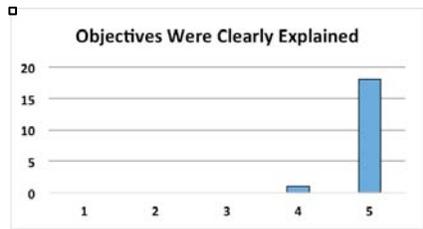
The objectives were clearly explained and the exercise met those objectives.	1   2   3   4   5
Comments:	
The material appropriately challenged me and the pace of instruction was correct.	1   2   3   4   5
Comments:	
The instructor(s) did an excellent job.	1   2   3   4   5
Comments:	
I found the classroom to be a comfortable learning environment.	1   2   3   4   5
Comments:	
I feel more prepared to respond to an oil spill than I did before this exercise.	1   2   3   4   5
Comments:	
The best thing about this training was _____.	
This training could have been improved by _____.	

Please use the back of the sheet if you need more room for comments.

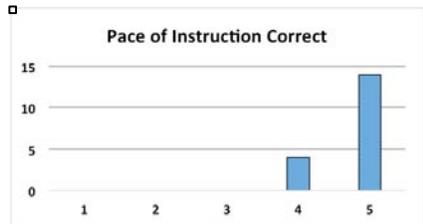
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### Student Feedback Summary



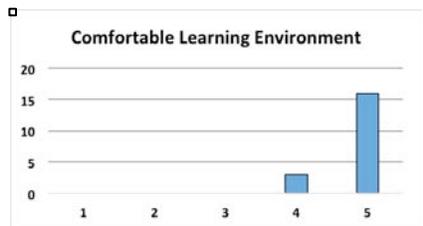
Comments: None



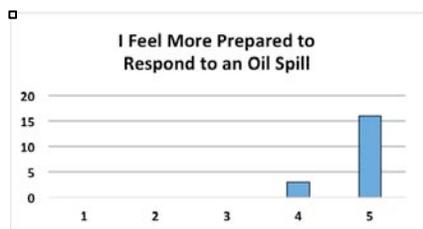
Comments: None



Comments: None



Comments: None



Comments: "Great Experience. Glad I was apart of it" "My 3rd training course. Much needed in my town of Westport"

**The best thing about this training was...** "Everything, hands on learning moreso" "hands on training" "team work" "going out on the boat" "refresher" "the teamwork" "practice + Networking w/ colleagues" "Practical" "the adaptability" "being outdoors" "hands on" "hands on" "the hands on" "hands on" "hands on" "demo" "comfortable environment. Always learning something new" "

**This training could be improved by....** "N/A" "not really" "more boats" "having 1 or more anchormen in a wet suit to help feed line to the guys on the Jet Ski's" "establishing precise depths for proper anchor setting." "more jet skis" "more challenging spill containment" "challenged to control a fire simulated spill" "nothing" "Annual local training would be useful"