



MassDEP Geographic Response Strategy* –2020 Marion First Responder Exercise

After Action Report

October 22, 2020

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.

COVID-19 Compliance - This exercise was conducted during the COVID 19 pandemic and all Commonwealth of Massachusetts Executive Orders and associated social distancing, face covering, and indoor and outdoor gathering requirements were strictly adhered to.

***Note: In keeping with national trends across federal and state agencies involved in oil spill response planning, and in the interest of standardizing terminology, MassDEP Geographic Response Plans (GRP) will now be referred to as Geographic Response Strategies (GRS).**

EXERCISE OVERVIEW

Exercise Name	2020 Marion First Responder Exercise
Exercise Date	October 22, 2020
Scope	This exercise was a Full-Scale Exercise, planned for approximately six hours in Marion, MA and upon the waters of Sippican Harbor. Exercise play was limited to the western side of Sippican Harbor in the vicinity of Island Wharf.
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 Strategy (GRS) 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, harbor masters, and other state and federal first responders using VHF and UHF communications.</p>
Threat or Hazard	Discharge of oil into a navigable waterway
Scenario	An oil spill has occurred that threatens Sippican Harbor. The Marion Fire Department and Harbor master staff will utilize standard Massachusetts GRS booming tactics to protect sensitive resources in Sippican Harbor and the surrounding area.
Sponsor	Massachusetts Department of Environmental Protection (MassDEP).

Participating Organizations

Participating organizations will include:

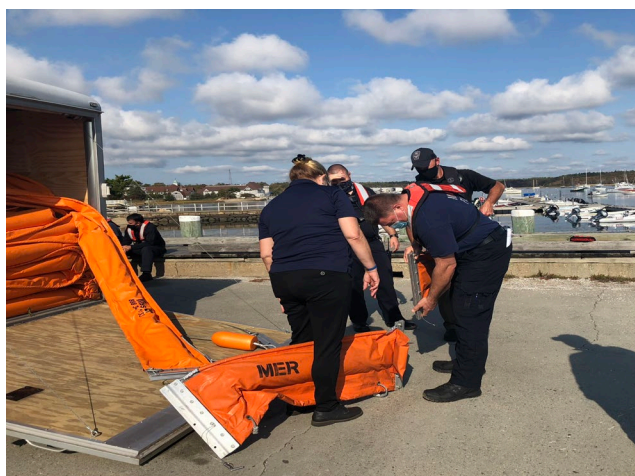
- Marion Fire Department (MFD)
- Marion Harbormaster (MHM)
- Barden’s Boat Yard
- Burr Brothers Boats
- River Hawk Environmental
- Saltworks Marine
- Tabor Academy – SSV TABOR BOY Crew
- MassDEP
- U.S. Coast Guard Sector Southeastern New England (USCG)
- Moran Environmental Recovery (MER)
- Nuka Research and Planning Group, LLC (Nuka Research)

Note: See Appendix B for participant count

Point of Contact

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Marion Fire Department personnel participate in hands-on training to assemble the boom



Marion Fire Department’s acting Incident Commander gives deployment briefing



Photos courtesy of Nuka Research & Planning Group

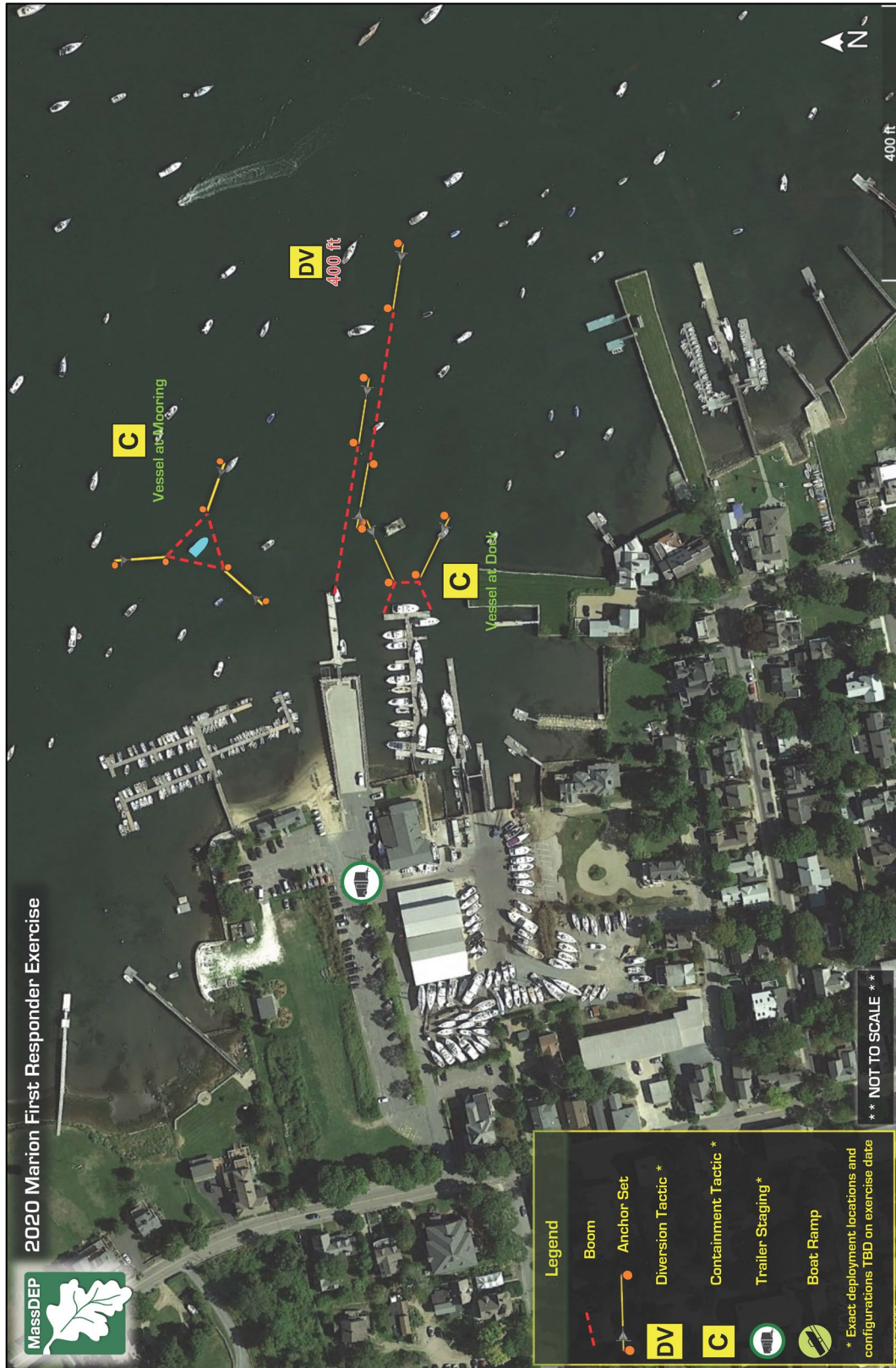


Figure 1. Exercise Tactics Map

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 Strategy (GRS) 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 harbormaster departments using VHF and UHF communications	Operational Communications	P			
<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 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). 					

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 equipment was readily available in both trailers. Participation during hands-on training at multiple stations was excellent.
	Basic Booming Operations	<ul style="list-style-type: none"> Transport and tow boom. Anchoring and Connecting boom to shore Safe vessel and crew operations. (Refer to ICS-208) 	<ul style="list-style-type: none"> Performed Without Challenges (P) Anchoring requirements were determined once on-scene and after evaluating both the vessel to be boomed (containment booming strategy), and the diversion strategy configuration to be deployed. Anchor systems were configured and set-up quickly and efficiently, and adjustments to on-water anchoring were quickly made during both deployments. Boom towing and anchoring were conducted safely. Safety practices for working around the water were followed at all times.
	Implement Tactics in GRS	<ul style="list-style-type: none"> Deploy containment around a vessel at a mooring Deploy diversion boom (DV) cascade array (not associated with a GRS) 	<ul style="list-style-type: none"> Performed Without Challenges (P) Deployment of boom around a vessel at a mooring (a 30 ft work barge) was safely and effectively performed. Deployment of a 200 ft cascade diversion boom array was successfully deployed
Operational Coordination	Create and Execute an Assignment List (ICS 201)	<ul style="list-style-type: none"> Fill out ICS 201 Assignments in ICS 201 are followed and on-scene adjustments were made as necessary. Participants demonstrate command and control of exercise 	<ul style="list-style-type: none"> Performed Without Challenges (P) The IC clearly outlined an intended operations plan and personnel assignments were made for shoreside and vessel teams. Coordination between shoreside and vessel teams was good despite some confusion when transitioning between the containment and diversion boom deployments (in terms of how/where to break containment boom sections, towing responsibilities, and assignments between two boats). This however was more an exercise-induced artificiality which would not normally be encountered during an actual incident.
Operational Communications	Effectively Communicate Using VHF equipment	<ul style="list-style-type: none"> Create Communications Plan Communicate with other participants using organic VHF equipment 	<ul style="list-style-type: none"> Performed without Challenges (P) The established communications plan was followed and communications, using VHF Channel 10 as well as voice communications when appropriate, were clear, concise, and timely throughout the exercise. Participants did note some comms confusion when transitioning between each on-water booming evolution but as noted above, this was more of an exercise-induced artificiality. No hardware or infrastructure issues were encountered.

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 (GRS) 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 and coordination by the Marion Fire Department and Harbormaster staff was excellent and both worked well together.

Strength 2: Participation during hands-on training at multiple stations was excellent.

Strength 3: Deployment of boom around a vessel at a mooring (a 30 ft work barge) and deployment of a 200 ft cascade diversion boom array were safely and effectively performed. Vessel crews and shore teams from both departments worked extremely well together. It must be noted that both Marion FD and Marion Harbormaster have worked well together both during past GRP exercises as well as actual oil spill incidents in and around Marion and Sippican Harbor which contributed to the success of this field exercise.

Areas for Improvement

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

Area for Improvement 1: N/A

Reference: N/A

Analysis: N/A

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: Overall operational coordination between exercise players was effective and well communicated.

Areas for Improvement

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

Area for Improvement 1: N/A

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, harbormasters, 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: The established communications plan was followed and communications, using VHF Channel 10 as well as voice communications when appropriate, were clear, concise, and timely throughout the exercise. Participants did note some comms confusion when transitioning between each on-water booming evolution but as noted above, this was more of an exercise-induced artificiality. No hardware or infrastructure issues were encountered.

Areas for Improvement

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

Area for Improvement 1: N/A

Reference: N/A

Analysis: N/A

Participants of the shore team deploys the equipment while the on-water team prepares to tow the boom



The on-water team tows an anchor system to set the containment strategy around the dredge



Containment boom around the anchored dredge successfully deployed



Diversion boom successfully deployed



Photos courtesy of Nuka Research & Planning Group

APPENDIX A: IMPROVEMENT PLAN

This IP has been developed specifically for the town of Marion, MA following the MassDEP First Responder Exercise conducted on October 22, 2020.

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	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Core Capability 2: Operational Coordination	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Core Capability 3: Operational Communications	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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

APPENDIX B: EXERCISE PARTICIPANTS

Participating Organizations	
Town of Marion, MA	Participant Count
Marion Fire Department	7
Marion Harbormaster	3
Port Partners - Marion, MA	
Barden's Boat Works	2
Burr Brothers Boats	1
River Hawk Environmental	1
Saltworks Marine	2
Tabor Academy – SSV TABOR BOY Crew	1
TOWN PARTICIPANTS	17
Federal	
United States Coast Guard	1
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
TOTAL	25

APPENDIX C: EXERCISE EVALUATION FORM



MassDEP Geographic Response Plan (GRP) Exercise and Testing Program

Participant Feedback Form

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

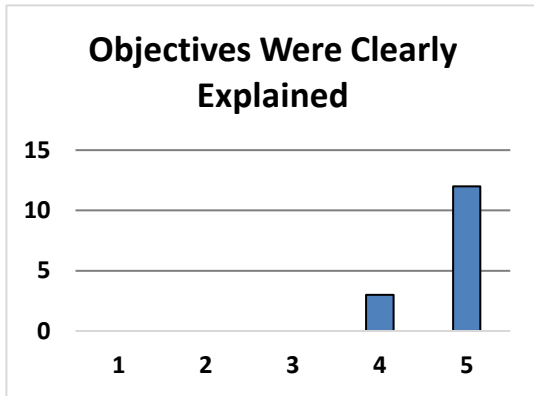
The objectives were clearly explained and the exercise met those objectives.	1 2 3 4 5
Comments:	
The material appropriately challenged me and the pace of instruction was correct.	1 2 3 4 5
Comments:	
The instructor(s) did an excellent job.	1 2 3 4 5
Comments:	
I found the classroom to be a comfortable 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.

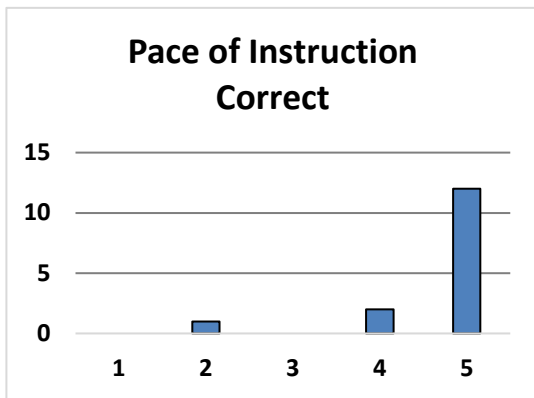
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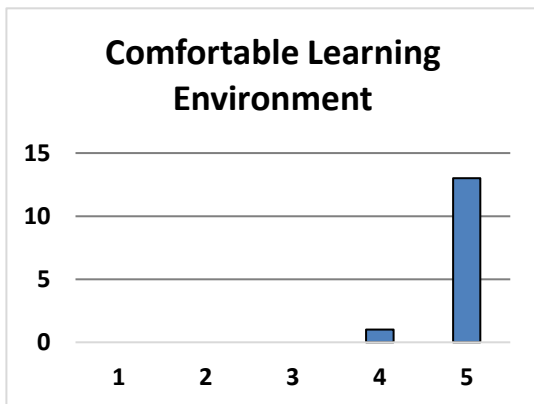
Student Feedback Summary



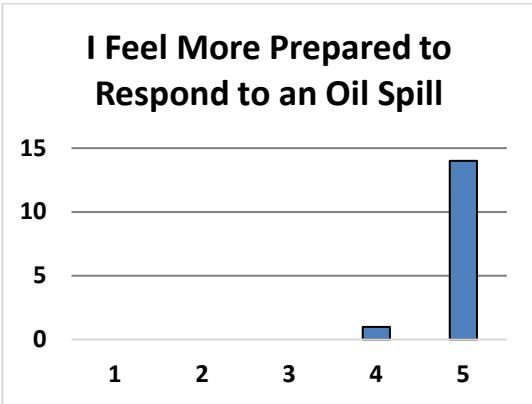
Comments: None



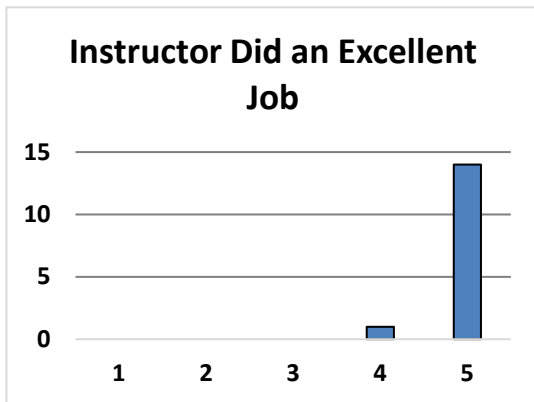
Comments: None



Comments: None



Comments: "Excellent job!",
"Great training"



Comments: "Well done, great
practice experience"

The best thing about this training was... "Hands on", "re-familiarization", "Hands on approach", "Hands on", "Hands on drills", "Good job engaging people during classroom", "Hands on and knowledgeable staff", "Hands on", "On the water", "Station to touch gear out of trailer", "Practical application was excellent", "Hands on"

This training could be improved by... "More deployment", "More time", "More command communication on the water", "Nothing to change", "No improvements suggested", "More hands on/ on water time"