



MassDEP Geographic Response Plan – 2018 Pamet Harbor (CI-06) Exercise

After Action Report

May 16, 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

Exercise Name	2018 Pamet Harbor (CI-06) Exercise
Exercise Date	May 16, 2018
Scope	This exercise was a Full Scale Exercise, planned for approximately six hours in Truro, MA and upon the waters of Pamet Harbor and the Pamet River. Exercise play was limited to Pamet Harbor, the Pamet River, and the 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 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>
Threat or Hazard	Discharge of oil into a navigable waterway
Scenario	An oil spill has occurred that threatens the Pamet River in the vicinity of Pamet Harbor. The Truro, Provincetown and Wellfleet Fire Departments and Harbormaster staffs will utilize GRP CI-06 to deploy protective booming to protect sensitive resources in Pamet Harbor and the Pamet River.
Sponsor	Massachusetts Department of Environmental Protection (MassDEP).

Participating Organizations

Participating organizations included:

- Truro Fire Department (TFD)
- Truro Harbormaster (THM)
- Provincetown Fire Department (PFD)
- Provincetown Harbormaster (PHM)
- Wellfleet Fire Department (WFD)
- Wellfleet Harbormaster (WHM)
- Cape Cod National Seashore (CCNS)
- Barnstable County All-Hazards Incident Management Team (BCAHIMT)
- 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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Oil surrogate (peat moss) is collected by boom in the Pamet River



An operations brief is provided by the Incident Commander prior to deploying oil spill boom.



Photos courtesy of Nuka Research & Planning Group



Figure 1. Pamet Harbor GRP (CI-06)

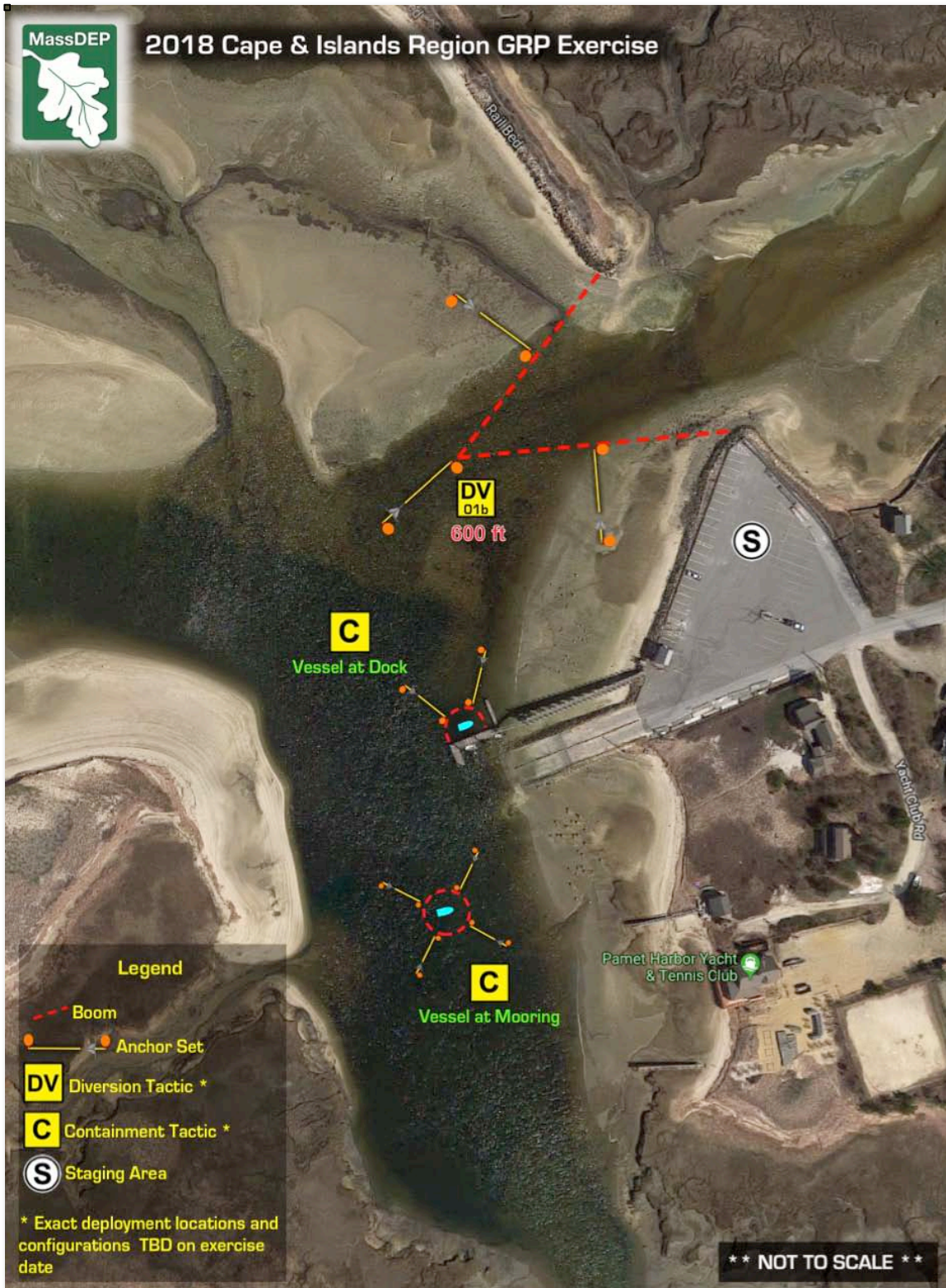


Figure 2. CI-06 DV-01b Tactic

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>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) • Active participation by all exercise players in trailer equipment demonstrations. Use of skill stations resulted in increased engagement of participants. • MassDEP trailers were easily accessible. All response equipment readily available and in good condition with the exception that there was no post driver in the Wellfleet and Truro trailers. Recommendation: <u>Provide a post driver for the Wellfleet and Truro trailers during the next annual inspection.</u> • Participation by the Fire and Harbormaster Departments from Truro, Wellfleet and Provincetown were excellent and they worked well together. All exercise participants were extremely engaged and actively involved. • The Pamet Harbor Yacht Club was an outstanding classroom location. Their support for this exercise is greatly appreciated.
	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) • All operations conducted in a safe manner. • Shore anchor teams on the north and south shores of the Pamet River were outstanding. The north team (Wellfleet FD) built a shore anchor and the south team (Coast Guard) tied the boom off to a guard rail. The south team adjusted the shore anchor to provide for a better movement of surrogate to the shore side collection point. • Line tossing was used to transfer boom tag line from the shore to towing vessels. Mooring balls were used to provide weight to the heaving line. Heaving balls would be very useful in facilitating a more effective transfer. • Boom successfully deployed from trailer by the trailer team (CCNS/AmeriCorps personnel). • All boat operators were extremely skillful when towing boom during diversion and containment evolutions. • Trip lines were used and this made anchoring evolutions much safer and adjustments much easier. Recommend continuing with program for providing all trailers with trip lines. • Safety officer did an excellent job. No safety issues observed.
	Implement Tactics in GRP	Diversion Boom (DV-01b)	<ul style="list-style-type: none"> • Performed Without Challenges (P) • DV-01b (flood tide tactic) was modified by the IC. It was changed to an ebb tide tactic based on the tide conditions. This essentially involved rotating the tactic so the chevron pointed to the east. Outstanding task orders provided to boat crews, shore teams & trailer team in deploying and recovering boom. • GRP tactic extremely effective in recovering surrogate during an ebb tide. Surrogate moved toward shoreside recovery point on the south side of DV-

			<p>01b as designed.</p> <ul style="list-style-type: none"> Exercise participants noted that there were shellfish beds in the areas designated as shore side recovery areas. As a result, it's recommended that this tactic should only be deployed in the event that DV-01a cannot be deployed. Recommendation: <u>Change DV-01b to DV-01a-alt to indicate that it would be preferable to deploy DV-01a to prevent oil from entering Pamet Harbor and modify comments in the special considerations section to reflect this situation.</u>
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. Participants demonstrate command and control of exercise 	<ul style="list-style-type: none"> Performed without Challenges (P) IC was very effective in directing the exercise, which involved multiple assets and multiple towns. All units operated in a safe manner. Tasking was clear. Assignments were followed and adjustments were rapidly/effectively made by boat crews and shore teams The large-scale printout of the GRP was extremely useful for the IC to use during the exercise operations brief and hot wash. Special thanks to the Department of Fire Services for providing the Incident Support Unit (ISU) and the Rehab Unit.
Operational Communications	Effectively Communicate Using VHF equipment	<ul style="list-style-type: none"> Create Communications Plan Communicate with other participants using organic UHF and VHF equipment 	<ul style="list-style-type: none"> Performed without Challenges (P) Communications plan was followed as designed. All participants used the identified frequencies or voice communications when appropriate for exercise communications. The ISU cross-patched Ops Channel 3 (Fireground) with Marine 17 for seamless communications between UHF and VHF radios.

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 and Harbormaster Departments from Truro, Wellfleet and Provincetown were excellent and they worked well together. All exercise participants were extremely engaged and actively involved.

Strength 2: The Pamet Harbor Yacht Club was an outstanding classroom location. Their support for this exercise is greatly appreciated.

Areas for Improvement

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

Area for Improvement 1: Provide a post driver for the Wellfleet and Truro trailers during the next annual inspection cycle.

Reference: MassDEP Standard Operating Procedure – Oil Spill Response Trailers Activation & Deployment (2010).

Analysis: There were no post drivers in the Truro or Wellfleet trailers.

Area for Improvement 2: Change DV-01b to DV-01a-alt to indicate that it would be preferable to deploy DV-01a to prevent oil from entering Pamet Harbor.

Reference: Cape and Islands Geographic Response Plan for Pamet Harbor (CI-06).

Analysis: Exercise participants noted that there were shellfish beds in the areas designated as shore side recovery areas. As a result, it's recommended that this tactic should only be deployed in the event that DV-01a cannot be deployed. Comments in the special considerations section of the GRP should also be modified to reflect that DV-01a is the preferred option.

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 effectively controlled the exercise and modified the tactic due to tidal conditions. Strike teams were well organized and effectively carried out assigned tasks. This was especially important given the large number of participants in this exercise.

Strength 2: The Rehab Unit and Incident Support Unit provided by the Department of Fire Services provided outstanding support to exercise participants.

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, 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: Communications were outstanding. The communications plan was executed by the ISU, which cross-patched Ops Channel 3 (Fireground) with Marine 17 for seamless communications between UHF and VHF radios.

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

Classroom training is provided at the Pamet Harbor Yacht Club prior to deploying oil spill equipment.



Photo courtesy of Nuka Research & Planning Group

The north shore team establishes a shore anchor with rebar to hold boom in place.



Photo courtesy of Nuka Research & Planning Group

The north shore team demobilizes and is recovered by the Truro FD vessel.



Photo courtesy of Nuka Research & Planning Group

The south shore team transfers boom to exercise vessels.



Photo courtesy of Nuka Research & Planning Group

Oil spill boom is towed into place by response vessels.



Photo courtesy of Nuka Research & Planning Group

Massachusetts DFS Rehab Unit and ISU provide support to exercise participants.



Photo courtesy of Nuka Research & Planning Group

A hot wash is conducted to discuss lessons learned at the conclusion of the exercise.



Photo courtesy of Nuka Research & Planning Group

Exercise participants get hands on training in connecting boom sections.



Photo courtesy of Nuka Research & Planning Group

APPENDIX A: IMPROVEMENT PLAN

This IP has been developed specifically for the municipalities of Truro, Provincetown and Wellfleet following the MassDEP GRP Exercise conducted on May 16, 2018.

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. Wellfleet and Truro trailers do not have post drivers.	Provide post drivers during next inspection cycle.	Equipment	MER	John Duponte	11/15/18	2/15/19
	2. Revise DV-01b tactic on CI-06 GRP.	Change DV-01b in CI-06 to DV-01a-alt and modify special considerations section.	Planning	Nuka Research	Mike Popovich	6/15/18	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

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

APPENDIX B: EXERCISE PARTICIPANTS

Participating Organizations	
Town of Truro, MA*	Participant Count
Truro Fire Department	5
Truro Harbormaster	5
Town of Provincetown, MA*	
Provincetown Harbormaster	8
Town of Wellfleet, MA*	
Wellfleet Fire Department	4
Wellfleet Harbormaster	2
TOWN PARTICIPANTS	24
Federal	
Cape Cod National Seashore/AmeriCorps	12
United States Coast Guard Marine Safety Detachment	3
United States Coast Guard Provincetown Station	4
FEDERAL PARTICIPANTS	12-16
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
Massachusetts Department of Fire Services (DFS)	6
Barnstable County Incident Management Assistance Team (IMAT)	4
STATE PARTICIPANTS	7
TOTAL	60

20% 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

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.

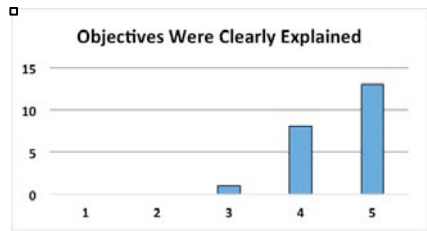
The objectives were clearly explained and the exercise met those objectives.	1 2 3 4 5
Comments:	
The material appropriately challenged me and the pace of instruction was correct.	1 2 3 4 5
Comments:	
The instructor(s) did an excellent job.	1 2 3 4 5
Comments:	
I found the classroom to be a comfortable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

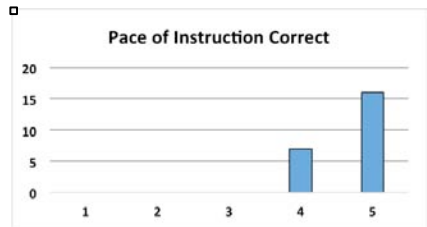
(Rev 2016)



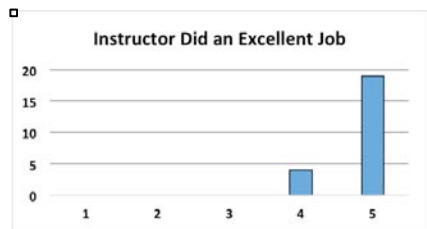
Student Feedback Summary



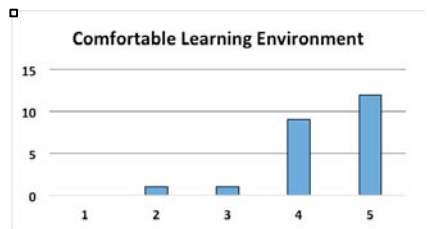
Comments: "Better Radio Communication (Radio Commands)" "very good transmitting info, Both radio and verbal" "Peat moss did leak through"



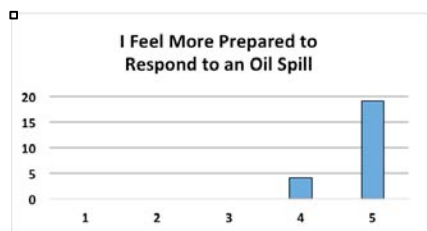
Comments: "Great job switching it up midway" "good am, classroom session" "great info on slides & videos were helpful"



Comments: "very informative" "great job!" "very adaptable" "Particularly the hands-on trailer training w/ Moran (MER)" "Very knowledgeable. Answered all questions"



Comments: "chairs were hard" "more pictures of drill that is going to be used" "good info" "the classroom portion was fine, but it didn't really make sense until we got outside" "very good training, uncomfortable chairs"



Comments: "very informative" "I could use more practice" "Need more practice, practice makes perfect" "Good job"

The best thing about this training was... "field exercise" "presentation was presented well" "being on the water" "a different harbor to learn about" "hands on" "teamwork of all different agencies" "hands on" "seeing how the operation worked" "hands on" "knowledge" "hands on day, and the experience the instructors provided, excellent job" "hands on" "hands-on" real situation" "exercise" "the drill" "All folks together from towns/state/feds" "practical exercise" "the outside portion" "lunch"

This training could be improved by.... "Placing twin engine boat in middle" "communication" "better communication" "Better comms" "going over communication commands, and everyone answering when called." "less people on trailer team. 'too many cooks' " "maps for everyone" "more scenarios" "Better comms during exercise" "less time between trailer fam & deployment" "maybe having less people on one shore team, there was so many people at the trailer that I couldn't really get in there & do anything hands on" "communication"