First Responder Training and Geographic Response Strategy (GRS) Testing Exercise Series

Falmouth, Mashpee

After-Action Report

October 29, 2025

The After-Action Report (AAR) aligns exercise objectives with preparedness doctrine 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

Table 1: Exercise Overview

Exercise Name	2025 Falmouth/Mashpee Geographic Response Strategy Exercise
Exercise Date	October 29, 2025
Scope	This full-scale exercise was planned for approximately six hours in Woods Hole. Exercise play was limited to Waterfront Park, Woods Hole Boat Ramp, Great Harbor, and the surrounding areas.
Mission Area(s)	Prevention, Protection, Response
Capabilities	Environmental Response/Health and Safety, Operational Coordination, Operational Communications
Objectives	Demonstrate the ability of local first responders to: **Objective 1**: Conduct initial response activities within the first 4-6 hours of an oil spill incident by deploying MassDEP oil spill response equipment and implementing common Geographic Response Strategy (GRS) tactics in alignment with the MassDEP GRS Tactics Guide. **Objective 2**: Establish and maintain command and control in the first 4-6 hours of an oil spill incident response by identifying relative health and safety hazards, developing an initial response organization, and communicating response objectives, strategies, and tactics through the completion of an Incident Briefing form (ICS 201) and the facilitation of an Operations and Safety Briefing. **Objective 3**: Communicate information and actions between multiple local, state, and federal agencies within the first 4-6 hours of an oil spill incident by identifying a common UHF or VHF radio channel that can be utilized by all participants.
Threat or Hazard	Discharge of oil into a navigable waterway
Scenario	An oil spill has occurred that threatens Great Harbor and the adjacent shorelines. The Falmouth and Mashpee Fire Departments, Falmouth Marine & Environmental Services, and Mashpee Department of Natural Resources will utilize various common Geographic Response Strategy (GRS) tactics to protect sensitive resources in these areas - including the Marine Biological Laboratory water intake.
Sponsor	Massachusetts Department of Environmental Protection (MassDEP)
Participating Organizations	Participating organizations included: • Falmouth Fire Department • Falmouth Marine & Environmental Services • Mashpee Fire Department • Mashpee Department of Natural Resources • Massachusetts Department of Fire Services • Woods Hole Oceanographic Institution • Marine Biological Laboratory • NOAA National Marine Fisheries • MassDEP • United States Coast Guard Sector SENE • Moran Environmental Recovery (MER) • Nuka Research

Exercise Name	2025 Falmouth/Mashpee Geographic Response Strategy Exercise
Point of Contact	Julie Hutcheson, Marine Oil Spill Prevention & Response Program Coordinator Massachusetts Department of Environmental Protection 100 Cambridge St., Suite 900 Boston, MA 02114 (617) 366-7424 julie.hutcheson@mass.gov

Figure 1: Participants learn about sorbent materials and culvert plugs

Figure 2: Participants practice connecting sections of boom

Figure 3: Participants learn about marine anchoring systems

Figure 4: Command Staff prepare for Operations and Safety Briefings

Photos courtesy of Nuka Research & Planning Group and Massachusetts Department of Fire Services

EXECUTIVE SUMMARY

Exercise Planning

In preparation for the Falmouth/Mashpee exercise, both an Initial Planning Meeting (IPM) and a Final Planning Meeting (FPM) were conducted with members of the Exercise Planning Team (EPT). The EPT consisted of senior personnel from each of the participating organizations listed in the Exercise Overview section.

Initial Planning Meeting

A hybrid Initial Planning Meeting (IPM) was held via Zoom and in-person at the Mashpee Fire Station (20 Frank E. Hicks Dr, Mashpee, MA 02649) on Wednesday July 30th, from 11:00 AM – 12:00 PM.

Purpose

The purpose of the IPM was to discuss and identify logistical requirements for the exercise, including the date, classroom and deployment locations, personnel and vessel needs, and any additional operational considerations.

Participants

Table 2: IPM Participants

Name	Title/Rank	Department/Organization
Scott Trasher	Deputy Chief	Falmouth Fire Department
Cat Poquette	Field Supervisor	Falmouth Marine & Environmental Services
Eric Bourdrow	Assistant Harbormaster	
Christopher Shute	Lieutenant	Mashpee Fire Department
Torey Montesi		
Rick Santangelo	Assistant Harbormaster	Mashpee Department of Natural Resources
Scott Rudy		
Eric Jensen	Environmental Health & Safety Manager	Woods Hole Marine Biological Laboratory
Mike Ball	OMI Director – Northeast Fisheries Science Center	NOAA National Marine Fisheries
Nick Tarnowski		USCG Station Woods Hole
John Fanelli		

Outcomes

A summary of key IPM outcomes is provided below. Additional details are available in the exercise ICS-201.

- **Exercise Date:** Wednesday, October 29th
- **Classroom Location:** MBL Rowe Building Speck Auditorium (10 Mbl St., Woods Hole, MA 02543)
- **Deployment Location(s):** Woods Hole Boat Ramp (Woods Hole, MA 02543)
- **Additional Resources:** Massachusetts Department of Fire Services (DFS) Incident Command Truck and Drone Unit
- **Deployment Notes:** EX01b and EX01c tactics protect two water intakes at a considerable depth below the water's surface

Final Planning Meeting

A Final Planning Meeting (FPM) was held via Zoom on Wednesday October 15th, from 11:00 AM – 12:00 PM.

Purpose

The purpose of the FPM was to review the draft ICS-201 to validate exercise logistics confirmed during the IPM and to discuss any outstanding operational details needed to support the on-water deployment.

Participants

Table 3: FPM Participants

Name	Title/Rank	Department/Organization
Scott Trasher	Deputy Chief	Falmouth Fire Department
Cat Poquette	Field Supervisor	Falmouth Marine & Environmental Services
Eric Bourdrow	Assistant Harbormaster	
Christopher Shute	Lieutenant	Mashpee Fire Department
Robert Tomaino	Director	Mashpee Department of Natural Resources
Eric Jensen	Environmental Health & Safety Manager	Woods Hole Marine Biological Laboratory
Mike Ball	OMI Director – Northeast Fisheries Science Center	NOAA National Marine Fisheries
Daniel Lopes	Director Environmental Health & Safety	Woods Hole Oceanographic Institution

Outcomes

A summary of key FPM outcomes is provided below, including a description of deployment plans.

- Deploy and test the two 600ft EX01b/c tactics from the Woods Hole CI17B GRS

Exercise Conduct

Exercise controllers and senior participant personnel monitor weather forecasts and may also conduct pre-deployment site surveys to identify any physical or environmental limitations that could impact execution of the deployment plan. Any necessary adjustments to the plan and the conditions observed on the day of the exercise are summarized below.

Table 4: Summary of Observed Conditions

Factor	Observed Conditions
Wind speed and direction	14 mph, NE
Tidal conditions	Flood tide
Water depth (approx.)	5 ft
Wave action & Current speed (approx.)	Moderate wind and currents
Vessel traffic	None
Harbor mooring field density	N/A
Other observations	Shallow and rocky areas near water intakes

The following deployment activities were completed:

- Completed the deployment of only the 600ft EX01b tactic due to timing constraints.

Figure 5: Exercise Tactic Map

EXERCISE REPORT

Objective 1: Conduct initial response activities within the first 4-6 hours of an oil spill incident by deploying MassDEP oil spill response equipment and implementing common GRS tactics in alignment with the MassDEP GRS Tactics Guide.

Strength: Shoreside crews worked well to prepare and stage three separate 200ft sections of boom, load the appropriate number of marine anchor systems onto each vessel, then transfer the boom from the boat ramp to each awaiting vessel for tow.

Strength: Work vessels safely and efficiently towed each section of boom from the boat ramp to the area near the water intake for deployment.

Strength: Command staff, vessel crews, and shoreside personnel worked together to coordinate the deployment plan and to determine dockside anchor adjustments due to a rising tide.

Figure 6: Vessel crews tow boom from the boat ramp

Observation: Crews determined that the EX02b tactic did not require all 600ft of boom to effectively contain the water intake.

Analysis: When completing the 600ft containment tactic, crews worked around rising tides near the dock, and shallow waters on the land-based side of the array to deploy each anchor system. This led to the deployment of a large containment area surrounding the water intake, with the shape of the tactic modified to avoid operating in the nearby shallows. After discussing modifications needed to improve the CI17B Woods Hole GRS and future deployments of the EX01b tactic, crews determined that only 200-300ft of boom is required to effectively contain and protect the water intake and avoid operating in nearby shallow areas.

Figure 7: Vessel crews prepare to deploy a dockside anchor

Objective 2: Establish and maintain command and control in the first 4-6 hours of an oil spill incident response by identifying relative health and safety hazards, developing an initial response organization, and communicating response objectives, strategies, and tactics through the completion of an Incident Briefing form (ICS-201) and the facilitation of an Operations and Safety Briefing.

Strength: Command staff quickly developed and communicated deployment plans to all participants, then assigned roles and responsibilities for group leaders to direct their area of operations.

Observation: Not all personnel in each unit were assigned specific operational roles and responsibilities.

Analysis: During the hot wash, it was noted that command staff should have identified roles and responsibilities for all responders within their unit. Without the delegation of these specific roles, there was some confusion as to what each responder needed to do. This issue was quickly remedied as each unit leader took it upon themselves to assign roles once the operation began. In future exercises, command staff should utilize the ICS-201 whiteboard and Operations briefings to relay roles and responsibilities for all personnel involved.

Figure 8: Vessel crews prepare to deploy a marine anchor

Objective 3: Communicate between multiple local, state, and federal agencies, including fire, police and harbormaster departments using VHF and UHF communications.

Strength: Command Staff pre-identified two radio frequencies (VHF 12 and Fire Ops 3) as the primary channels for the exercise and directed participants to join each channel during the Operations briefings.

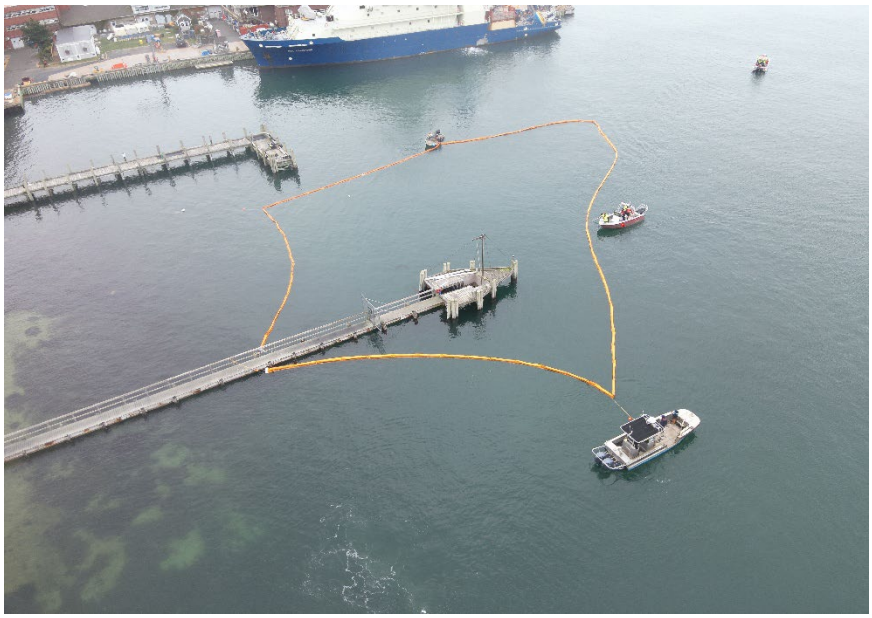

Figure 9: Completed EX01b tactic

Strength: Responders utilized radios throughout the exercise to communicate hazards (e.g., shallow waters) and to discuss the adjustments needed to safely and effectively deploy the containment tactic.

Strength: Crews utilized a drone and a live drone feed to observe and monitor the operation.

Observation: Personnel experienced minor lapses in communication at the beginning of the exercise due to issues with Fire Ops 3.

Analysis: Despite identifying and coordinating the use of two radio channels (VHF 12 for marine operators and Fire Ops 3 for shore operators), it became clear that vessel crews were unable to coordinate with shore operators at the beginning of the evolution due to issues with Fire Ops 3 and command staff's inability to utilize the VHF marine channel. After a few minutes of radio calls going unanswered by command staff, vessel crews made the decision to coordinate tactical adjustments without leadership oversight. Despite these initial challenges, all crews were able to maintain the coordination of deployment activities until command staff could remedy the issue and rejoin the communications channel.

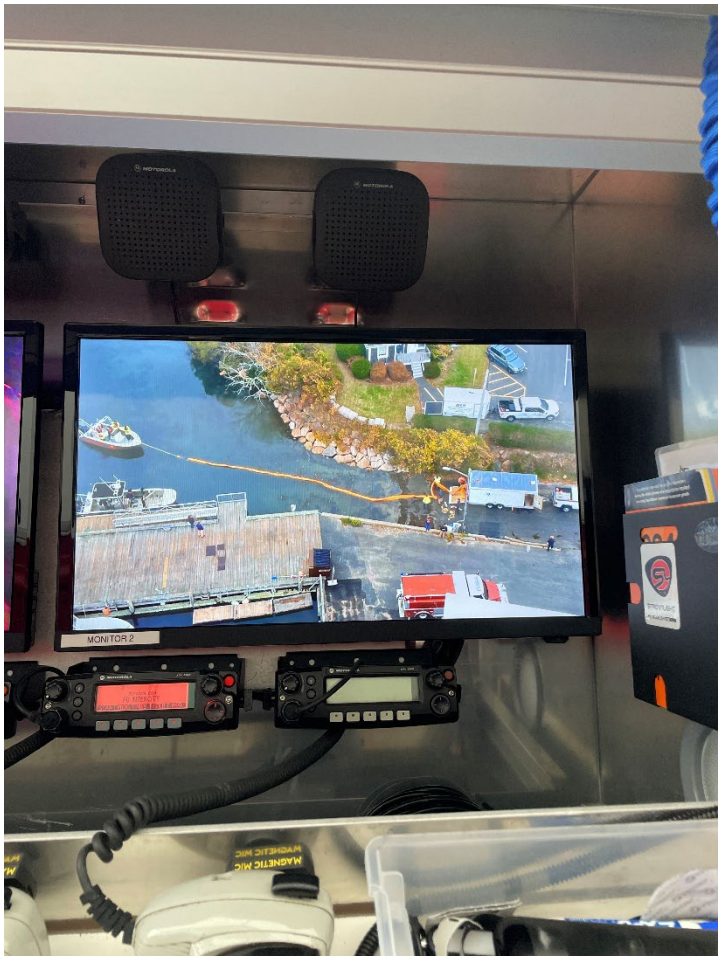

Figure 10: Live footage of deployment from Massachusetts DFS Incident Command Truck / Drone Unit

PARTICIPANTS & RESOURCES

Table 5: List of Participants

Participating Organizations	
Town of Falmouth, MA	**Participant Count**
Falmouth Fire Department	10
Falmouth Marine & Environmental Services	4
Town of Mashpee, MA	
Mashpee Fire Department	11
Mashpee Department of Natural Resources	7
TOTAL TOWN/CITY PARTICIPANTS	**32**
State	
Massachusetts Department of Environmental Protection (MassDEP)	2
Massachusetts Department of Fire Services	5
Nuka Research and Planning Group, LLC (contractor for MassDEP)	2
Moran Environmental Recovery (contractor for MassDEP)	3
Federal	
United States Coast Guard Sector SENE	3
NOAA National Marine Fisheries	1
Non-profit	
Marine Biological Laboratory	4
Woods Hole Oceanographic Institution	5
TOTAL	**57**

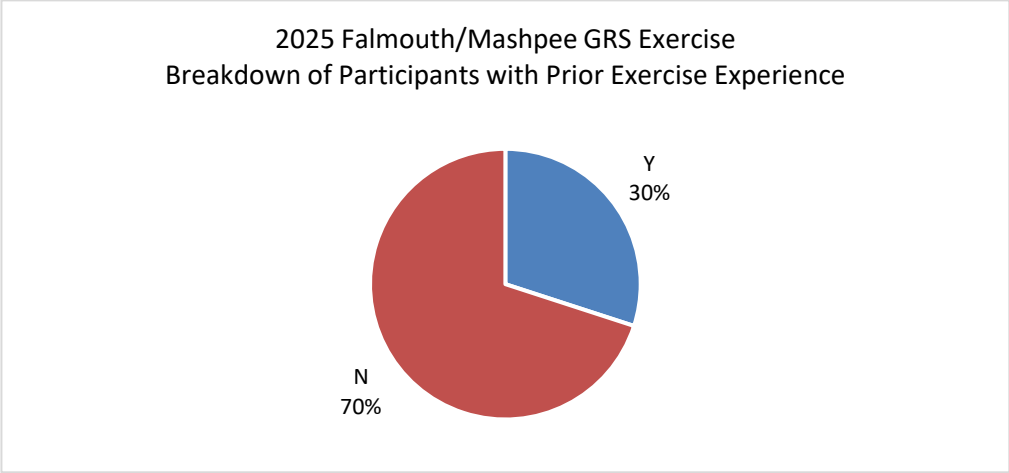

Figure 11: Previous Exercise Participation

Table 6: List of Resources

List of Resources			
Agency	**Resource**	**Kind**	**Exercise Function**
Falmouth FD	32’ Fire boat	Vessel	Boom Deployment
Falmouth FD	20’ Center Console	Vessel	Boom Deployment
Mashpee FD	25’ Munson Landing Craft	Vessel	Boom Deployment
Mashpee DNR	22’ Edgewater Patrol	Vessel	Boom Deployment
Mashpee DNR	18’ Lund	Vessel	Boom Deployment
Falmouth MES	28’ Landing Craft	Vessel	Boom Deployment
Massachusetts DFS	Drone	Equipment	Support
Massachusetts DFS	ICS Truck	Equipment	Support
Falmouth FD	Oil spill response trailer	Trailer	Support
Mashpee FD	Oil spill response trailer	Trailer	Support