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

Essex, Ipswich, Rowley

After-Action Report

May 12, 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 Essex/Ipswich/Rowley Geographic Response Strategy Exercise
Exercise Date	May 12, 2025
Scope	The full-scale exercise was planned for approximately six hours at the Rowley Fire Station and Town Launch Boat Ramp in Rowley, MA and upon the waters of the Egypt River. Exercise play was limited to Egypt River and the adjacent shorelines.
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 Egypt River and the surrounding areas. The Essex, Ipswich, and Rowley Fire Departments and Police/Harbormasters will utilize common Geographic Response Strategy (GRS) tactics to protect sensitive resources in these areas.
Sponsor	Massachusetts Department of Environmental Protection (MassDEP)
Participating Organizations	Participating organizations included: • Essex Police Department • Essex Harbormaster • Ipswich Fire Department • Ipswich Police Department/Harbormaster • Rowley Fire Department • Rowley Harbormaster • Massachusetts Division of Marine Fisheries • United States Coast Guard Sector Boston • MassDEP • Moran Environmental Recovery (MER) • Nuka Research
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 practice connecting sections of boom

Figure 2: Participants practice configuring a shoreside anchor system

Figure 3: Participants practice throwing heaving line

Figure 4: Participants learn about the components of marine anchor systems

Photos courtesy of Nuka Research

EXECUTIVE SUMMARY

Exercise Planning

In preparation for the Essex/Ipswich/Rowley 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 Rowley Fire Department (473 Haverhill St, Rowley, MA, 01969) on Monday, March 10th, from 2:00 PM to 3:00 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
Daniel Fialho	Harbormaster	Essex Harbormaster
Paul Parisi	Chief	Ipswich Fire Department
Lee Prentiss	Deputy Chief	
Paul Nikas	Harbormaster	Ipswich Police Department
Jon Hubbard	Lieutenant	
Mark Emery	Chief	Rowley Fire Department
Bill DiMento	Harbormaster	Rowley Harbormaster

Outcomes

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

- **Exercise Date:** Monday, May 12th
- **Classroom Location:** Rowley Fire Department (473 Haverhill St, Rowley)
- **Deployment Location(s):** Town Launch Boat Ramp (101 Warehouse Ln, Rowley)
- **Additional Resources:** Ipswich Police Department Drone and Mobile EOC
- **Deployment Notes:** N/A

Final Planning Meeting

A Final Planning Meeting (FPM) was held via Zoom on Monday, May 5, from 2:00 PM – 3:00 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
Tom Shamshak	Harbormaster	Essex Police Department
Christian Hassel	Chief	Essex Fire Department
Paul Parisi	Chief	Ipswich Fire Department
Lee Prentiss	Deputy Chief	
Paul Nikas	Harbormaster	Ipswich Police Department

Name	Title/Rank	Department/Organization
Jon Hubbard	Lieutenant	
Mark Emery	Chief	Rowley Fire Department

Outcomes

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

- Deploy and test the 200ft DV01b tactic, as shown in the Egypt River (NS06) GRS below.
- Deploy containment boom around a docked vessel in Egypt River

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	15 mph, S/SW
Tidal conditions	Flooding, then ebbing tide
Water depth (approx.)	8 ft
Wave action & Current speed (approx.)	Moderate current
Vessel traffic	Low
Harbor mooring field density	Low
Other observations	None

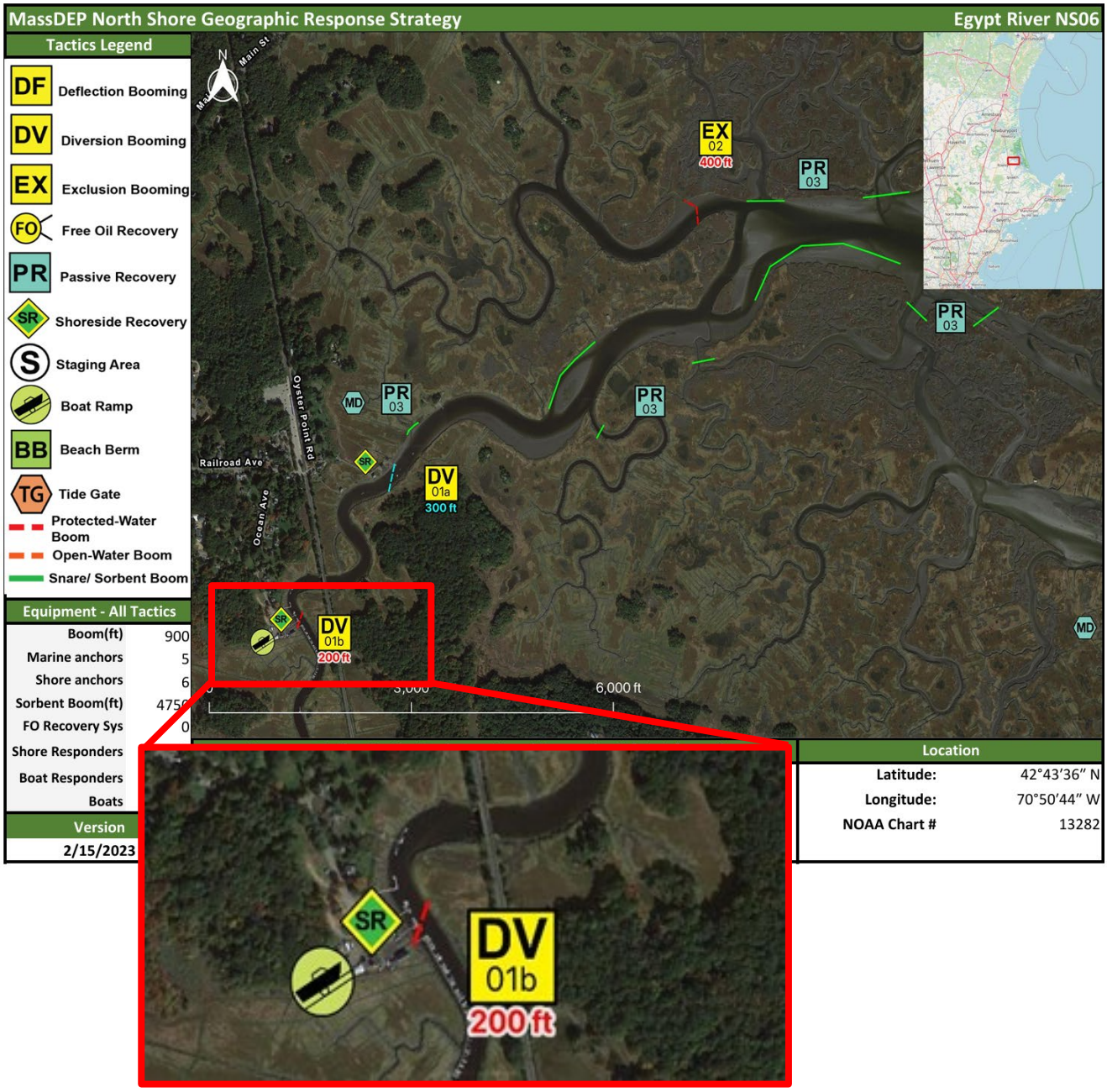

Figure 5: GRS Testing Exercise Tactics Map

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 together to stage the response trailer, unload a 200ft section of boom, load marine anchor systems onto the appropriate vessels, and conduct shore-to-vessel transfer. Vessel crews then used the appropriate equipment and methods to tow the section of boom to the deployment location.

Strength: Shoreside crews on both sides of the river worked to properly configure shore anchors above the high tide mark, then connect boom to complete the DV01b array. As the tides changed from flood to ebb, ramp-side crews effectively reconfigured the anchor to a nearby dock, while crews on the opposite side of the river repositioned their anchor to improve the angle of the deployed array.

Strength: Vessel and shoreside crews worked to safely and effectively configure containment boom around a docked vessel.

Observation: Vessel and shoreside crews needed to reconfigure the DV01b array to overcome tidal changes.

Figure 6: Shore and vessel crews prepare boom for towing

Analysis: While operational plans, resources, roles and responsibilities, and other considerations were discussed during an Operations and Safety briefing, exercise participants overlooked the impacts of tidal changes on deployment plans and booming effectiveness. This was realized shortly after completing the deployment of the DV01b array. After observing the direction of the current impacting the boom, Command staff quickly relayed the modifications needed to overcome these tidal changes. Shore crews then worked to move and reconfigure both shoreside anchors while vessel crews towed the boom upriver. Throughout this evolution, crews displayed the ability to safely and effectively adapt to changing environmental conditions.

Figure 7: Shore and vessel crews deploy containment boom around a docked vessel

Observation: As deployed, the DV01b tactic was anchored too perpendicular to the current, leading to peat moss entrainment and planing of the boom.

Analysis: After completing the necessary adjustments to the DV01b tactic to overcome tidal changes, vessel crews dropped peat moss to test the effectiveness of the array. Once the peat moss impacted the boom, current began to pull portions underneath (entrainment), and a section of the boom began to lay flat on the surface of the water (planing). To overcome these impacts in future training and response efforts, crews should continue to reposition shoreside anchors to decrease the angle of the tactic.

Figure 8: Crews finish reconfiguring DV01b to overcome tidal changes, then deploy peat moss to test the tactic

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: The Rowley FD Incident Commander (IC) quickly identified a Safety Officer (SO). Together, the IC and SO coordinated shore and vessel crew assignments, then effectively communicated deployment plans, roles and responsibilities, and operational safety considerations through an Operations and Safety briefing. Command staff also provided immediate direction when it was recognized that the boom configuration needed to be repositioned to overcome tidal changes.

Strength: Command staff, vessel crews, shoreside crews, and trailer support personnel were able to safely and effectively coordinate all deployment activities, including the modifications needed to overcome tidal changes.

Figure 9: The Incident Commander facilitates an Operations and Safety Briefing.

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

Strength: Command staff identified the UTAC 41D (direct) frequency (UHF) as the primary communications channel for the exercise, then directed participants to join the channel during the Operations and Safety briefings. Because the on-water operational area was located near the shoreside Incident Command post, participants also utilized voice communications throughout the deployment.

Strength: All crews demonstrated excellent communication skills, allowing for adjustments to be made safely and effectively.

PARTICIPANTS & RESOURCES

Table 5: List of Participants

Participating Organizations	Participant Count
Town of Essex, MA	
Essex Police Department	1
Essex Harbormaster	1
Town of Ipswich, MA	
Ipswich Fire Department	7
Ipswich Police Department/Harbormaster	3
Town of Rowley, MA	
Rowley Fire Department	7
Rowley Harbormaster	3
TOTAL TOWN/CITY PARTICIPANTS	**22**
State	
Massachusetts Division of Marine Fisheries (MA DMF)	1
Massachusetts Department of Environmental Protection (MassDEP)	3
Nuka Research and Planning Group, LLC (contractor for MassDEP)	2
Moran Environmental Recovery (contractor for MassDEP)	3
Federal	
United States Coast Guard Sector Boston	3
TOTAL	**34**

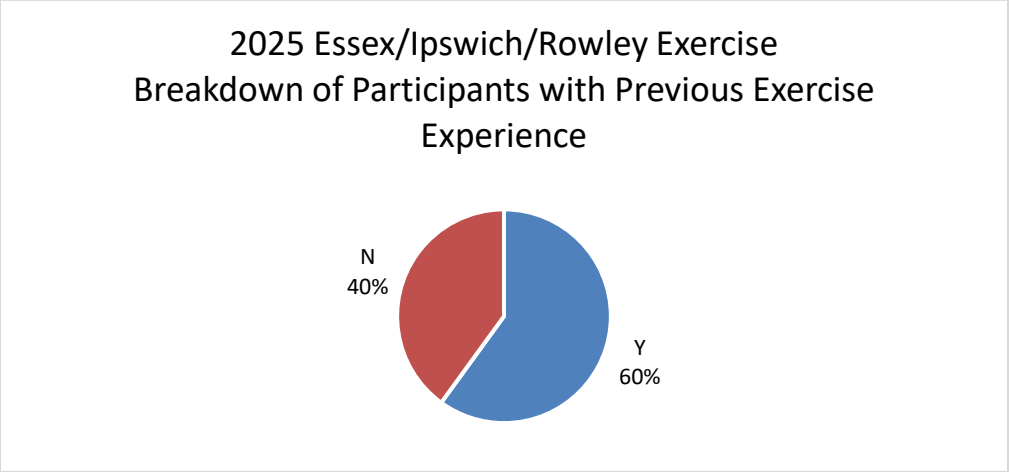

Figure 10: Previous Exercise Participation

Table 6: List of Resources

List of Resources			
Agency	**Resource**	**Kind**	**Exercise Function**
Ipswich FD	19’ Ribcraft	Vessel	Boom Deployment
Ipswich FD	24’ Safeboat (Marine 1)	Vessel	Safety/Support
Rowley HM	25’ Whaler	Vessel	Boom Deployment
Rowley FD	Oil spill response trailer	Trailer	Training
Ipswich FD	Oil spill response trailer	Trailer	Boom Deployment
Ipswich HM	Equipment	Drone	Support