

The Use of All-Hazard Incident Management Teams for Oil Spill Response



1. Overview

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That's why the Massachusetts legislature passed an Oil Spill Act in 2004 that established the Marine Oil Spill Prevention and Response Program with the goal of providing equipment and training to local first responders in coastal Massachusetts. Section 2 below provides an overview of the program.

Massachusetts Department of Environmental Protection (MassDEP) oil spill response operations—training and real-world deployments—are conducted using the Incident Command System (ICS) as described in the National Incident Management System (NIMS) and the National Response Framework. Section 3 presents an overview of the NIMS ICS requirements for oil spill response operations and introduces the concept of the ICS All-Hazard Incident Management Team (AHIMT). It then provides an overview of the Barnstable County AHIMT and its June 12, 2017, deployment in support of a MassDEP oil spill response training in Harwich, MA (See Appendix A).

Section 4 features a discussion of the value an AHIMT can bring to oil spill response field exercises and real-world deployments.

2. The Massachusetts Marine Oil Spill Prevention and Response Program

In 2003, the Bouchard B120 barge oil spill released 98,000 gallons of #6 fuel oil into Buzzards Bay. During the initial phase, approximately 700 workers per day were responding to the cleanup of the spill. These workers recovered about 3,500 gallons of fuel oil, 5,000 cubic yards of oiled debris, and applied 48,000 feet of snare boom, and 7,000 feet of containment boom.¹

Post-incident analysis concluded that the initial response effort was hampered by a significant lack of resources and training for local first responders. To remedy the situation, the Massachusetts legislature passed the Oil Spill Act in 2004

¹ <http://www.mass.gov/eea/agencies/massdep/cleanup/sites/buzzards-bay-bouchard-barge-6-fuel-oil-spill-shore.html>

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establishing the Marine Oil Spill Prevention and Response Program. Among its duties, the Program is responsible for the delivery of

- Response trailers
- Local first responder training and field exercises
- Geographic Response Plans (GRPs)

Response Trailers

MassDEP has staged 83 oil spill response trailers in 70 coastal communities throughout the Commonwealth. Each response trailer contains identical equipment inventories and can be opened with the same key. Trailer contents range from personal protective gear to buoys, anchors, and ropes to sorbent materials to 1,000 feet of boom.

Training and Field Exercises

In addition to the trailers, the Prevention and Response Program provides training and hands-on field exercises for first responders. The goal is to develop and maintain the knowledge and skills necessary to mount a timely and effective local response. Over 1,000 first responders have been trained thus far.

Nuka Research and Planning Group, LLC, is the lead MassDEP contractor for GRP oil spill field training. Compliant with Homeland Security Exercise and Evaluation Program (HSEEP) requirements, the training always includes participation from at least two neighboring towns. In addition to the training and hands-on activities, the exercises test mutual-aid capabilities and validate inter- and intra-town communications interoperability.

Geographic Response Plans (GRPs)

The third critical component of the Prevention and Response Program's outreach to communities is the GRP, a planning document and response tool designed by MassDEP and Nuka Research to enable local responders to develop a more effective and coordinated response in the initial phases of a coastal oil spill.

The GRP provides detailed geographic information on shoreline types and sensitive natural and cultural resources along with estimates of response equipment requirements, staging locations, and pre-identified deployment strategies for protecting sensitive areas. As of July 2017, 160 GRPs have been created for the 70 coastal communities.

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3. NIMS ICS in Oil Spill Response

MassDEP oil spill response operations are conducted using the Incident Command System (ICS) as described in the National Incident Management System (NIMS) and the National Response Framework.

Federal, state, and local governments are obliged to use NIMS ICS structures, doctrine, and procedures for incidents of any type, scope, and size including oil spills. NIMS ICS fosters multi-agency coordination, resource management, and unified command for an effective response.

All-Hazard Incident Management Teams

A key component of NIMS ICS is the Incident Management Team (IMT). Originated by the wildland fire community in the 1970s, IMTs now operate in incidents involving all hazards. An All Hazards IMT (AHIMT) has two roles:

1. Enhance ongoing operations through the provision of an ICS infrastructure with command and general staff capabilities including incident command, safety, liaison, public information, operations, planning, logistics, and finance/administration.
2. Transition to incident management with all the components and functions of a command and general staff when requested by the Jurisdictional Authority.

AHIMTs enhance ongoing operations through the provision of an ICS infrastructure with command and general staff capabilities.

Barnstable County AHIMT

Barnstable County (BC) has fielded an AHIMT for over a decade operating under the authority of the Barnstable County Regional Emergency Planning Committee. Team members are drawn from the public and private sectors and have advanced ICS training up to and including the instructor level. The BCAHIMT has participated in many emergency incidents and planned events since 2006.

In 2012 after Hurricane Sandy devastated parts of coastal New Jersey and New York, BCAHIMT members deployed to New York City for two weeks to assist in emergency operations. In 2014 the Bourne Fire Department requested the team to provide emergency management infrastructure for the 100th Anniversary of the Cape Cod Canal. The team also operates the county's Multi-Agency Coordination Center (MACC) during adverse weather events and regional emergency shelter activations.

4. AHIMT in Oil Spill Response Operations

With 22 years in Emergency Response at MassDEP, Julie Hutcheson is the Section Chief of the Massachusetts Marine Oil Spill Prevention and Response Program. Her extensive experience includes responding to the Bouchard B120 oil release described above.

Section Chief Hutcheson understands the capabilities an AHIMT brings to the table during oil spill operations and invited the BCAHIMT to participate in an oil spill response training and GRP field exercise held in Harwich, MA, on June 12, 2017 (See Appendix A for more detail on the exercise). The BCAHIMT would simulate the provision of infrastructure support by creating an Incident Action Plan (IAP) for a notional next operational period.

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Julie Hutcheson
Section Chief
Massachusetts Marine Oil Spill
Prevention and Response
Program

Hutcheson explained why she invited an AHIMT to participate in the Harwich exercise. “Preparedness and response capabilities are strengthened by including the assets that would be involved during an actual incident. We are fortunate to have the BCAHIMT located in such an environmentally sensitive region. The BCAHIMT provides incredible value to our overall collective response abilities. We need to take every opportunity to train and exercise skills in a multi-agency arena.”

On-Scene Support

About the June 12 exercise, BCAHIMT Team Leader and Dennis Deputy Fire Chief Bob Brown said, “This was a great opportunity to demonstrate the functions of an AHIMT in a critical incident. Our team members supported the on-scene Incident Commander with planning, operations, logistics, safety, and public information functions. We thank MassDEP and Nuka Research for inviting us to participate.”

“In general, activation and involvement of an AHIMT, even for small incidents, has immediate and noticeable advantages.”

Mike Popovich
Senior Project Manager
Nuka Research

Mike Popovich is a Senior Project Manager at MassDEP contractor Nuka Research and a 26-year Coast Guard veteran. He has extensive ICS experience working with—and within—AHIMTs on both large and small-scale incidents including oil spill response, marine salvage, and natural disasters.

A strong proponent of AHIMTs, Popovich said, “In general, activation and involvement of an AHIMT, even for small incidents, has immediate and noticeable advantages, especially for small communities in Barnstable County where local municipalities sometimes have limited resources.

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Popovich described the BCAHIMT as a welcome addition to MassDEP field exercises. “The team’s involvement and presence helps to enhance the overall exercise experience for local first responders, some who have never had the opportunity to work with an AHIMT.”

From the Incident Commander’s Point of View

Harwich Deputy Fire Chief David LeBlanc was the Incident Commander for the June 12 field exercise in Harwich. When asked about his previous experience with AHIMTs he said, “I had a theoretical understanding of what an AHIMT can do but never had the opportunity to see one in operation. The oil spill response exercise gave me that opportunity. I now have a new appreciation for the capabilities a team can provide.”

As a fire officer, Deputy LeBlanc said he is familiar with the use of ICS in smaller, short-term incidents, but not with the activities involved as an incident extends into a second operational period. The BCAHIMT simulated planning for a second operational period by creating an Incident Action Plan (IAP). (An ICS IAP is a written plan, operational at its core, developed at the incident level to define the incident objectives and reflect the tactics necessary to manage an incident during an operational period.)

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David LeBlanc
Deputy Chief
Harwich Fire Department

“Incidents such as an oil spill response are labor intensive and resource driven,” said Deputy LeBlanc. “If I had to set up the various disciplines available under an AHIMT I would have to use my captains. If I did that, I would be taking my most experienced people away from the front line where I need them. The AHIMT provides a cadre of trained people we normally wouldn’t have.”

A key take-away for Deputy LeBlanc was the fact that an AHIMT is a very flexible resource. “We can use as much or as little of an AHIMT as we want. The team is there to fill in the gaps, and it can do so far more effectively than we can with our own resources.”

Appendix A: Harwich Oil Spill Response Exercise

The MassDEP sponsored a full-scale oil-spill-response training exercise in Harwich on June 12, 2017. The drill involved personnel from the Harwich and Dennis fire departments and harbormasters from Chatham, Harwich, and Dennis. The MassDEP Marine Oil Spill Prevention and Response Program Coordinator and members of the Emergency Response Section also participated in the exercise.

Through the Commonwealth's Marine Oil Spill Prevention and Response Program, MassDEP has prepositioned oil-spill response trailers in 70 coastal communities, including Harwich and Dennis, and developed Geographic Response Plans (GRPs) that identify sensitive areas to protect in the event of an oil spill. The purpose of the drill is to teach local first responders how to properly handle the boom equipment and then test the GRP in a live deployment drill.

The exercise, conducted by Nuka Research—a MassDEP contractor—included a classroom session, equipment familiarization, and on-water containment-boom deployment at the mouth of the Herring River.

Instructors from MassDEP contractor Nuka Research and MassDEP conducted the classroom portion of the drill covering Geographic Response Plans (GRP), booming tactics, incident command and control, and spill management and safety procedures.

Immediately following the classroom portion, personnel from Moran Environmental—a MassDEP contractor—familiarized the participants with the trailer's oil-spill equipment.

The final phase of the drill took place at the mouth of the Herring River where containment booms were deployed. Once the boom deployment was completed, an oil surrogate material (peat moss) was released to test the effectiveness of the GRP tactic.

The following agencies and organizations were involved in this training:

- MassDEP
- Harwich Fire Department
- Dennis Fire Department
- Harwich, Dennis, and Chatham Harbormasters
- Barnstable County Sheriff's Office
- Barnstable County All Hazards Incident Management Team
- United States Coast Guard
- Nuka Research—MassDEP contractor
- Moran Environmental—MassDEP contractor

The Barnstable County Sheriff's Office Command Post (S-39) provided communications, incident management support, and drone reconnaissance.

The BCAHIMT used the exercise to simulate incident management over multiple operational periods.

The following BCAHIMT members participated in the drill: Nelson Andrews, Bob Brown (Team Leader), Jess Hillman, Christopher Kenely, Chrystal LaPine, Timothy Lynch, Kevin Morley, Josh Nigro, Dan Silverman (Deputy Team Leader), Carl Simons, Cole Starr, and Mike Walker (Team Coordinator).

For a short video documentary of the Harwich field exercise, visit <https://youtu.be/-SY65nEN5pY>