

### Final Progress Report

### **Community-Based Safety Training for the New England Fishing Industry**

Grant Number: 1 T03 OH011923



Project/Grant Period: 09/01/2019 through 08/31/2021 Reporting Period: 09/01/2019 through 08/31/2021

Date Submitted: 03/01/2022

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Recipient Organization: Fishing Partnership Health Plan Corp, The d/b/a Fishing Partnership Support

Services

DUNS: 6124715030000 EIN: 04-3436352

Change of Contact PD/PI? No

Human Subjects? No Vertebrate Animals? No

Human Embryonic Stem Cells? No

Inventions or Patents? No

### **B.** Accomplishments

Complete the following sections as applicable to your project.

B.1 - What are the major goals of the project?

Goal #1: Enhance the quality and availability of safety training that addresses the needs of commercial fishermen through four courses. Below is a table of the number of courses expected during the 2-year period of the grant:

	Safety/Survival	Drill Conductor	CPR/First Aid	Vessel Stability
Massachusetts	12	12	20	4
Maine	7	7	8	1
New Hampshire	1	1	1	1
Rhode Island	2	2	2	1
Connecticut	1	1	1	1
Total New England	23	23	32	8

Goal #2: Create a demand for training from within the community by promoting a culture of safety.

Goal #3: Increase training capacity by training and certifying new safety instructors.

### B.2 - What did you accomplish under these goals?

Goal #1: Prior to the COVID-19 pandemic, we conducted training in Cape May, New Jersey in the fall of 2019. Due to the COVID-19 pandemic and state restrictions on gatherings and travel, we were forced to cancel the majority of our trainings during the first two years of this project. In addition, most of our safety instructors are older or have underlying health conditions that placed them in high risk categories for COVID-19. Several of our instructors were not comfortable teaching large groups or travelling to high risk states in the during the project period. Below is a flyer advertising our safety training schedule for the spring of 2020. In New England, we cancelled 8 Safety & Survival courses and 8 Drill Conductor courses. We were planning to hold at least 10 CPR/First Aid courses in the summer of 2020, but were unable to schedule those courses as well. As explained in section F, we adapted our training environment and developed safety protocols and health screening. Throughout the pandemic, we were forced to adapt these protocols multiple times to accommodate changes in restrictions or to overcome the challenges of a particular venue so that all trainees were safe. We resumed training, with smaller groups, in August 2020. During the Project Period of 9/1/2019 – 8/31/2021, the following training were completed with the total # of participants in parentheses:

	Safety/Survival	Drill Conductor	CPR/First Aid	Vessel Stability
Massachusetts	9 (137)	9 (58)	18 (209)	6 (47)
Maine	2 (32)	1 (15)	0	0
New Hampshire	1 (21)	1 (10)	0	0
Rhode Island	4 (61)	4 (33)	2 (20)	0
Connecticut	2 (23)	1 (6)	0	0
Total New England	18 (274)	14 (122)	20 (229)	6 (47)

Goal #2: Create a demand for training from within the community by promoting a culture of safety.

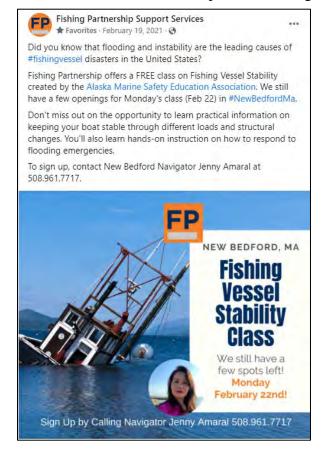
FPSS believes that safety is not just a skill, it is a culture. We achieved this goal in the following ways:

### New Entrants

FPSS recognizes that a key component to changing the culture of safety in the fishing industry is to ensure that new fishermen enter the profession prioritizing safety as much as they prioritize catching fish. We partnered with Commercial Fisheries Center of Rhode Island (CFCRI) in August 2020 and June 2021 to ensure that new fishermen began their career with a strong foundation in safety. The CFCRI holds an apprentice program as a pathway for young men and women to start a career as a commercial fisherman, even if they have no background in the trade. As part of the 4-weeks of introductory training, the apprentices receive the Safety & Survival course and the CPR/First Aid course. The 19 apprentices are now starting their careers in commercial fishing with safety at the forefront.

### Social Media

On Social Media, we promote safety training classes and the culture of safety. One outreach campaign featured individual safety instructors and the reasons each is invested in improving safety in the fishing community. Personal accounts like these show the vested interest instructors have as members of the community and build mutual trust that is critical to changing attitudes and behaviors. Examples from Instagram and Facebook are below and in the appendix.









#### Trade Shows

We also promoted a culture of safety through our physical presence at trade shows. In March 2020, we attended the Maine Fishermen's Forum and spoke with fishermen about safety. We created a comprehensive handout for this event that reached over 300 fishermen (included in appendix).

### Regional Outreach

Due to the migratory nature of fish and seasonal openings of fishing grounds, it is common for some fishermen to travel extensively along the East Coast throughout the year. When these fishermen pull into a port in another state, they hear or read about the safety trainings, see fishermen wearing hats or sweatshirts from some training and talk to other vessels about safety training. This increases demand for training in their homeports. We also circulate the training schedule broadly by email and through fishing associations knowing that fishermen may travel extensively and may be interested in a training that is a long distance from their homeport. This was evident in December, 2020, when fishermen that lived in New Jersey attended FPSS safety trainings in Sandwich, Massachusetts while their vessels were seasonally working out of the port of New Bedford.

### End of Course Survey

To measure the effect that our training is having on knowledge, attitudes and behaviors, we ask fishermen to complete an end of course survey (Survey and Results included in Appendix). The best ambassadors of safety training are the fishermen themselves. To measure how well we are promoting a culture of safety and increasing demand, we ask participants "How likely is it that you would recommend this training to a peer in the fishing industry?" In the Mid-Atlantic, 89% said that they would recommend our training to a peer.

### Electronic Follow Up Survey

In 2021, FPSS designed an electronic follow up survey (see Appendix for a copy) to administer approximately 6-8 weeks after Basic Safety and Survival Training to members of the fishing industry who participated in this training. This pilot represents FPSS's first investigation of outcomes beyond the day of training. Questions explored the extent to which participants engaged in safe behaviors and operational practices, experienced opportunities to use skills they learned since the training, as well as their attitudes toward safety. On the day of trainings, FPSS staff collected email addresses, and they let participants know to expect to receive a short follow up survey via email in approximately 8 weeks. FPSS's Evaluation Manager emailed a Survey Monkey link to most participants approximately 8 weeks after they had completed training, giving them approximately 2 weeks to complete the survey. The Evaluation Manager also sent one reminder email. Pilot data collection began in February 2021 and continued through July 2021, with participants from trainings conducted between December 2020-June 2021. Initial response rates to the first 3 administrations of the survey were low (1-3 participants from each training). We investigated and addressed different reasons for low participation (e.g., potential of emails from Survey Monkey going to spam folders, sending a follow up reminder directly from an FPSS email address, collecting legible email address, and need for a greater incentive). Starting in June, FPSS offered entry into a raffle for a \$100 Amazon gift card in July as an incentive for participating, and rates improved. In total, 27 fishing industry participants completed the follow up survey.

### Preliminary findings included:

- 85% of respondents had recommended the training to someone else
- A majority respondents reported enacting some new safety behaviors. The top 5 behaviors noted were:
  - o 74% reported that they had inspected their fire extinguisher
  - o 70% inspected their survival suit, and several noted specifically making their survival suites more accessible.
  - 59% carried Naloxone/Narcan
  - o More than half (52%) had built a first aid kit
  - o More than half (52%) had conducted drills
- 81% of the 27 respondents had fished since the training, and of them, 3 had been able to help themselves or others with an illness or injury since the training.
- When asked what they would tell other fishermen about safety, respondents said they would recommend this course, that there is always something to learn or refresh learning about, and to wear a PFD.

We are reviewing the results of the pilot further to refine the survey and process for the fall 2021 safety training season.

Goal #3: Increase training capacity by training and certifying new safety instructors.

We scheduled a Marine Safety Instructor Training (5 days) and a Stability Instructor Training (1 day) for early June 2020, but had to cancel both because of COVID-19. The MSIT class is required for new instructors of both the Safety & Survival course and the Drill Conductor course. The Stability Instructor course is required to instruct the Stability course. We were able to reschedule both classes for August 2021. We promoted the class to experienced commercial fishermen through fishing associations like the Maine Lobstermen's Association, the Massachusetts Fishermen's Partnership, and the Commercial Fisheries Center of Rhode Island.

Seventeen people from the commercial fishing and maritime communities registered for the class and fifteen completed it. Unfortunately, two lobstermen from Maine had to cancel at the last minute because family members tested positive for COVID-19.

During this project period we also increased the professional competence of safety instructors by creating comprehensive lesson plans for each training module. One of these plans is included in the appendix as an example. These plans are living documents and included links to the latest resources and National Transportation Safety Board investigations so that instructors remain up to date on practices or equipment that reduce the risk of injuries and fatalities.

B.3 – Competitive Revisions/Administrative Supplements N/A

*B.4* – What opportunities for training and professional development did the project provide? See Above

B.5 – How did you disseminate the results to communities of interest? When relevant to the goals of the research project, describe how the significant findings may promote, enhance, or advance the translation of the research into practice or inform policy.

We conducted extensive outreach with local media before and after a safety training to ensure that the fishing community sees the training that was conducted. Some examples from the first year of this project:

### New Bedford, Massachusetts

https://www.southcoasttoday.com/photogallery/NB/20200821/NEWS/821009999/PH/1

https://www.southcoasttoday.com/photogallery/NB/20191125/NEWS/112509996/PH/1

### Cape May, New Jersey

https://pressofatlanticcity.com/news/local/mass-nonprofit-brings-fisherman-safety-program-to-wildwood-crest/article 73c1d57c-f770-50e0-ae3d-e432ff4e5804.html

#### Portland, Maine

https://www.pressherald.com/2019/10/30/fishermen-training-hopes-to-change-culture-of-boating-safety/

New Bedford, Massachusetts <a href="https://www.youtube.com/watch?v=F5BfMV\_teII">https://www.youtube.com/watch?v=F5BfMV\_teII</a>

B.6 - What do you plan to do during the next reporting period to accomplish the goals? Include a Detailed Operational Plan for continuing activities in the upcoming budget period, including updated Measures of Effectiveness for evaluating progress during the upcoming budget period. List by Research Aim/Project and include a Project Timeline with planned milestones for the upcoming year (be specific and provide deadlines).

Due to COVID-19, we restructured our method of delivering training so that we minimize the risk of transmission. This included forming teams of instructors that remained with one small group of students throughout the training. We also hold the majority of training outdoors.

We planned, scheduled, and committed to 2 Safety & Survival classes, 2 Drill Conductor classes, and 1 CPR/First Aid classes in first three months of the next budget period in Massachusetts. During the remainder of the first year of the next project period, we intend to hold 5-7 Safety & Survival classes, 5-7 Drill Conductor classes, 10 CPR/First Aid classes, and 4-6 Stability classes.

#### C. Products

*C.1 - Publications, conference papers, and presentations* 

FPSS Annual Report – Excerpt related to Safety Training included in Appendix

C.2 - Website(s) or other Internet site(s) – include URL(s)

https://fishingpartnership.org/safety-at-sea-training/

https://www.facebook.com/FishingPartnershipSupportServices

*C.3 - Technologies or techniques* 

N/A

C.4 - Inventions, patent applications, and/or licenses

N/A

C.5 - Other products and resource sharing

N/A

C.5.a. Other products, such as data or databases, physical collections, audio or video products, software, models, educational aids or curricula, instruments or equipment, research material, interventions (e.g., clinical or educational), or new business creation.

During the pandemic, we developed our webpage to include additional training resources. We also created a COVID-19 Safety at Sea Resources document and emailed it to fishermen on the east coast.

C.5.b. Resource sharing. Describe progress for sharing research data, model organisms, genome wide association studies data, or other such project-specific data. Projects that involve collection or generation of new public health data are required to develop a Data Management Plan (DMP). Please attach a copy of your project's updated DMP in this section. Please see Additional Requirement – 25 (AR-25) available at:

http://www.cdc.gov/grants/additionalrequirements/index.html for a comprehensive listing of DMP requirements.

None in initial year.

#### **D.** Participants

D.1 - What individuals have worked on the project? Please include calendar, academic, and summer months.

Position	Name	Calendar
Title		Months
PI/PD	J.J. Bartlett	All
Project Manager	Daniel Orchard	All
Training Scheduler	Alexandra Evans	All
Safety Training Coordinator	Luis Catala	All
Manager, Evaluation	Krista Pelletier	All
Community Health Navigator	Shannon Eldredge	All
Community Health Navigator	Nina Groppo	All
Community Health Navigator	Lori Caron	All
Community Health Navigator	Deb Kelsey	All
Community Health Navigator	Jenny Amaral	All
Community Health Navigator	Morgan Eldredge	All
Director, Safety Training	Edward Dennehy	All
Data Entry Specialist	Thom Walters	All
Safety Instructor	Russell Kingman	All
Manager, Communications	Ann Manion	May 2020 – Aug 2021

*D*.2

a. Level of Effort

Full

b. New Senior/Key Personnel None

c. Changes in Other Support None

d. New Other Significant Contributors None

### E. Impact

E.1 - What is the impact on the development of human resources, if applicable?

E.2 - What is the impact the Public Health Relevance and Impact? The investigator should address how the findings of the project relate beyond the immediate study to improved practices, prevention or intervention techniques, legislation, policy, or use of technology in public health.

FPSS requests that all fishing industry participants in Basic Safety and Survival Training complete a survey (see Appendix) at the end of the day of training. Participants rate the extent to which the training is useful to them; their perceived gains in knowledge, skills, and confidence; and the training modules they find to be the most valuable and why. FPSS has successfully used and refined its surveys for more than 5 years of safety training. Survey data are linked by participant ID to Salesforce data so we can explore patterns among types of fishermen, regions, and survey responses. Between September 2019-August 2021, 227 out of 259 participants in New England trainings responded to the survey. A majority (82%) worked in the fishing industry, and respondents reported having a range of experience fishing (e.g., 45% had fished for over 10 years, 16% for 6-10 years, 28% for 0-5 years).

The training offered new, hands-on learning experiences to the respondents. Most (81%) had not attended the training before, and before the day of the training, they had never been trained in some of the specific topics/modules covered. For instance, 56% had never been trained in opioid awareness/Naloxone, more than 50% had not learned how to minimize the effects of flooding or use dewatering pumps, and more than 40% had not learned about flares, shipboard firefighting, life rafts, or survival suits.

Participants rated the quality of the training highly—96% rated it as very good or excellent. Comments included: "I would recommend this to anyone who wants to learn properly to become a fisherman," "You will save your own life or some[one] else's with this course info," and "Best way to learn the safety in the fishing industry."

As a result of the training, more than half of respondents reported they intended to start changing or modifying the following safety practices: wearing a life jacket, inspecting a survival suit, participating in monthly drills, building a damage control kit, and carrying Narcan, and over 40% of respondents intended to engage in additional safety practices (e.g., buying or building equipment including AEDs, fire extinguishers, CPR, and first aid kits).

#### F. Changes

F.1 - Changes in approach and reasons for change, including changes that have a significant impact on expenditures

The COVID-19 pandemic significantly impacted how and where we conducted training through the project period. In our project plan, we intended to hold trainings as large events, with as many as 60 trainees and 8 instructors in a single day. This model has been successful for fifteen years. But this model will not work during this pandemic.

The CDC has been clear that older adults and people with underlying medical conditions are at highest risk of developing a severe illness from COVID-19. "Severe illness means that the person with COVID-19 may require hospitalization, intensive care, or a ventilator to help them breathe, or they may even die."

Fishermen and their families are in both of these high-risk categories. The "Graying of the Fleet" is well documented. The median age for New England Fishermen is over 50 years old, compared to the Nation's median age of 37.9 years of age. Many of the fishermen we work with are over 60 years old. Furthermore, fishermen and their families also suffer from underlying medical conditions at rates higher than the general population. We functioned as a health insurance company for fishing families for fourteen years, and during that time, we compared our membership to another company that managed health care for approximately 150,000 self-insured individuals. FPSS family members were found to have higher rates of multiple health conditions than non-FPSS individuals, including Chronic Obstructive Pulmonary Disease (73% higher) and hypertension (56% higher). These are some of the underlying medical conditions listed by the CDC as putting a person at higher risk of developing a severe illness from COVID-19. In addition, many of our instructors are retired fishermen and mariners that are in the same high-risk categories.

We could not continue to use the previous, large event gathering and increase the risk of spreading COVID-19 among high-risk individuals that we are trying to make safer. In accordance with state and federal guidelines, we are working to convert all of our training to be held entirely outdoors in an unenclosed space, or in a combination of outdoors and online (via Zoom) for lecture portions. We will also limit the number of participants.

We successfully held trial courses using this method and safety protocols and health screening (see below) in Massachusetts and Rhode Island in August, 2020. An example of outdoor, masked training in New Bedford appears below.

As the pandemic progressed and vaccinations become available, we were able to hold trainings indoors again under certain conditions.

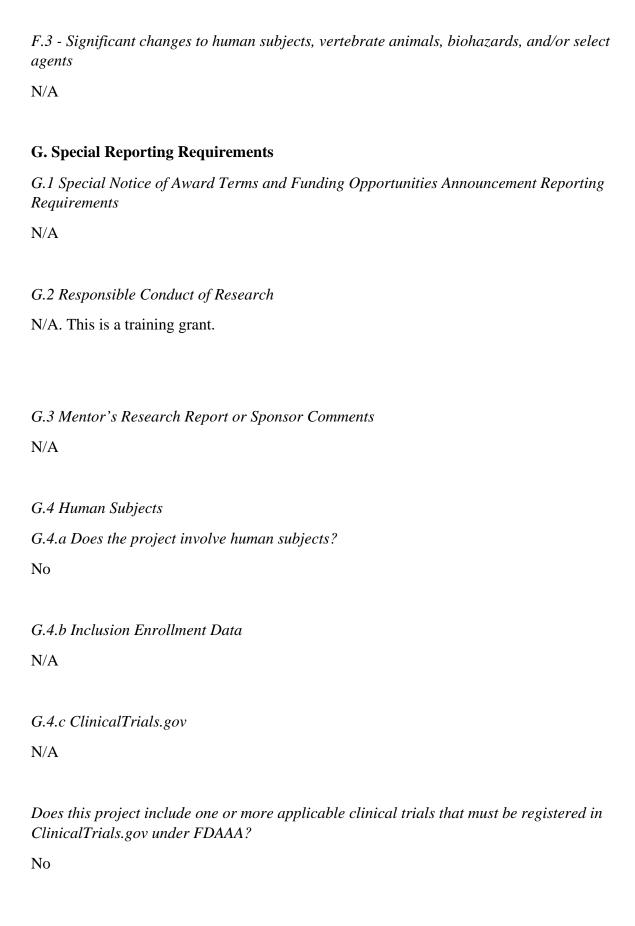


F.2 - Actual or anticipated challenges or delays and actions or plans to resolve them

The uncertainty around COVID-19 is a significant challenge to this project. As stated above, we have adapted by limiting group size and minimizing indoor training. Many of our safety instructors were also at high risk of developing severe illness from COVID-19 because of age or underlying health conditions. These instructors were not able to travel to conduct overnight travel or attend events in high-risk states during the majority of the project period.

In addition, state restrictions on travel may prevent us from completing the training in all communities. Most of our instructors live and work in Massachusetts. But Massachusetts has a travel order that, as of made it difficult for us to send them to train fishermen in Virginia, Maryland, Rhode Island and North Carolina. Upon returning to Massachusetts, instructors would have to quarantine for 14 days or produce a negative COVID-19 test result that has been administered up to 72-hours prior to your arrival in Massachusetts. We are worked around this challenge by holding training in the states where our instructors reside and by coordinating testing opportunities. This was difficult in the Mid-Atlantic, because only one instructor lives in this region.

Vaccinations did not become readily available until the spring of 2021. As a community health organization, we assisted contracted instructors with eligibility requirements and registering for vaccinations. We also coordinated with public health groups to administer COVID vaccines during safety trainings for instructors and fishermen. This vaccination effort allowed us to plan additional safety trainings in the Mid-Atlantic for the fall of 2021.



G.5	Human	Subject	Education	Rec	quirement
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Are there personnel on this project who are newly involved in the design or conduct of human subject's research?

No

G.6 Human Embryonic Stem Cells (HESCS)

Does this project involve human embryonic stem cells (only hESC lines listed as approved in the NIH Registry may be used in NIH funded research)?

No

G.7 Vertebrate Animals

Does this project involve vertebrate animals?

No

G.8 Project/Performance Sites

See Above

G.9 Foreign Component

N/A

G.10 Estimated Unobligated Balance

G.10.a Is it anticipated that an estimated unobligated balance (including prior year carryover) will be greater than 25% of the current year's total approved budget?

No. The unobligated balance is \$82,756 and the current budget for the program period is \$731,250.

G.11 Program Income

*Is program income anticipated during the next budget period?* 

No

### G.12 F&A Costs

Is there a change in performance sites that will affect F&A costs?

No

#### I. Section I – OUTCOMES

I. Provide a concise summary of the outcomes or findings of the award, written for the general public in clear and comprehensible language, without including any proprietary, confidential information or trade secrets. Note: project outcome information will be made public in NIH RePORTER

Fishing Partnership Support Services improved fishing vessel safety for commercial fishermen by promoting safety training information and providing opportunities to learn essential lifesaving skills. The training courses include Safety & Survival, Drill Conductor Certification, Fishing Vessel Stability, and CPR/First Aid/AED. Courses and curriculums are accepted by the U.S. Coast Guard through the Alaska Marine Safety Education Association, the American Heart Association, or other organizations. Through hands-on training, commercial fishermen learn and apply the skills they need as first responders to fires, flooding, man overboard, catastrophic injuries, hypothermia, and other life-threatening emergencies at sea. Trainings were held in each coastal New England state.

BUILDING
RESILIENCE
IN ROUGH
WATERS





**ANNUAL REPORT** 

FISHING PARTNERSHIP







SUPPORT SERVICES

# SAFETY AT SEA

To be safe, fishermen must have access to safety training, investment in their safety infrastructure, and regulations that don't force them to fish unsafely.

### TRAINING TO MEET THE CHALLENGES OF A LIFE AT SEA

Training is a cornerstone to resilience at sea. When fishermen participate regularly in safety training, they tend to respond more effectively, quickly, and as a team. They are better equipped to prevent accidents, control issues when they are small, and escape safely if the need arises.

In 2021, Fishing Partnership safely adapted to the pandemic and offered 15 Safety and Drill Conductor Certification classes. The response to follow-up class surveys from fishermen most often expresses the following sentiment: "... I'm now better prepared to save my own life or someone else's life now that I have taken this course."

2021 was the busiest year in Fishing Partnership's history. We met the training demands of several hundred fishermen who are now better prepared for the challenges of their profession.

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I've participated in many CPR programs over the years, and Fishing Partnership's robust CPR and First Aid Training course is by far the best class I've ever taken.

- CPR and First Aid Training Participant





### ENHANCED CPR AND FIRST AID TRAINING FOR FISHERMEN

When a fisherman becomes sick or injured at sea, it can take hours and up to a day for professional medical care to arrive. Fishermen, as first responders at sea, need to be prepared to provide first aid for prolonged periods of time.

In 2021, Fishing Partnership piloted an enhanced First Aid and CPR certification course to address this reality. Based on similar training programs for West Coast fishermen by our partners at Oregon State University and Alaska Marine Safety Education Association, Fishing Partnership's new, hands-on class is geared toward assessing and treating patients in the hazardous settings often encountered by those working at sea.





# IS YOUR CREW PREPARED FOR AN EMERGENCY?

### If they aren't prepared, then you aren't prepared!

Your crew may know how to fish, but do they know what to do when your vessel starts to flood? Or someone falls overboard? Or you have a medical emergency? Can everyone on board make a mayday call, light a flare, and launch your liferaft?

Fishing Partnership Support Services can come to your port with free, hands-on training that teaches you and your crew how to respond when fires, flooding, and other emergencies occur. Contact us today to find out where we're headed next. Or better yet, help us plan a training in your port.



Visit **fishingpartnership.org** or call (617) 928–3443 for more information.



### Why should I have safety training in my port?

Because you could save the lives of your crew or your own life. Fishing is among the deadliest professions in the country. But it doesn't need to be. Through training, fishermen can reduce their risk of an accident and learn what to do when emergencies occur. Alaskan fishermen used to have the highest fatality rate in the country. Then they started training. Now they have the lowest rate. The East Coast fisheries now have the highest fatality rate.





### **How much does training cost?**

Nothing! Our training is FREE to fishermen and shoreside support workers in the fishing industry. We receive federal, state and private funding from the U.S. Coast Guard, Centers for Disease Control, Northeast Center for Occupational Health and Safety, the Massachusetts Executive Office of Health and Human Services, and others to provide this training.

### Why do you need our help?

Our training is a benefit to fishermen, not a burden. We want to collaborate with you to pick the right time of year and the right location to serve your fishing community. We try not to hold a training during the height of fishing season. You can also help us get the word out to other fishermen to attend.

Fishingpartnership.org

### What courses do you offer?

<u>Safety and Survival Training:</u> Prepare for a day of hands-on training in fighting fires, plugging leaks, and swimming to a life raft in a survival suit. We encourage all fishermen, regardless of experience, to take this important course. It is also a required part of the Drill Conductor certification.

**Drill Conductor Certification:** After completing the 1-day Safety and Survival Training Course, fishermen spend a second day learning how to lead monthly, on-vessel safety drills that are critical for building muscle memory and ensuring the crew retains their skills. Fishermen that complete this course become Certified Drill Conductors in accordance with 46 CFR 28.270(c).

**CPR/First Aid:** In our half-day course, you'll learn how to give CPR and use an AED as well as first aid for common scenarios like bleeding, burns, poisoning, shock, and respiratory emergencies. For fishermen that want intense training designed specifically to deal with the injuries on a fishing vessel, we will offer Oregon State University's Fishermen First Aid Safety Training course. During this 2-day course, fishermen practice responding to injuries on the deck of a fishing vessel and build a first aid kit that they can take with them.

**Stability:** This workshop provides practical information and hands-on training on vessel stability and emergency responses to flooding problems which cause many casualties. Attendees will review case studies of actual fishing vessel accidents caused by inattention and other unsafe practices. Though larger vessels with multiple compartments are what first come to mind when thinking of stability, the principles are applicable to all vessels, especially for flooding control and prevention.

**Opioid Awareness and Narcan**: This short, but essential training is incorporated into our other courses. Or it can be held on its own. You will learn about the dangerous epidemic that is affecting all parts of our country, but especially independent professionals with strenuous workloads like construction workers, farmers, and fishermen. If permitted by the state, attendees will receive Narcan to carry in their first aid kit aboard their vessel.

**Ergonomics**: This special course was designed especially for commercial fishermen to learn the science of adapting workstations, tools, equipment, and work methods for more efficient, comfortable and error-free use. Learn how to improve your ergonomics on your fishing vessel! You will learn ways to reduce pain and injury to your body through more efficient work practices (efficiency = more fish!).



### Are these trainings required?

It depends. If you are in a state fishery, you'll have to look at your state's rules because they vary. If you have a federal fishing license, then these are the general rules:

- <u>Safety and Survival Training:</u> Not required but is a pre-requisite for Drill Conductor Certification.
- **Drill Conductor:** Each month, the crew of a federal vessel must practice their emergency procedures for abandoning ship, firefighting, man-overboard, and flooding. These drills must be led by someone that is certified as a Drill Conductor. They do not have to be a member of the crew (some vessels hire a drill conductor each month). But if you complete this class, you will be certified to lead your own monthly drills at no cost.
- **CPR/First Aid:** If you fish with more than one person, federal regulations require someone on board to have a CPR certification and someone to have a First Aid Certification (it can be the same person).
- **Stability:** This course is not currently required, however, Congress passed a law directing the Coast Guard to make it a required class for the captain of every federal fishing vessel. We are working to make sure that those that complete this course would be grandfathered.

### Who are your instructors?

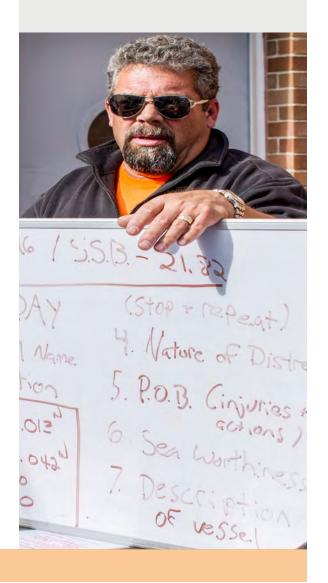
Our instructors are experienced fishermen or mariners. The Safety, Drill Conductor, and Stability instructors are trained by the Alaska Marine Safety Education Association (AMSEA) and certified by the Coast Guard to teach the courses. Our CPR/First Aid instructors are certified by the American Heart Association, Oregon State University, or another Coast Guard-approved organization to teach their respective curriculums. Our Opioid instructors are community health workers within our organization or are part of a local prevention program. A list of our instructors and partners is available on our webpage: fishingpartnership.org.

### How does someone become an instructor?

Attendance at an AMSEA Instructor course, followed by certification by the Coast Guard is required. Fishing Partnership is currently looking for new instructors to add to our cadre of professionals. Former commercial fishermen, Coast Guardsmen, marine surveyors, or someone of equivalent maritime experience are ideal candidates. Prior instructor or teaching experience is a plus. If interested, or for more information contact Dan Orchard at dorchard@fishingpartnership.org.

# What about the weather? If there's fair weather, we have to go fishing.

Yes, you do! We've been training fishermen since 2005 and understand that fishing comes first and that we can't change the weather. We try to hold our trainings during a slow time of year of when seasonal fishermen are fishing less often.



# Will my insurance company give me a discount for completing these courses?

It might. We are happy to provide you with a course summary to provide to your insurer.

# Can my fishing association help organize and promote a training?

Absolutely. We also have a specific budget to cover certain costs incurred by an association, like the printing of flyers, advertising and outreach, time spent signing people up, etc. Please get in touch with us and we will start planning.

# I know someone that would donate to support this training. Do you accept donations?

Yes. Please go to our website to donate and learn about all the ways we help the fishing community: fishingpartnership.org. Your donations help us meet the required match for our federal grants and allow us to keep this critical training free for all fishermen. Thank you!

# What is Fishing Partnership Support Services?

We were created in 1997 by leaders in the fishing communities of Massachusetts to help fishing families obtain health insurance. Over the last two decades, we have been dedicated to helping fishermen take care of many of their health, safety, and economic security needs so that they can stay focused on what they do best - Fishing! Over the last few years, we've been able to expand our safety training beyond Massachusetts to fishermen throughout New England and the Mid-Atlantic. Learn more about our programs and services at our website: fishingpartnership.org.



## Fishing Partnership Support Services Examples of Social Media Promoting Safety Training and Fishing Vessel Safety







F/V Carol Marie out of #chathamma, owned by Scott MacAllister, does #gillnetting for #groundfish like #monkfish, #dogfish and skate. Crew member, Owen Linehan, recently completed Fishing Partnership's Safety & Survival Training at #saquatucketharbor in #HarwichMA.

Owen was the lucky recipient of the PFD [Personal Flotation Device] raffle that takes place at each #safetytraining class. Safety Instructor, Russell Kingman, remarked: "Owen was psyched to win a free pair of Stormline Inherent Floatation Bib Pants, which fit great and give him the lifesaving buoyancy he needs, without the bulk of an old-fashioned orange PFD!"

If you need Safety & Survival training, check out our Spring 2021 Class Schedule

https://fishingpartnership.org/calendar/

#thingshavechanged #safetyatsea

#commercialfishermen

https://www.facebook.com/scott.macallister.94





As #commercialfishermen, you are the first responders for medical emergencies onboard your own vessels at sea. Depending on the weather and your distance from shore, you may continue to respond for a long time until medical experts take over.

Fishing Partnership's CPR/First Aid/Narcan Training is enhanced to teach you the most up-to-date life-saving skills. This class certifies fishermen in #CPR and #FirstAid and meets U.S. Coast Guard requirements under 46 CFR 28.21.

Our next class will be held on August 27, 2021, at UMass Dartmouth School for Marine Science & Technology (SMAST West) in #NewBedfordMA. Registration is required as the number of attendees is limited. Please contact #fishyp Navigator Shannon Eldredge at 774-840-9417.

https://bit.ly/3xBjYoJ

#safetytraining #safetyatsea #commercialfishing #narcantraining #firstresponders #fishingvessel



FISHINGPARTNERSHIP.ORG

CPR & FIRST AID CLASS - Fishing Partnership Support Services



Join us!

U.S. Representative Bill Keating Rep. Antonio F. D. Cabral New Bedford Economic Development Council Greater New Bedford Community Health Center Debra Kelsey



New Bedford Fishing Heritage Center

June 23, 2021 · 🚱

Luis Catala of Fishing Partnership will present a Safety Training Demo at 1:30 PM on Saturday, June 26 as part of our 5th Anniversary Celebration! Learn about ... See more



#ICYMI, to honor the life and legacy of lead Safety Instructor, Edward "Ted" Williams, a Memorial Scholarship Fund has been established that provides #financialassistance to #commercialfishermen to take Coast Guard approved training programs that improve their safety and professional maritime skills.

Give today:

http://bit.ly/2MocMue

#GivingTuesday #memorialfund #financialaid







### **Dan Orchard**

**From:** Fishing Partnership <info@fishingpartnership.org>

**Sent:** Monday, April 5, 2021 5:49 PM

**To:** Dan Orchard

**Subject:** Spring 2021 Safety at Sea Class Schedule

View this email in your browser

### FISHING PARTNERSHIP



No walk-ins permitted. Register with a Navigator



### Announcing

# Spring 2021 Safety at Sea Class Schedule

Fishing Partnership's Safety Program Classes for commercial fishermen have resumed for these classes:

- Safety and Survival
- Drill Conductor
- Fishing Vessel Stability

### First Aid and CPR

### View Calendar & Sign Up

Sign up for a safety class today with a Fishing Partnership Navigator. Classes are being offered throughout the Northeast. View Calendar & SIGN UP









**View Spring Class Schedule** 

### Because the Life You Save Could be Your Own

Meet Jenny Amaral & Deb Kelsey. They're Fishing Partnership Navigators & Vaccinated Community Health Workers! Contact them to sign up for a safety program class or to get connected to a vaccination center to schedule your vaccine shot.





Share



Tweet



Forward

### **Learn More About Our Safety & Survival Programs**

### DYK?

Open Enrollment has been extended to July 23rd.

Need health insurance? Contact a Fishing Partnership Navigator



**Help us help you!** View information needed to apply.



**To enroll directly**, visit MA Health Connector website.

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You're currently registered to receive emails from Fishing Partnership because you or one of your family members come from

### **Dan Orchard**

**From:** Fishing Partnership <info@fishingpartnership.org>

Sent: Friday, February 19, 2021 5:17 PM

**To:** Dan Orchard

**Subject:** Fishing Vessel Stability Class Schedule

View this email in your browser

### Spring 2021 Class Schedule



### **Fishing Vessel Stability Classes**

Pre-Registration Required
No Walk-Ins Due to COVID-19

### **Contact a Navigator to Sign Up!**

Did you know that flooding and instability are the leading causes of fishing vessel disasters in the United States? Fishing Partnership offers a class on Fishing Vessel Stability created by the <u>Alaska Marine Safety Education Association</u>. **This class is FREE.** You will receive practical information to keep your boat stable through different loads and structural changes as well as hands-on instruction on how to respond to flooding emergencies.



**Register Today for a Spring 2021 Class** 

It's Simple, <u>Just Call a Navigator!</u>

Date: **February 22, 2021**Location: **New Bedford**Contact: **Jenny Amaral** 

Phone: **508.961.7717** 

Date: March 2, 2021

Location: Chatham

Contact: Morgan Eldredge

Phone: **508.237.9402** 





Date: April 5, 2021
Location: Plymouth
Contact: Lori Caron
Phone: 781.635.0011

Date: **April 19, 2021**Location: **Gloucester** 

Contact: Maria Carpenter

Phone: **978.282.4847** 





### This FREE course covers these topics & more:

Flooding Control

Flooding Prevention

Stability Technology

Stability Principles

The Stability Curve

Interpreting Stability Reports

Crew Responsibilities

Still not convinced?

Watch this video of an unstable vessel off the coast of Cape Cod.



### Forward to a Friend & Take the Class Together!!

### **About Fishing Partnership Support Services**

Fishing Partnership is a non-profit support services organization dedicated to improving the health, safety and economic security of commercial fishermen and their families. Founded in 1997, we bring critical support services and programs to more than 20,000 New England fishing families. With 4 offices in Gloucester, New Bedford, Plymouth and Chatham, we deliver Health and Wellness, Safety at Sea and Economic Security support services in the communities where fishing families live.









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### Our mailing address is:

30 Chestnut Avenue, Suite #2 Burlington, MA 01803

### FISHING PARTNERSHIP



### **DAY ONE**

### Safety & Survival Training

designed This training is for all fishermen, including crewmen, to learn or hone fundamental skills. Through handstraining. fishermen learn about on EPIRBs, Signal Flares, MAYDAY Calls, Man Overboard Recovery, Firefighting, Flooding & Damage Control, Dewatering Pumps, Immersion Suits, PFDs, and Life Rafts. Commercial Fishermen that attend are eligible for a Rebate for 50% off a Lifejacket they purchase after the training!

### **DAY TWO**

### **Drill Conductor Certification**

Dig deeper into what you learned in the Safety & Survival Class including new information cold-water on survival. helicopter rescues, stability, liability and emergency procedures. Then apply your knowledge and skills to your own fishing vessel in a way that has proven to save lives. Fishermen that complete these two days of training are AMSEA certified Drill Conductors. which **USCG** meets requirements under 46 CFR 28.270(c).

### NO WALK-INS PERMITTED

### CONTACT A NAVIGATOR TO REGISTER

Date:

Time:

**Location:** 

Navigator:

Scan QR Code to View Calendar of Upcoming Classes



### FISHING PARTNERSHIP SUPPORT SERVICES

# **2020 Spring Training Schedule**

This spring, Fishing Partnership Support Services will be offering a variety of free trainings for commercial fishermen across the region.

Our popular Safety & Survival Training is a full-day, hands-on training for commercial fishermen. Drill Conductor Certification is a full-day training for those who have completed our Safety & Survival training and want to conduct required monthly drills on their own fishing vessels.

Find the trainings nearest you and visit our website or contact the Navigator listed to register.

#### **New Bedford, MA**

March 12 - Safety & Survival March 13 - Drill Conductor Contact **Deb**, **Jenny**, or **Rob** to register.

#### Marshfield, MA

March 19 - Safety & Survival March 20 - Drill Conductor Contact Lori to register.

#### **Barnegat Light, NJ**

March 26 - Safety & Survival March 27 - Drill Conductor Contact Nina to register.

#### Harwich, MA

April 2 - Safety & Su vival April 3 - Drill Conductor Contact Morgan or Sh. to register.

#### **Southwest Harbor, ME**

April 16 - Safety & Survival April 17 - Drill Conductor Contact Nina to register.

#### FISHING PARTNERSHIP



#### **New Castle, NH**

April 23 - Safety & Survival April 24 - Drill Conductor Contact Maria to register.

#### **Point Judith, RI**

April 23 - Safety & Survival April 24 - Drill ond ctor Contact Lori o register

Ocean (ity, MD April 30 - Safe y & Survival May \_\_ will conductor ntact **Deb** to register.

#### Bail y Island, ME

7 - Safety & Survival May 8 - Drill Conductor Contact **Morgan** to register.

#### Gloucester, MA

May 14 - Safety & Survival May 15 - Drill Conductor Contact **Nina** or **Maria** to register.

### Montauk, NY

May 21 - Safety & Survival May 22 - Drill Conductor Contact Morgan to register.

For nore information, or to register for a training, contact. Navigator in your ea:

erving the Cape & the Islands Morgan Eldredge and Shannon Eldredge (508) 237-9402

#### Gloucester

[Serving the North Shore] Nina Groppo and Maria Carpenter (978) 282-4847

#### **New Bedford**

[Serving the South Coast] Deb Kelsey (508) 884-6661 or Jenny Amaral and Rob Jardin (508) 991-3043

#### **Plymouth**

[Serving Boston & the South Shore] Lori Caron (781) 635-0011

#### **Need Help with Health** Insurance?

You may still be eligible to enroll. Contact a Fishing Partnership Navigator for assistance with health insurance coverage, understanding your insurance benefits, or finding a doctor.



#### **COVID-19 Protocols & Health Screening for Safety Training Events**

#### As of September 1, 2021

To minimize the risk to the health of fishermen trainees, instructors, and staff members, FPSS will follow these protocols for all safety training courses. In addition, FPSS will monitor and comply with federal, state, and community requirements. If there is a conflict between these protocols and a government mandate, FPSS should follow the more restrictive measure.

<u>Risk Assessment:</u> The safety team and lead instructor shall conduct a risk assessment prior to all trainings that identifies risks and, as necessary, institutes additional mitigation measures. Risk considerations include:

- The chance (0-100%) that at least one COVID-19 positive individual will be present at the event (Use <a href="https://covid19risk.biosci.gatech.edu/">https://covid19risk.biosci.gatech.edu/</a>).
- Participants traveling from areas with higher infection rates
- Participants with underlying medical conditions or of older age.
- Vaccination rates in the region or, if known, percentage of attendees fully vaccinated

#### Additional mitigation measures may include:

- Universal masking
- Eating lunch outdoors
- Requiring social distancing regardless of vaccination status.
- Reducing the number of participants.
- Adaptation to the training curriculum to eliminate or modify high-risk activities such as entering an enclosed liferaft or conducting mouth-to-mouth rescue breathing for CPR.
- Additional Personal Protective Equipment

#### **Gathering Size:**

- Gathering size may not exceed state or local limits.
- When applicable, trainees should be divided into smaller groups that remain together throughout the day with one set of instructors.

#### Venue:

- When possible, training should be outdoors or in unenclosed space such as a pavilion.
- Training may be conducted indoors after consultation between instructors and FPSS staff to mitigate the increased risk of transmission. Considerations include the size of the space and ventilation.

#### Screening:

Upon arrival to the training site, FPSS will conduct a health screening of all trainees, instructors, and staff and take temperatures with a forehead thermometer. See Health Screening Form for more information.

FPSS staff will share the screening questions/form in advance and inform trainees that they should not attend if they will not pass the screening.

<u>Masks:</u> Masks are required for all participants, instructors, and staff in indoor spaces regardless of vaccination. Participants should be aware of this requirement and should arrive with a mask.

<u>Social Distancing:</u> Social distancing of 6 feet or more is required during all training modules for all unvaccinated participants. When instruction involves speaking for an extended period of time, the instructor should aim to maintain at least 10-foot separation from other participants. The following exceptions are permitted:

- Family members living together
- Fishermen from the same vessel that are using other COVID prevention measures instead of social distancing.
- Vaccinated individuals

#### **Surface Contacts:**

- FPSS will provide all individuals with hand sanitizer to carry and use throughout the day.
- The following equipment may not be shared during a training event:
  - Survival suits
  - CPR mannequins (if mouth-to-mouth breathing occurs)
- Survival suits and equipment that is difficult to disinfect will be isolated for at least 7 days.

#### **Food & Drink**

When possible, food and drink should be consumed outdoors.

Students not able to follow protocols will be asked to take training at another time when lower risk protocols are possible.



### **COVID-19 HEALTH SCREENING**

NAME	TRAINING LOCATION	Date	e
Check one: TRAINEE INSTRUCT  Temperature	ΓOR STAFF		
·			
An instructor or FPSS staff member will thigher are considered too high to attend	•	Readings o	f 100.4 or
Forehead Temperature			
Questions			
1. Do you have any of the following new sy condition)?  • Fever or chills • Cough • Headache • New loss of taste of the following new sy condition of the following new sy cond	ortness of breath/difficulty breathing	YES	NO
<ul> <li>Sore throat</li> <li>Congestion</li> <li>Dia</li> <li>Has a public health or medical profession isolate, or self-quarantine for a time per concerns about COVID-19 infection?</li> </ul>	nal told you to self-monitor, self-	YES	NO
3. Have you had a positive COVID-19 test for	or active virus in the past 10 days?	YES	NO
4. Within the past 14 days, have you had consince tested positive for COVID-19 or have Contact is being 6 feet (2 meters) or closs hour period (e.g., 3 times for 5 minutes of direct contact with fluids from a person coughed or sneezed on).	s developed COVID-like symptoms? er for a total of 15 minutes over a 24- qualifies, within one day), or having	YES	NO
If you answered YES to questions 1, 2, or 3, or	instruction. If you do not have a healthcare ces. If you answered YES to question 4, you	e provider, ar may attend	n FPSS the training if
SIGNATURE		DATE	



#### **Narcan Training Survey**

**Location: New Bedford** 

Thank you for completing this short survey--it will probably take you about 5-10 minutes to do. Your answers will help us improve our trainings and work to make our community safer. The survey is completely voluntary, and you can skip any question. The information you share will be kept private.

1.	Are you:  Male Female Non-binary Prefer to self-describe
2.	Do you consider yourself to be transgender?  ☐ Yes ☐ No
3.	What is your sexual orientation?  Gay Lesbian Bisexual Heterosexual Prefer to self-describe
4.	Are you: (check all that apply)  White Hispanic/Latino Native American/Alaskan Native Black/African American Asian/Pacific Islander Cape Verdean Haitian Brazilian Other (please specify):
5.	What is your primary language?  English Spanish Portuguese Cape Verdean Creole Haitian Creole Other
6.	Before today, had you been trained in using Narcan?  ☐ Yes ☐ No
7.	Heroin, Oxycontin, and fentanyl are all examples of opioids.  ☐ True ☐ False ☐ I don't know

8.	Unconsciousness and unresponsiveness are signs of an overdose.  ☐ True ☐ False ☐ I don't know	
9.	A sternum rub helps you evaluate whether someone is unconscious.  True  False I don't know	
10.	Narcan (naloxone) will reverse the effect of an opioid overdose (e.g., oxycodone, codeine, fent neroin).  True  False  I don't know	anyl,
11.	Good Samaritan Laws are consistent across states and while at sea.  True  False  I don't know	
12.	Did you learn any new information or skills as a result of attending today's training?	
	☐ Yes ☐ No	
13.	Please rate your confidence level in administering opioid overdose reversal drugs BEFORE this training:  Not at All Confident  Slightly Confident  Moderately Confident  Very Confident  Extremely Confident	
14.	Please rate your confidence level in administering opioid overdose reversal drugs AFTER this training:  Not at All Confident  Slightly Confident  Moderately Confident  Very Confident  Extremely Confident	
15.	How likely is it that you would recommend this training to a friend, family member, or peer? (one)	circle
	Not at all likely Neutral Extremel	y likely
	0 1 2 3 4 5 6 7 8 9	10
16.	Please tell us more about why you would or would not recommend it:	



Name:	
Group Number: _	

### Safety Training Course Evaluation and Participant Survey

This survey will help us to improve our safety training and other programming to meet the needs of fishermen. Your participation is voluntary. All of your identifying information will be kept private. Thank you for answering all of the questions to the best of your ability.

1.	Do you work in the fishing industry?  ☐ Yes ☐ No (includes researchers, scientists, and harbo	rmasters)
2.	If no, do you work aboard fishing vessels as a third part ☐ Yes ☐ No	ty, such as a researcher or an observer?
3.	How many years have you been fishing?  Less than a year  1-5 years  6-10 years  More than 10 years: how many?	
4.	What are your primary fisheries? (Check all that apply)  Groundfish Lobster Sea Scallop Surf Clam/Ocean Quahog Tuna/Shark/Swordfish Squid Tilefish Striped Bass	<ul> <li>□ Scup/Black Sea Bass</li> <li>□ Herring/Mackerel</li> <li>□ Monkfish</li> <li>□ Shrimp</li> <li>□ Blue Crab</li> <li>□ Quahog/Steamer/Oyster/Bay Scallop</li> <li>□ Aquaculture</li> <li>□ Other:</li> </ul>
5.	What gear do you primarily use? (Check all that apply)  Bottom Trawl Mid-Water Trawl Pots/Traps Scallop Dredge Hydraulic Dredge Rod & Reel Gillnet	<ul> <li>□ Clam Rake</li> <li>□ Longline</li> <li>□ Aquaculture</li> <li>□ Purse Seine</li> <li>□ Weir/Pound Net</li> <li>□ Other:</li> </ul>
6.	How far do you normally work from shore? (Check all t  ☐ On shore or less than 100 yards ☐ Less than 3 miles (State waters) ☐ 3-12 miles ☐ More than 12 miles	hat apply)

## **Course Feedback**

7.	☐ Yes☐ No  If yes, how r☐ 1 tin☐ 2 tin☐ 3 or	many time me before mes befor more tim ast class, (	es have yo e re nes before did you ch	u taken it before	ore? ty practic		thing you	learned?	
8.	Before toda	y's trainir	ng, have yo	ou ever been t			_		
				Never	More	than 5 years	ago In	the last 5 years	I don't know
	First Aid								
	CPR								
	·	larcan Aw	/areness						
	Survival S								
	(Lifejacke								
	Recovery								
	flooding	ng the eff							
		ing Pump	S						
	Flares								
	-	d Firefigh	iting						
	Life Raft								
9.	Poor	v would y	ou rate to <b>Fair</b>	day's course?	Good	V	ery Good	Exce	lent
						V			
10.	How likely is (circle the n				is trainin	g to a friend c	or peer in	the fishing industr	y?
	0=Not at all	likely		5=Ne	eutral			10=Extremely	likely
	0 1	2	3	4 5	6	7 8	9	10	
	Please tell u	s more al	oout why y	ou would or v	vould not	recommend	it:		

11. How likely are you to		•	•		
Very unlikely	Unlikely	Neutral	Lik	ely	Very like
				]	
12 Which of the consense.		. 4			-2
12. Which of these safet	ry practices are you likely	r to cnange c <b>Already Do</b>	I'm Going to	today's training	g : This Doesı
	• •	This!	Start Doing	Going to Do	Apply to N
			This!	This!	117 7
Wear a lifejacket while	at sea				
Inspect my survival suit	S				
Inspect fire extinguishe	rs				
Buy an AED for the vess buy an AED	sel or ask owner to				
Schedule a free docksid the Coast Guard	·				
Participate in monthly o					
Take a First Aid/CPR ce					
Check my liferaft's expi	ration and installation				
Build or improve my Da	mage Control Kit				
Build or improve my Fir	st Aid Kit				
Carry Narcan					
Other:					
3. Have you experience	ed any of the following?				
Decree de la la company	the tab the attended to		Υe	es	No
,	the job (broken bones, c	oncussion, e	tc.)	]	
Seen a serious fishing-r	elated injury			]	
Gone overboard				]	
Had a fellow fisherman				]	
Had a fire onboard you				]	
Had flooding onboard y				]	
	nan who died while fishin			]	
Been aboard a vessel w	hen a fellow fisherman o	died		]	
□ 0	vork have you lost becaus				r?
□ 1-3 □ 4-7	□ More than 12	. rougnly no	w many?	_	
□ 0	you work through an inju	•			
□ 1-3 □ 4-7	☐ More than 12	2: how many	?		

#### **Course Outreach**

16. How d	id you hear about this course? (check all that apply)
	Employer
	Another Fisherman   Peer Referral
	Fishing Partnership Navigator
	Word of Mouth, other
	Google / Search Engine
	Social media (e.g. Facebook, Instagram, etc.)
	Email from Fishing Partnership
	Publication   Ad   Blog
	Other (please specify)



## Your feedback is very important!

In a few months, we will email you a follow-up survey. Please tell us how this training has changed the way you fish.

### Thank you for coming to training.

As members of the fishing community, we care about your health and safety. If you use the skills you learned today, please contact us to let us know so that we can improve our training.

#### **Survey Results - New England Safety Training**

#### N=227

Years fishing		
Row Labels	#	%
Less than a year	26	12%
1-5 years	35	16%
6-10 years	35	16%
More than 10 years	100	45%
N/A	26	12%
Grand Total	222	100%

Attended before		
Row Labels	#	%
Yes	43	19%
No	181	81%
Grand Total	224	100%

Row Labels	#	%
Yes	28	39%
No	44	61%
Grand Total	72	100%

Rate	today's	course
Row	Lahels	

Row Labels	#	%
Fair	1	0%
Good	8	4%
Very Good	58	26%
Excellent	156	70%
Grand Total	223	100%

#### Liklihood recommend

Row Labels	#	%
4	1	0%
5	1	0%
6	3	1%
7	8	4%
8	20	9%
9	20	9%
10	168	76%
Grand Total	221	100%

#### Why would you recommend this class to a peer in the fishing industry?

Amazing class

Any knowledge to pass along to save a life is useful

Best way to learn the safety in the fishing industry

Better to learn and not need than need and not know

Can and will save lives

Conclusive and hands-on experieince

Every Capt should have training and run drills

everyone should know ho to use safety and how to survive at sea

Excellent knowledgeable instructors

Extremely important to learn hands on - great instructors

Good Info, need the muscle memory in the event of an emergency. Good Trainers and instructors. Thank you. Very comfortable setting. Felt like family.

I have learned a lot of information that'll help me on any type of boat

I never got taught how to do this before so it really helps

I would recommend to anyone who wants to learn to properly become a fisherman

It could save you or someone else's life

It would benefit everyone in the industry

The more you practice the less you will panic in an emergency

very thorough with hands on and approachable/enthusiastic instructors

You will save your own life or some else's with this course info

Likely change or modify practices		
Row Labels	#	%
Very unlikely	5	2%
Unlikely	12	6%
Neutral	27	13%
Likely	73	35%
Very likely	92	44%
Grand Total	209	100%
Days lost due to injury Row Labels	#	%
0	179	82%
1-3	13	6%
4-7	10	5%
4-7 8-11	5	5% 2%
More than 12		2% 5%
Grand Total	10 <b>217</b>	100%
Days worked through injury	,,	0/
Row Labels	#	%
0	116	55%
1-3	20	9%
4-7	13	6%
8-11	25	12%
More than 12	37	18%
Grand Total	211	100%
Before today trained in		
First Aid		
Row Labels	#	%
Never	35	17%
	58	27%
More than 5 years ago		
In the last 5 years	117	55%
I don't know	2	1%
Grand Total	212	100%
CPR		
Row Labels	#	%
Never	38	18%
More than 5 years ago	57	27%
_		53%
In the last 5 years	114	53% 2%
In the last 5 years I don't know		53% 2% <b>100%</b>
_	114 5	2%
In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness	114 5 <b>214</b>	2% <b>100%</b>
In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness  Row Labels	114 5 <b>214</b> #	2% <b>100%</b> %
In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness  Row Labels  Never	114 5 <b>214</b> # 112	2% 100% % 56%
In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness  Row Labels  Never  More than 5 years ago	114 5 214 # 112 9	2% 100% % 56% 5%
In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness  Row Labels  Never  More than 5 years ago In the last 5 years	# 112 9 70	2% 100% % 56% 5% 35%
In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness Row Labels  Never More than 5 years ago In the last 5 years I don't know	# 112 9 70 9	2% 100% % 56% 5% 35% 5%
In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness Row Labels  Never More than 5 years ago In the last 5 years I don't know	# 112 9 70	2% 100% % 56% 5% 35%
In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness  Row Labels  Never  More than 5 years ago	# 112 9 70 9	2% 100% % 56% 5% 35% 5%
In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness  Row Labels  Never  More than 5 years ago In the last 5 years I don't know  Grand Total	# 112 9 70 9	2% 100% % 56% 5% 35% 5%
In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness  Row Labels  Never  More than 5 years ago In the last 5 years I don't know  Grand Total  Survival Suits  Row Labels	# 112 9 70 9 200 #	2% 100% % 56% 5% 35% 5% 100%
In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness  Row Labels  Never  More than 5 years ago In the last 5 years I don't know  Grand Total  Survival Suits  Row Labels  Never	# 112 9 70 9 200 # 82	2% 100% % 56% 5% 35% 5% 100%
In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness Row Labels  Never More than 5 years ago In the last 5 years I don't know Grand Total  Survival Suits Row Labels  Never More than 5 years ago	# 112 9 70 9 200 # 82 27	2% 100% % 56% 5% 35% 5% 100%
In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness  Row Labels  Never  More than 5 years ago In the last 5 years I don't know  Grand Total  Survival Suits  Row Labels  Never  More than 5 years ago In the last 5 years	# 112 9 70 9 200 # 82 27 87	2% 100%  % 56% 5% 35% 5% 100%  40% 13% 43%
In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness  Row Labels  Never  More than 5 years ago In the last 5 years I don't know  Grand Total  Survival Suits  Row Labels  Never	# 112 9 70 9 200 # 82 27	2% 100% % 56% 5% 35% 5% 100%
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In the last 5 years I don't know  Grand Total  Opiod/Narcan Awareness  Row Labels  Never  More than 5 years ago In the last 5 years I don't know  Grand Total  Survival Suits  Row Labels  Never  More than 5 years ago In the last 5 years I don't know  Grand Total  Survival Suits  Row Labels  Never  More than 5 years ago In the last 5 years I don't know  Grand Total  PFD	# 114 5 214 # 112 9 70 9 200 # 82 27 87 8 204	2% 100%  % 56% 5% 35% 5% 100%  40% 13% 43% 44% 100%
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MOB Recovery		
Row Labels	#	%
Never	78	38%
More than 5 years ago	30	14%
In the last 5 years	93	45%
I don't know	7	3%
Grand Total	208	100%
Minimize effects flooding		
Row Labels	#	%
Never	102	50%
More than 5 years ago	28	14%
In the last 5 years	65	32%
I don't know	8	4%
Grand Total	203	100%
Dewatering pumps		
Row Labels	#	%
Never	108	54%
More than 5 years ago	27	13%
In the last 5 years	60	30%
I don't know	6	3%
Grand Total	201	100%
Flares		
Row Labels	#	%
Never	84	41%
More than 5 years ago	32	16%
In the last 5 years	84	41%
I don't know	6	3%
Grand Total	206	100%
Shipboard Firefighting		
Row Labels	#	%
Never	93	46%
More than 5 years ago	31	15%
In the last 5 years	74	36%
I don't know	6	3%
Grand Total	204	100%
Life Raft		
Row Labels	#	%
Never	89	44%
More than 5 years ago	31	15%
In the last 5 years	74	37%
I don't know  Grand Total	7 <b>201</b>	3% <b>100%</b>
diana rotai	201	100/6
Which practices change/modify		
Wear lifejacket		
Row Labels	#	%
Already do	44	22%
Going to do	101	51%
Not going to do	50	25%
N/A	2	1%
Grand Total	197	100%
Committeed Costs		
Survival Suit	ц	0/
Already do	# •>	20%
Already do	83	39%
Going to do	105	49%
Not going to do	3	1%
N/A Grand Total	22	10%
Grand Total	213	100%

Fire extinguishers		
Row Labels	#	%
Already do	99	47%
Going to do	97	46%
Not going to do	5	2%
N/A	10	5%
Grand Total	211	100%
AED Row Labels	#	%
Already do	42	21%
Going to do	89	45%
Not going to do	30	15%
	39	20%
N/A Grand Total	200	100%
Granu Total	200	100%
Dock side safety		
Row Labels	#	%
Already do	81	39%
Going to do	54	26%
Not going to do	20	10%
N/A	52	25%
Grand Total	207	100%
Drills		
Row Labels	#	%
Already do	62	30%
Going to do	101	50%
Not going to do	18	9%
N/A	23	11%
Grand Total	204	100%
CPR Row Labels	#	%
Already do	104	50%
Going to do	85	40%
Not going to do	14	7%
N/A	7	3%
Grand Total	210	100%
Liferaft	ш.	0/
Row Labels	#	%
Already do	95	46%
Going to do	68	33%
Not going to do	5	2%
N/A Grand Total	38 <b>206</b>	18% <b>100%</b>
Granu TUlai	200	100%
Damage Control Kit		
Row Labels	#	%
Already do	57	27%
Going to do	117	56%
Not going to do	7	3%
N/A	28	13%
Grand Total	209	100%
First Aid Kit		
Row Labels	#	%
Already do	96	45%
Going to do	93	44%
Not going to do	6	3%
N/A	17	3% 8%
Grand Total	212	100%

Narcan		
Row Labels	#	%
Already do	45	22%
Going to do	113	56%
Not going to do	26	13%
N/A	18	9%
Grand Total	202	100%
Other		
Row Labels	#	%
Already do	1	7%
Going to do	8	53%
Not going to do	2	13%
N/A	4	27%
Grand Total	15	100%
Experienced the following		
Hurt on job		
Row Labels	#	%
Yes	48	22%
No	169	78%
Grand Total	217	100%
Seen injury		
Row Labels	#	%
Yes	69	32%
No	145	68%
Grand Total	214	100%
Overboard		
Row Labels	#	%
Yes	38	18%
No	177	82%
Grand Total	215	100%
-		
Seen overboard	щ	0/
Row Labels	<b>#</b> 57	<b>%</b>
Yes No	156	27% 73%
Grand Total	213	100%
dranu rotai	215	100%
Fire		
Row Labels	#	%
Yes	43	20%
No Grand Total	172 <b>215</b>	80% <b>100%</b>
dranu rotai	215	100%
Flooding		
Row Labels	#	%
Yes	69	32%
No	145	68%
Grand Total	214	100%
Known fisherman died		
Row Labels	#	%
Yes	99	46%
No	115	54%
Grand Total	214	100%
Aboard vessel fisherman died		
Row Labels	#	%
Yes	14	7%
No	200	93%
Grand Total	214	100%

#### FPSS Lesson Plan

### Flooding, Damage Control, P6 Pump

#### Introduction

- 1. If it's your first time with the group, introduce yourself and your credentials as a safety instructor. Ask the students what types of vessels and fisheries they work in so that training can be tailored to their needs.
- 2. Provide a *Need to Know* Statement. Below is one example:

"Make a circle with your thumb and index finger. That's about a 2-inch circle. Imagine that you have a hole that size in your hull and it is 2 feet below the waterline. Water is coming in. How much seawater? With a 2-inch hole at that depth, how long would it take to fill a blue bait barrel which is 55 gallons?"

Let the group provide guesses.

Answer: "30 seconds. In 30 seconds you have a bait barrel worth of seawater in the space. That's a lot of water coming in. Now if you can get that hole down from 2" to 1", about the size of a quarter... it takes 2 minutes before that bait barrel fills up. Four times longer.

This is why we need to know about flooding and controlling the damage. Once it starts, you need to act quickly. Fifty percent of the fishing vessels that are lost at sea, sink because of uncontrolled flooding. Knowing how to control flooding can potentially save your vessel, your catch, and the lives of you and your crew."

3. State the *Objectives* of this Lesson in clear terms:

#### "After this module, you will be able to do the following:

- Identify the areas on your vessel that are at highest risk of a flood and the ways you can reduce that risk.
- Develop plans to effectively respond to different types of flooding aboard your vessel through Plug, Close, Pump (AMSEA DC Task #11)
- Build an effective Damage Control Kit for the types of leaks that could occur on your vessel.
- Correctly use the items in a Damage Control Kit to slow or stop a leak in different flooding scenarios including a damaged pipe, hull, fitting, and shaft.
- Assemble, Operate and Troubleshoot a Coast Guard P6 dewatering pump.\* (AMSEA DC Task #12).

#### **Lesson Detail**

#### 1. Preventing a Flood

Objective: Identify the areas on your vessel that are at highest risk of a flood and the ways you can reduce that risk.

Back to that hole that is flooding your boat.... What are the ways your vessel can flood?

- Pull answers from the group, allow sharing of experiences. Responses should cover the following so add what the group omits:
  - o Hull Damage from collision or running aground
  - o Stuffing Box/Shaft
  - Thru-Hull Fittings and Sea Chest
  - o Cracked or Broken Pipes inside the vessel
  - o Downflooding from water on deck through an open or broken hatch or door.

How can you prevent the scenarios you just mentioned from occurring?

- Maintenance. Check these spots at least monthly.
  - o Check for damage and small leaks to fittings, pipes, and valves
  - o Make sure you can turn valves on and off.
  - o Check the hose clamps, especially on thru hull fittings, for corrosion.
  - Inspect Compartments/hatch seals/door gaskets
  - Test lock down deck hatches so they don't float off or knocked away by seas
- It's better to prevent flooding through regular maintenance, than to respond to a flooding vessel at sea

The flooding occurred despite maintenance.... How did you discover the flooding?

- Did alarms sound off?
  - A point about bilge alarms. They are incredibly important. And yet, they are one of the least reliable items on a fishing boat. At a minimum, test them every time you do your monthly drills. Make it a part of your flooding drill.
- Did you sense that the boat was riding oddly?
- Did you see a wave wash over the decks causing downflooding?
- Did you see it during regular checks of the bilges and compartments?

#### 2. Responding to a Flood

Objective: Develop plans to effectively respond to different types of flooding aboard your vessel through Plug, Close, Pump (AMSEA DC Task #11).

You get to practice a flooding drill on board your vessel every month with a drill. Pick a different location. Pick a different type of flooding. This will help you develop a plan and hone your skills. Let's walk through some of the tactical considerations you should think about so you design the right plan and

make sure that everyone on the crew knows what to do and where things are located. These things are not necessarily done in order. A well-trained crew may be doing a lot of these things simultaneously.

#### 1. Sound the Alarm

- a. MAYDAY call tells the Coast Guard and nearby vessels of your situation and what assistance you need. You can always "call off" the MAYDAY if you truly have fixed the problem. But it takes at least an hour for a helicopter to bring you a pump or reach you for rescue, so you make the MAYDAY call right away to set the USCG process in motion. Time is always of the essence.
- b. **Account** for all crew members

#### 2. Assess, Organize, and Stage

- a. Knowing what type of flooding you have will determine your best course of action. Can it be controlled by closing a valve? Can you enter the space safely? Is the space watertight?
- b. Prepare Survival Gear: Vessels can capsize quickly. The person that is battling the leak may become tunnel visioned on that leak. Others need to keep situational awareness. They need to get the raft and suits and ditch bags and the EPIRB ready to go and away from the emergency.
- **c.** Assessing Damage is ongoing. You need to think about whether you should go into a compartment and if you do... when to get everyone out of a compartment.
  - i. With engine rooms, you need to think about the water level in relation to the genset because of electrocution.
  - ii. You may need to think about the sea conditions before entering the space. If you are rolling, that water is going to be sloshing back and forth. Through Free-Surface Effect, that water is transferring a lot of weight to one side and shifting the vessel's center of gravity, making is more susceptible to capsizing. You know your vessel... as free surface effect increases, the roll of the vessel becomes slower.

#### 3. PLUG

a. Discuss the Damage Control Mindset is important. We call it "Damage Control" because we are trying to control the situation. We are probably not fixing the problem permanently. We are temporarily slowing down a leak so that our pumps can keep up with it. And if our pumps still can't keep up with it, we are slowing it down so that we have more time for rescuers to reach us or before we have to abandon ship. We'll go into more detail about plugging in a minute.

**RECOGNITION** of your situation is the key to acting intelligently.

- **4. CLOSE** (The same effect as "Confine" in a fire)
  - a. It is critical to contain the flooding to one watertight compartment.
  - b. Secure weather and watertight doors and hatches
  - c. Do you have holes in the bulkhead for wiring or pipes that are not watertight?

#### 5. PUMP

a. Someone on the crew is working the pumps. You have bilge pumps. Do you have portable pump? Hand pump? Get them going.

After you have covered the steps, have the group recap them to help with memory.

#### 3. Plugging a Leak

Objective: Build an effective Damage Control Kit for the types of leaks that could occur on your vessel.

In this module we're going to focus on two of those steps: Plug and Pump. First is plugging with your Damage Control Kit. If you do not have a Damage Control Kit, you need to make one on your boat to save valuable time hunting around for the items you need! Your crewmen must know where the kit is stored and practice retrieving it during monthly drills.

Show the contents of our DAMAGE CONTROL KIT and walk through all of the items, why they are there, and how they are used.

- Personal Equipment
  - o Insulated gloves Cold water will numb your hands quickly.
  - o Headlamp
- Tools
  - Wooden Mallets They float and unlikely to damage.
  - o Nut driver for clamps  $-\frac{1}{4}$ " and  $\frac{5}{16}$ " are common.
  - Hatchet
  - o Wood Saw
  - Hacksaw
  - o Hammer
  - o Wrenches (Pipe and Adjustable)
- Plug and Patching Items
  - o Plugs Use the sizes that match your pipes.
  - o Wedges Soft Wood so it absorbs water and expands
  - o Foam or Nerf Football
- Sealers
  - o Oakum Wrap around the wedges before pounding into place.
  - o Neoprene (Old Survival Suits)
  - o Cloth
  - o Old Oil Gear cut into patches
  - o Bicycle Inner Tubes
  - o Grease Tape
  - Wax Toilet Ring
  - Epoxy and Putty
- Fasteners
  - Hose Clamps
  - o Zip Ties
  - Duct Tape
  - o Twine: Natural fiber rope and twine absorb water and are preferable. Nylon slips around pipes and does not absorb water
- Any product that is known to be effective for sealing cracks or holes

#### Additional Points:

- If you wrap a pipe, but it's still leaking a lot...don't remove your first layer. Just add to it by wrapping over that area. Layers can provide strength against water pressure.
- Pressure builds- any plugs or wraps need to be reinforced or braced, and continually monitored to make sure the plug doesn't "blow out" or the wrap doesn't bulge and burst.
- Depending on the size of the vessel, might want a small kit in each compartment where flooding could occur so you can respond immediately with some items while a crewmen gets the full kit. You should also have the right size plug next to each sea cock.

#### **Skills Evaluation**

Objective: Correctly use the items in a Damage Control Kit to slow or stop a leak in different flooding scenarios including a damaged pipe, hull, fitting, and shaft.

**DAMAGE CONTROL TRAILER: This is a hands-on portion**, where fishermen can use items in the Damage Control Kit to try to stop or reduce leaks that are simulated in the Damage Control Trailer. Set up teams of two or three. Remind them to communicate to relay important updates to the captain. Fishermen should wear oil gear and boots to avoid getting soaked.

Operate the valves to present a different type of leak to each team so we can watch teams work on different scenarios. The Scenarios will depend on the Trailer. Here are some options from the Coast Guard: <a href="https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5p/CG-5PC/CG-CVC/CVC3/training/dmgcontrol/G-PCV-3\_CFVS\_DC\_Trainer\_Scenarios\_D13MSO\_Puget\_Sound.pdf">https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5p/CG-5PC/CG-CVC/CVC3/training/dmgcontrol/G-PCV-3\_CFVS\_DC\_Trainer\_Scenarios\_D13MSO\_Puget\_Sound.pdf</a>

#### Debrief after each scenario:

- What worked?
- What did not work?
- What did we learn?
- Did we reduce the leak enough that our pumps can keep up with the incoming water?

### 4. P6 Pump

Objective: Assemble, Operate and Troubleshoot a Coast Guard P6 dewatering pump.\* (AMSEA DC Task #12).

In this half of the module, we're going to focus on the Coast Guard's P6 Pump.

#### Pass out the RATE OF FLOODING CHART

Ask someone to find the 2" inch hole, 2 feet below the waterline on the chart that we talked about at the start of the module and tell us how many gallons per minute are entering the boat. The answer is 111 gallons per minute.

What's the point of this sheet? Are you going to use it during an emergency to calculate how much water is coming in? No. This is a tool to use ahead of time. In any compartment on your vessel, consider items that are high risk of flooding. Look at the size of your thru hull fittings, your shaft, anything that you think is a risk of flooding and find out the rate of flooding that you could have if it broke. And then compare this rate to your pumps? Will you be ahead or behind if this thru-hull fitting shears off? (Take a picture of this chart with your phone so you have it back on the boat)

- What is the pump out capacity of your bilge pumps?
  - Frequently, nobody is sure about the capacity of their pumps in gallons per minute because many of the smaller commercial models are rated in gallons per hour. Do the conversion for them. For example, a high-volume Rule Pump is 2,000 gallons per hour. That's only 33 gallons per minute. On the flood rate sheet, what hole and depth can you keep up with if you have a Rule 2000? A 1" hole that is 3 feet below the waterline. Larger vessels are going to have pumps from Pacer or other manufacturers that offer 100-200 gallons per minute. They might be able to keep up with that 2" hole if it is in the right compartment. Important to know the capacity in each compartment of the vessel.
- When was the last time you serviced pumps or inspected them?
- What can be converted to a pump (deck hose?)

Once you are in the battle with the flooding, you will be assessing whether you are winning or losing. If you are losing, you can request a portable pump from the Coast Guard.

The Coast Guard provides the P6 dewatering pump. At full throttle, the pump is capable of delivering over 250 gallons per minute at a 12' suction lift. Higher discharge rates will be achieved at lower suction lifts.

**Our objective** is to get your hands on this pump today so that you're not touching it for the first time during an emergency. Remember, the Coast Guard likes to practice. So you can always contact your local station or through a Dockside Examiner, try to get training on this again. Use it as part of a monthly drill.

The pump may come to you by aircraft or boat. There are some differences between the models. (The pump that we borrowed from Cape Cod would be delivered by an aircraft). Since the Coast Guard

switches out models of pumps when newer models become available, every drop pump comes with instructions specifically designed for that model pump.

The P6 pump comes partially assembled. So, let's put it together. (Walk through the entire assembly and operation process pointing out things that can go wrong along the way. Some of the steps below might be different depending on the model of the pump used at that training).

- 1. If it still in the drum. Pull the handle to release the tension ring or undo the locking clips on the storage container.
- 2. Lift the lid and open the plastic bag. Lift out the drop pump, hoses, and fuel.
- 3. Locate the Instructions
- 4. Mount fuel tank and connect fuel hose.
- 5. Open the gas line lever near the throttle so that the fuel flows through the fuel hose
- 6. Connect the discharge hose and lay it out on deck so there are no kinks or twists.
  - a. Show color coding. Show how the camlocks work and how it has to be aligned correctly to give the camlocks room to close.
- 7. Place the discharge valve on the pump in the closed position
- 8. Attach connection end of the suction hose to pump. Show the strainer end and explain how it can be lowered into a compartment with a weight or tied to a pole.
- 9. Place the suction hose in the water. Actuate the hand-priming pump. Grasp the handle, then raise and lower it until the pump is primed. If pump doesn't prime, check suction fitting to ensure it is tight. A pump can run dry for approximately one minute but it was designed to be started only after suction has been taken.
  - a. **IMPORTANT**: Pull out the PRIMER PUMP HANDLE slowly on the first pump so you know how far to pull and don't break the unit by pulling too hard or too far.
  - b. The silver end of the intake hose must remain submerged, or it will suck up air and you will lose the "prime" (suction) of the pump. If that happens, reprime the pump and begin again.
  - c. If there's debris in the compartment that keeps clogging the suction, you may be able to tie a basket or a milk crate over the end of the hose to act as a filter or a buffer from sucking up larger debris.
- 10. **LOCATE** and turn **ON** the on-off switch (which is hidden from plain sight and could be overlooked- it is usually found underneath the primer pump.)
- 11. Place the choke lever on the engine in the "choke" position.
- 12. Pull the starter cord. Don't yank it out of its housing. Don't panic. Be methodical. Show the students where to find the backup pull cord and replace it if it breaks.
- 13. Place the engine choke lever in the "run" position and try pulling the starter cord again.
- 14. After the engine starts, check to make sure it is still primed.
- 15. Put a person on the discharge hose to control it. Open the discharge valve slowly.
  - a. The blue discharge hose may flap around wildly once the pump has full water pressure and could cause an injury. Have a crew member secure the last 5 feet of the discharge hose, even if that means holding it manually over the side of the vessel, or through a scupper.

- 16. Post a watch on the pump. The engine will run approximately 2-3 hours on one tank of fuel. The pump watch must be alert for debris around the strainer and must ensure the strainer remains submerged. Watch for fuel leaks.
- 17. When you are running low on fuel, the Coast Guard can provide another fuel tank. Keep the pump running while you change tanks. The pump is designed to have enough fuel to run for one minute after you disconnect the hose so that you can change fuel tanks.
- 18. Beware of exhaust fumes. Make sure the area is ventilated, or else carbon monoxide becomes lethal

#### **Skills Evaluation**

- This meets AMSEA Drill Conductor Evaluation Task #12.
  - The candidate demonstrates or explains at least 9 steps in operation of USCG dewatering pump.
- Have the group break into teams of two or three to assemble, operate, and troubleshoot the pump. Debrief after each team.
- Upon completion, ask the group: "Does everyone feel that they could operate this pump without any instructions?"

### **Summary**

Conclude the lesson by circling back to the objectives and making the following points by asking review questions like the following:

- What are the things you and your crew need to do simultaneously when you discover flooding?
- What items do you want to add to your damage control kit when you get back to your vessel?
- What danger do you have to worry about as the water level rises in the engineroom?
  - o Answer: Electrocution from the Genset.

Add the things you learned today to your monthly flooding drill so that you don't forget.

#### **Preparing for the Lesson**

#### **Equipment List**

- Damage Control Trailer- (parked close enough to a working hose spigot and also drainage if possible- don't flood the venue's garden beds)
- Damage Control Kit (Review contents ahead of time)
- Coast Guard P6 pump with gasoline
- Large barrel- filled with water for the pump
- Oil gear and boots (Optional)
- Alternative Instruction Audio/Visual Package (e.g. laptop, projector, screen, etc.) with AMSEA Flooding Video.

#### **Training Material List**

- Flood Rate Chart (Ensure Laminated Copies are with DC Kit)
  - AMSEA's "Vessel Flooding Control":
     <a href="https://www.amsea.org/\_files/ugd/b66831\_5dc1db732e3343dc9f8ea25fa14914c6.">https://www.amsea.org/\_files/ugd/b66831\_5dc1db732e3343dc9f8ea25fa14914c6.</a>
     pdf
  - o Coast Guard Flood Rate: (\*Need Online link)

#### **Safety and Health**

- Slip and fall on the Damage Control Trainer. Point out areas with non-skid for climbing in and out of the trainer.
- With the P6 pump, the blue discharge hose may flap around wildly once the pump has full water pressure. Have students tend to it when starting the pump.

#### Additional Resources – Stay Sharp!

- STA Kauai How to start the P-6 Pump Rescues at Sea: A Guide to Helicopter Rescues & Dewatering Pumps
- AMSEA Video: Flooding Control <a href="https://youtu.be/9vbaBACDOt4">https://youtu.be/9vbaBACDOt4</a>
- P6 Pump Technical Manual: https://www.darley.com/documents/operation\_manuals/1200569.pdf
- Free Surface Effect: <a href="https://www.youtube.com/watch?v=zzJVYs1kgJ4">https://www.youtube.com/watch?v=zzJVYs1kgJ4</a>
- Flooding Accident Reports from NTSB or Coast Guard (Note: It is very important for safety instructors to understand the facts and findings from NTSB and Coast Guard investigations and to use them as case studies when appropriate. However, how you deliver these findings can be emotional. Fishermen are likely to know the vessel, the victims and survivors, and occasionally, were on the vessel themselves. Pass the facts. Avoid sounding critical of the fishermen. Avoid sounding like you conducted the investigation yourself with phrases like, "According to the NTSB report the F/V \*\*\*\*\* had a..." Invite a conversation and questions.)
  - o 2020 F/V Emmy Rose (open investigation as of Jan 2022, no distress call, 4 lives lost): https://www.ntsb.gov/investigations/Pages/DCA21FM007.aspx
  - 2020 F/V Rebecca Mary (undetected flooding of the lazarette; Early communication with CG and training increased likelihood of survival): https://www.ntsb.gov/investigations/AccidentReports/Reports/MAB2112.pdf
  - 2018 F/V Aaron & Melissa II (flooding in lazarette, clogged bilge system and alarms, failure to assess extend of damage with gale warning): https://www.ntsb.gov/investigations/AccidentReports/Reports/MAB1934.pdf
  - 2017 F/V Misty Blue (flooding in clam tank, watertight bulkhead cable penetrations below deck were not properly sealed, scuppers): https://www.ntsb.gov/investigations/AccidentReports/Reports/MAB1901.pdf