

Attachment B – Representative question stems for interviews

This study will not employ a static data collection instrument such as a questionnaire or survey. Researchers will use a list of initial questions tailored to each group to prompt discussions, but subsequent questions may emerge depending on how the conversation develops. If a participant brings up a new theme related to adoption of winch guards, for example, researchers may ask further questions to pursue the idea in greater detail. Interviews will be conducted with subsequent subjects until new themes or concepts are no longer being generated. This type of flexibility is standard practice in Grounded Theory methodology. It acknowledges that investigators may not know all the pertinent questions to ask participants at the start of the project which, in our case, includes the possibility of unknown barriers to adoption. This fluid process allows researchers to generate a theory that is truly 'grounded' in the perspective of fishermen.

Representative questions for purse seine fishermen

Commercial Fishing and Work History

- How long have you been a commercial fisherman?
- What drew you to this kind of work?
- What types of fishing have you done in the past (gear types and fisheries)?
- How many months a year do you fish?
- How long, generally, are your trips when purse seining?

Hazard Recognition and Mitigation

- Have you ever been concerned about your safety while working on the boat? Describe some of your safety concerns.
- Are you concerned about being injured or killed while working on the boat? What concerns do you have?
- Discuss any close calls you have had when working on deck.
- What is the most dangerous part of working on a fishing vessel?
- What is the most dangerous piece of equipment on your deck?
- Have you ever been injured by a winch? Can you describe that incident?
- Describe any close calls you have had with a winch.
- Have any of your crew or other fishermen you know been injured in a winch accident? Can you describe these accidents?
- What are some ways that you avoid being injured by that equipment?
- How do you train new crew about the hazards associated with the winch?

- Have you ever heard of an emergency stop for your winch?
 - Where did you hear about it?
- Do you have an emergency stop/static guard on your winch?
 - Why or why not have you chosen to install one?
- Have you seen a seine vessel with an E-stop? Do you know what that is?
 - Have you heard other fishermen talk about using an E-stop?
 - Do you know where or how to obtain an E-stop system?
 - Do you know if the E-stop is easy to use?
 - Do you have an opinion about what it takes to install an E-stop?
 - How much do you think this type of system would cost?
 - What kind of price do you think would be reasonable for an E-stop system?
 - Do you know anyone who has installed one of these systems? Who?
 - What has been their experience?
- Do you think the systems are effective at preventing winch entanglement injuries?

Addressing Barriers to Adoption

- Why do you think fishermen should install an emergency stop?
- What keeps them from installing one of these systems? (Adjust subsequent questions to focus on barriers framed by Diffusion of Innovation's Attributes of Adoption.)
- Where would you look for a contractor to install the E-Stop system for you?
- How much effort would you be willing to put into installing an E-Stop on your vessel?
- Would you most likely install the system yourself or contract that out?
- Who do you use as your contractor for installation of new equipment?
- What kind of instructional resources would you prefer if you were going to install the guard yourself? (prompts: written installation guide with illustrations, short video, other options?)
- Thinking about a recent piece of equipment you added to the boat, what did you most like about the installation instructions? What did you like least?

Representative questions for shrimp fishermen

Commercial Fishing and Work History

- How long have you been a commercial fisherman?
- What drew you to this kind of work?
- What types of fishing have you done in the past (gear types and fisheries)?
- How many months a year do you fish?
- How long, generally, are your trips when shrimp fishing?

Hazard Recognition and Mitigation

- Have you ever been concerned about your safety while working on the boat? Describe some of your safety concerns.
- Are you concerned about being injured or killed while working on the boat? What concerns do you have?
- Discuss any close calls you have had while working on deck.
- What is the most dangerous part of working on a fishing vessel?
- What is the most dangerous piece of equipment on your deck?
- Have you ever been injured by a winch? Can you describe that incident?
- Have you have a close call with a winch?
- Describe any close calls you have had with a winch.
- Have any of your crew or other fishermen you know been injured in a winch accident? Can you describe these accidents?
- How do you avoid being injured by that equipment?
- How do you train new crew about the hazards associated with the winch?

Awareness of Safety Technology Interventions

- Have you ever heard of guards or auxiliary stop systems for your winch?
- Where did you hear about it?
- Do you have a guard or auxiliary stop on your winch?
- Why or why not have you chosen to install one?
- Have you seen a shrimp vessel with a guard or auxiliary stop? Do you know what that is?
- Have you heard other fishermen talk about using these systems?
- How and where would you obtain a guard or auxiliary stop system?
- How easy are the systems to use?
- What would be the most complicated part of installing a system on your boat?
- How much do you think this type of system would cost?
- What kind of price do you think would be reasonable for a guard or auxiliary stop system?
- Do you know anyone else who has installed one of these systems? Who?
- What has been their experience?
- Do you think the systems are effective at preventing winch entanglement injuries?

Addressing Barriers to Adoption

- Why do you think fishermen should install guards and auxiliary stops on their winches?
- What keeps them from installing one of these systems? (Adjust subsequent questions to focus on barriers framed by Diffusion of Innovation's Attributes of Adoption.)
- Where would you look for a fabricator to build a winch guard for you?
- How much effort would you be willing to put into installing a winch guard on your vessel?
- Would you most likely install the guard yourself or contract that out?

- Who do you use as your maintenance contractor for installation of new equipment?
- What kind of instructional resources would you prefer if you were going to install the guard yourself? (prompts: written installation guide with illustrations, short video, other options?)
- Thinking about a recent piece of equipment you added to the boat, what did you most like about the installation instructions? What did you like least?

Representative questions for equipment manufacturers, fabricators, and vendors

Questions for manufacturers & vendors of the E-stop system

Work history and experience with the E-stop

- How long have you been aware of the E-stop system for purse seine winches?
- How long have you been manufacturing/selling/installing E-stop devices?
- How many E-stops do you typically sell each year?
- How has demand for E-stops changed since you started selling them?
- How does a fisherman request an E-Stop for their winch? Is it standard or a special option?
- What feedback have you gotten from fishermen about the cost of the E-Stop system?
- What are the main reasons fishermen give you for wanting an E-Stop system?
- In addition to seine winches, what other equipment do fishermen ask about E-Stops for?
- How are new winch designs affecting fishermen's perceptions of the need for an E-Stop?

Installation & maintenance

- What is involved in installing the E-stop on a hydraulic winch?
- Who usually does the installation? (Prompts: Does your company do the installation? Does the vessel owner?)
- Who are the other service contractors who can, or could do install the E-stop?
- How long does it usually take to install an E-Stop on an existing winch?
- What about the installation process has been a barrier to somebody installing an E-stop?
- What has been the final cost of installing an E-Stop system including parts and labor?
- What kind of regular maintenance does an E-Stop require?
- How long does that maintenance usually take?
- What kind of feedback have you gotten about breakdowns or failures with the system?
- What kind of warranty program do you offer with an E-Stop?

Questions for manufacturers, fabricators, and vendors of shrimp vessel winch guards and auxiliary stop switches

Work history and relevance

- What kinds of deck equipment do you typically fabricate for maritime clients?
- Would you say the static winch guards and auxiliary stop are more or less complex than your typical job?
- How often have you built guards for winches in the past? How did you determine the design and materials for those?
- Who do you use to do the electrical work for equipment installations?
- What type of clients do you usually serve (which types of vessels?)
- How do fishing vessel owners find you?
- Where do you advertise your services to fishing vessel owners?
- How often do you take on custom jobs for deck equipment?
- What kind of custom safety equipment have you built for fishing vessels?
 - How was that experience? Would you do anything differently if you were to do another similar job?
- How would offering the service of fabricating winch guards or auxiliary stops affect your business?

Suitability of designs for stationary guarding

- Are you confident you/your company would be able to produce winch guards according to the specifications in the fabrication packet?
- What portions of the instructions, if any, were unclear or confusing?
- How long do you think it would take to fabricate one of these winch guards?

Barriers to fabricating shrimp vessel winch guards

- What might keep you from taking a job to fabricate a drum winch guard or auxiliary stop system?
- Explain any technical difficulties you can foresee when building a drum winch guard or auxiliary stop system?
- Can you foresee any other barriers to building these specific types of equipment?