

## Before Deployment on Vessel

The Commercial Industry Vessel Safety Act of 1988 required the U.S. Coast Guard (USCG) to issue regulations that require certain equipment, instructions and drills aboard vessels that operate beyond the boundary line (COLREGS = Coast Guard Collision Regulations) or carry more than sixteen individuals. Equipment, instructions and drills all increase your safety. All Pelagic Long-line Vessels operate, by definition, beyond the COLREGS demarcation.. These regulations are published in the Code of Federal Regulations (CFR), with most contained in 46 CRR. These safety regulations are outlined in the publication Federal Requirements for Commercial Fishing Industry Vessels. Specific regulations vary, depending on the type and length of vessel, location of fishing operations, seasonal conditions and other factors.

When you board a vessel, safety regulations mandate the captain to make sure you receive a safety orientation. This may be as simple as showing you around, but may include watching videos, or conducting drills. There are some important items that you need to be familiar with while on board any vessel. Check these things before you leave the dock. Aboard fishing vessels, a life-threatening emergency is possible at any time.

By law, vessels selected for participation in fishery evaluations projects that carry observers must have a current USCG safety inspection decal. The policy regarding vessel selection or rejection for participation in the observer program, whether the program is mandatory or voluntary, is as follows:

1. **You will not sail aboard a vessel, unless a current USCG safety decal** is displayed in the starboard window of the wheelhouse of the vessel. This is the law. Occasionally, window replacement may result in a vessel with a current inspection not having a decal to display; in this case you must contact the POP staff who should be able to verify with USCG that the vessel has met the requirements. This is the only exception to the rule regarding safety decals, and it *must* be cleared by POP staff prior to departure. If POP staff is unavailable, when in doubt, don't go.

2. **Before** the vessel leaves the dock, you need to fill out the safety check off list to determine whether the minimum safety equipment is onboard. Do this before the vessel gets underway because you could find yourself the fifth person on a vessel with a four-man life raft.

***If you determine that the vessel does not comply with the minimum safety equipment requirements, or for any other reason consider the vessel unsafe in a pre-boarding survey, do not board, and immediately contact the POP.***

3. Once you have completed your check off list, orient yourself with the vessel. Become familiar with other safety features of the vessel such as the station bill, and location of any other safety equipment (radio, first aid kit). Identify any potential hazards before the vessel departs. Memorize the exit route from your cabin, the galley, and other locations where you may spend a fair amount of time.

**\* The following are examples of things that you should/could check while doing a vessel walk through. They are listed here to assist you when determining the relative safety of a particular vessel. It is not a comprehensive list but one that is intended to start you thinking\***

- Does the vessel seem well maintained? Is it neat, clean and being run by a crew that is careful and prepared?
  - Any visible hydraulic leaks?
  - Is the vessel being used for the purpose it was originally designed? Have significant changes been made?
  - Do obvious hazards exist? Note potentially hazardous areas/conditions.
  - Identify the watertight doors (interior and exterior). Can they be secured in case of heavy weather or emergencies?
  - Are any hatches or passageways blocked or difficult to get to?
  - Does deck gear appear to be in good working order and are there safety concerns with the setup? Are there wires that run overhead? Are shackles and blocks worn excessively?
  - Is vessel overdue for a haul-out (excessive growth at waterline or hull paint in poor condition)?
  - How often is the bilge pump going on?
  - How high off of the deck is the fish hold hatch and is it in good condition? Are there any other openings on deck and are they covered with hatches?
  - Would anything prevent you from abandoning ship from the living quarters?
  - What are the escape routes from every part of the vessel you might find yourself? Visualize egress for all possible scenarios (fire, flooding, capsized, dark, etc.) and mentally note landmarks.
  - What are the most combustible items on board and where are they stored?
  - Are there any exposed exhaust pipes/manifolds that might pose burn hazards?
  - While you are at sea note the roll period. Generally a boat with a quick, snappy roll is more stable than a boat that has a slow or sluggish roll period. A boat that seems to hesitate on its side before righting could be unstable.
  - Does the vessel list excessively?
  - Is there heavy equipment on deck that is not lashed down?
  - Are there any exposed drive chains, pulleys or belts?
  - Where is the life raft located? Would it be hard to get to if conditions were icy or the house was on fire?
  - Are there safety issues involved with boarding?
  - Is there a sufficient amount of scuppers and are they large enough to be effective? Do they become plugged during fishing operations?
  - Is there a station bill posted and is your role clear during all shipboard emergencies?
- Did the captain give a safety orientation, explaining:
- Survival craft embarkation stations and assignments
  - Fire/emergency/abandon ship signals
  - Procedures for rough weather/sea
  - Procedures for recovering person overboard
  - Procedures for fighting a fire
  - Essential actions required of each person in an emergency?

**WHEN WAS THE LAST TIME YOU CHECKED YOUR PERSONAL SAFETY EQUIPMENT ??????**

# Instructions for the Pelagic Observer Program's Vessel Safety Checklist

The safety checklist provided by the NOAA Pelagic Observer Program (POP) in Miami, FL is mandatory to be completed prior to each trip made by a fisheries observer. The checklist is important to assure not only the safety of the observer, but can bring attention to the captain or crew of safety deficiencies they may not have been aware of. The following set of instructions should be coupled with the following two pages of a mock checklist. If you have any questions about the safety checklist, you can contact the safety coordinator or call the POP 800 number.

The following numbered instructions parallel the yellow boxes on the mock safety checklist:

#

- 1) Trip number: record the six character observer/trip identifier. This should be used on all data forms and field notes for a single trip.
  - 2) Vessel Name: record the vessel name. Take care with spelling and F/V is not necessary.
  - 3) Vessel Number: record the 6-7 digit USCG documentation number. If the vessel does not have a USCG number, record the state registration number and include the two letter state abbreviation prefix.
- EPIRB: (do not handle the EPIRB, ask captain or crew to handle it for inspection)**
- 4) EPIRB Category 1 Present: if there is a Category 1 EPIRB present onboard circle "YES". If no Category 1 EPIRB is present circle "NO". This would be an opportune time to judge the effectiveness of such an EPIRB in case of an emergency. BE SURE IT IS IN A FLOAT FREE ARRANGEMENT.
  - 5) Location: record the location of the EPIRB on the vessel. (starboard house, etc)
  - 6) Battery Expiration: record the expiration on the EPIRB. This is found in various location for various brands. The battery expires on date displayed. If the battery expiration cannot be read or is missing, request captain/crew to test the EPIRB. Note the Result in section 24.
  - 7) Hydrostatic Release Expiration: the hydrostatic release for an EPIRB should have an expiration displayed. Record the date. The release expires on date displayed.
  - 8) NOAA Registration Expiration: record the NOAA registration expiration date. An

example of this sticker with the information will appear like number 17 on this form.

**LIFE RAFT:**

- 9) Life Raft Manufacturer: write in the manufacturer of the life raft. (i.e. Viking, Switlik, Revere, etc.)
- 10) Is liferaft release properly setup: if the release is set up properly as seen in #18, circle "YES". If not properly set up circle "NO".
- 11) Number of Type 1 PFD's: Record the number of type one PFD's on board the vessel. Include your POP issued Type II.
- 12) Number of Throwable PFD's (rings or lifesling typically): Record the number of throwable PFD's on the vessel. The throwable PFD's must be 24 inches and have adequate rope based on the size of the vessel. Be sure the throwable is accessible and usable in an emergency situation.
- 13) Number of Immersion Suits: Record the number of immersion suits aboard the vessel. Typically there will only be immersion suits above 32' 00 N Latitude. Always include your POP issued suit.
- 14) USCG CFVS Decal Number: Record the number issued by the USCG on the safety decal. This is found on the center bottom of the sticker.
- 15) Date of Expiration: Record the date of the issuance or expiration, depending on the version of the sticker present, on the USCG CFVS decal. This appears on the right side of the sticker.
- 16) Picture of USCG CFVS Decal: Mark the example sticker to reflect the information **exactly as it is** on the vessels decal.
- 17) Example of NOAA/SARSAT EPIRB registration decal. Information is used for #8.
- 18) Example of proper weak link setup for a liferaft.
- 19) Total Number of Fire Extinguishers: On first line write in the number of working available fire extinguishers onboard. On the "Location" lines, write in location where the fire extinguishers can be found. Make sure extinguishers are charged and circle "YES" or "NO" on the checklist. Check for expiration on the extinguishers and record on the sheet.
- 20) Flares: Record the number of individual types of flares and record. There should be at least 3 parachute flares, 6 hand flares, and 3 smoke flares. Record the location

where the flares are found, and CHECK the expiration dates.

- 21) First Aid Kit Location: Record the location of the first aid kit.
- 22) CPR/First Aid Trained Capt/Crew: Record the name of the Captain or crew member who is certified in CPR and First Aid.
- 23) After completing this form, complete a thorough vessel check to your personal standards. Record any concerns below. If any concerns will delay the departure of the trip, contact the POP office immediately.
- 24) Record any notes relevant to the safety checklist or your personal safety check (i.e. added POP Valise raft).
- 25) Signatures: Be sure that you (the observer) and the captain or the owner sign and date the safety checklist.

**Safety is priority number one.** If for any reason you do not feel comfortable to go on a vessel because of safety concerns, the POP will back your decision 100%. If there are any questions concerning this list or other safety related information contact Ken Keene at 305-361-4275, or the POP number 1-800-858-0624 for further assistance.

# **BE SAFE!!**

**\*\*FYI: Safety equipment expires on the date displayed on the equipment. For equipment that only displays a month and year as an expiration date, the expiration is on the lat day of that month of the year displayed.\*\***





# SEFSC Pelagic Observer Program Vessel Safety Checklist

**1 Trip Number:**

**2 Vessel Name:**

**3 Vessel Number:**

Persons on Board for trip:

*\*Include Observer, captain, and crew.*

**4 EPIRB Cat 1 Present:** YES NO

*\*Visually inspect, only captain or crew are to handle epirob or housing.*

**5 Location:**

**6 Battery Expiration:**

*Expires on date displayed.*

**7 Hydrostatic Release Expiration:**

*Expires on date displayed.*

**8 NOAA Registration Expiration:**

*Expires on date displayed. See middle diagram on right.*

**9 Life Raft Manufacturer:**

Capacity:

Location:

SOLAS A Rated: YES NO

Hydrostatic Release Expiration:

*Expires on date displayed.*

Service Date (Issuance/Expiration):

*\*Circle one above.*

**10 Is release properly set up?** YES NO

*See diagram to the right.*

**11 Number of Type I PFD's:**

*Include POP issued PFD.*

**12 Number of Throwable PFD's:**

*\*24 inch ring bouy or Lifesling. 1 with 60 ft of line for vessels 26-65 ft in length. 3 devices for vessels >65ft, with at least one of them with 90 ft of line.*

**13 Number of Immersion Suits:**

*Include POP issued Immersion Suit. Only above 32' 00 N Latitude.*

**14 USCG CFVS Decal Number:**

**15 Date of Issuance/Expiration:**

*\*Circle one of the above.*

**Is Decal Current:** YES NO

*\*Is it marked correctly for pelagic fishing? Mark the sticker below to resemble the one on the vessel.*

**16 Commercial Fishing Vessel Safety EXAMINATION**

VESSEL

Documented

Undocumented

OPERATIONS

Cold Waters

Warm Waters

Inside Boundary Line

Beyond Boundary Line

FROM COASTLINE

< 3 NM

< 12 NM

< 20 NM

< 50 NM

> 50 NM

> 100 NM

EXPIRES

2014

2015

2016

2017

JAN JUL

FEB AUG

MAR SEP

APR OCT

MAY NOV

JUN DEC

THIS VESSEL MEETS ALL USCG COMMERCIAL FISHING INDUSTRY VESSEL REGULATIONS FOR OPERATING AREAS AS MARKED

NO.

CG-5587A (Rev. 6/08)

U.S. Department of Homeland Security

**17**

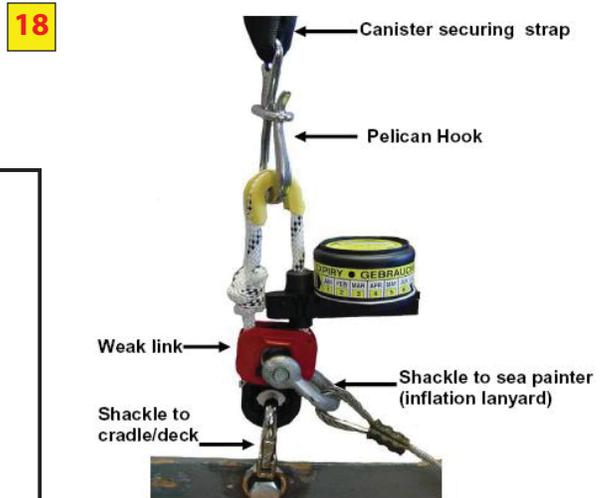
NOAA COSPAS-SARSAT

PROOF OF REGISTRATION

EXP DATE: 11/15/2014

2DCE7 213AA FFBFF

OWNER:



## \*\*Turn Over\*\*

**19** **Total Number of Fire Extinguishers:** #

Location 1:		
Charged:	<b>YES</b>	<b>NO</b>
Expiration:		
Location 2:		
Charged:	<b>YES</b>	<b>NO</b>
Expiration:		
Location 3:		
Charged:	<b>YES</b>	<b>NO</b>
Expiration:		

**20** **Flares:** **\*\*CHECK EXPIRATION**

Number of Parachute flares: ( 3)
Number of Hand Flares: (6)
Number of Smoke Flares: (3)
Location:

**21** **First Aid Kit Location:**

--

**22** **CPR/First Aid Trained Capt/Crew (name):**

--

**23** **\*\* After completing this form, complete a thorough vessel check to your personal standards. Record any concerns below. Contact the POP office with all concerns prior to deployment.**

**24** **NOTES:**


PAPERWORK REDUCTION ACT STATEMENT: Information collected through the observer program will be used to: (1) monitor catch and bycatch in commercial and recreational fisheries; (2) understand the population status and trends of fish stocks and protected species, as well as the interactions between them; (3) determine the quantity and distribution of net benefits derived from living marine resources; (4) predict the biological, ecological, and economic impacts of existing management action and proposed management options; and (5) ensure that the observer programs can safely and efficiently collect the information required for the previous four uses. In particular, the observer program provides information that is used in analyses that support the conservation and management of living marine resources and that are required under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA), the National Environmental Policy Act (NEPA), the Regulatory Flexibility Act (RFA), Executive Order 12866 (EO 12866), and other applicable law. Most of the information collected by observers is obtained through "direct observation by an employee or agent of the sponsoring agency or through non-standardized oral communication in connection with such direct observations". Under the Paperwork Reduction Act (PRA) regulations at 5 C.F.R. 1320.3(h)(3), facts or opinions obtained through such observations and communications are not considered to be "information" subject to the PRA. The public reporting burden for responding to the questions that observers ask and that are subject to the PRA is estimated to average 50 minutes per trip, including the time for hearing and understanding the questions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: National Marine Fisheries Service, F/SF1, 1315 East West Highway, Silver Spring, MD 20910. Providing the requested information is mandatory under regulations at 50 C.F.R. 600.746 for the safety questions and at 50 C.F.R. Part 622.8, 50 CFR 229.7, and 50 CFR 222.401 for the other questions. All information collected by observers will be kept confidential as required under Section 402(b) of the MSA (18 U.S.C. 1881a(b)) and regulations at 50 C.F.R. Part 600, Subpart E. Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number. This is an approved information collection under OMB Control No. 0648-0593 through 09/30/2012.

**25** Observer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Captain/Owner Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Safety Aboard Vessels

The following points must be adhered to while on every vessel:

1. A personal flotation device (PFD) is mandatory when out on the deck during operation of the fishing gear, or when alone on deck at any time, regardless of the weather conditions.
2. Don't run aboard ships, particularly up or down stairwells. Slipping, tripping, and falling are the most common sources of observer injury. These accidents often happen when an observer is in a hurry. Specifically watch out for slick spots where the deck is wet or oily, step carefully over the half-foot combing rising from the bottom of metal latch doors and passageways, and look out for low overheads in vessel stairwells and watertight doors. Don't descend ladders as if they were stairs.
2. When rough sea conditions severely limit the effectiveness of sampling, refrain from conducting observations and document the weather and sea conditions during these periods in your logbook. When outside, attempt to remain in view of others. During rough weather, it is important to keep one hand holding on to something secure at all times to prevent you from falling overboard, into the fish hold or slipping and hurting yourself.
3. Never conduct monitoring from an area that you consider unsafe. Always let someone else know that you are going out on deck.
4. Cables and lines that break under strain can be a serious hazard. Whenever a line or cable is subjected to tension, stand in a place where a backlash would not hit you. Watch out for loose or swinging rigging and exposed machinery.

### 5. Handling fish:

-Be cautious whenever handling fish since fish spines can penetrate boots and gloves and cause a painful wound. Remember that sharks may appear dead, but are still able to bite.

-There may be times when there are many large fish (e.g. swordfish, tunas or sharks) on deck. Large specimens present a danger even when dead. They may slide across the deck in heavy weather and cause serious injuries. Large live fish can cause injury with their teeth, tails and bills. Big tunas have broken boards with a smack of the tail. An ankle or foot bone could easily be broken or injured by such a hit. Experienced fishermen treat certain species (e.g. Shortfin Mako) with a lot of respect, and so should you.

-Be careful not to strain yourself when moving specimens. Ask for help when moving large animals.

-When using a knife on the deck, take care when handling it. Knives on fishing boats are not sterile. Maintain sure footing when using a knife, always cut away from your body and don't leave it lying around on the deck where someone may be injured.

-Treat all minor cuts especially those on hands, with antiseptic to avoid infection. After handling fish, wash hands thoroughly with hot water and soap or an antiseptic such as betadine or providone iodine (1-2 oz. per qt. of water).

6. It is important to keep a clear head at all times on these boats. Keeping a clear head will enable you to foresee potential hazardous situations.

---

**\*\*If you go on deck at night, notify the person on watch\*\***

**\*\*When working on the deck, be aware of your surroundings\*\***

**\*\*Always keep one hand for yourself and one hand for the ship\*\***

## Emergency Drills Requirement

Documented fishing vessels of any crew size beyond the Boundary Line, or vessels with more than sixteen people on board within the Line, are required to conduct monthly emergency drills. Drills must be conducted by a trained Drill Instructor.

What to cover in monthly drills:

1. Abandoning vessel.
2. Fighting a fire.
3. Retrieving person overboard.
4. Minimizing flooding.
5. Launching/recovering lifeboats/rescue craft.
6. Donning immersion suits/PFDs.
7. Donning SCBAs (if so equipped).
8. Giving a mayday and using visual distress signals.
9. Activating the general alarm.
10. Reporting Inoperative alarms.

For Drill Instructor training in your port contact AMSEA at (907) 747-3287 or check out AMSEA's website at [www.amsea.org](http://www.amsea.org).

Credits:

Alaska Marine Safety Education Association (AMSEA); National Institute of Occupational Safety & Health (NIOSH); U.S. Coast Guard.

Injury data is from the Alaska Trauma Registry 1991-1998. Data from the Alaska Fishermen's Fund is from 1994-1998.

©2002

Alaska Marine Safety Education Association  
Printed on recycled paper.

## Seven Ways to Get Hurt (or Killed) While Commercial Fishing in Alaska

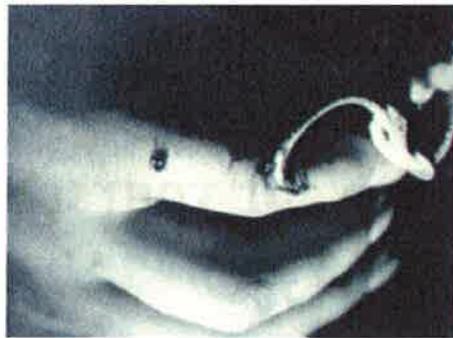


Photo: Art French, M.L.A., USCG

### ... and ideas from fishermen on how to prevent them

- Commercial fishing can be rewarding and satisfying but it also has hazards. From 1994 to 1998, Fishermen's Fund reported 4,264 injuries and 70 lives lost in Alaska.
- Enclosed are some ways injuries and fatalities can be prevented.
- Review with your crew before and during the season.

## 1. Strains/Sprains

STATISTIC

Strains and sprains accounted for 47% of all Fishermen's Fund reported injuries.

PREVENTION TIPS

- Use tools to reach and rake in fish. (Petersburg seiner)
- Do stretching exercises in off season and while on watch or off duty.
- Work with fish as much as possible at a level where bending over is not necessary.
- Try to get in shape before the season.
- Use mats or grates to boost you to the right height at cleaning tables so your arms work in a neutral position. (F/V Capt. Cook)
- Get help with items too heavy to lift or move by yourself, especially when underway. Work together. (F/V Ocean Cape)



## 2. Machinery

STATISTIC

The largest single cause of injuries was machinery (43%).

PREVENTION TIPS

- Shut off engine/motors when working on them to prevent getting snagged.
- Run a line to a kill switch (Henderson line) where it is accessible but out of the way, so anyone on deck can reach it to shut off hydraulics. (F/V Commander)

- Limit hydraulics to safe working loads by installing relief valves. (F/V Commander)
- Don't impulsively grab at lines going out until you're aware of any hazards. (F/V Commander)

- Never use picking hooks in engine control box, as they can jam boat in gear and cause collisions. (F/V Amber J)
- Wear no buckles or buttons to catch on gear. (Bristol Bay fisherman)
- Instead of wearing a net-mending knife on a piece of twine around your neck, tie it off to a belt loop. Better to tear your pants than get lynched by the seine block. (F/V Capt. Cook)

## 3. Falls

STATISTIC

The second leading cause of injuries was falls (34%).

PREVENTION TIPS

- Use abrasive cleanser on slick engine room surfaces. (F/V Capt. Cook)
- Good housekeeping: keep tarp and slime off decks.
- Use rock grit or coarse sand for hydraulic leaks on deck. (Maine fisherman)
- Use absorbent pads under hydraulic leaks until fixed. (F/V Ocean Cape)
- Hang lines with monkey fists from overheads to hold onto in rough weather. (F/V Coral Lee)
- Renew worn nonskid paint on decks and in skiffs. (Bristol Bay fisherman)
- Put nonskid surface on ladder rungs and steep stairs. Use nonskid grates or mats in high risk areas.



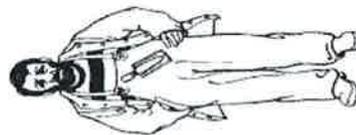
## 4. Cuts and Punctures

### STATISTIC

Cuts and punctures accounted for 26% of all Fishermen's Fund reported injuries.

### PREVENTION TIPS

- Wear protective gloves and gear.
- Tape those sharp little Victorinox® knives horizontally to belt, instead of vertically, to prevent leg punctures. (Kodiak fisherman)
- To minimize infections, do dishes and/or soak in hot soapy water several times a day to clean out puncture wounds from fish or shrimp. (F/V Capt. Cook)
- If wound looks infected, wash with Betadine™, soak half hour in hot soapy water as soon as possible, then dry and bandage. Monitor closely for spreading infection.
- Replace any wire rope that develops "fish hooks". (F/V Capt. Cook)
- If you keep getting poked by your net-mending knife, round off the tip. (F/V Capt. Cook)
- Always wear safety glasses when grinding and using power tools. (F/V Pretator)



## 5. Falling Overboard

### STATISTIC

About 25% of fatalities are due to falls overboard.

### PREVENTION TIPS

- Wear inflatable suspenders or vest when working on deck. Some inflatables have automatic inflation devices.
- Do not go on deck alone at night or in rough weather. If need arises, have a spotter. Wear a PFD and Man Over-board alarm. (Petersburg fisherman)
- When fishing alone, drag a line behind the boat attached to a kill switch. (F/V Troubadour - S.E. Alaska troller)
- On seiners, leave purse line in net, not on deck where it will run across deck when the net is going out. (F/V Commander)
- Install rear-view mirrors on deck to see people in stern. (S.E. Alaska longliner/gillnetter)
- Rig up man overboard rescue devices ahead of time, using the boat's hydraulics to do heavy lifting. (F/V Amber J)
- Wear an accessible knife to cut yourself from lines/webbing and to cut bottom of waders to empty water when climbing back onboard. (F/V Laconnu)
- Always carry a serrated knife you can access and use with one hand. (F/V Capt. Cook)

## 6. Struck by Objects

### STATISTIC

23% of injuries are due to being struck by objects.

### PREVENTION TIPS

- Rig extra safety chains or stays on boom, side stays and power block as preventors
- Keep a sharp knife on a pole to cut hung up lines that are under tension to keep you out of the line of tension. (F/V Trident)
- Avoid pinched toes by painting bright yellow stripes around pot launchers and rigging "preventors" so launchers don't go all the way to the deck. (F/V Ocean Cape)

## 7. Bruises/Contusions

### STATISTIC

Bruises and contusions account for 13% of all Fishermen's Fund reported injuries.

### PREVENTION TIPS

- When crabbing, traditional Type III USCG approved lifevests will provide some protection from pots. (Dutch Harbor fisherman)
- Wear hard hats when working with overhead gear.
- Paint hazard areas bright yellow.
- Use duct tape and foam rubber to soften tight quarters or places that cannot be avoided by tall people.

## Other Good Practices

- Safety orientations covering emergency gear and procedures should be given to all new crew before leaving harbor.
- Seiners: develop ways to get fish out of net without having to lift entire net. Use wedges, straps, etc., to roll part of the net in to minimize stress on rigging and reduce center of gravity from block to increase stability. (F/V Commander)
- Use double hose clamps on all plumbing. Including the deck hose outlet. (F/V Greta)
- Train crew in basic vessel operations such as navigation and anchoring. (F/V Greta)
- Have a sea anchor.
- In a rough anchorage use a fifty pound weight near anchor (a kelleet or sentinel) and a surge buoy fifteen fathoms from bow. (Ketchikan fisherman)
- Keep all work areas well illuminated at night.
- Develop safety procedures and be open to ways to minimize risks.

Got deck safety ideas you'd like to share? Submit them to AMSEA!

Alaska Marine Safety Education Association  
[www.amsea.org](http://www.amsea.org)



# **Types of Emergencies**

**Drowning**

**Injuries**

**Man Overboard**

**Explosions**

**Capsizing & Sinking**

**Collisions**

**Groundings**

**Attitude**

## **Immediate Onset:**

- 1) Happen suddenly with little or no warning.
- 2) Examples: collision, capsizing, person overboard, etc.

## **Delayed Onset:**

- 1) Start out slowly and accumulate until situation becomes life-threatening.
- 2) Examples: mechanical failures, overloading, leaky vessel, weather conditions, etc.

## Survival Skills

The Seven Steps to Survival were assembled by the USCG from personal experiences of those who survived emergency situations. Committing the seven steps to survival to memory should be one of your goals in learning how to survive at sea.

(Modified From: AMSEA, Marine Safety Instructors Manual, 2001)



**1. Recognition:** You must quickly recognize the seriousness of the situation and that your life is in danger. Hesitation or denial may cost you your life, especially in harsh environments.

**2. Inventory:** Stop and assess the situation. Decide what you have that will help you survive (Inventory equipment, weather, your skills, injuries, and your mental condition). Doing so will help you make good decisions that will help you survive.

**Survival Kits:** A personal survival kit can take up very little space in an immersion suit, yet greatly enhance your ability to survive. Think of these seven steps and choose items that can help you with them. Items such as a knife, dental floss (a strong multi-purpose line), plastic garbage bags, matches, signal mirrors, a compass, hard candy, or boullion cubes are small items that can save you life and fit in a zip-lock bag. Vessels may have an emergency bag stored and a person named in the station bill to bring it in case of an emergency.

**3. Shelter:** Your biggest enemy in winter months is the cold. Shelter can be clothing, an immersion suit, a raft, or an overturned vessel anything that protects you against the loss of your body heat. Because water can take heat away from your body much quicker than air, shelter helps you keep as dry as possible. The high heat loss areas, including the head and neck, need to be protected most. The added buoyancy of a PFD helps to keep the head and neck out of the water, therefore conserving heat. Once you are on shore, shelter is your first priority after you inventory the situation. It takes hours to construct adequate shelter on shore and you should do so as soon as possible

**4. Signals:** A signal is anything that attracts attention and conveys a message. Radios, EBIRBS, and flares are signals carried by vessels:

**Radios:** The emergency frequencies are Channel 16 VHF and 2182 KHz or 4125 KHz on single side band radios (SSB). VHF radios are short range and SSB radios are for long-range communications. Near the radios, there will be a placard posted that describes MAYDAY calls. Be familiar with what constitutes a proper MAYDAY call. Vessels are required to monitor the emergency frequencies at all times. If you hear a MAYDAY call on the radio, listen carefully and take notes. Inform the person on watch and be ready to respond to the call if the Coast Guard does not.

**Flares:** The vessel will have flares and/or smoke signals stored in the life raft and other locations on the vessel (most likely the wheelhouse). Each type, handheld, rocket, smoke flares, etc, will have instructions for use printed on its canister. If you see a flare launched at sea, inform the person on watch immediately.

**EPIRB (Emergency Position Indicating Radio Beacon):** The vessel will have at least one EPIRB mounted in a float-free bracket that will be automatically activated in the event of sinking. The signal is received by satellite and, in new styles, will identify the sender. In the event of an abandon ship emergency it is an item you want to take with you. Someone will be assigned that duty on the station bill. If not shown by a crewmember, be sure to locate the EPIRB(s) on the vessel and read the directions on how to activate them

**Other Signals:** Anything that makes you bigger and brighter is a signal. Immersion suits have lights attached. You may have a signal mirror in your personal survival kit. If abandoning ship, anything that can be tossed overboard may help in aircraft spot your position. In a shore survival situation, three of anything (fires, buoys, immersion suits on the beach) is an internationally recognized distress signal.

**5. Water:** It is recommended that humans drink two liters of water per day to stay healthy. You can live without water for days, but will suffer dehydration from the onset of any abandon ship emergency. Life rafts have limited rations of water, but it is advised to gather as much as possible before abandoning ship, if time permits. Have a strategy for gathering extra water in an emergency. Never drink seawater or urine.

**6. Food:** A person can go without food much longer than without water. Never eat food without water your body requires water to digest food. Life rafts are supplied with limited food rations.

**7. Play:** Studies have shown that mental attitude makes a difference in a survival situation. Play can be anything that keeps you occupied and prevents your mind from dwelling on the difficulties you are facing. Play can be reading, telling jokes or stories, completing a task, or improving your shelter anything that keeps you mind active and focused.