

Health & Safety

Part 3: Survival at sea & Safety checklist

INSERT Lecturer name



Images courtesy of AMSEA or J. LaFargue
(NMFS West Coast Groundfish
Observer Program) unless indicated otherwise

Objectives

- Recite 7 Steps to Survival from memory
- Build a personal survival kit using four basic components
- Demonstrate ability to complete the Safety Checklist

7 Steps to Survival

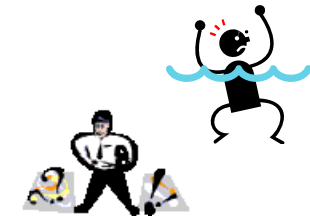
1. Recognition
2. Inventory
3. Shelter
4. Signals
5. Water
6. Food
7. Play



7 Steps to Survival

1. RECOGNITION

- Life is more important than your boat, gear, catch
- Abandon ship when more dangerous on boat than water.



7 Steps to Survival

2. INVENTORY

Time to think....

- **People**
 - injuries
 - helpful/hazard
- **Equipment**
 - helpful/hazard
- **Environment**
 - risks
 - potential changes



7 Steps to Survival

3. SHELTER

- Insulation, shade
- Protection from elements
- ✓ Clothing most immediate



7 Steps to Survival

4. SIGNALS

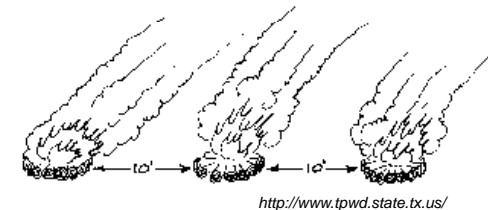
Attract attention

- **Bigger**
 - **Brighter**
 - **Different**
- Give message of HELP!



Signals

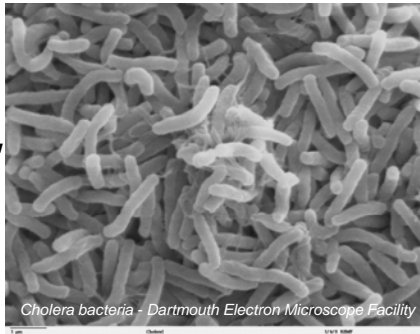
- Groups of 3
- Right angles
- Contrast



7 Steps to Survival

5. WATER

- Quantity: 2-4 quarts
- Quality: boil, packaged, filtered
- No seawater, urine



7 Steps to Survival

6. FOOD

- Warmth
- Energy
- Attitude
Know before you go!



7 Steps to Survival

7. PLAY

- Improve will to survive, situation.
- Stories, family, prayer – focus on what to live for.
- Accomplish hard tasks in simple steps.



Survival Kits

- Personal (small) & abandon (large) ship

- Essential elements:

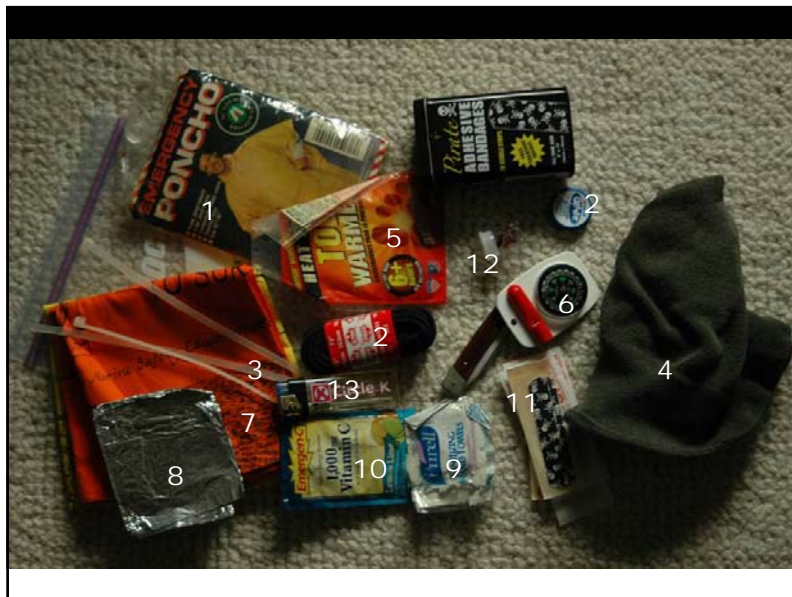
- Shelter aid
- Signal
- Personal health
- Fire starter



Personal Survival Kits

Considerations

- Must be with you
- Pocket-sized
- Multipurpose items
- Customized for your activities

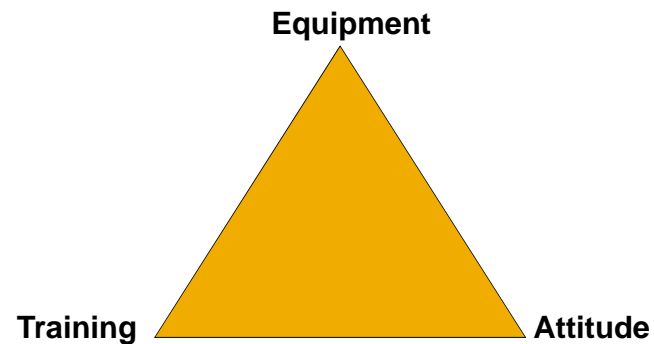


Abandon Ship Kits

- Same 4 categories
- One container
 - ✓ Watertight
 - ✓ With handle
- Accessible
- Bigger items
 - ✓ Handheld VHF,
 - ✓ Camp stove
 - ✓ Etc



Survival Triad



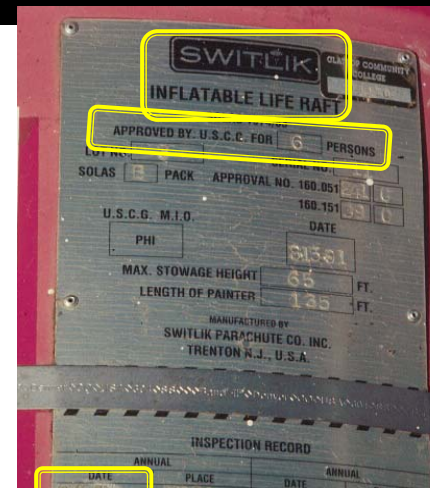
Safety checklist

- 1-page form in Observer logbook
- Familiarize you with safety equipment (pre-departure)
- Mostly Yes/No

Safety checklist

Safety Checklist					
<i>Pre-Departure (Complete before you leave port)</i>					
Were you informed of the general safety procedures for the vessel?					Yes / No
Were alarm signals demonstrated for each type of emergency?					Yes / No
Did you examine escape routes from accommodations and work areas?					Yes / No
Where is your muster station in case of an emergency?					
Who is the person in charge of medical treatment?					
Where you shown the location of radios and provided with instructions for use?					Yes / No
Where you shown the location of navigation equipment and provided with instructions on use?					Yes / No
Survival craft	Capacity (#persons)	Last inspection date	Location	Float free?	Hydrostatic release Present- Attach properly
Model				Y / N	Y / N
Model				Y / N	Y / N
Was there adequate life raft capacity for all on board? Yes / No					
Was survival craft packed with a SOLAS kit? A / B / Other / No					
EPIRBs	Battery expire date	Location	Category I / II	Float free?	
Model				Y / N	
Model				Y / N	

Safety checklist – life raft



•Model = Switlik

•Capacity = 6

•Last inspection date=10-15-92

Safety checklist

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Model				Y / N

Safety checklist – life raft

•SOLAS = B pack

Safety checklist

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EPIRBs	Battery expire date	Location	Category I / II	Float free?
Model				Y / N
Model				Y / N

Safety checklist

Check if Present or Absent		Present	Absent	
Station bill				In main areas/corridors? Yes / No
Fire extinguishers				
First aid equipment				
High water alarm				
Watertight doors				Do they close properly? Yes / No
Distress flares	#	Expired?	Location	
Parachute		Y / N		
Smoke		Y / N		
Hand		Y / N		
		Y / N		
				Flotation devices
				# Life rings / slings
				# PFDs
				# Immersion suits
Were there adequate PFDs for all on board? Yes / No				
Drills (Complete post trip)				
Performed?	Fire	Man overboard	Abandon ship	Flooding
	Y / N	Y / N	Y / N	Y / N
Date				Other?
Did you participate in drills? Yes / No				
Other Comments:				

Version 1 12/2009

Station bill

- List of all crew
- Positions
- Muster station
- Duties in case of an emergency

STATION BILL

EMERGENCY SIGNALS

FIRE & EMERGENCY SIGNAL ()
The fire and emergency signal shall be a continuous blast of the whistle for a period of not less than 10 seconds followed by a continuous ringing of the general alarm for not less than 10 seconds.

MAN OVERBOARD SIGNAL ()
The man overboard signal shall be the bell "O" sounded several (at least 10 times on the ship's whistle followed by the same signal at the general alarm.

ABANDON SHIP ()
The abandon ship signal shall be more than 8 short blasts followed by one long blast on the ship's whistle followed by the same signal at the general alarm.

EMERGENCY STATION ASSIGNMENTS

Survival craft embarkation stations are located _____

Immersion suits are located _____

Position	FIRE Station/Blng	FLOODING Station/Blng	ABANDON SHIP Station/Blng	MAN OVERBOARD Station/Blng

For boxes larger than 6", it will be necessary to expand this station bill.

Version 1.12/2009

First Aid

- First aid kit
 - know location
- First aid manual



Safety checklist

Check if Present or Absent	Present	Absent	
Station bill			
Fire extinguishers			In main areas/corridors? Yes / No
First aid equipment			
High water alarm			Do they close properly? Yes / No
Watertight doors			

Distress flares	#	Expired?	Location	Flotation devices
Parachute		Y / N		# Life rings / slings
Smoke		Y / N		# PFDs
Hand		Y / N		# Immersion suits
		Y / N		

Were there adequate PFDs for all on board? Yes / No

Drills (Complete post trip)					
	Fire	Man overboard	Abandon ship	Flooding	Other?
Performed?	Y / N	Y / N	Y / N	Y / N	
Date					

Did you participate in drills? Yes / No

Other Comments:

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Activity

- Complete the safety checklist given the information in the handout
- 10 minutes

Summary

- Recite the 7 steps to survival / examples of each
- When to the 7 steps to survival begin?
- List 4 elements that should be incorporated into a survival kit.

Safety Checklist – Activity

Write your name at the top of the Safety Checklist. You will turn this in at the end of class.

Complete the safety checklist using the following information:

You board the f/v Good Times at 0800 on 17 November 2010. You meet the Captain and first mate. The latter shows you where to stow your personal gear and says he'll give you a better tour later. You tell him that you need to fill out a safety checklist prior to the vessel's departure. The vessel is set to depart at 1300. You hang out on the vessel for a few hours and get familiar with the basic layout and try to stay out of the way while the crew loads the final provisions. While you're wondering around you notice 3 fire extinguishers (galley, passage to crew quarters and near engine room door). You find most of the exit/entry points from your cabin and notice that the watertight door to the galley is propped open. For kicks, you try to close it and discover that the handles do not move. There is a life ring on the back deck near the trawl alley. You also note that there is a Revere GEO25 liferaft mounted on the top of the wheelhouse with the following labels:

RFD BEAUFORT INC.
1420 Wolf Creek Trail
Sharon Center, OH 44274

USCG APPR. NO. 160 178 140/3
APPR. NO. 160 178 140/3

25 PERSON CAPACITY MODEL NO. MK4
SERIAL NO. B 02326 LOT NO. 1164
MFG. DATE 05/10
EQUIPMENT PACK A
PAINTER LENGTH 151 FT.
STOWAGE HEIGHT 118 FT.(MAX.)
GAS INFLATION TEST DATE 05/13/10
USCG CLEMS

DATE PASSED	PORT	INSPECTED

P/N 3RA1555-1

THIS LIFE RAFT MUST BE SERVICED BY THE DATE INDICATED BELOW:

MONTH SERVICING REQUIRED	12	* U.S.C.G. SERVICE STATION NUMBER
JAN	12 YEAR DUE 2012 U.S. Department of Transportation United States Coast Guard THE U.S.C.G. APPROVED SERVICE STATION * IDENTIFIED BY THIS CERTIFICATE REPRESENTS THAT THIS RAFT WAS SERVICED IN ACCORDANCE WITH APPLICABLE COAST GUARD REGULATIONS AND MANUFACTURER PROCEDURES B12- 0341	0 0
FEB		1 1 1
MAR		2 2 2
APR		3 3 3
MAY		4 4 4
JUN		5 5 5
JUL		6 6 6
AUG		7 7 7
SEP		8 8 8
OCT		9 9 9
NOV		
DEC		

The life raft does not have a hydrostatic release and is tied down with line.

The EPIRB is mounted right outside the wheelhouse in a float free location. It's a ACR Satellite2 406™ Cat I. There is a life ring mounted next to the EPIRB.

According to the station bill posted in the galley, there is a crew compliment of 25 (excluding the observer). The observer should go to the wheelhouse in all emergency situations.

At noon, you talk to the mate again and reiterate that there are a few items on the check list you were unable to account for on your own. He says he can meet you in the galley at 12:30.

You've prepared a list of items you were unable to gather yourself:

- EPIRB battery expiration – need to open cover to see: 31 December 2010.
- PFDs for crew – 30 stored in rain gear room.
- Radio operation, alarms, GPS – There are 2 VHF & 1 SSB radio in the wheelhouse. Luckily, there is also a very basic list of information about the vessel posted above it. The mate shows you how to use all the radios.
- There is 1 GPS and he shows you where the readout is.
- The mate also demonstrates the sound of the general alarm which they use for fire & flooding. He instructs you to come to the wheelhouse in the event that any sort of alarm goes off.
- There is no high water alarm.

He shows you the following a bench compartment in the wheelhouse that has the following flares stored in a metal, watertight box.

Parachute – exp 1 June 2012



Smoke – exp 1 Aug 2013



Handheld – exp 1 May 2011



There is also a first aid kit in this storage compartment and the mate tells you that the cook has some medical training.

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