BASIC SEA SAFETY

FOR PACIFIC ISLAND MARINERS



LEARNER'S GUIDE





TABLE OF CONTENTS

PAR	T A GENERAL INFORMATION	5
1.	INTRODUCTION	5
1.	INTRODUCTION	
2.	COURSE DEVELOPMENT	5
PAR	T B COURSE INFORMATION	6
1.	COURSE NAME	6
2.	PREREQUISITES	6
3.	COURSE DURATION	6
٥.		
4.	ASSESSMENT	6
5.	RPL (RECOGNITION OF PRIOR LEARNING)	6
3.	RECOGNITION OF FRIOR LEARNING)	0
6.	RESOURCES	6
PAR	T C BASIC SEA SAFETY	7
RASI	IC FIRST AID	7
DASI	ic Thot Aid	/
	FIRST AID KIT	
	C OF FIRST AID (AIRWAY, BREATHING, CIRCULATION)	
TRE	ATMENT OF BLEEDING	11
	1. LIE PERSON DOWN, PRESS THICK BANDAGE FIRMLY	
	ON THE WOUND AND LIFT THE LIMB	
	2. WHEN BLEEDING STOPS, WRAP A BANDAGE AROUND THE WOUND	11
EME	ERGENCY SITUATIONS	11
CAU	SES OF EMERGENCIES	12
	1 OVER OF FIVE	10
	1. OUT OF FUEL	
	3. VESSEL SWAMPED	
	4. VESSEL INSTABILITY	
	5. VESSEL LEAKING	
	6. VESSEL OVERLOADED	
	8. SUDDEN CHANGE OF WEATHER	20
	9. GROUNDING ON A REEF	
	10.COLLISION WITH ANOTHER VESSEL	
	12.LOSS OF PROPELLER AT SEA	

MAN OVERBOARD 25

1. SHOUT MAN OVERBOARD, TURN TOWARDS THE SIDE PERSON WENT OVER	25
2. THROW LIFEBUOY OR FLOTATION DEVICE	
3. KEEP PERSON IN SIGHT	
4. USE A SPOTLIGHT AT NIGHT	
5. ATTACH A LINE TO THE RESCUER	
ESSENTIAL SAFETY EQUIPMENT	26
ESSENTIAL SAFETY EQUIPMENT	20
LIFE-SAVING AIDS	
LIFE JACKETS	27
1. PUTTING ON A LIFE JACKET	
2. SECURING A LIFE JACKET	
3. JUMPING CORRECTLY INTO THE WATER	27
SURVIVAL AT SEA	28
INFLATABLE LIFE RAFT	28
LIFERAFT EQUIPMENT	
HYDROSTATIC RELEASE	
LAUNCHING A LIFE RAFT	
RIGHTING A LIFE RAFT	
SURVIVAL AFTER LAUNCHING	
LESSENING HYPOTHERMIA	34
1. H.E.L.P.	
2. HUDDLE	34
INTERNATIONAL DISTRESS SIGNALS	35
SIGHT	35
	35
SIGHT	35 35
SIGHT	35 35 35
SIGHT 1. FLAMES ON THE VESSEL 2. A SQUARE OBJECT ABOVE OR BELOW A ROUND OBJECT 3. SLOW AND REPEATED RAISING OF THE ARMS OUTSTRETCHED TO EACH SIDE	35 35 35
SIGHT	35 35 35 35
SIGHT 1. FLAMES ON THE VESSEL 2. A SQUARE OBJECT ABOVE OR BELOW A ROUND OBJECT 3. SLOW AND REPEATED RAISING OF THE ARMS OUTSTRETCHED TO EACH SIDE 4. INTERNATIONAL CODE FLAGS N & C	35 35 35 35
SIGHT	35 35 35 35 36
SIGHT 1. FLAMES ON THE VESSEL 2. A SQUARE OBJECT ABOVE OR BELOW A ROUND OBJECT	35 35 35 35 36 36
SIGHT	35 35 35 35 36 36
SIGHT	35 35 35 35 36 36 36
SIGHT 1. FLAMES ON THE VESSEL	35 35 35 36 36 36 36
SIGHT	35 35 35 36 36 36 36 36 37
SIGHT	35 35 35 36 36 36 36 36 37
SIGHT	35 35 35 36 36 36 36 36 37
SIGHT	35 35 35 36 36 36 36 36 37 37
SIGHT 1. FLAMES ON THE VESSEL 2. A SQUARE OBJECT ABOVE OR BELOW A ROUND OBJECT 3. SLOW AND REPEATED RAISING OF THE ARMS OUTSTRETCHED TO EACH SIDE 4. INTERNATIONAL CODE FLAGS N & C SOUND 1. GUN OR OTHER EXPLOSIVE DEVICE FIRED AT INTERVALS OF ABOUT A MINUTE 2. CONTINUOUS SOUNDING OF A FOG-SIGNALING DEVICE. RADIO 1. MAYDAY CALL ON A RADIO. 2. EPIRB PYROTECHNICS 1. PARACHUTE FLARE (RED LIGHT). 2. HAND HELD FLARE (RED LIGHT). 3. SMOKE SIGNAL (ORANGE). COMMUNICATIONS IN AN EMERGENCY VHF AND MF/HF(SSB) TRANSCEIVERS	35 35 35 36 36 36 36 37 37 37 37
SIGHT 1. FLAMES ON THE VESSEL 2. A SQUARE OBJECT ABOVE OR BELOW A ROUND OBJECT 3. SLOW AND REPEATED RAISING OF THE ARMS OUTSTRETCHED TO EACH SIDE 4. INTERNATIONAL CODE FLAGS N & C. SOUND 1. GUN OR OTHER EXPLOSIVE DEVICE FIRED AT INTERVALS OF ABOUT A MINUTE 2. CONTINUOUS SOUNDING OF A FOG-SIGNALING DEVICE. RADIO. 1. MAYDAY CALL ON A RADIO. 2. EPIRB. PYROTECHNICS 1. PARACHUTE FLARE (RED LIGHT). 2. HAND HELD FLARE (RED LIGHT). 3. SMOKE SIGNAL (ORANGE). COMMUNICATIONS IN AN EMERGENCY VHF AND MF/HF(SSB) TRANSCEIVERS. 1. VHF RADIO.	35 35 35 36 36 36 36 37 37 37 37
SIGHT 1. FLAMES ON THE VESSEL 2. A SQUARE OBJECT ABOVE OR BELOW A ROUND OBJECT 3. SLOW AND REPEATED RAISING OF THE ARMS OUTSTRETCHED TO EACH SIDE 4. INTERNATIONAL CODE FLAGS N & C SOUND 1. GUN OR OTHER EXPLOSIVE DEVICE FIRED AT INTERVALS OF ABOUT A MINUTE 2. CONTINUOUS SOUNDING OF A FOG-SIGNALING DEVICE. RADIO 1. MAYDAY CALL ON A RADIO. 2. EPIRB PYROTECHNICS 1. PARACHUTE FLARE (RED LIGHT). 2. HAND HELD FLARE (RED LIGHT). 3. SMOKE SIGNAL (ORANGE). COMMUNICATIONS IN AN EMERGENCY VHF AND MF/HF(SSB) TRANSCEIVERS	35 35 35 36 36 36 36 37 37 37 37 37

EPIRB	40
1. AN EPIRB.	40
2. AVERAGE TIME TO DETECT AN 121.5/243 EPIRB	40
GPS (GLOBAL POSITIONING SYSTEM)	41
1. GPS	
2. SATELLITE SIGNALS TO A GPS	41
FIRE PREVENTION AND CONTROL	42
THE FIRE TRIANGLE.	
CAUSES OF FIRES	43
1. FIRE HAZARDS IN THE ACCOMMODATION	43
2. FIRE HAZARDS IN THE GALLEY	
3. FIRE HAZARDS IN THE ENGINE ROOM	44
FIRE-FIGHTING PRINCIPLES AND PRECAUTIONS	45
1. ON DISCOVERING A FIRE, FIRST RAISE ALARM	15
2. REMOVE HEAT	
3. REMOVE OXYGEN	
4. REMOVE FUEL	
5. IF SMALL, TACKLE IT QUICKLY USING THE RIGHT APPLIANCE	
6. DON'T USE WATER-BASED EXTINGUISHERS ON ELECTRICAL FIRES	
7. IF LARGE, GET HELP	
8. MAINTAIN FIRE-FIGHTING EQUIPMENT	45
GENERAL DECK SAFETY	46
DANGERS	46

PART A GENERAL INFORMATION

1. Introduction

The Basic Sea Safety course has been designed and is intended for the crew of small boats, generally less than 15 meters in length and operating in near coastal waters. The content of the course has been modeled on the Safety Course developed by the Regional Maritime Programme of the Secretariat of the Pacific Community, but modified to meet the requirements of small-boat crew in Pacific Island countries and territories.

This Learner's guide is designed for students who are being trained and assessed for the Basic Sea Safety certificate. Attendance at the course, involvement in the practical exercises and studying of this easy-to-follow book is sufficient for to be well skilled in the requirements for maintaining safety at sea and being able to survive in the event an emergency occurs.

2. Course development

The resource materials were produced with financial support from the Government of Taiwan/ROC and compiled by Grant Carnie, Manager of Fishing & Maritime Programmes, Australian Fisheries Academy, Adelaide, South Australia.

The materials were developed through consultation with staff of the Fisheries Training Section, Coastal Fisheries Programme, Secretariat of the Pacific Community and regional experts on safety-at-sea training. Resources from Australia, New Zealand and SPC training materials were used as a guideline to developing materials that were relevant to the maritime and fishing small-boat sector in the Pacific Island region.

PART B COURSE INFORMATION

1. Course name

Basic Sea Safety.

2. Prerequisites

There are generally no prerequisites for completing the Basic Sea Safety course. Refer to local regulations for any country-specific requirements.

3. Course duration

Three days (at the discretion of the course provider).

4. Assessment

Candidates doing the Basic Sea Safety course will be assessed as they are completing the competencies.

5. Recognition of Prior Learning (RPL)

If students have been assessed previously for some of the learning outcomes or believe that they are already competent in certain areas, they can apply to the trainer/assessor to have these particular skills recognised. This will most likely occur where a person can demonstrate they have a current first aid certificate covering the learning outcomes of the Basic First-Aid section of the course.

6. Resources

The resources required by anyone attending the Basic Sea Safety course are minimal. A copy of the Learner's Guide and attendance at all sessions of training are enough for a candidate to successfully finish the course and attain their certificate. Candidates should check with the training institution offering the course with regard to clothing requirements for the practical components.

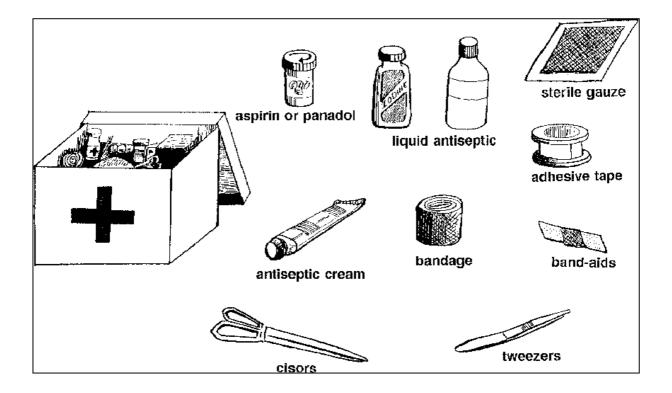
Anyone wanting additional resource materials could borrow or purchase a copy of either *The Australian Boating Manual* by Captain Dick Gandy or *Safety in Small Craft* by Mike Scanlan. Both books are excellent, easy to follow and cover a wide range of safety and other skills for mariners.

BASIC FIRST AID

THE FIRST AID KIT

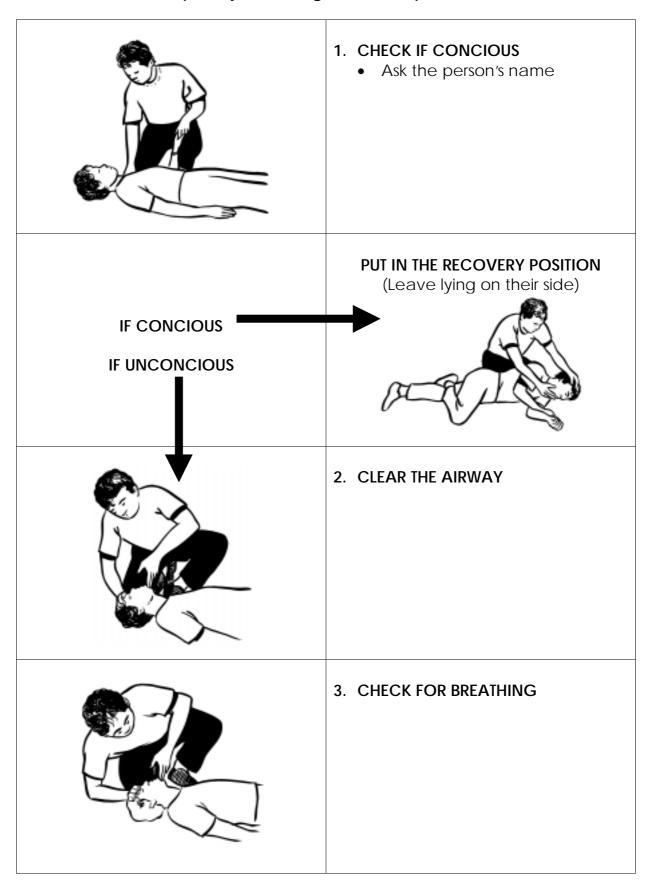
IMPORTANT

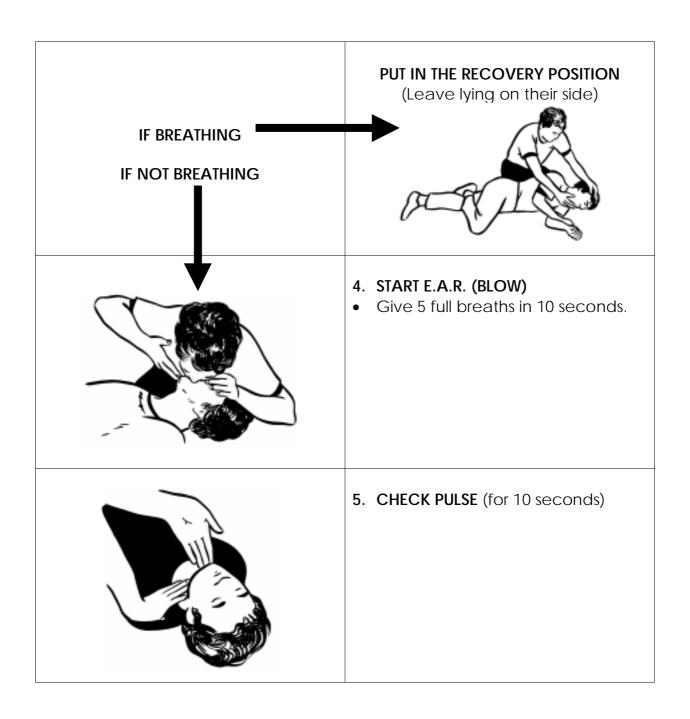
- ♦ Know where the first aid kit is kept on your boat
- ♦ Make sure items that are used are replaced

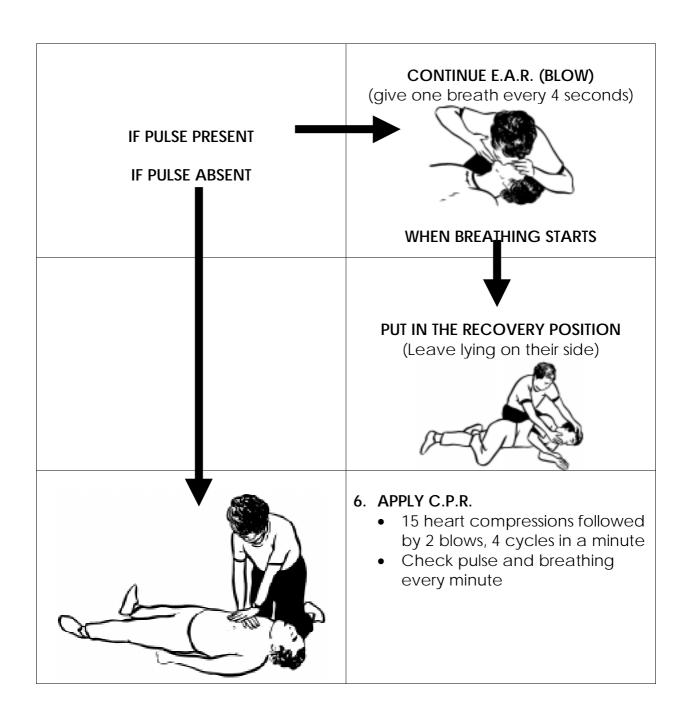


BASIC FIRST AID

A B C OF FIRST AID (Airway, Breathing, Circulation)

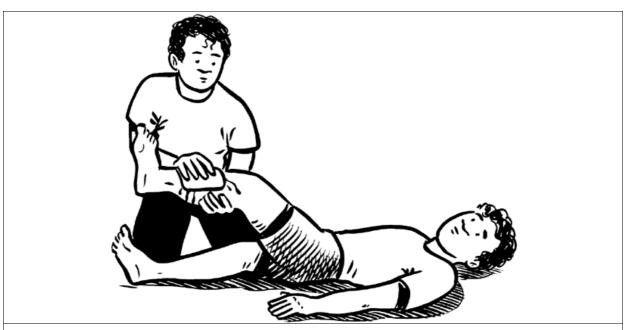






BASIC FIRST AID

TREATMENT OF BLEEDING



1. Lie person down, press thick bandage firmly on the wound and lift the limb



2. When bleeding stops, wrap a bandage around the wound

EMERGENCY SITUATIONS

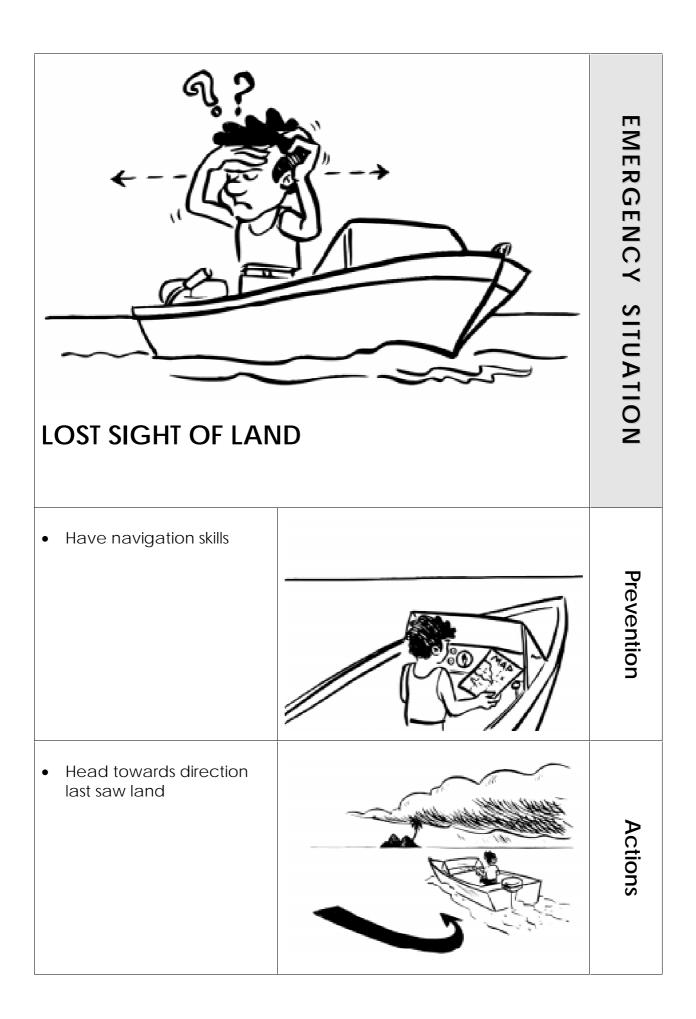
CAUSES OF EMERGENCIES

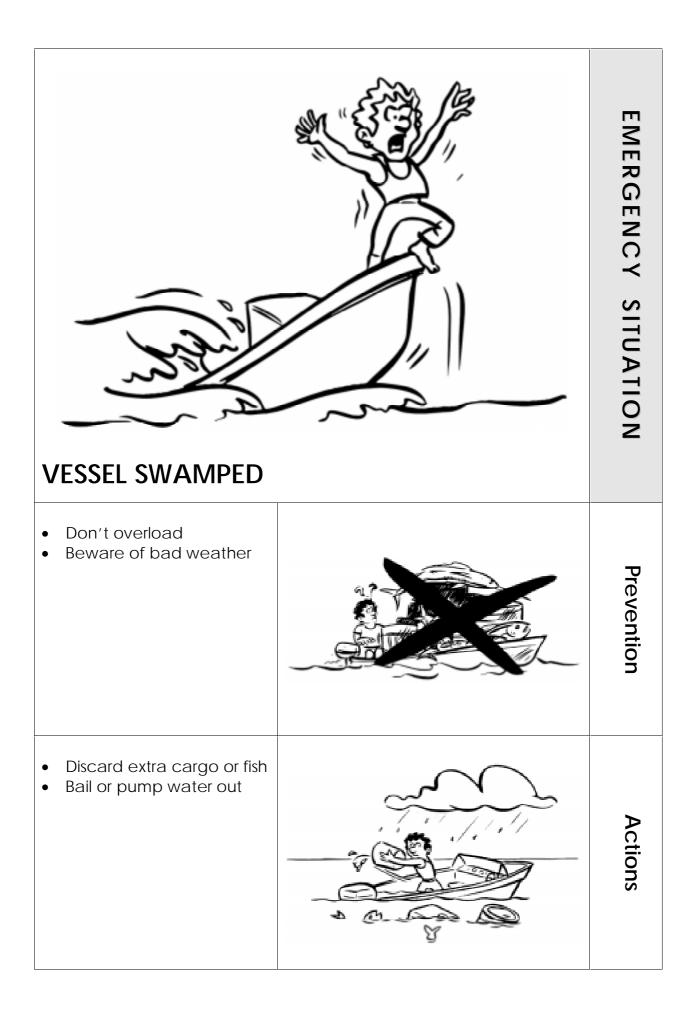
IMPORTANT

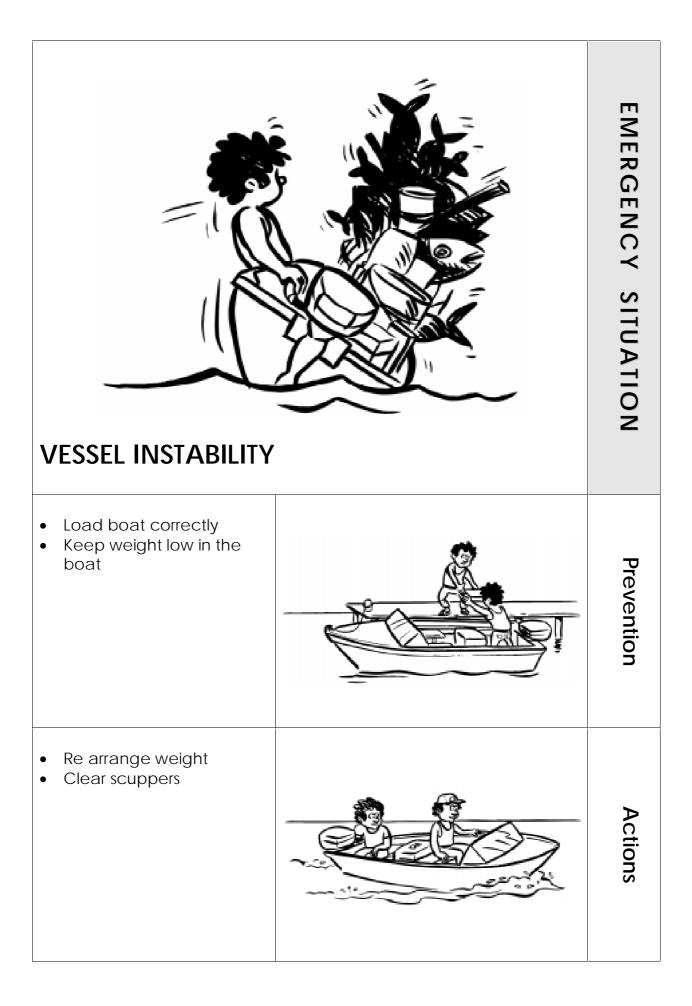
- ♦ Human error causes emergency situations
- ◆ Preparation prevents emergencies occurring
- ♦ Inform the skipper immediately a problem occurs

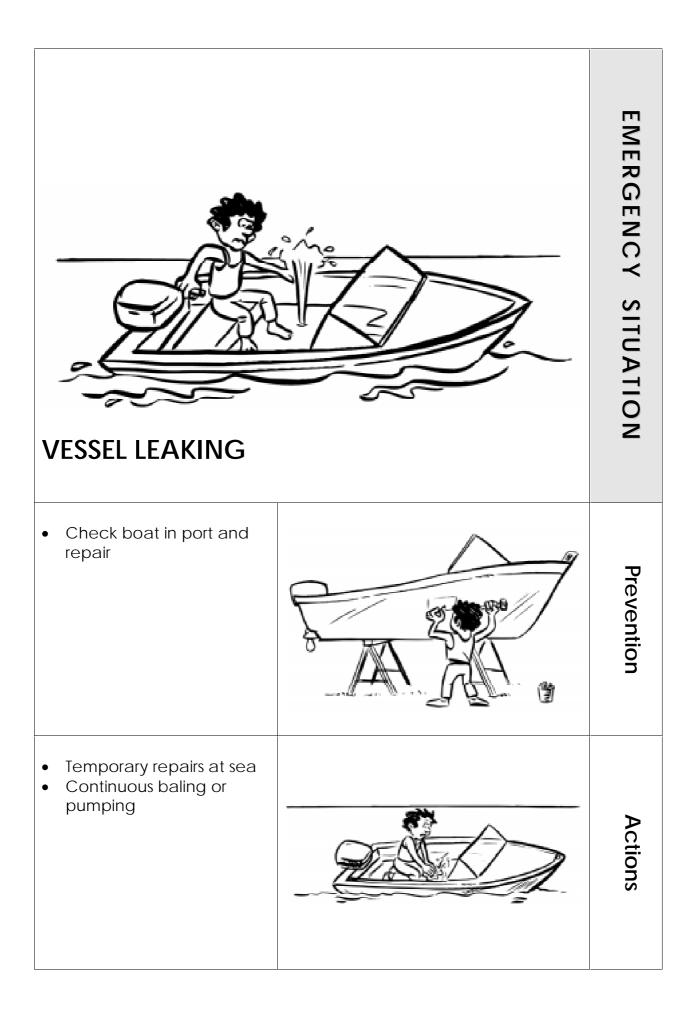
Emergencies	Prevention	Actions
Out of fuel	 Take adequate fuel to sea Take more than required for intended distance to travel 	 Radio for assistance Use alternate propulsion source (e.g. sails, oars)
Lost sight of land	Have navigation skills	Head towards direction last saw land
Vessel swamped	Don't overloadBeware of bad weather	Discard extra cargo or fishBail or pump water out
Vessel instability	Load boat correctlyKeep weight low in the boat	Re arrange weightClear scuppers
Vessel leaking	Check boat in port and repair	Temporary repairs at seaContinuous baling or pumping
Vessel overloaded	Don't overload	Remove extra load
Engine failure	Service engine regularlyHave spares and tools	Attempt to repairRadio for assistanceUse alternate propulsion
Sudden change of weather	Check weather forecast before going to sea	Head for portHeave to
Grounding on a reef	Keep a good lookoutKnow the area	Attempt to get offRadio for assistance
Collision with another vessel	Keep a good lookout	Repair damageAssist each other
Loss of steering at sea	Check steering gear regularly	Rig a jury rudder system
Loss of propeller at sea	Check propeller regularly	Radio for assistanceUse alternate propulsion

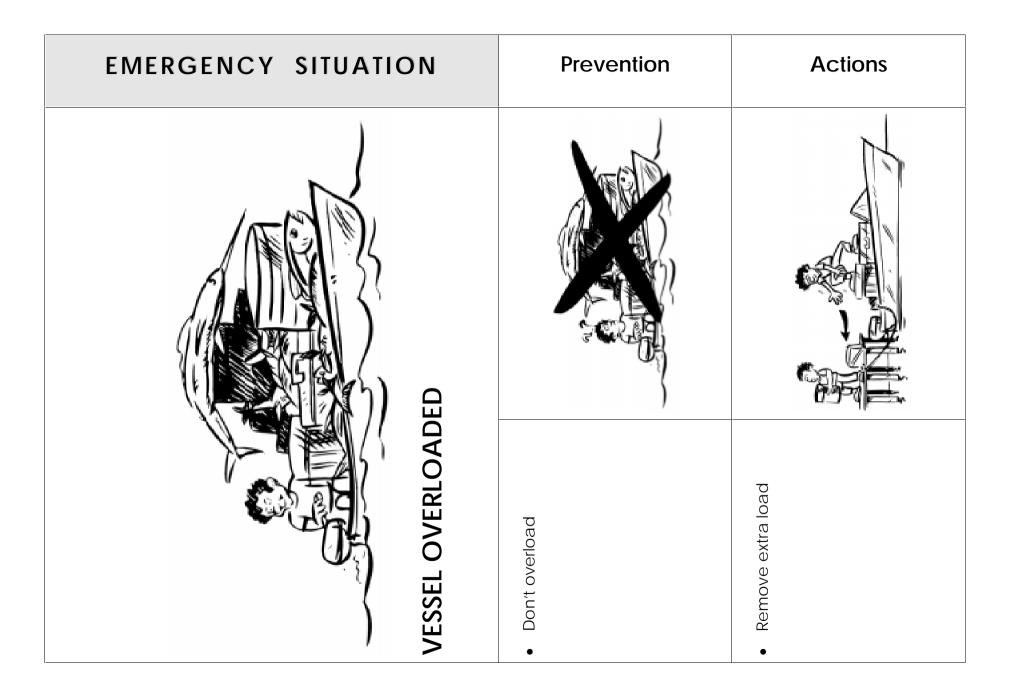
OUT OF FUEL	EMERGENCY SITUATION
 Take adequate fuel to sea Take more than required for intended distance to travel 	Prevention
Radio for assistance Use alternate propulsion source (e.g. sails, oars) MAYDAYI MAYD	Actions



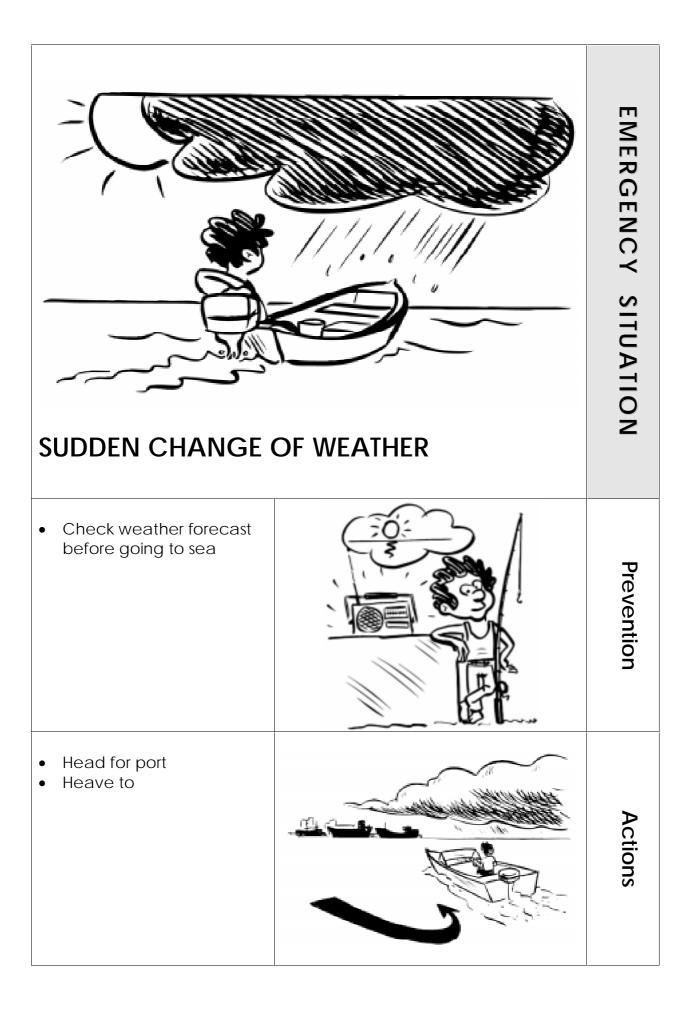


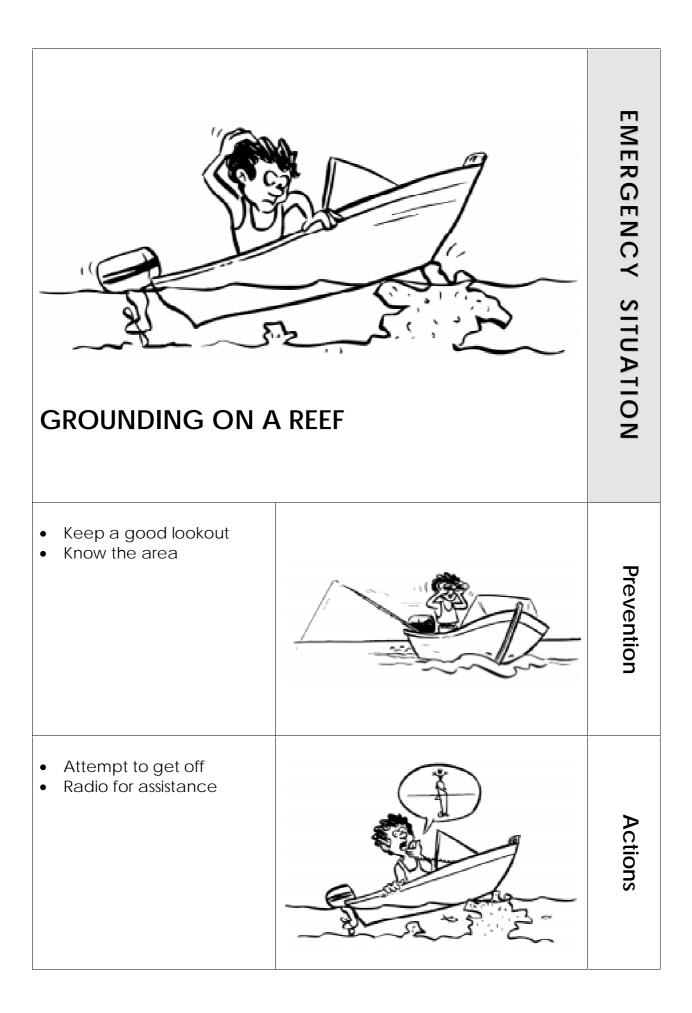


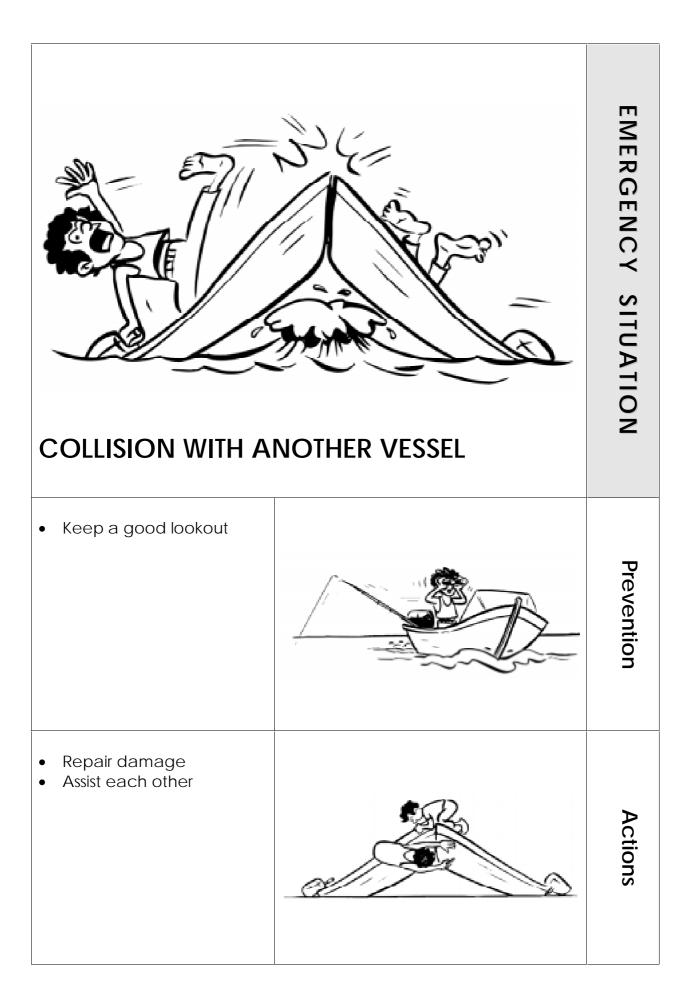


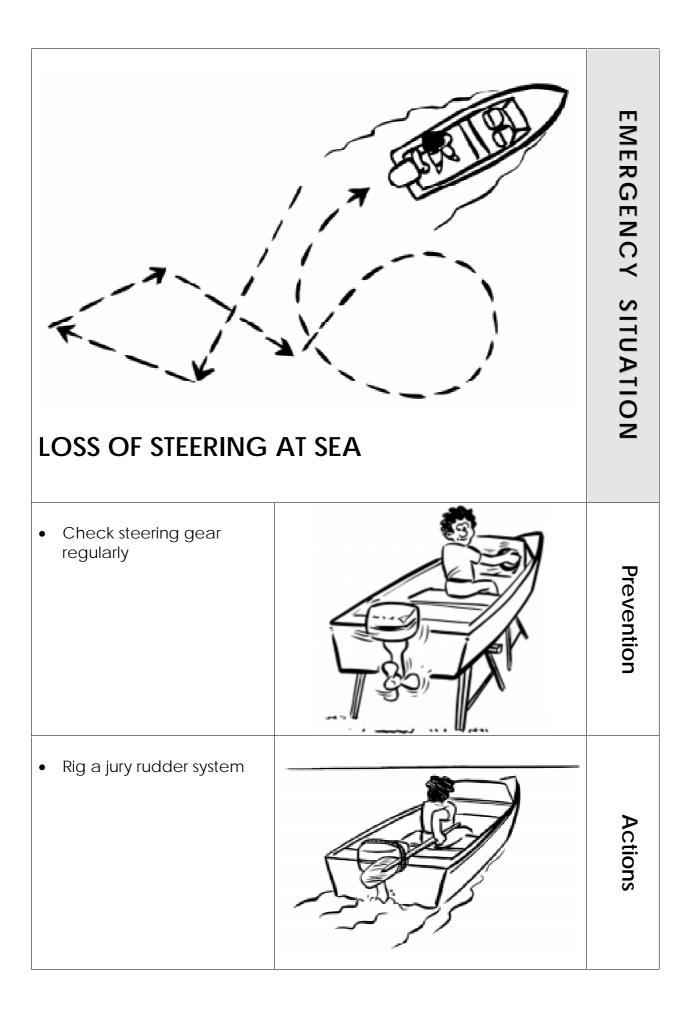


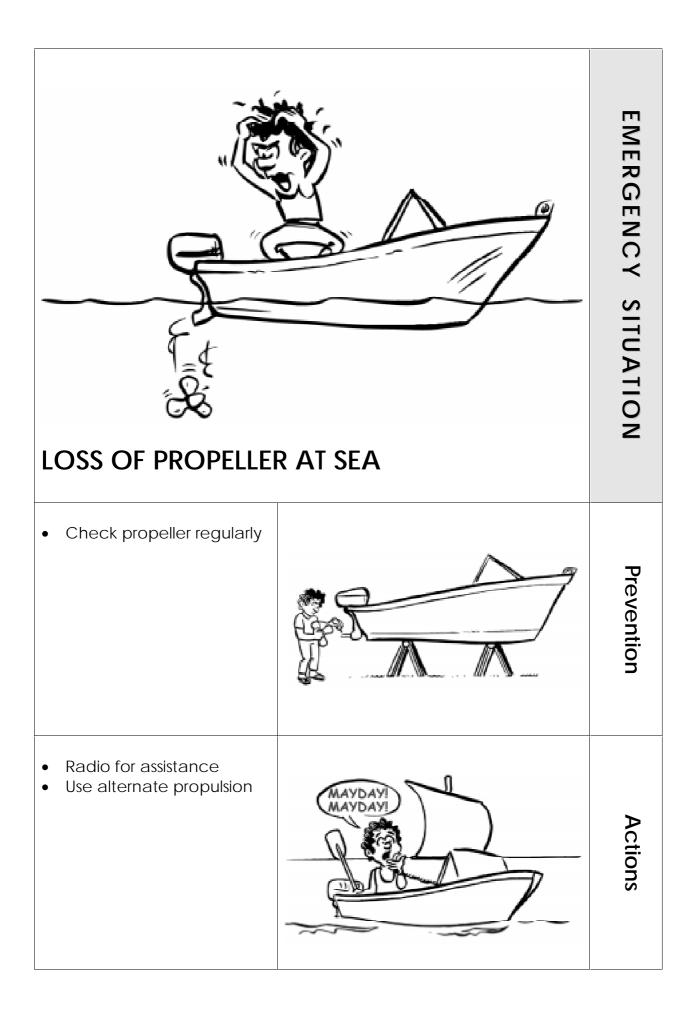
ENGINE FAILURE	EMERGENCY SITUATION
 Service engine regularly Have spares and tools 	Prevention
 Attempt to repair Radio for assistance Use alternate propulsion 	Actions





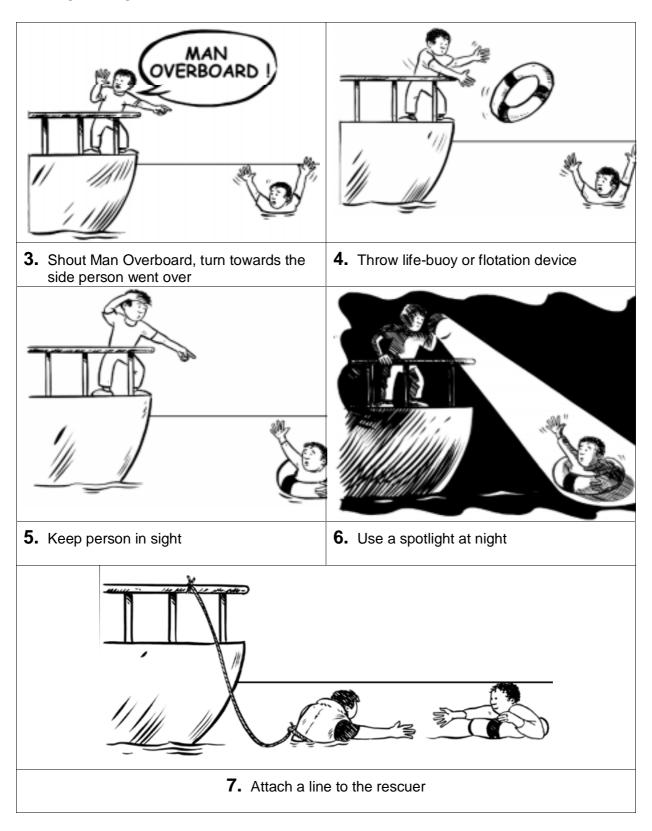






EMERGENCY SITUATIONS

MAN OVERBOARD



ESSENTIAL SAFETY EQUIPMENT

LIFE-SAVING AIDS



ESSENTIAL SAFETY EQUIPMENT

LIFE JACKETS

1. Putting on a life jacket



2. Securing a life jacket

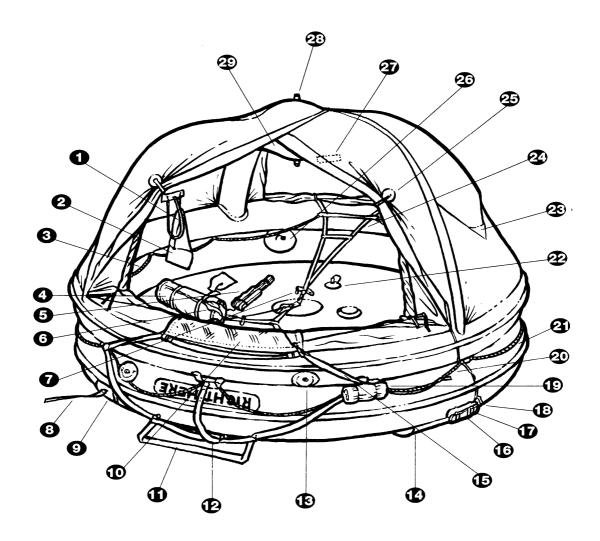




3. Jumping correctly into the water



INFLATABLE LIFE RAFT



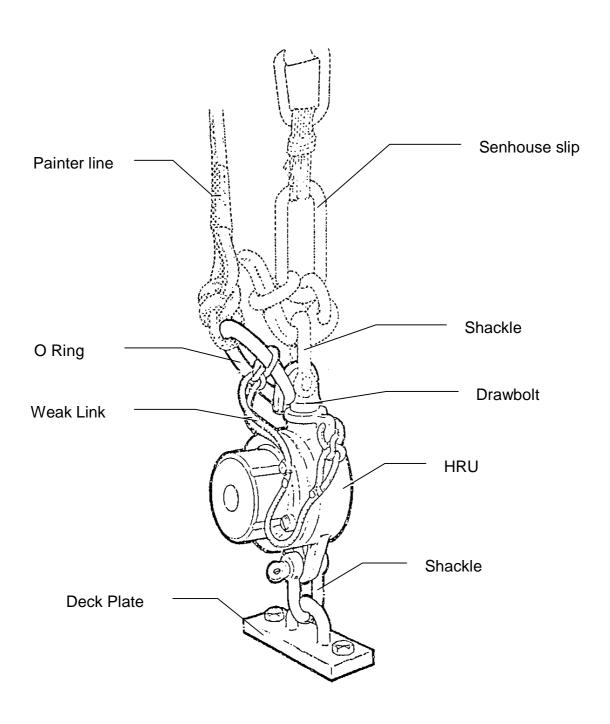
- 1. Rain catchment tube and bung
- 2. Canopy instruction label and bag (life raft handbook inside bag)
- 3. Internal lifeline
- 4. Emergency pack
- 5. Paddles
- 6. Lanyard
- 7. Quick release for hauling-in line
- 8. Painter
- 9. Painter patch
- 10. Window in inner door
- 11. Boarding ladder & righting strap
- 12. Inflation hose
- 13. Deflation plug
- 14. Water stabilising pocket
- 15. Canopy furling tapes

- 16. Sea light cell
- 17. Plug
- 18. Cell pocket
- 19. Drogue
- 20. Drogue line
- 21. External life line
- 22. Floor inflation valve
- 23. Rain catchment
- 24. Hauling-in line
- 25. Canopy furling tapes
- 26. Safety and topping-up valve
- 27. Knife (stuck on Arch tube)
- 28. External light
- 29. Internal light

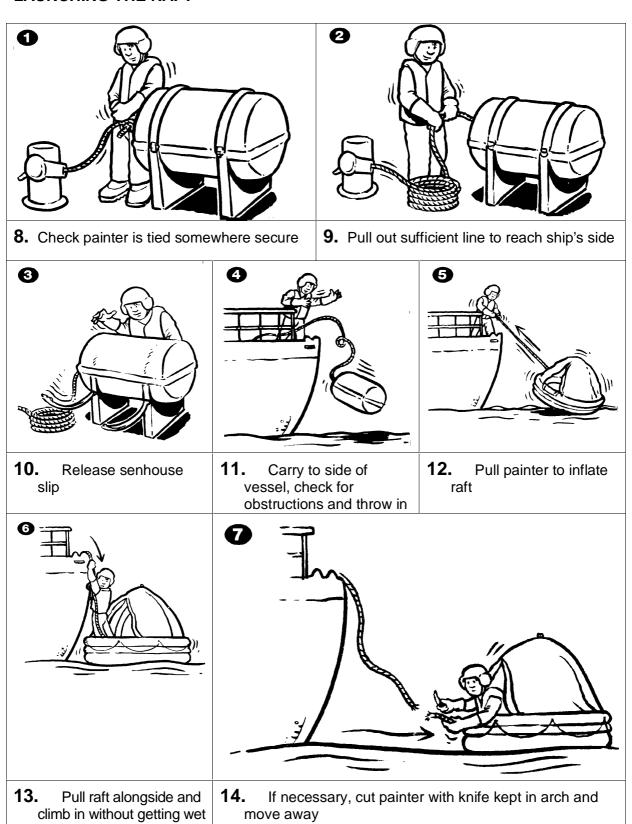
LIFE RAFT EQUIPMENT



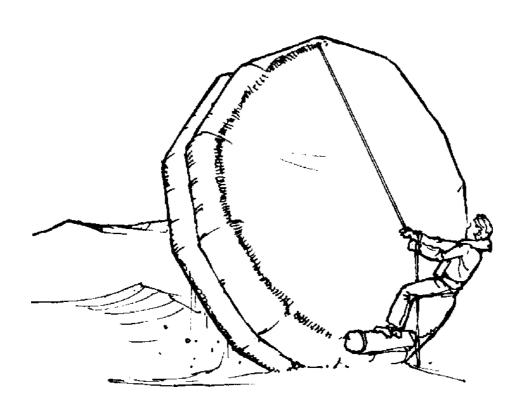
HYDROSTATIC RELEASE



LAUNCHING THE RAFT



RIGHTING A LIFE RAFT



SURVIVAL AFTER LAUNCHING

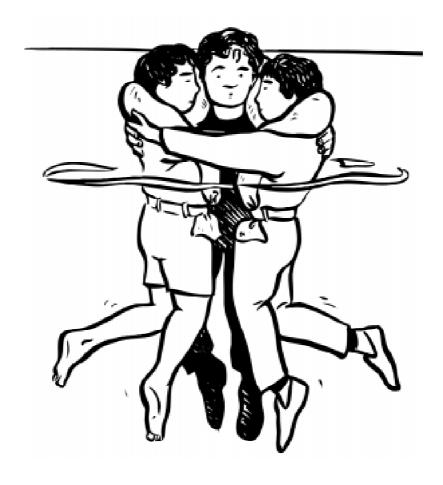


LESSENING HYPOTHERMIA

1. H.E.L.P.



2. HUDDLE



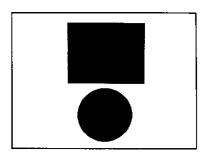
INTERNATIONAL DISTRESS SIGNALS

SIGHT

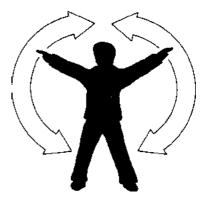
1. Flames on the vessel



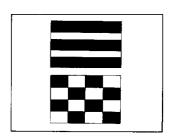
2. A square object above or below a round object



3. Slow and repeated raising of the arms outstretched to each side



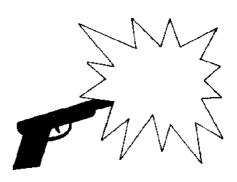
4. International code flags N & C



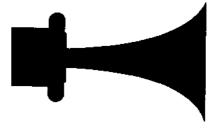
INTERNATIONAL DISTRESS SIGNALS

SOUND

1. Gun or other explosive device fired at intervals of about a minute



2. Continuous sounding of a fog-signaling device



RADIO

1. Mayday call on a radio



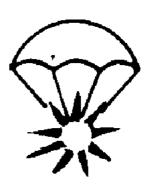
2. EPIRB



INTERNATIONAL DISTRESS SIGNALS

PYROTECHNICS

1. Parachute flare (red light)



2. Hand held flare (red light)



3. Smoke signal (orange)



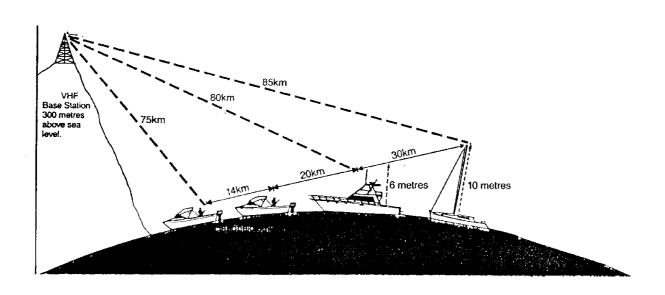
COMMUNICATIONS IN AN EMERGENCY

VHF AND MF/HF (SSB) TRANSCEIVERS

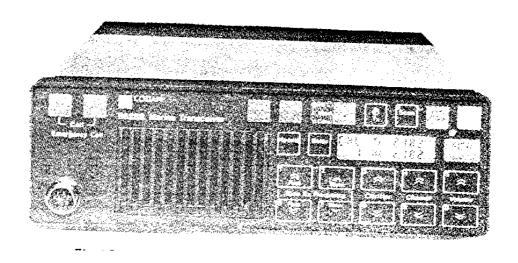
1. VHF radio



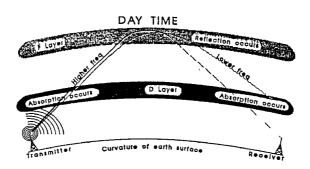
2. VHF range

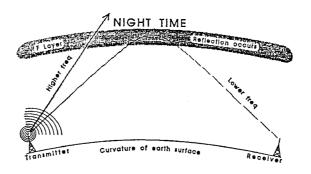


3. MF/HF(SSB) radio



4. MF/HF range

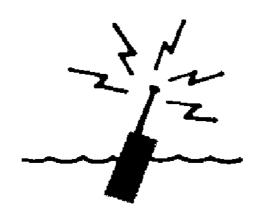




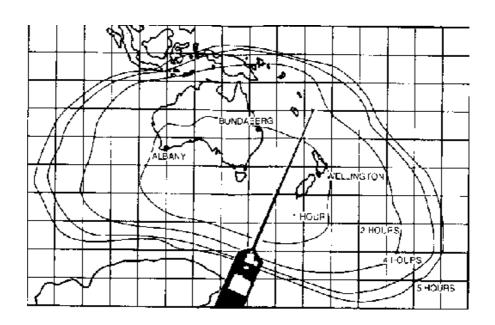
COMMUNICATIONS IN AN EMERGENCY

EPIRB

1. An EPIRB



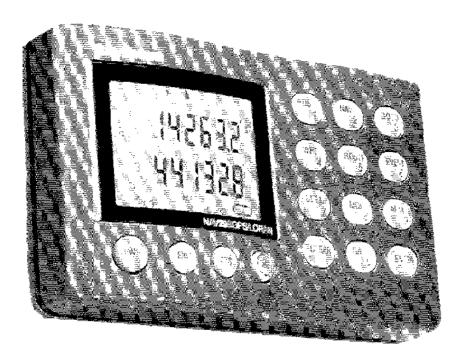
2. Average time to detect an 121.5/243 EPIRB



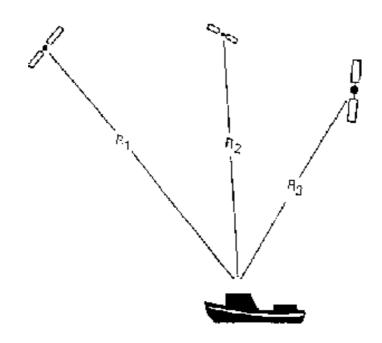
COMMUNICATIONS IN AN EMERGENCY

GPS (GLOBAL POSITIONING SYSTEM)

1. GPS

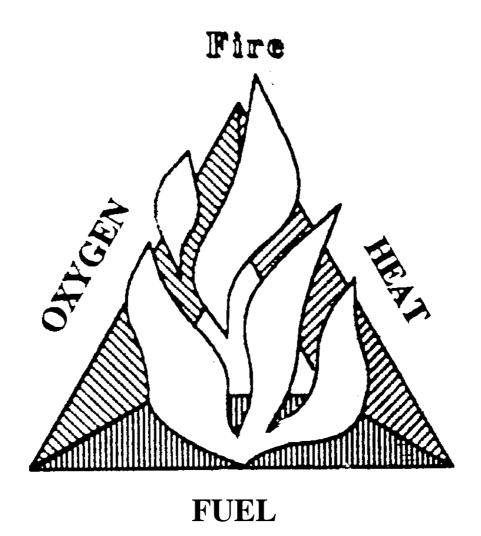


2. Satellite signals to a GPS



FIRE PREVENTION AND CONTROL

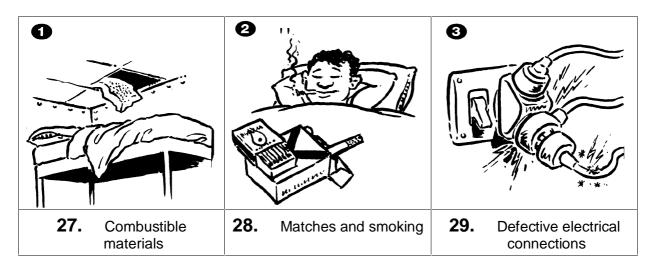
THE FIRE TRIANGLE



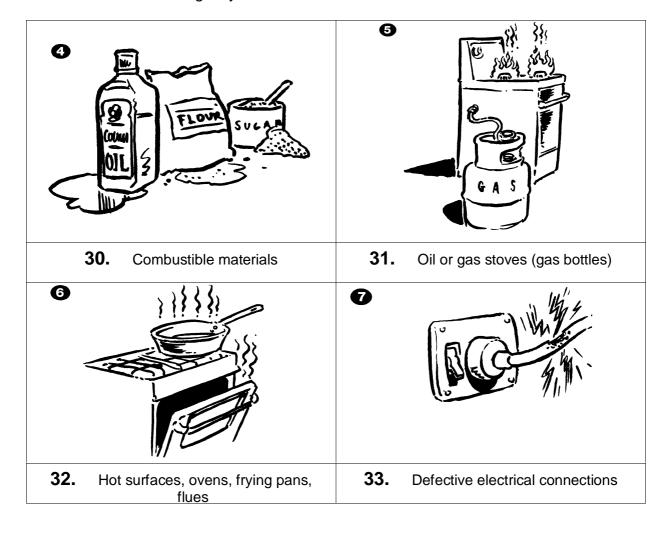
FIRE PREVENTION AND CONTROL

CAUSES OF FIRES

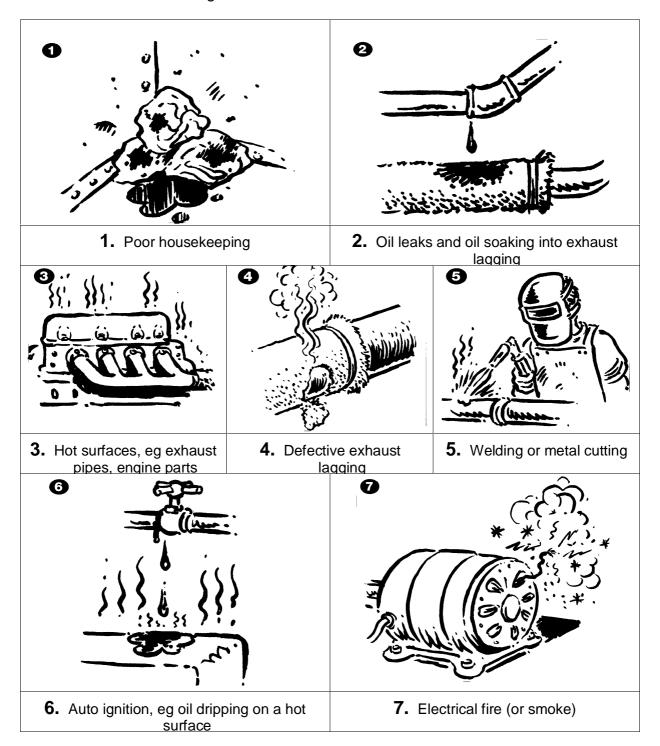
1. Fire hazards in the accommodation



2. Fire hazards in the galley



3. Fire hazards in the engine room



FIRE PREVENTION AND CONTROL

FIRE-FIGHTING PRINCIPLES AND PRECAUTIONS



GENERAL DECK SAFETY

DANGERS



DANGERS

