



MAN OVERBOARD



A Coral Coast 2013 Seminar

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This presentation is based on my experience and views and as every boat is set up and handles differently and weather and sea conditions are variable it is up to you to decide what solution best suits your situation.

The Cruising Sailor

Cruising yachts are mostly sailed by couples.

One person overboard equals one person on board.

Probability of a solo sailor rescuing a MOB is close to zero.



Man overboard-deadly serious.

Why retrieval is problematic:

- A MOB is very hard to see at 100m
- At 6 kts. a boat travels 185m in 1 minute
= 1nm in 10 minutes
- Difficult to maintain visual contact
- Very difficult to get a person back on board
- And a risk to the remainder of the crew.



Avoiding being lost at sea has two dimensions

1. SOB Strategies

and, only when they fail,...

2. MOB Strategies



SOB: Staying on Board

1. Understand heightened risks
2. Equipment
3. Crew operating procedures



Staying on Board

Heightened risks because:

- a) Night time
- b) One person on deck
- c) Weather and sea state
- d) Risky sail manoeuvres
- e) Urgent bathroom needs
- f) Over-confidence



Staying on Board Equipment

Suitable and maintained:

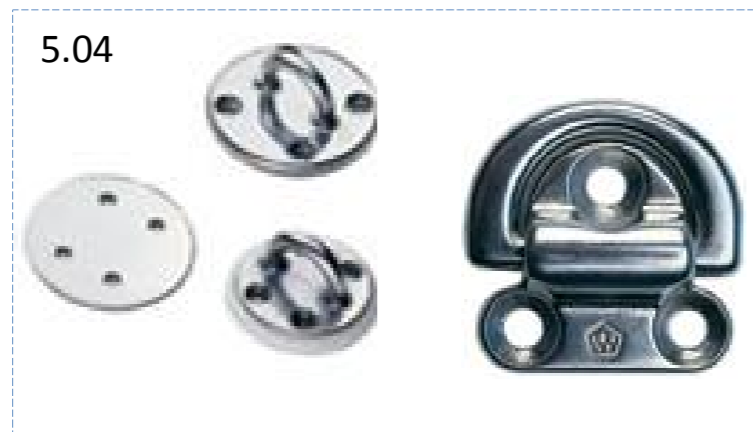
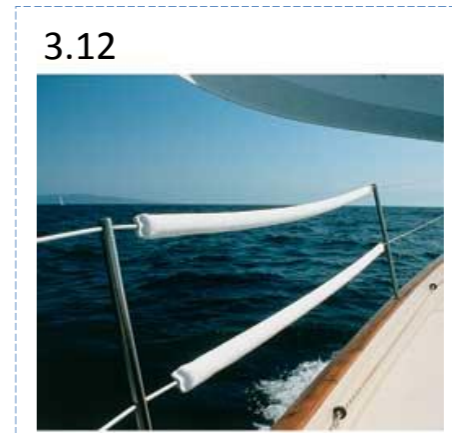
- Lines to the cockpit
- Harnesses
- Tethers
- Lifejackets
- Jackstays
- Strong points



Staying on Board Equipment

MOB PREVENTION items (Green Book)

Reference	Item
3.12	Pulpits, Stanchions, Lifelines
3.14	Toe rails or Foot stop
5.02	Safety Harness, Safety lines, Tethers
5.03	Jackstays
5.04	Clipping Points





Staying on Board

Crew operating procedures

- Jackstays
 - Installed for duration of cruise
 - Regularly inspect stitching and abrasion
- PFD usage
 - Always for a bar crossing
 - Always outside between sun set and sun rise
- Tethers clipped on both ends
 - Before you come on deck/cockpit
 - In good weather or bad
 - Day or night



Staying on Board

Crew operating procedures

Sufficient strong points in appropriate places





Spare tethers clip on before unclipping





Staying on Board

Crew operating procedures

- Health of the crew
 - a) Sleep
 - b) Food
 - c) Drink
 - d) No alcohol
 - e) Sea sickness precautions
 - f) Watch cross over period



Staying on Board

Crew operating procedures

- Watch-keeping protocol
- Off-watch not to be interrupted
- No-one on deck solo
- Set up sailing for the watch



Staying on Board

Crew operating procedures

Don't follow it in





MOB Strategies

MOB Strategies

Additional safety aids



Jonbuoy MK5



Crotch straps



MOB Tags



Spray hood



TeamO
harness/tether combo



Kannad SafeLink R10



MOB Strategies

Having the equipment operational and in good order will get you through your safety audit; but being able to get the MOB back on board is the critical objective.

- Therefore all crew must be competent in the use of recovery equipment and recovery procedures

Green Book sections 7.02 “On board training” & Appendix B “Man overboard procedures” address developing and maintaining MOB prevention and recovery skills.

This seminar is the first step in developing recovery skills



MOB action



1. Mark the position
 - ✓ Hit the “MOB” button. This alarm button must be at the helm, having it below is analogous to ignoring the MOB
2. Get buoyancy to the victim, Dan Buoy, Horseshoe Life Buoy (drogue) and strobe light
 - ✓ Position is marked for the person in water as well as the recovery team, think of it as the “meeting point”
3. Maintain a visual of the MOB at all times
 - ✓ If crew numbers permit, dedicated crew member becomes spotter, continuously pointing at the MOB and reporting location to the helm



MOB action



4. Get boat back to the MOB
 - ✓ This will involve one of a number of recovery manoeuvres dependent on your boat, the crew and the conditions.
5. Make contact with the MOB
 - ✓ Lifesling and Heaving line are used to engage the MOB
6. Stop the boat alongside the MOB
 - ✓ Once contact is made, boat is headed into wind and stopped to windward of MOB
7. Get the MOB back onboard
 - ✓ Tie the MOB to boat and hoist aboard using a halyard, parbuckle or other technique



MOB action

In the water



- a) Swim to horseshoe lifebuoy, remain calm, keep your legs together and restrict your movements to stop flushing cold water under your clothes
- b) In rough conditions, turn your back to the waves and keep your mouth and nose clear of spray
- c) Activate your personal strobe, day time or night time
- d) Conserve your body heat, hyperthermia is a significant threat
- e) Tighten up wrist, ankle and neck fastening of protective clothing to reduce heat loss
- f) Do not attempt to swim back to the boat, they will come to you
- g) If they do not come to you, activate your Personal Locator Beacon

**If you are not wearing wet weather gear, PFD, strobe, Personal EPIRB,
GOOD LUCK, you are going to need it!**



MOB recovery manoeuvres

Objectives;

- 1) Retain visibility of MOB and a location fix of MOB position
 - 2) Get back to MOB quickly but calmly
 - 3) STOP next to the MOB, **approach SLOWLY, speed 1 to 2 kts**
- The recovery manoeuvre you select will depend on boat, crew number, wind strength and sea state
 - It is important to regularly practice these manoeuvres so you can select appropriate manoeuvre without hesitation



MOB recovery manoeuvres

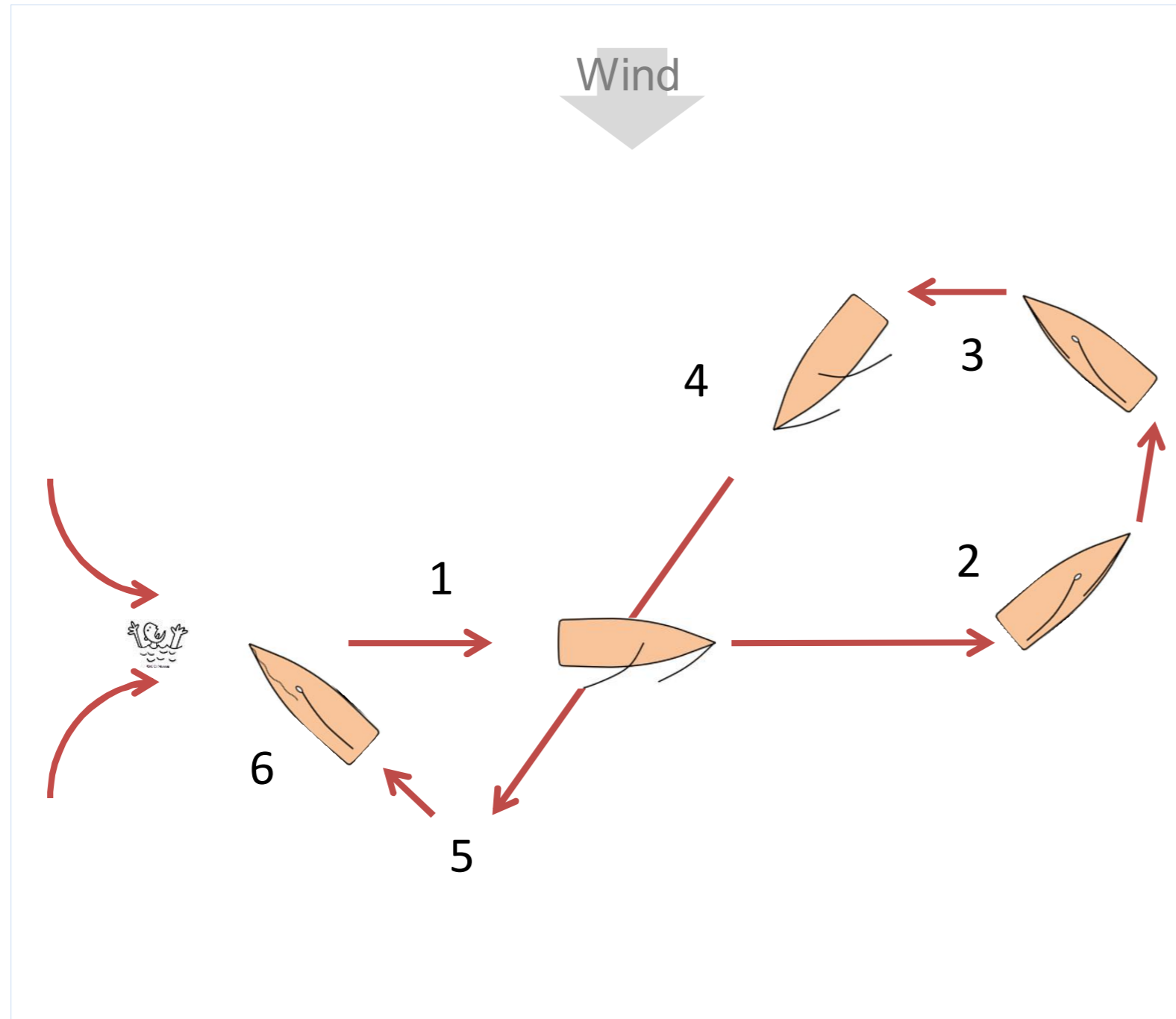
We will now review five possible manoeuvres that will get your boat back to the MOB position;

1. Figure 8
2. Quick stop (two variants)
3. Crash Stop
4. Anderson Turn
5. Williamson Turn

Cruising sailors will be sailing, motor sailing or motoring

- 1, 2 and 3 are suitable for Sail and Motor sailing vessels
- 4 and 5 are suitable for motoring vessels

Figure 8 or Quick Turn



Advantages:

- Any point of sail
- Gybe not required

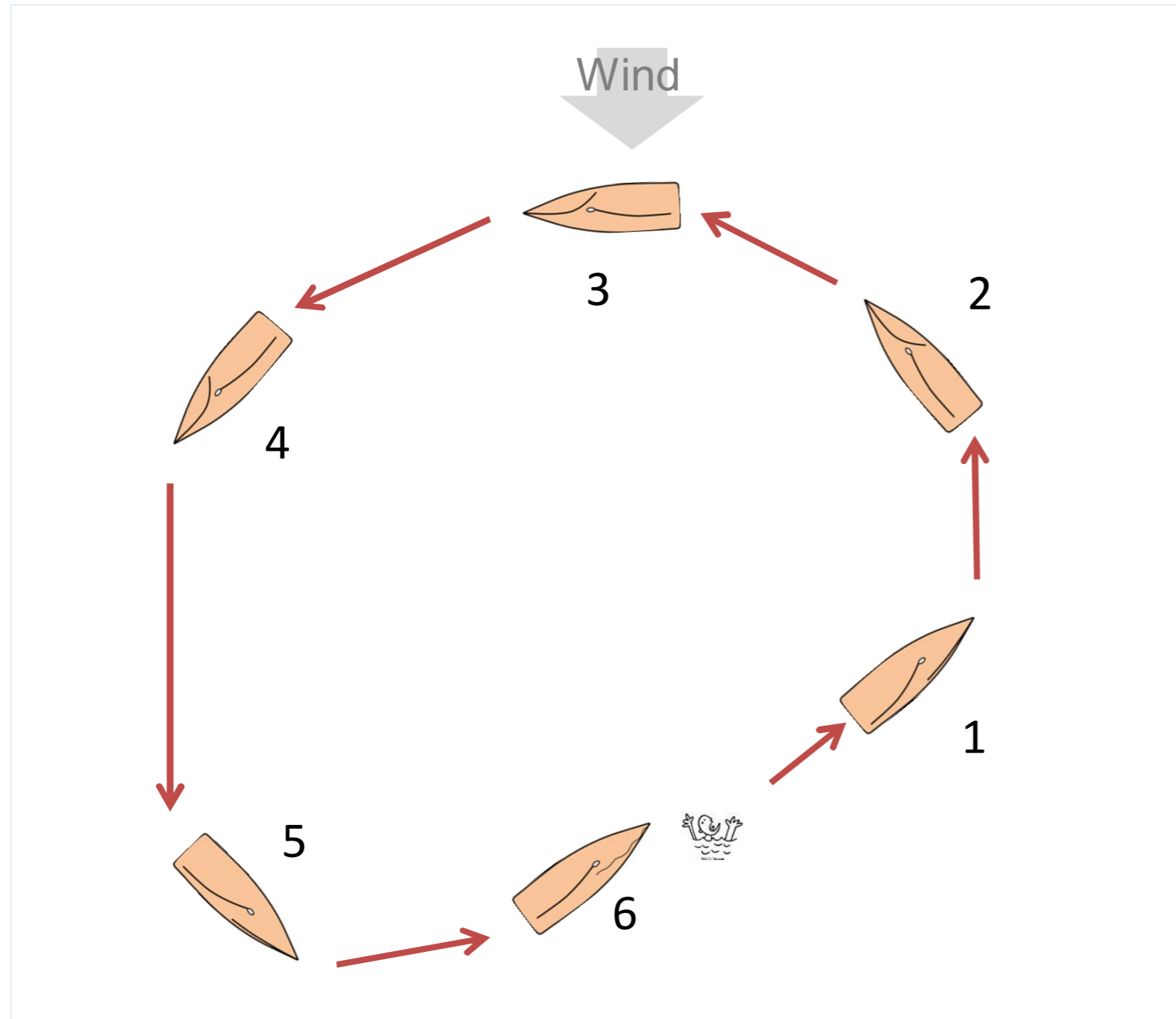
Disadvantages:

- Must sail away from MOB
- Difficult to keep sight of MOB
- Difficult for Multihulls (the tack)

Steps:

1. Enter beam reach away from MOB
2. Head up, prepare to tack
3. Perform a tack
4. Bear away, to deep broad reach
5. When MOB aft beam, head up
6. Luff sail, approach at minimum speed

Quick Stop Beating



Advantages:

Fast technique

Boat remains in sight of MOB

Disadvantages:

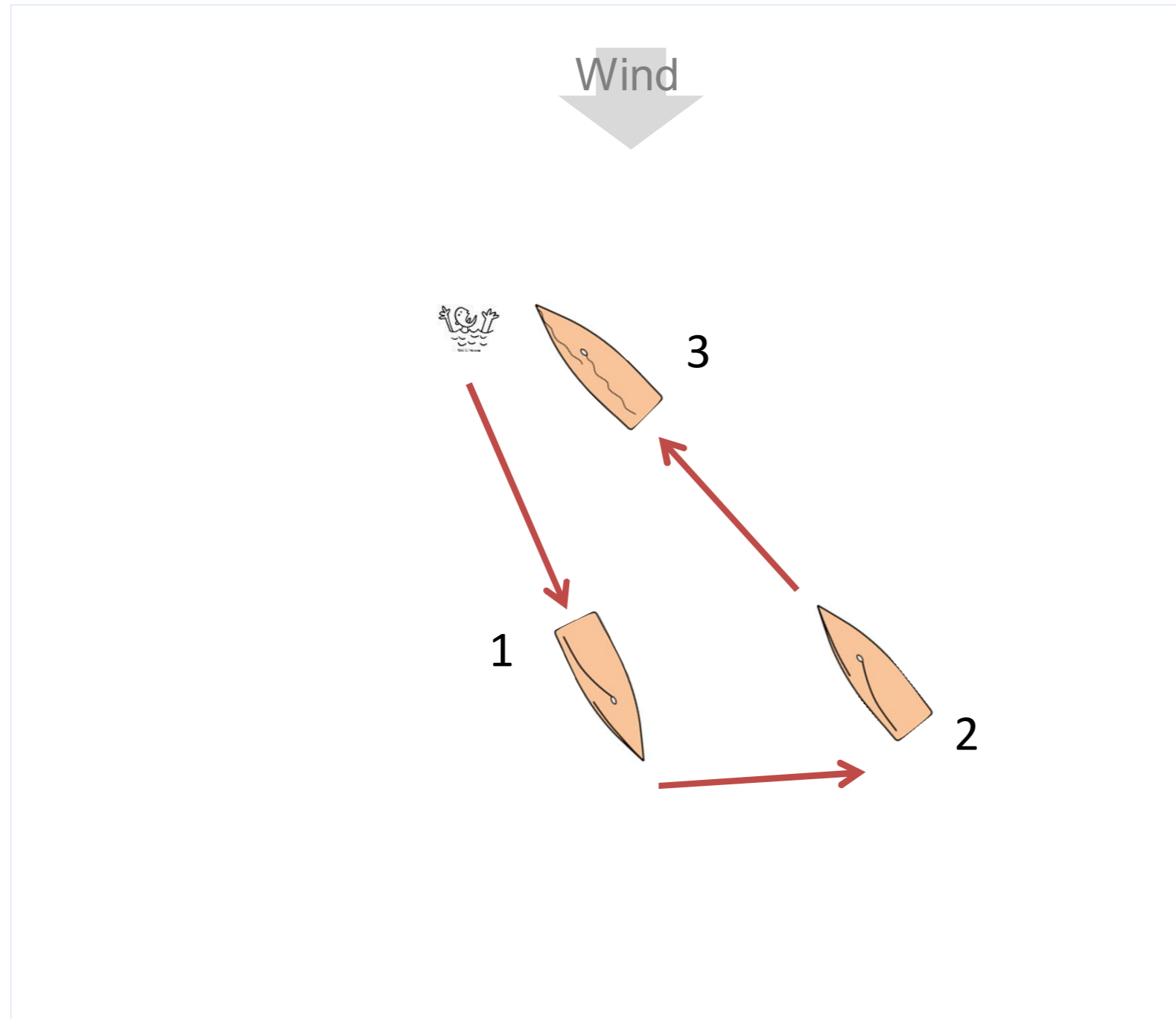
Must perform gybe

Cannot be performed on run

Steps:

1. Come to close reach
2. Bring boat to close reach and back wind jib
3. Turn to beam reach with jib back winded
4. Broad reach with back winded jib
5. When MOB abaft the beam pass through gybe, note jib on correct side
6. Luff sail, approach at minimum speed

Quick Stop Broad Reach or Run



Advantages:

Fast technique

Boat remains in sight of MOB

Suited to Cruising Sailors

Disadvantages:

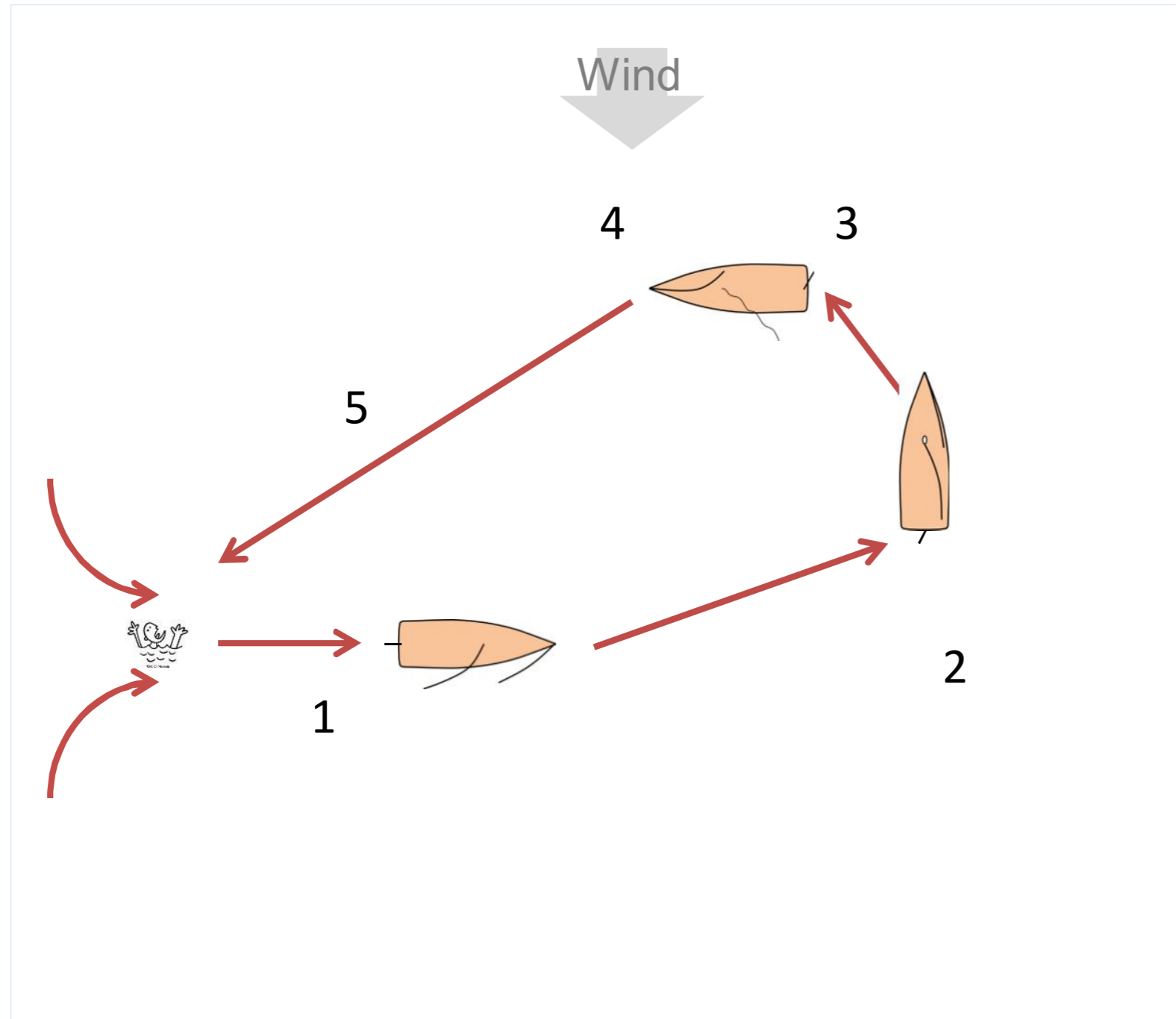
Broad reach or run only

Not suited to multi hull (tack)

Steps:

1. When on broad reach, continue for two boat lengths
2. Tack to a close reach approach
3. Luff early on approach

Crash Stop



Advantages:

Any point of sail

Keeps MOB in sight

Stops the boat quickly and provides time to think and prepare for rescue

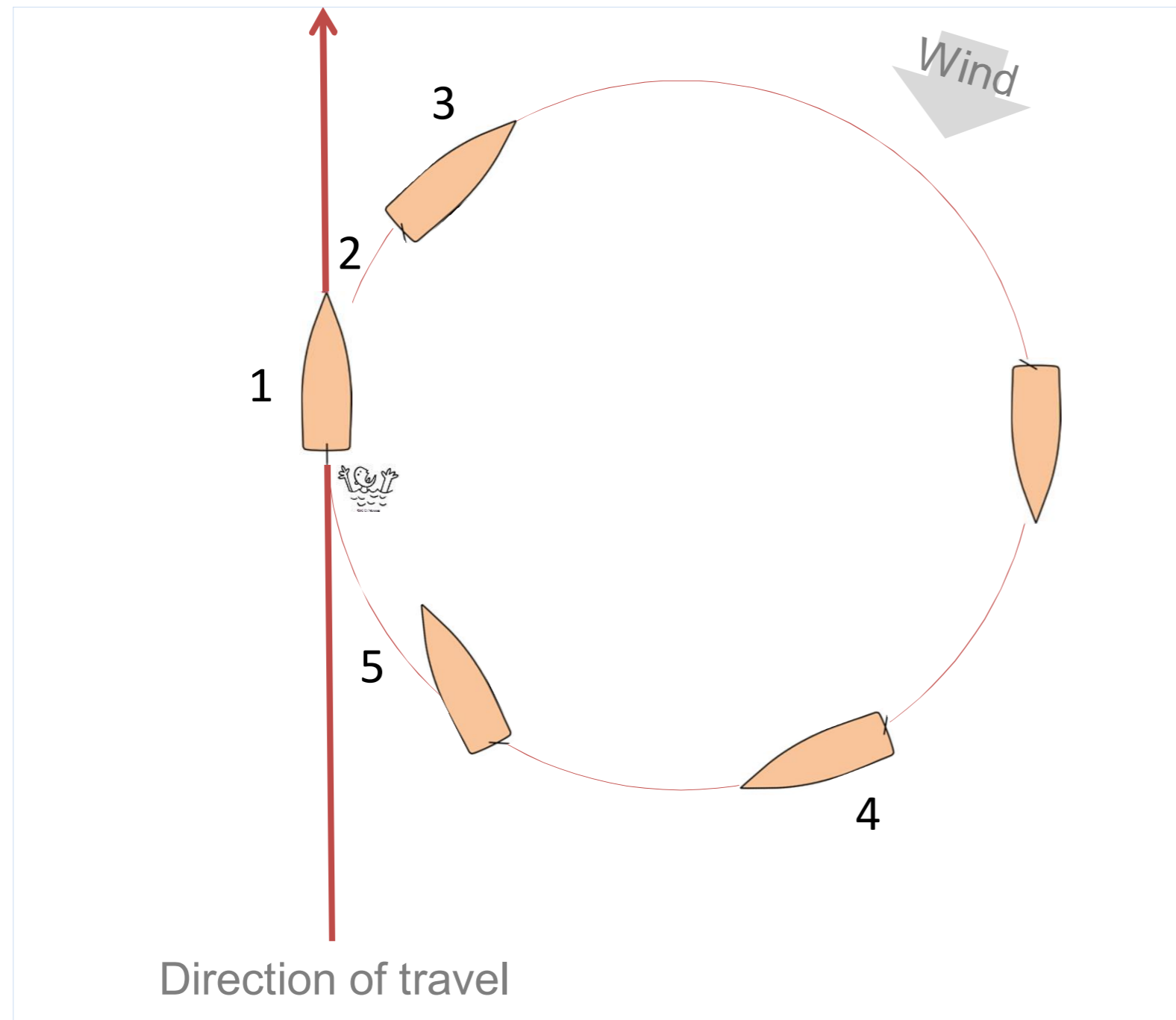
Disadvantages:

Not suitable on self tacking jibs

Steps:

1. Head up to a beam reach
2. Tack boat without touching sheets
3. Once jib is backwinded, turn helm over as though were coming back onto previous tack
4. You are now in hove-to position, held as jib and rudder cancel each other, lock the helm in position
5. Boat remains in this position, drifting down wind at less than 1 kn until you release the jib or put the helm over

Anderson Turn



Advantages:

Brings boat back to a point it passed through

Keeps MOB in sight

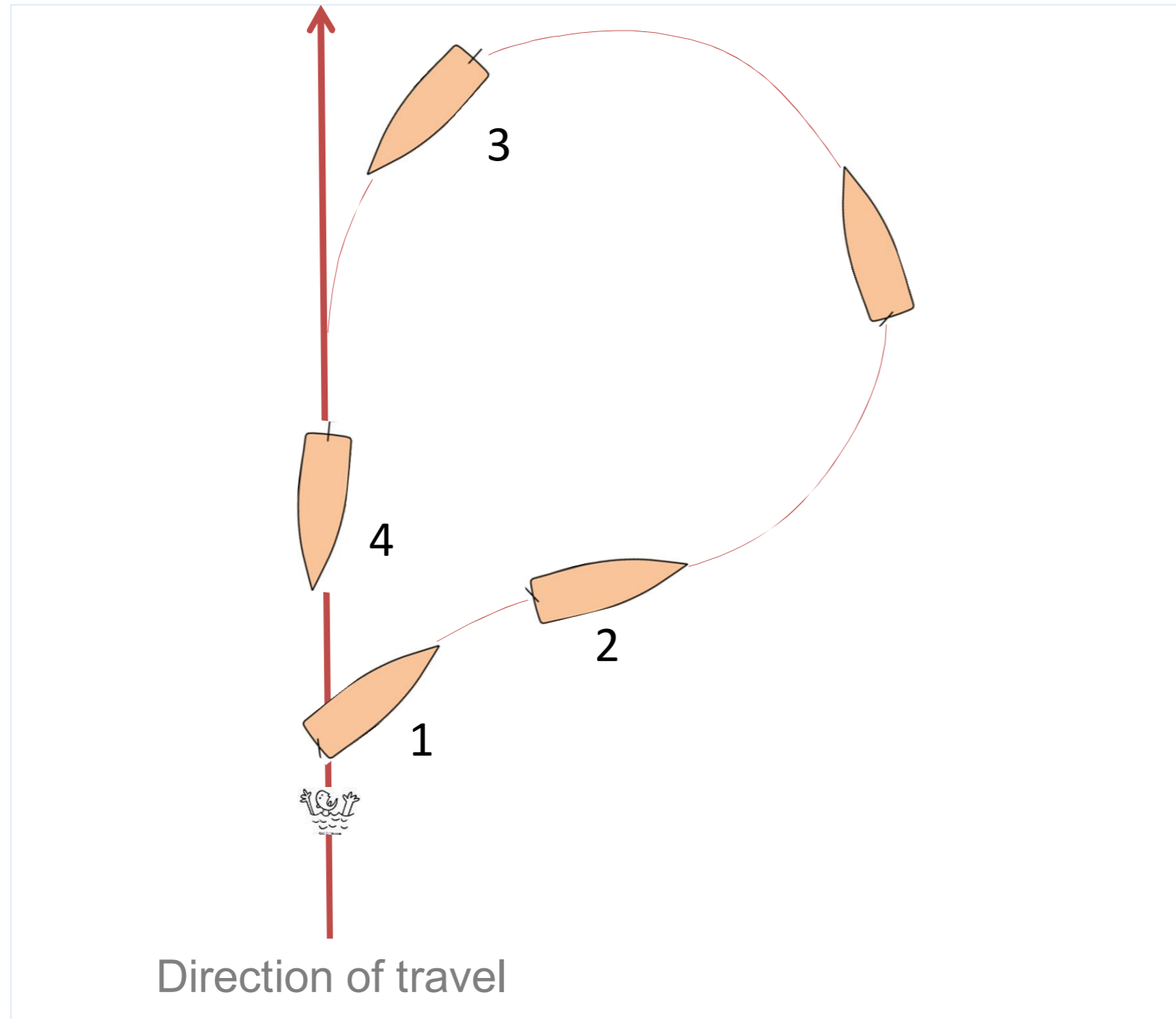
Disadvantages:

Not suitable if MOB not visible

Steps:

1. Stop engines
2. Put helm full over in direction of MOB,
3. When clear of MOB, full ahead with helm full over
4. After deviating by about 240°, reduce speed to slow ahead
5. Stop engines when MOB is about 15° off bow and approach with MOB to leeward of wind

Williamson Turn



Advantages:

Brings ship back on the course it was steaming

When MOB was not sighted

Disadvantages:

Longer than the Anderson turn

Steps:

1. Put helm full over in the direction of the MOB (if known)
2. After deviating from original course by 60° , put helm full over in opposite direction
3. When 20° short of reciprocal course, put helm midship so ship will turn onto reciprocal course
4. Bring vessel upwind of the MOB, stop engines



Dealing with a spinnaker

One of the heightened risks

If flying a spinnaker your manoeuvre will be restricted to “Figure 8” and “Quick Stop” options.

- Follow the procedure as specified;
 - As the boat comes head to wind, the pole is eased to the head stay, the spinnaker halyard is lowered and the sail is gathered on deck. The turn is continued once the spinnaker is on deck.

Note:

1. Difficult if one person on board!
2. If operating spinnaker, all crew must be competent in dealing with spinnaker



Engaging with the MOB

Once you have arrived alongside the MOB, attach the MOB securely to your boat as you prepare for retrieval. Retrieval takes time, do not rush it, remain calm. The MOB will be floating head up in their inflated PFD.



If the MOB has already engaged with the Lifesling, slowly bring them to the boat. A winch can be used for this purpose.



If the MOB has not engaged with the Lifesling you will need to position the boat close enough to throw a rope loop around the MOB, hook a rope through the PFD attach loop and then secure MOB to the boat.



Next step is RECOVERY, get the MOB back on deck

Recovery

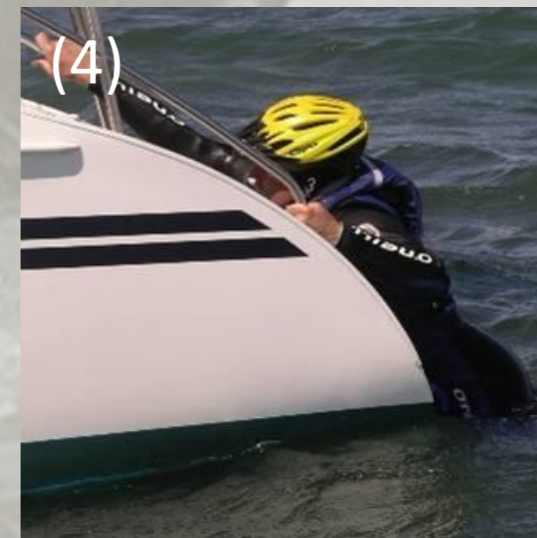
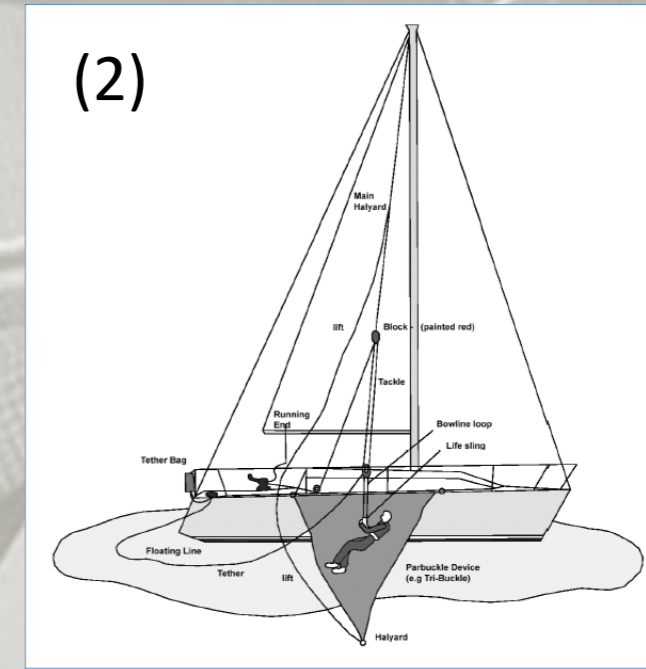
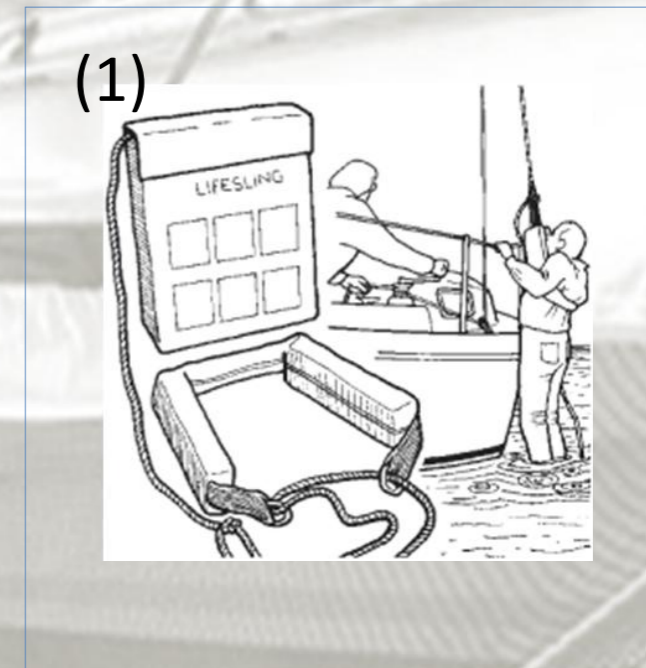
Getting the MOB back on board

There are two recognised ISAF recovery procedures;

1. A hoisting rig such as a block and tackle or spare halyard with a LifeSling
2. A parbuckle device such as a storm sail or commercial device

And two other procedures;

3. If MOB is able to hold the side rail, run a line from forward cleat to aft winch. Dip line over side, have MOB stand on line and winch MOB to deck level (elevator).
4. The transom swim platform and or ladder, **only in calm to moderate seas**





Notes on Recovery

If the MOB is unconscious and or not able to assist the rescue;

1. If One Person on Board, you may have to wait for help
2. You must avoid putting another crew member in the water, however, if necessary;
 - Make sure they have correct safety equipment
 - Tethered to boat (floating tether)
 - Healthy, strong and capable



MOB remains attached to boat

MOB goes over the side and remains attached with tether, most likely to aft end of jackstay.

- Start engine, remaining in neutral
- Come head to wind
- Douse head sail
- Attach spare sheet to MOB harness loop and secure to strong point
- Disconnect tether from jackstay
- Re-attach tether to lifting rope or halyard
- Winch MOB back on deck
- Note; a ladder may be used in calm to moderate conditions





The emergency call

Q: Should I send an emergency (Pan Pan) call or activate my EPIRB, if so what action and when?

A: Your initial emergency call can take up to 5 minutes. Your highest priority is the marking of the MOB position, provision of flotation devices and returning the boat to the MOB position.

Once these higher priorities have been addressed it is time for the emergency call either Pan Pan on VHF CH16 or an emergency call to a local boat also on VHF CH16. The MOB situation will dictate the type of call.



The emergency call

In the water; if the boat is not returning or can't locate you, activate your personal EPIRB

On the boat; make the emergency call if;

- a) after returning to the MOB position you have lost sight of the MOB or
- b) you are unable to recover MOB from water for any reason or
- c) you are single handed and require assistance

Note:

- 1) All boats should monitor VHF CH16 at all times, this may require dual watch
- 2) Once you have initiated your emergency call, you must remain on CH16 until the call is closed



Next steps

Now that we understand the difference between PREVENTING (mitigating) the MOB risk and the RECOVERY (contingency) equipment and techniques, it's time for the on water exercises;

1. Practice the return to MOB position manoeuvres
 - Each is specific to boat, crew and conditions
 - Some will work, some will not
 - Which manoeuvre is best for you?
 - Remember, final approach to MOB must be **very slow**
2. Practice engagement and recovery of an object or person
3. Write your MOB plan

NOTE: Observing another boat drill is useless, you must practice with **your boat** and **your crew**



Be an S.O.B.





Have a great cruise





Q&A

