



Going to Sea?

Over the centuries man has been going to sea to explore, feed himself, go to war, conduct business and enjoyment. The vast majority of voyages are un-eventful and successful. Knowledge of basic seamanship and traditions make every voyage more interesting and less intimidating.

There is one cardinal rule when going to sea...it is that the **Captain's word is LAW** as he/she has the responsibility for all on board...this is particularly the case in times of stress or extreme maneuvers...if the Captain asks you to do something...do it!

The following brief overview is to prepare you for *Going to Sea*. This is only an introduction, as additional information can be obtained from the Sea Scouting Manual.

Safety at Sea

- *Environment:*

The marine environment is in three dimensions.

Tides: Nature has created tides that occur twice each day, as there are high tides and low tides. Tides changes range from barely apparent to dozens of feet depending where you are. The knowledge of tides is essential in boating as the change of depth impacts on the navigability of a course in low water and the amount of scope is needed for anchoring. Tides bring in additional dynamics of creating waves or undertows as the tide recedes. There is a printed reference book known as “Tide Tables” that should be on every vessel. This reference gives the dates, times and normal tide levels for the selected area of operations.

Wind: The winds can change quickly on the ocean and instantly, as there are few obstructions that block the flow. The sky can assist in predicting some of the changes. Cloud formations can provide clues as to changes...study the various types of cloud formations.

Currents: Currents (or “flows of water”) are caused by many different things such as tides, undersea obstacles etc. Currents can impact the course of a boat and can sweep a swimmer away quickly from safety.

- *Marine life*

The sea is the fount of life, and thus there are many different species that live in the seas. Most marine life is benign, but observation and respect for the environment will enhance a positive experience. Some of the creatures you may meet are:

Jellyfish: they look like a half-inflated balloon, but some species such as the Portuguese Man-of-War have stinging tentacles that stream out from the inflatable sac. This sting is similar to a bee sting, but multiple stings can happen quickly if an entire tentacle wraps around your body.

Corals: Aside from the ecological damage that comes from disrupting corals and the related sea fans. Corals are sharp and can easily puncture human flesh and become infected very quickly. Coral is to look at but not to touch.

Eels and other reef dwellers: Never stick your hand into crevices in the ocean reef or bottom, as there are many species that bite or sting the intruder. Moray eels are especially prevalent in the Caribbean and are very tenacious once they bite something.

Jewelry: Bright and shiny objects are used for fishing lures.... shiny rings, bracelets and other items have been known to attract fish (barracuda, etc), so the wise sailor leaves the jewelry on board.

Predators: In some very rare cases, humans are not at the top of the food chain in the oceans...but common sense plays an important part in safe aquatic activities. First, if there is blood in the water either from fishing or an accidental cut on one of the crew, it would be a good idea to remain on board for a period of time. If predators, (sharks, barracuda), are spotted near the swimming/diving area, all should begin an orderly boarding of the boat. Flailing and splashing are not a good idea as this could appear as a wounded fish to the visiting predator. If any toothed fish is caught while fishing, remember to be very careful if brought on-board...they can bite just as well on deck as they can in the water!

- *Health Issues*

The Sea is a wonderful source of enjoyment and entertainment, but exposure to the elements can impact on the body's health in the following ways:

Sea Sickness: *mal de mar* is caused by the rhythm of the boat with the moving medium of the ocean. After a period of time at sea if somewhat calm, most people adjust to the constant movement and are fine. Some people are more susceptible than others. There are several concerns that can happen with seasickness, the most onerous is dehydration as the patient purges the contents of their stomachs (overboard on the lee rail please...not in the head!). There are several options, (patches, pills, pressure point straps) to prevent this malady, as there are products that can be taken BEFORE you go to sea to assist in preventing the unpleasantness. If it does happen, place the unfortunate soul on deck in the fresh air and give them something to do to occupy them.

Sun/wind burn: Sunscreen is a must, as the reflective UV rays from the ocean will burn unprotected skin quickly. Ocean breezes dry out the skin and lips, so protective coatings are needed. Floppy hats with wide brims are always a good idea.

Hypothermia: How can someone get too cold in tropical waters? Easy, there is still a temperature differential between the ocean's temperature and the human's body temperature. Prolonged exposure in the water can bring on the onset of hypothermia... just be aware.

Sunglasses: Research has revealed that the sun's UV light impacts on the eye's lenses. Individuals who have protected their eyes from UV damage reduce the occurrence of cataracts later in life. Good UV and polarized sunglasses protect the eyesight and also allow for glare reduction. Head straps are a good idea to keep the glasses on...

On-board pests/insects: The tropical areas virtually crawl with bugs and insects. Most boats in the tropics have on-going battles with roaches and other pests. The best defense is not to leave any crumbs to feed the varmints...Trash should be tied and sealed and removed immediately from the boat when there is an opportunity to dispose properly. Vigilance is necessary near major docks as mice and rats board boats via the dock lines if they smell food...

Food preparation/storage: Refrigeration is always limited on board boats, so planning must be done to minimize the opening of the ice locker. The tropics are warm and food spoils quickly so care must be used. Sealed containers are necessary for storage.

Potable water limitations: Unless there is a desalination unit on board, fresh potable water will be limited. Dishwashing can be done with seawater and only the final rinse in fresh water.

- *Man-made Disasters*

Fire - engine, fuel, and galley: All members of the crew are firemen. Fire at sea is a major problem and the prevention thereof is paramount. Every boat should have a drill to let the crew know of the location of all fire extinguishers and the protocol for fighting fire on-board.

Man-over-board: It happens more than you think.... at the cry of “Man-overboard”... an individual should be appointed to keep their eyes on the victim. Flotation rings or PFD’s should be thrown to the victim ASAP to assist them in floating until the boat can execute turns to pick them up.

Falling (“one hand for you and one hand for the boat”): Boats are moving side to side, up and down and everything in it is subject to the physics of the hull and water, wind, current etc. In heavy or choppy weather, the sailor’s adage of “one-hand for you and one hand for the boat” is the best advise.

“Ship-shape” gear storage: Can a dirty pair of shorts hurt someone??? Yes, if it is on the deck (aka cabin floor) and the boat lurches while the cabin mate is standing on it. Gear should be stored so it doesn’t become an unguided missile when the boat hits a wave or heels in a gust of wind. CD players have an awful reputation as head busters when left unsecured.

Food overboard = chum: Besides the environmental effect, food thrown overboard can attract all types of fish...big and little...many attacks on humans by predators come from confusion with scents/blood that were introduced into the surrounding sea by humans who then jump in after...

Ignoring the physics of momentum (dock vs. leg/arm vs. boat): Most cruising boats weigh tons.... docks tend to be stationary and boats move...care must be taken when the twain meet.... hands, arms, legs can be seriously injured if caught between the boat and dock. Most crewmembers cannot “fend-off” a multi-ton boat...momentum tends to win.

- *Preventative Actions*

PFD’s: otherwise known as “lifejackets” There are several classes of PFD’s for different uses. The most buoyant that is used by commercial vessels is Class I. Every PFD should be in good condition and have a legible Coast Guard type rate imprinted on it. Every crewmember should have an assigned PFD.

Harnesses/ jack lines: This is a system to attach crewmembers to the boat in times of heavy weather. The crewmember wears the harness that is attached by removable clip to “jack” lines running forward and aft.

Radio procedures: Radio transmission protocol and the operation of the radios (VHF, SSB, Satellite etc.): should be included in the safety procedures upon embarkation. Use of these communication devices should only be with specific permission of the Skipper

Position Logs: All vessels at sea maintain a Ships Log in which the ship's position is noted in writing on a regular basis (hourly or each watch) in a log. This assist in quickly locating position in case an emergency requires immediate boat location information.

Knowledge of piloting/navigation aids/lights: Knowledge of the rules of the road and a working knowledge of charts make for a safer voyage and makes for a more interesting cruise as crewmembers become more adept in seamanship.

Nautical Terminology

Port/Starboard: This is the method of always knowing “what side” the crew is referring to. Port is the left side of the vessel while facing the bow. Starboard is the right side of the vessel while facing the bow. An easy way to remember these is as follows:

Left has four letters so does *Port*

Right has more than four letters ...so does *Starboard*

Forward/ Aft The Bow is the farthest point *Forward* in a vessel
The Stern is the farthest point *Aft* in the boat

Running lights colours:

Red = Port (think of the colour of port wine)

Green = Starboard

White = Stern light or anchor light depending on location

Charts:

There are no “maps” on a vessel... they are charts.

Scale: crucial to safe boating. There is a compass rose and distance coordinates on the legend of each chart as well as the scale used (feet, meters, fathoms, leagues) in the depth measurements. The legends will refer to *Soundings in feet* (or some other scale).

Plotting & piloting: A straight line from point of origin to destination may not be the vessel's course as the water depth and the winds will effect the ability to sail in any given direction. The course is plotted as to the intended course and then actual course is noted on a clear over sheet.

Compass

Course: Hopefully, the proposed course and the actual course converge at the destination.

Deviations: there are deviations from magnetic North that are noted on the charts.

Depth Sounder:

The first depth sounders were (and are still used in parts of the world) a line with marks to indicate measurement with a weight on the end. The line is let over the side and the crewmember pays out the line until it is slack as the weighted end hits bottom. The mark that is closest to the surface is the “sounding” or depth of the water at *that point only*. Modern technology has created an electronic device that continually measures the distance between the sea bottom and a transducer in the hull. This equipment gives the crew an idea of the topography of the bottom...but most don’t scan ahead of the vessel so changes in the trends of depth are an indication of the change in the bottom profile. All crewmembers should be aware of the “draft” (distance from the waterline to the bottom of the vessel’s keel) of their vessel.

Halyards:

These are the lines that are attached to the “head” of the sails that are used to “haul” the sails up the mast or forestay. (Halyard = Haul)

Sheets:

These are the lines that are attached to the “clue” of the sails that control the “side to side” trimming of the sails. (Sheet = Side)

Mainsail

This is the sail that is attached to a track on the main mast.

Jib sail

These are the sails (can have several jibs) that are attached forward to the forestay and/or baby stay.

Seamanship

Marlinspike

Knots to know: bowline, figure eight, deck cleat, square, clove hitch, and ½ hitch

Sheet & Line management and storage methods that are acceptable to the vessel’s Captain.... ask, don’t assume.

Placement and storage of fenders, dock lines are a mark of good seamanship. The traditional view is that only amateurs ever sail with fenders over the side...

Traditions:

Depending on the style and manner of the Captain, there are traditions of the Sea that relate to the following:

- Boarding procedures: Always request permission to come aboard when first approaching a vessel.
- Flag etiquette: Depending on the registration of the vessel, salutes can be given to the Ship's national flag.
- Ship's Log: Most vessels have a standard procedure to maintain the Ship's Log. The Captain will direct the crew as to his specific procedures.
- Ship's watch schedule: The clocks aboard vessels are based on 24-hour military time. Standard watches are 4 hours on and 8 hours off (depending on the number and experience of the crew) The watches start at midnight and continue in four hours increments. There are "dogwatches" (16:00 to 18:00 and 18:00 to 20:00) which are abbreviated watches that allow for the crew to eat a hot dinner. Watch schedules can be overturned if circumstances or the Captain deems it appropriate.

Etiquette

- Marine head (aka toilet): An essential piece of hardware that can be a blessing or curse. These fixtures are notorious for clogging and backing up. Many Captains have a rule - "Unless you ate it, it doesn't go down into the head". Each "head" has different operating characteristics. Ask the Captain to explain the operation of the vessel's head. It is possible to endanger and/or sink a vessel if certain procedures are not done. Another point is that most coastal vessels now have a "holding tank" for the "Head". These tanks are limited in capacity and necessitate a stop at an approved pumping station to empty. Be cognizant of the amount of flush water being used as this is contained in the holding tank.
- Consideration of shipmates is essential as the vessel is cramped conditions and the storage space and all share tight living space. Soft luggage that can be folded is essential. Berths should be as tidy as possible and all gear stored and tied that it does not become flying debris if the vessel rocks. In close quarters such as a boat, patience and consideration of others works wonders.
- Deck shoes aid in stability in moving around the boat. Many sailors go barefoot, but care must be used not to slip on wet decks. All shoes worn on vessels should not mark the decks. Sand should be knocked off all shoes prior to boarding as the grit can grind the deck surface.

Have fun and sail safely!