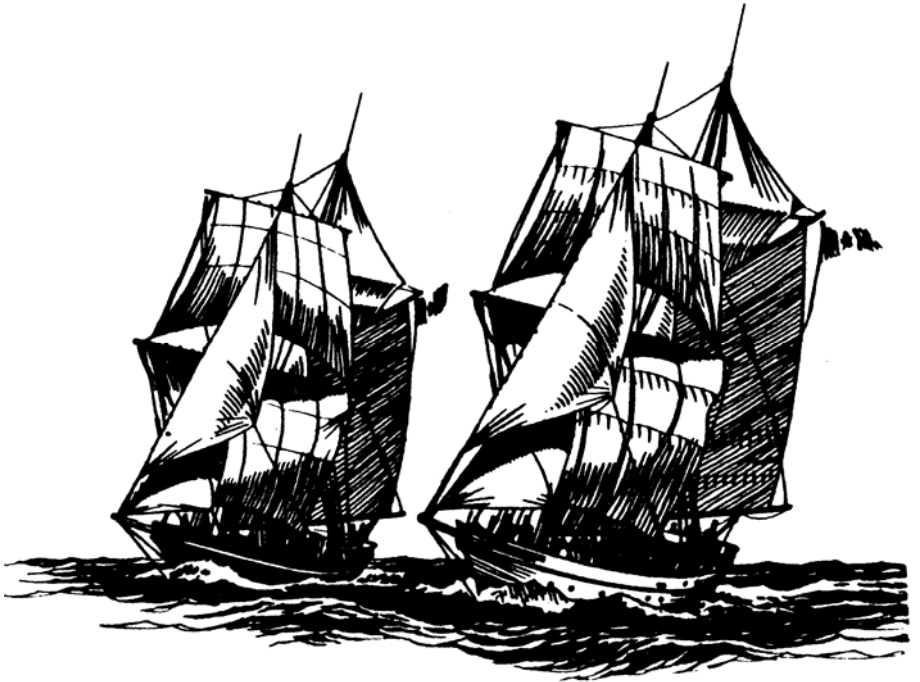


Trainee Handbook



**For The
Sail Training Vessels
STV Pathfinder
&
TS Playfair**

Welcome Aboard!

Sailing aboard a square rigger is a unique experience, one that is hard to explain and difficult to duplicate in another setting.

We are proud of our program and what it has to offer.

History

The origin of the word “brigantine” is difficult to trace. It has been used since the 15th century and has meant different things at different time and places. Generally, however, it has referred to a small two masted vessel with a square-rigged foremast and a fore and aft rigged mainmast.

Toronto Brigantine began operating in 1963 with its original vessel, STV Pathfinder. The founding tenets of this non-profit organization were the development of leadership, discipline, and citizenship within a maritime environment. Over the years, an estimated 20,000 participants have benefitted from their experience with our program.

To meet the increased needs of the program, a second vessel was constructed and subsequently launched in 1973. TS Playfair is the only non-military Canadian vessel to be named by a reigning monarch - HM Queen Elizabeth II.

Life at sea is particularly well suited to meet the above objectives. For centuries men and women have been drawn to the sea, not so much for the romantic reasons that the shore-bound public envisions, but more for the demands that are made on the individuals who adopt the lifestyle. By their very nature, those demands are challenging, exciting, and fulfilling. The men and women who founded Toronto Brigantine did so because they believed even a small amount of exposure to this environment could benefit young people, perhaps even more so in today’s society. It was for this reason that Toronto Brigantine came into existence, and it is for this same continued belief that the organization is still around.

The Program

Upon your arrival at the vessel, you will be introduced to the ship's staff and welcomed aboard. Following this, you will be signed aboard, divided into three watches (teams) and assigned to a Watch Officer who will show you where to stow your gear, acquaint you with the vessel, explain and demonstrate the safety gear of the vessel, and go over some of the rules. Destinations and times of arrival are not outlined too far in advance as the ever-changing weather conditions make it impractical.

Throughout your duration with us, our staff will be teaching you many aspects of running a large ship in a sailing environment. Training sessions are used to build skills and develop teamwork and knowledge. Activities such as reefing, rope-work, steering and sail handling are part of the shipboard routine. The daily chores of on decks and below decks cleanup, dishwashing and brass polishing are shared by all trainees. A cheerful disposition and willingness to do even the unpleasant tasks will make life easier for you and your shipmates.

So far, we have outlined the work aspects of the training; however, this is complemented by the good times you will have with your shipmates, be it playing games, singing sea shanties under the stars, shore leave, swimming, ship's concerts, etc. If you would like to bring a guitar or other smaller instrument, please feel free to do so; however, storage space is extremely limited.

We hope the experience you will have will prove to be of value to you. You will discover new strengths and the ability to cope under pressure. You will make new friends, enjoy the peace and tranquility of quiet waters, thrill to the challenge of competing against the elements of high winds and rough waters, and emerge with new insights into your personal strengths and abilities.

Safety

Safety is one of the most important aspects of our training. When you first join the ship you will participate in an on-board familiarization walk-through, where you shall be shown the location and proper use of all the safety equipment, escape routes, and mustering stations as well as potential hazards. The Captains and Officers have spent many years sailing on these vessels and are both capable and responsible. Some of their instructions to the crew, which may seem senseless to the beginner, are connected with the overall safe running of the ship. Please pay a lot of attention to this aspect of our program. We have an excellent track record and wish to keep it.

The Watch System

The ship's company is divided into three watches so that the ship may be sailed continuously over a 24-hour period. Watches are either 4 hours or 2 hours (dog watches) in length. You never stand the same watch two days in a row. Night watches can be very tiring, therefore, when the opportunity presents itself to take a "nap" you should take advantage of the situation and get some extra sleep. There will be times when you are cold, tired, and wet, but everyone has to take his or her turn and by working as a team with your watch you will get a sense of gratification of a job well done, and have fun while doing it. Close friendships are formed because you have to rely on your shipmates and they on you.

The ship's day is divided into seven intervals, also called watches, during which one watch is always on duty. They are:

- Midnight to 4 a.m. (0000 - 0400) - Middle Watch (Graveyard)
- 4 a.m. to 8 a.m. (0400 - 0800) - Morning Watch
- 8 a.m. to noon (0800 - 1200) - Forenoon Watch
- Noon to 4 p.m. (1200 - 1600) - Afternoon Watch
- 4 p.m. to 6 p.m. (1600 - 1800) - 1st Dog Watch
- 6 p.m. to 8 p.m. (1800 - 2000) - 2nd Dog Watch
- 8 p.m. to midnight (2000 - 0000) - Evening Watch

Chain of Command

The Captains have sailed for many years and are experienced in every facet of the ships under their command. The Executive Officer is second in command and can fulfil the responsibilities of the Captain should the need arise. Next, there are three Watch Officers - one to a watch. It is their duty to ensure that the ship is sailed according to the Captain's orders. They are also responsible for ensuring that the Petty Officers and crew learn and understand their jobs and carry them to completion. Petty Officers assist the Watch Officers in the training of the crew and the sailing of the ship.

Recognition of this chain of command and the officers' expertise is essential to the safe running of the ship. To question an order in the act of implementation could have serious complications. To obey an order and ask why later is a good axiom to remember in the operation of the vessel. All officers are very willing to explain the rationale for an order after the fact.

Medical Facilities

The Captain and Ship's Officers have completed advanced first aid courses. A full comprehensive medical kit is kept on board. In the event of an injury of a more involved nature a MD's advice will be sought. The ships are equipped with both radio telephones and mobile phones which enables them to contact the Coast Guard for assistance if necessary.

Food

Do not expect Mother's home cooking as food preparation aboard a brigantine is subject to weather conditions. The Cook's job is not an easy one and often involves cooking with the ship "heeling over" at an angle. Fresh food storage is limited, thus appropriate substitutes are utilized. Regardless of the limitations involved, all meals are nutritious and well balanced. The Cook is assisted in all aspects of food preparation, serving and clean-up by members of the ship's crew.

Rules

Abiding by the rules and policies is important for your personal safety as well as the safety of the rest of the crew and of the ship itself. Some rules are specific to your on-watch activities, such as wearing shoes, and others, such as no chewing gum, are more general in nature.

Some important things you should know before joining the ship include:

- The Captain is addressed as “Captain _____”.
- The Wardroom Officers are addressed as “Mr/Miss _____”.
- The Petty Officers are addressed as “PO _____”.
- Smoking is not permitted on or within sight of the ships.
- Electronics (MP3 players, gaming equipment, cell phones, laptops, etc) are not permitted on board.
- All medication (both over-the-counter and prescription) must be given to the Executive Officer for safe keeping and dispensing.
- Clothing must be appropriate and presentable.
- You are expected to be as clean and well-groomed as circumstances permit. Swimming is mandatory.
- Your general behaviour and language must be acceptable to your shipmates, and compliant with all Toronto Brigantine’s policies, including the policy on harassment.

The use or possession of alcohol and illegal substances is not permitted at any time during your course including on the ship, during shore leave, or on the bus.

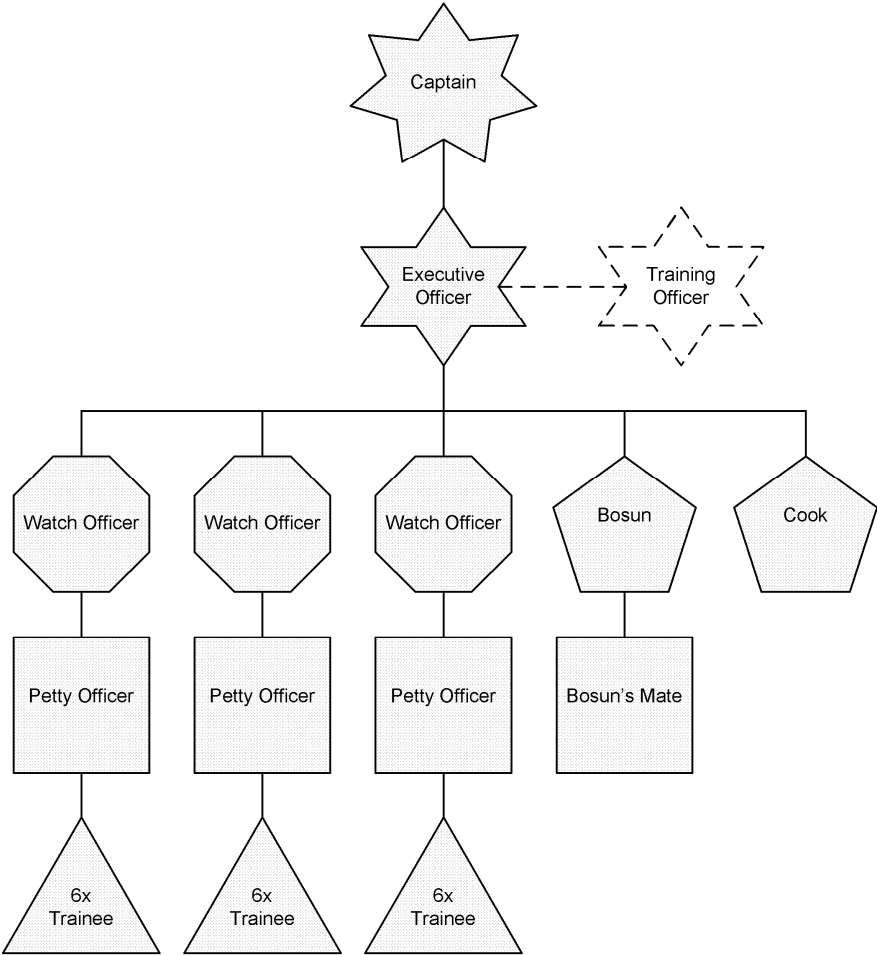
Sexual conduct is not permitted at any time during your course including on the ship, during shore leave, or on the bus.

Violation of these rules will result in an immediate discharge from the program, at your own (or your parents) expense.

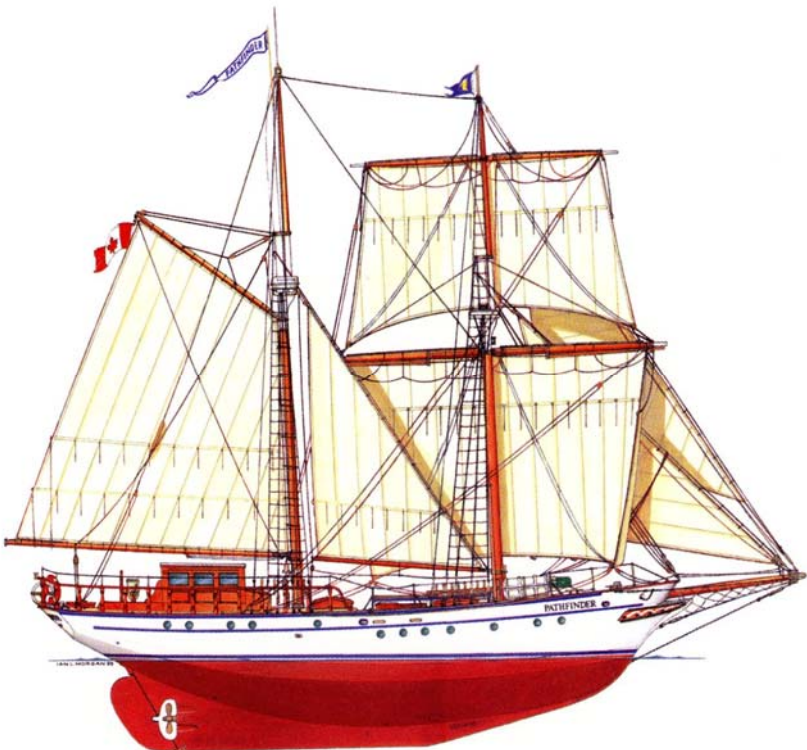
Winter Program

The success of our program lies in the winter preparation of our Officers and ships. To achieve this, instruction in areas such as seamanship, leadership, navigation, first aid, and communication is combined with supervised work projects on all aspects of ships' maintenance. This takes place every weekend (Friday nights and Saturdays) from October to June.

All crew members and other interested individuals (13 to 18 years) may participate in this training program. Those who demonstrate their potential through hard work, enthusiasm, and ability to learn eventually serve on board the vessels in various officer capacities.



	STV Pathfinder	TS Playfair
Built	Kingston, ON	
Year	1963	1972
Designer	Francis MacLachlan	
Length Overall	22m (72ft)	
Beam	4.5m (15ft)	
Draft	2.5m (8ft)	
Air Draft	17m (56ft)	
Loaded Displacement	50 tonnes	
Hull Material	1/4" (6mm) steel plate	
Complement	Typically 28 including: 1 Captain, 1 Executive Officer, 3 Watch Officers, 1 Bosun, 1 Cook, 3 Petty Officers, 18 Trainees	



Terms and Definitions

Hull: The body of the vessel.

Keel: The bottom portion of the vessel, below the water, used to minimize leeway through the water and keep the ship upright.

Bow: The front of the vessel.

Stern: The back of the vessel.

Rudder: A device below the water line on the back of the keel which pivots and manoeuvres the vessel.

Helm: Steering wheel used to control the rudder.

Scuttles: The small windows on the side of the vessel (scuttles open, portholes don't).

Dories: Small boats.

Deckhouse: The closed-in cabin in the stern of the vessel used for navigation.

Mooring lines: Lines used to secure the vessel to shore.

Fenders: Inflatable plastic cushions to keep the vessel off the mooring wall.

Navigation lights: Lights on the vessel used at night to warn other boats of your presence.

Port: The left-handed side of the vessel as one faces the bow.

Starboard: The right-handed side of the vessel as one faces the bow.

Deck: A waterproof floor.

Anchor: A heavy piece of metal (varies in shapes and patterns) attached to a line or cable to secure a vessel to the bottom of the lake.

Fore and Aft: Something that runs from the bow to the stern.

Life lines: Lines located above the deck used as safety lines.

Shroud: A wire rope used to support a mast from the side.

Spars: Poles used to support sails, such as a mast, boom, or yard.

Stay: A wire rope used to support a mast in a fore and aft direction.

Halyard: A line used to hoist a sail.

Sheet: A line used to control the trim of a sail.

Standing rigging: Stationary rigging such as shrouds and stays.

Running rigging: Lines that are routinely moved, such as sheets and halyards.

Ratlines: Lines attached to the shrouds horizontally, used for climbing up the masts.

Standard Orders

Leaving or arriving at a dock:

- “Ready fore and aft”: Stand by your assigned mooring line or fender as we are about to leave or arrive at a dock.
- “Cast off”: Loosen your line so it may be removed from the bollard; pull it on board.
- “Snub”: Take a turn with your line.
- “Fenders forward” or “fenders aft”: Move your fender to the bow or stem, so the vessel will not hit the wall.

Hoisting sail:

- “Stand by the (e.g.) jib halyard”: Go to your assigned station for setting sail.
- “Haul away the (e.g.) jib halyard”: Pull on your line until the sail is set, then make it fast on the belaying pin.

Dousing sail:

- “Ease the (e. g.) jib halyard”: Ease out the line to lower the sail. Do it slowly.
- “Let fly the (e.g.) jib top halyard”: Also to take in sail, but just let it go to get the sail down fast.

Tacking (Manoeuvring with the bow passing through the eye of the wind):

- “Ready about”: Go to your manoeuvring station.
- “About ship, helm’s a’lee”: Means the helm has been turned and the vessel is coming around.
- “Tack the (e.g.) jib”: Manoeuvre the sail by letting off the sheets on the leeward side of the vessel and take up on the windward side.
- “Let go and haul”: Manoeuvre the square sails as described above.
- “Aft on your sheets”: Pull the sheet in tighter and make it fast.
- “Ease your sheets”: Pay out the sheet out a little.

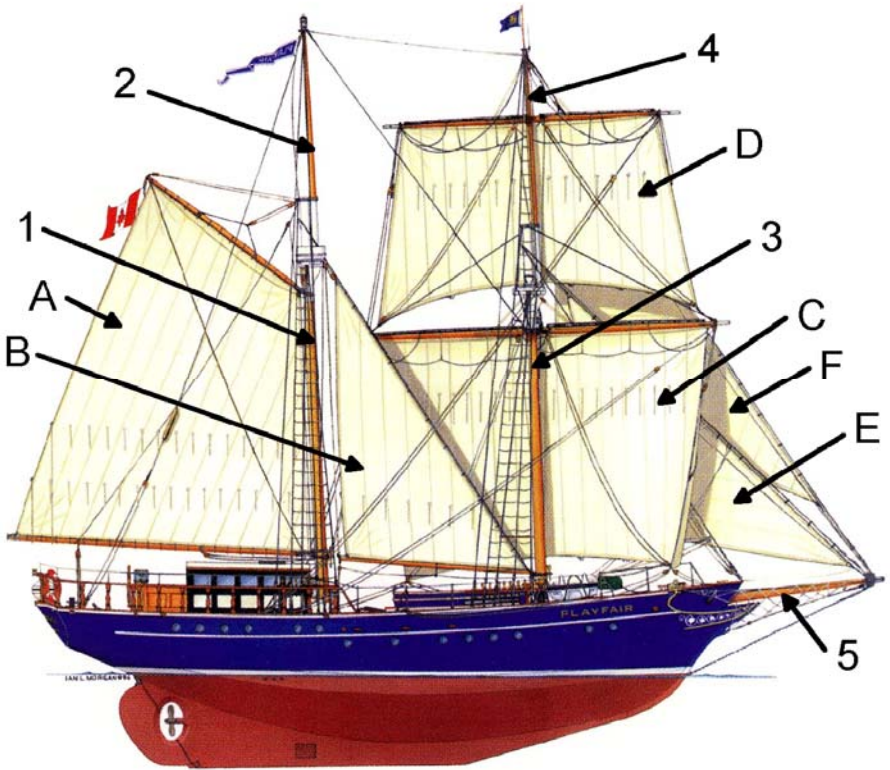
Gybing (Manoeuvring with the stern passing through the eye of the wind):

- “Stand by to gybe”: Go to your manoeuvring station.
- “Gybe ho, helm’s a’weather”: The helm has been turned and the vessel is coming around.
- “Gybe the (e.g.) jib”: Manoeuvre the sail by letting off the sheets on the leeward side of the vessel and take up on the windward side.
- “Brace to port” or “Brace to starboard”: Manoeuvre the yards with braces, sheets and tacks.

Helm orders (Steering instructions):

- “Head up”: Turn the wheel towards the wind so the vessel will head up towards the wind.
- “Bear off”: Turn the wheel away from the wind.
- “Steer (e.g.) 90 degrees”: A direction to steer on the compass.
- ”Steady”: Steer your present course.

Sails and Spars



Spars:

1. Main mast
2. Main topmast
3. Fore mast
4. Fore topmast
5. Bowsprit

Sails:

- A. Main sail
- B. Main staysail
- C. (Fore) course
- D. (Fore) topsail
- E. Jib
- F. Jibtop

Grade 1 (Lead Hand) Requirements

Each candidate shall:	Signature	Date
1 - Complete at least five days sailing (total, including two nights at sea) and cover a distance no less then 100 nautical miles aboard a Transport Canada licenced Sail Training Vessel;		
2 - Be able to identify and describe the terms listed in appendix I-A;		
3 - Be able to identify and describe the parts of a vessel and her sails, rigging, and spars as listed in appendix I-B;		
4 - Be able to explain the theory of maneuvering under sail, including the terms listed in appendix I-C;		
5 - Be able to steer by compass, wind, landmark, and direct order, plus demonstrate thorough knowledge and practical response to the terms listed in appendix I-D;		
6 - Be able to tie the knots listed in appendix I-E within a 30sec time limit and describe how and when they are used;		
7 - Be able to describe and demonstrate proficiency in the use of the Safety equipment listed in appendix I-F;		
8 - For the vessel on which you are sailing, demonstrate a knowledge of the vessel's details listed in appendix I-G;		
9 - Demonstrate thorough knowledge and practical response to the commands listed in appendix I-H;		
10 - Be able to describe the action to be taken in the event of a man overboard situation;		
11 - Be able to describe the action to be taken in the event of a fire on board;		
12 - Be able to describe the action to be taken in the event of an abandon ship situation;		
13 - Be able to describe and demonstrate proficiency in coiling and belaying lines;		
14 - Be able to work and communicate with other members of a watch and perform duties under supervision;		
15 - Be able to swim 100m and immediately following tread water for ten minutes, without any undue fatigue.		

I-A Simple Sea Terms

- Aft
- Abeam
- Aft
- Aground
- Ahead
- Amidships
- Astern
- Belay
- Bend on
- Broach
- Fore and Aft
- Forward
- Leeward
- Leeway
- Make fast
- Reef
- Sternway
- Underway
- Windward

I-B Parts of the Ship

- After-peak
- Fore-peak
- Bow
- Stern
- Fairlead
- Scupper
- Freeing port
- Hull
- Deck
- Bulkhead
- Deckhead
- Keel
- Rudder
- Lifeline
- Hatch
- Skylight
- Cleat
- Pin-rail
- Fife-rail
- Spider-band
- Turnbuckle
- Block
- Stays
- Shrouds
- Spreader
- Bowsprit
- Boom
- Mast
- Yard
- Gaff

- Top
- Jib
- Mains'l
- Stays'l
- Tops'l
- Course
- Reef points

I-C Points of Sailing & Manoeuvres

- Luff
- Pinch
- Close hauled
- Close reach
- Reach
- Broad reach
- Run
- Tack
- Gybe
- Wear
- In irons
- In stays
- Sailing "by the lee"
- Sailing "full and by"

I-D Steering

- Steer xxx°
- Cardinal points
- Compass heading
- Lubber's line
- Hard a' Port (or Starboard)
- Head up
- Bear off
- Helm a' lee
- Helm a' weather
- Midships
- Steady
- Importance of repeating orders

I-E Knots

- Bowline
- Clove-hitch
- Figure of Eight
- Reef
- Rolling-hitch
- Round turn & two half-hitches
- Sheet bend

I-F Safety Equipment

- Boat Hook
- Boarding ladder
- Buddy System
- EPIRB
- Fire extinguisher
- Fire hose
- Harnesses
- Heaving line
- Lifejackets
- Liferrafts
- Lifering
- MOB locator system
- MOB pole
- Muster list

I-G Vessel Details

- Length Overall (LOA)
- Length Waterline (LWL)
- Beam
- (Water) Draft
- Air Draft
- Displacement
- Type of Rig
- Complement
- Engine Type & Power
- Year Built

I-H Commands

- "Stand-by"
- "Snub"
- "Make fast"
- "Cast-off"
- "Ease"
- "Haul"
- "Let Fly"
- "Ready about"
- "About ship helm's a' lee"
- "Tack (e.g.) the jib"
- "Aft on your sheets"
- "Ease your sheets"
- "Stand by to jibe"
- "Jibe ho, helm's a' weather"
- "Jibe the (e.g.) jib"
- "Stand by your stations"
- "Brace to (e.g.) Port"

Seitime Log

Vessel	Start Date & Location	End Date & Location	Total Days	Nights At Sea	Total Distance	Comments	Master's Signature

Emergency Situations

Before the ship departs you will participate in some basic practice drills to ensure that you know what to do in an emergency. You will be performing many more practice drills during your time on-board - some will be announced ahead of time and some will be a surprise.

Man Overboard (If you are on-watch and/or on-deck):

1. Shout “Man Overboard” as loudly as you can.
2. Throw the nearest floatation device (life-ring, MOB pole, lifejacket).
3. Keep watching and pointing at the person in the water.
4. When relieved by an officer, go to your last assigned manoeuvring station.

Man Overboard (If you are below-deck):

1. Immediately get dressed and put on your safety harness.
2. If you are asked to come on deck, go to your last assigned manoeuvring station unless directed otherwise by an officer.

Man Overboard (If you are in the water):

1. Do anything and everything possible to attract the attention of someone on board (yell, scream, wave).
2. Swim to the nearest floatation device - the larger the better (MOB pole during daylight, life-ring with light at night).
3. Do not try to swim after the ship - you will only tire yourself out.

Fire:

1. Shout “Fire” as loudly as you can, together with the location. If you cannot think of the proper nautical name just be descriptive: “Fire at the front of the boat”.
2. Proceed immediately to your mustering station on-deck.
3. Be prepared to assist as directed by the officers.

Abandon Ship:

1. If you should hear “Prepare to Abandon Ship” repeat the words as loudly as you can and then proceed immediately to your mustering station - do not bring any personal items with you.
2. Put on a life-jacket
3. Be prepared to assist as directed by the officers.

Medical Emergency:

1. If either you or a fellow crew member are injured - no matter how small the injury - inform one of the officers immediately.
2. Be prepared to assist as directed by the officers.

Conclusion

Toronto Brigantine is a non-profit charitable organization. The livelihood of the program has in the past, and will continue to, depend on private donations - donations from those who understand the philosophies and the initial concepts behind the organization. As well, support is generated because of a strong belief that education exists not only in the classroom. Using the sea as a medium, many challenges are presented - not only the natural elements, but especially within the group itself. Confidence, co-operation, and understanding are only a few of the life skills presented and dealt with while at sea.

We hope your experience will be as fulfilling and rewarding as those who have sailed with us in the past. Keep in mind that when you have completed the program, the organization continues on. Your support is most appreciated.

Thank you. and fair winds.

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