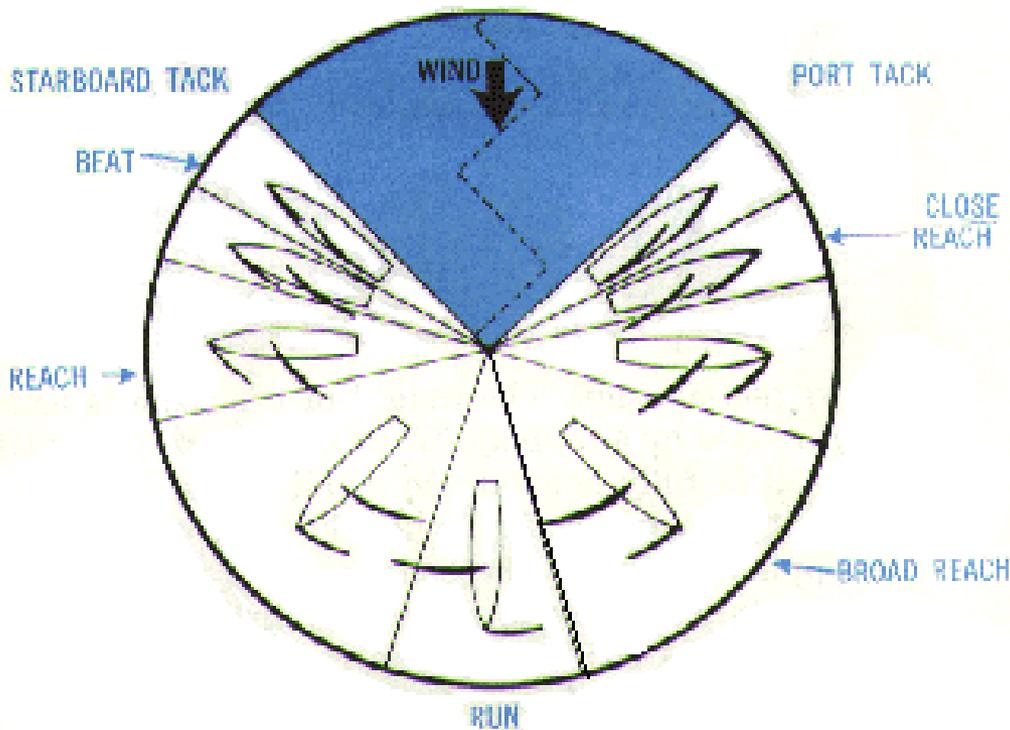


# History of Sailing

- Throughout history sailing has been instrumental in the development of civilization. The earliest representation of a ship under sail appears on an Egyptian vase from about 3500 BC.
- Vikings sailed to North America around 1000 years ago.
- Advances in sailing technology from the 15th century onward enabled European explorers in Canada to make longer voyages into regions with extreme weather and climatic conditions.
- Further improvements in sails and equipment allowed colonization of America and Australia and world to trade to flourish in the 18th and 19th century.

# Points of Sail



- The **points of sail**, sometimes called sailing positions, relate to the angle between a sailboat's heading, or course, and the direction of the wind. There are three basic courses:

- **beating** (wind is from ahead)
- **reaching** (wind is from the side)
- **running** (wind is from astern)

# Sailing Upwind

- When sailing on a **beat**, the boat is as close to the eye of the wind as possible, about 45 degrees.
  - How: The mainsail is pulled in, with the boom slightly over the transom.
  - Precautions: If the boat is pointed too close or high to the wind, the forward part of the sail will luff and flutter, causing a loss in speed.

# Tacking

Definition - *working to windward by sailing close-hauled on alternate courses so that the wind is first on one side of the boat, then on the other.*

- Progress when sailing windward is done by tacking, changing the direction of the boat from one side of the wind to the other.
  - The boat is close-hauled on the port tack when the wind is coming from the left.
  - and is close-hauled on the starboard tack when the wind is coming from the right.

# Offwind Sailing

- The boat is on a reach when the wind is abeam, or at a 90 degree angle. If sailing on a reach, you are at an angle between close-hauled and running. The sail is out at about 45 degrees, making it one of the most pleasant (and most efficient) ways to sail.
  - Just to complicate things a little more, there are intermediate points of sailing. These are:
    - close reach which is between a beat and a reach
    - broad reach which is between a reach and a run.
- When **running**, or sailing before the wind, the wind is blowing from astern, and the sail is out at 90 degrees.

# Changing Direction

- In order to get anywhere, you also have to know how to turn the boat and change course.
  - There are basically two maneuvers that let you do that. To reverse the course you can do a come about, which is relatively slow since the bow passes through the eye of the wind. During a come about the skipper calls out ready about, and then hard-a-lee since the tiller is being pushed to the leeward side of the boat. The boat turns into the wind, and the sail, the skipper, and some of the crew change sides.
- Another way to turn, is a faster maneuver called a jibe.
  - This is where the back of the boat turns across the wind. Since the wind is behind the boat, the sail flies from one side to another. You have to be careful to control the sail during a jibe, making communication especially important between the skipper and the crew. The commands for a jibe are; ready to jibe, and jibe-ho!

# Sailboat Classification

- Sailboats are classified or recognized by:
  - the shape and number of working sails
  - the location and number of masts
- The various combinations are referred to as rigs, meaning the way they set their sails.
  - The main components of a rig are the mast (supporting the halyards and the front edge of the mainsail), the boom (supporting the bottom edge of the mainsail), the stays and the sails themselves.

# Boat Types

- There are seven basic types of sailboats which are further divided by their number of rigs:
  - Single Rigs
    - Sloop
    - Catboat
    - Sunfish (lateen rig)
    - Catamaran
  - Divided Rigs
    - Schooner
    - Ketch
    - Yawl

# Sloop



- A sloop has one mast and two sails, a jib and a mainsail.
  - The sloop rig is the most popular rig for small and medium-size sailing craft because of its efficiency and simplicity.

# Catboat



- A catboat has one mast and one sail, with the mast usually stepped forward.
  - Since there is no second sail on a catboat, it is a good choice for sailing shorthanded or with children.

# Sunfish

- A sunfish has a single mast with a lateen sail (rig) and daggerboard.
  - The sunfish, a boardboat, is a popular boat due to its small size and easy portability. It is also a good boat to use when learning how to sail. Fortune picked the Sunfish as one of the 25 best designed products in the US.



# Catamaran



- A catamaran is distinguished from other boat types by its two hulls. A catamaran has one mast, and one or two sails, depending on the boat size. Therefore, catamaran is not really a "rig" type, but rather a boat type.
- Catamarans are fast boats, and have been made popular by the easily transportable Hobie Cat brand.

# Schooner



- A schooner has two masts with the taller mainmast in the aft position. This aftermast carries the mainsail. A schooner has three or four sails.
  - The classic appearance of the schooner is the type that most people associate with the romantic past of sailing vessels.

# The Ketch



- A ketch has two masts, with the mizzenmast being the shorter of the two. This mizzenmast is set forward of the rudder post. A ketch has three of four sails. A ketch is closely related to a yawl.
  - The advantage of a ketch is that the addition of the mizzen sail splits the rig as a whole into more manageable proportions. This is helpful with a small crew.

# The Yawl



- A yawl has two masts, with the mizzenmast much shorter and set aft of the rudder post. A yawl has three or four sails. A yawl is closely related to a ketch, but a mizzen on a yawl is much smaller than on a ketch.
  - Since the term yawl has fallen into disuse, some boats that are really yawls are described as ketches.
  - In general, a mizzenmast is not used unless the boat is about 30 feet or longer.