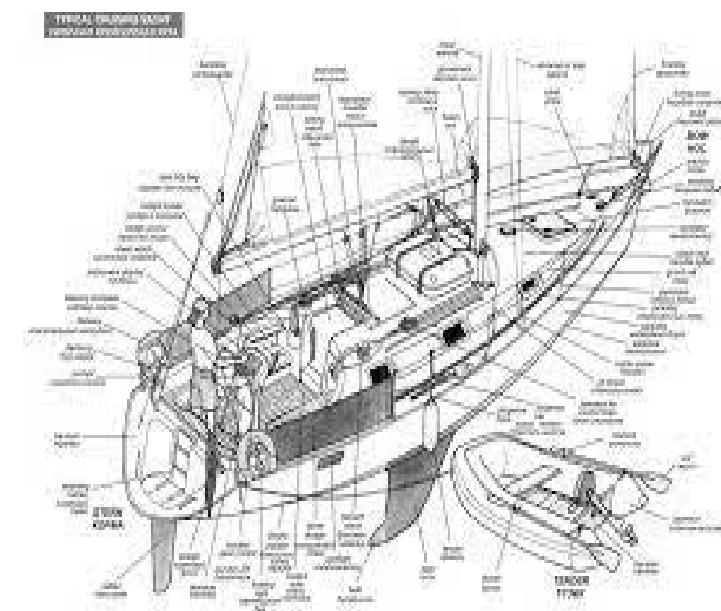
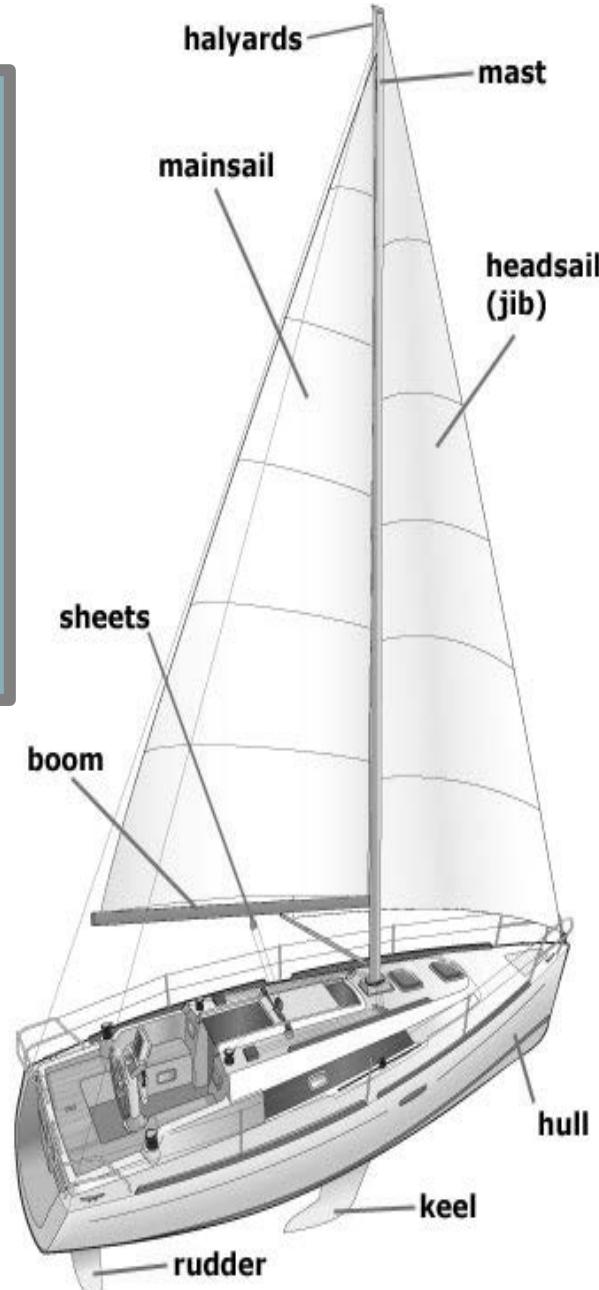


# Sailing Basics in 1 hour



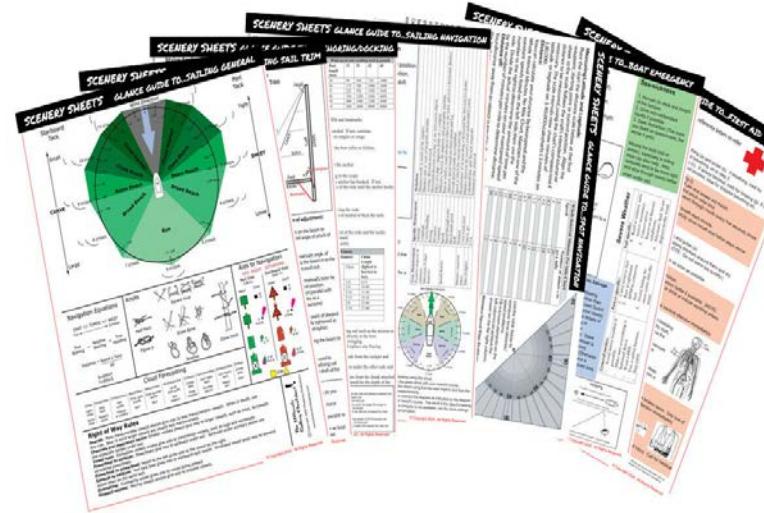
There's a lot on a boat  
and even more special  
names for everything.

We'll skip the details.





KEEP  
CALM  
AND  
SAIL  
ON

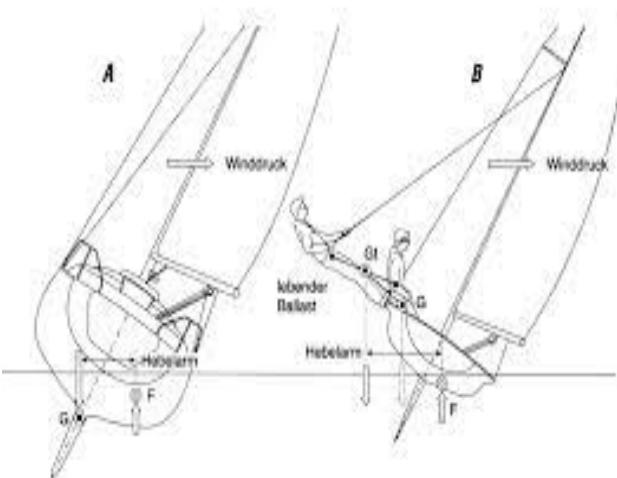


There's a cheat sheet  
for everything

No need to remember  
everything



# OUR BOAT

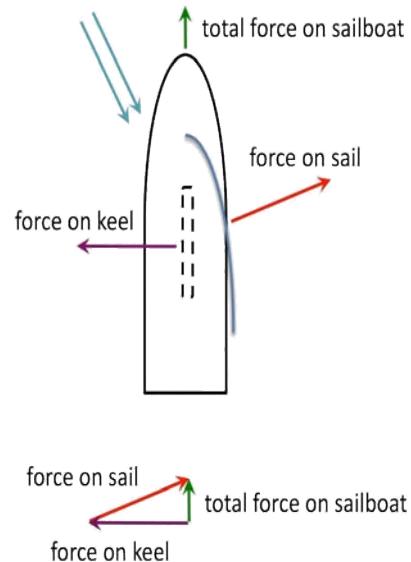
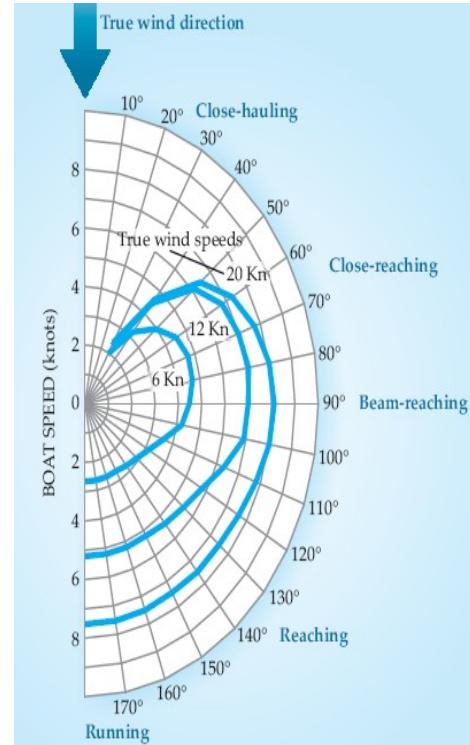


Even if a yacht is turned upside down, the keel will turn it back (unlike the dinghy, that's why this is called wet-sailing)

# How does a boat sail? Pushing vs uplift\*



\*A boat moves either by the push of the wind (like a downwind sail catching air) or by lift, where the sail acts like an airplane wing, generating forward motion. (See next slide.)



The little green thing is pushing fwd,  
but you feel the red, when going upwind

A boat can sail up to  
30° against the wind

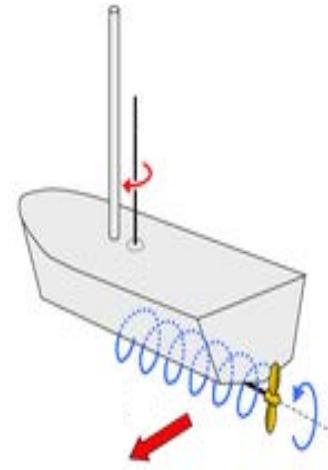
but only with the right sail and boat underneath

- Bermuda rigs can do 30°
- Square rigs can do ~80° only

# Moving without sail

Possible, but watch out when reversing.

- ▶ If you switch between Forward and Reverse, give the gearbox a break, so it doesn't break..
- ▶ If you go backwards, the rudder is pretty useless as not much water of the thrust passes it
- ▶ The propeller however will make the boat wander to the side (the prop feels like a wheel rolling on the ground)



# Trimming

In principle we have 2 WINGS that need to fly

- A wing is a 3D object and a boat has various means for trimming.
- Rule 1: The jib is always a bit more open than the main sail ~~therefore trim~~
- Rule 2: Check the speed strips. They should be horizontal (outer more important than inner)

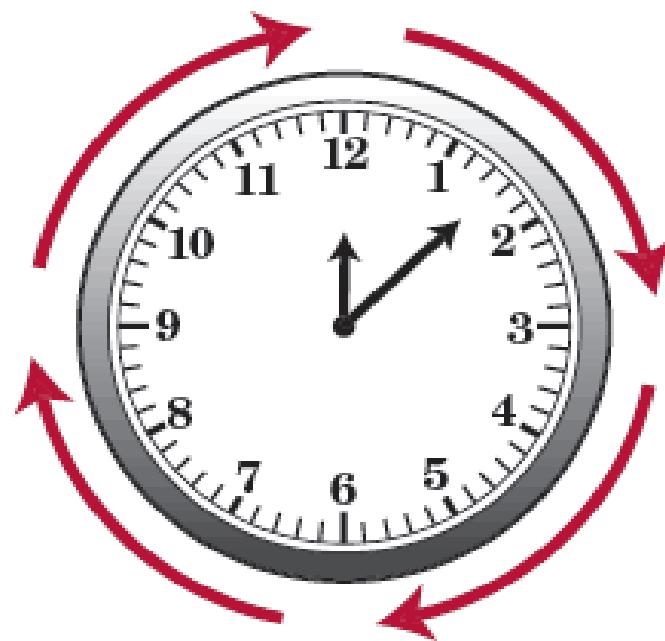
Good to know: the top 1/3 of the sail is where the things happen and we have a cheat sheet

Windex points in direction of the wind revealing angle of attack

You can't see airflow or attachment when you look at a sail, but you can get valuable information from telltales, speed stripes and a Windex.

Speed-stripes

# How to operate a winch



**ALL** winches work **CLOCKWISE**

Most winches are 2 speed, depending on direction

- ▶ Beginning from the bottom of the drum, wrap the rope 3 to 4 times around the barrel of the winch in a clockwise direction.
- ▶ 1 turn above the hook
- ▶ and a full round in the jamming mechanism
- ▶ Insert the winch handle into the top of the winch and use it to wind the rope tight.

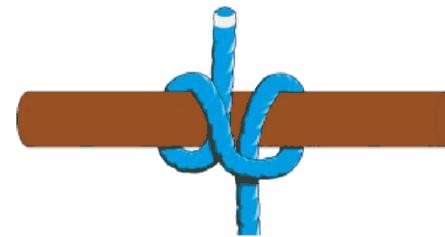
Figure 8 Knot



Bowline



Clove Hitch



Reef bend

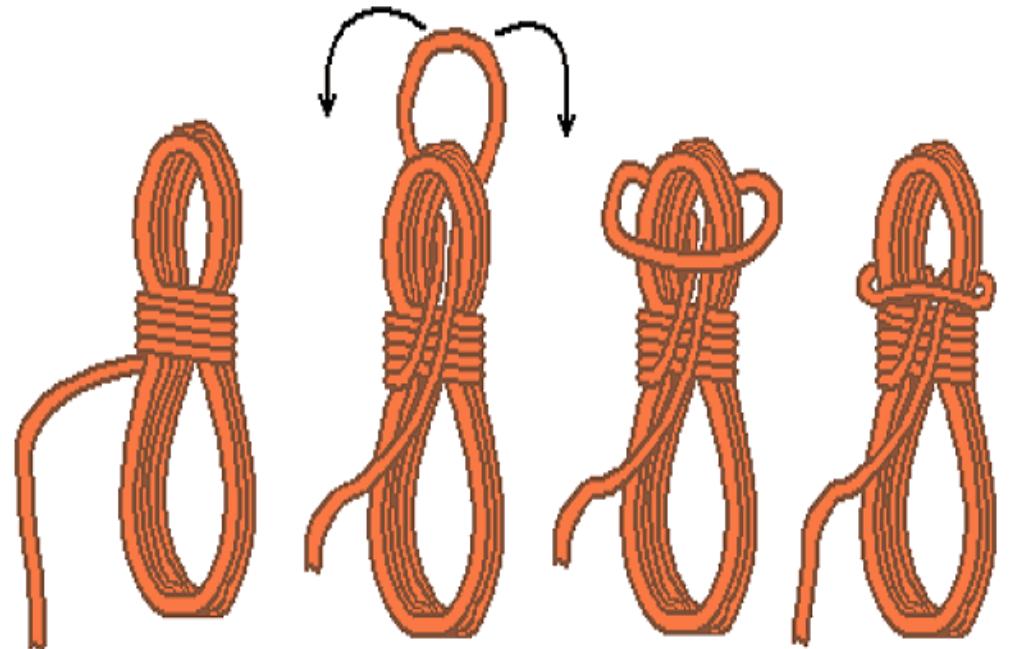


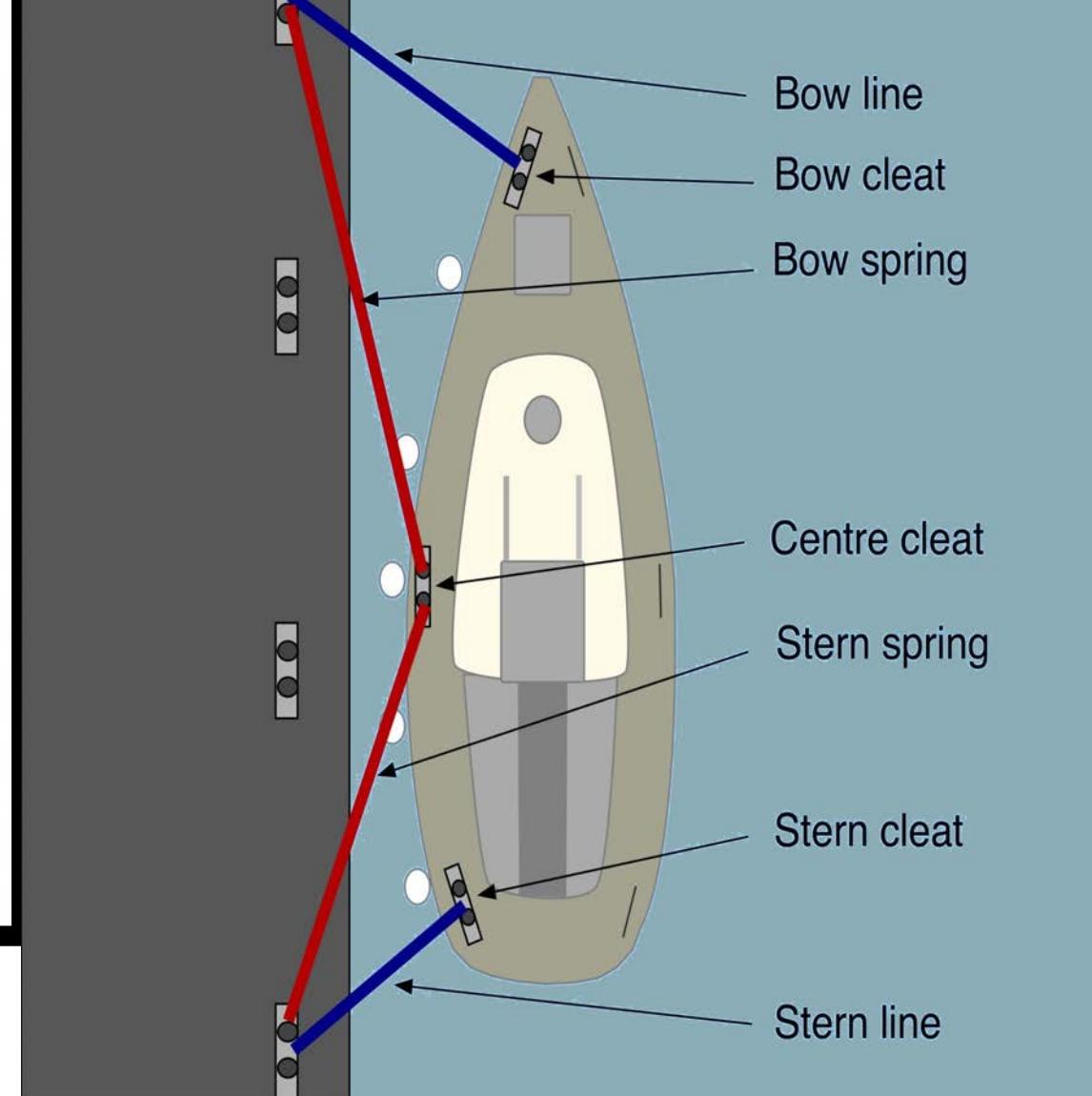
# Knots

Should serve their purpose, easy to tie, easy to untie, easy to check/remember

# Rope Management

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# Mooring a boat



# Maneuvers

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A maneuver is good if:

- Everybody knows what to do
- there's a Plan B and C
- nobody got injured
- nothing was damaged

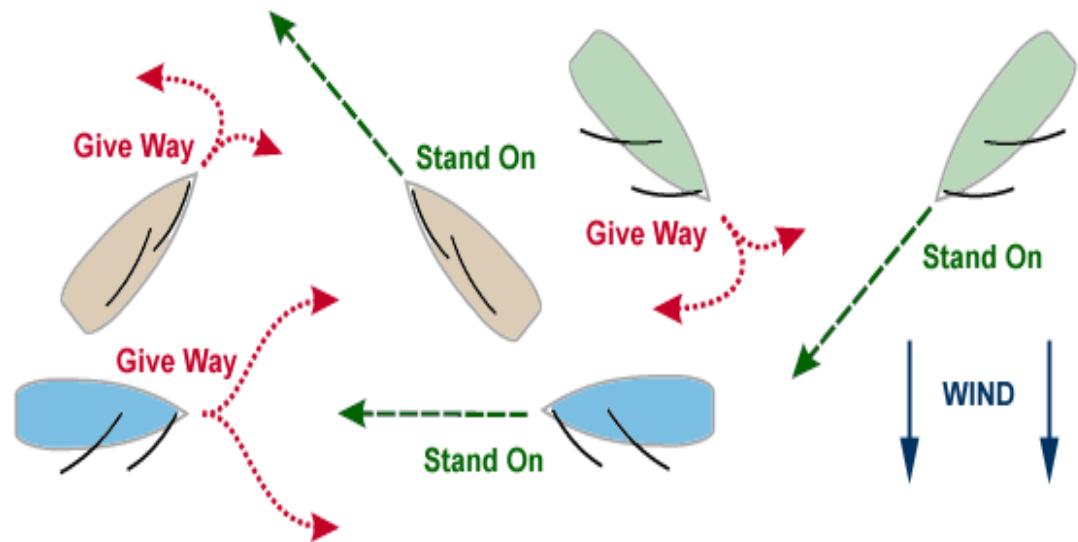
And it's really good if:

- Plan A worked
- no shouting was needed

# Give way Rules



Sail before Motor  
(Pleasure boats)



If you're sitting on starboard (Starboard tack), you're usually ok, unless you see the back of the others.

However, you also have an obligation to maintain course and speed.