Sailing Foundations - Support for Yngling beginner's courses

When attending a practical sailing course on the water, we are focused on the environment, the actions, the move of the boat. It is then quite difficult to focus on theory or anything conceptual. This document is happily sharing "what you ever wanted to know about sailing, that will be difficult to absorb when explained on the wet deck of a moving sailboat".

This booklet aims at explaining the sailing foundations that we need to understand as part of our progression. On the other hand, it leaves mostly apart what is better explained by the teacher at sailing time.

Some aspects are a bit simplified so scientist readers might be sometime offended. Apart apologises, as much as possible, footnotes will highlight those simplifications.

It is recommended to have a couple of Yngling outings before going through this document, otherwise it might be just too abstract.

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How a sailboat moves

A sailboat can go anywhere we want thanks to two magic "wings" : One very visible, the sails – and one well hidden, the keel.

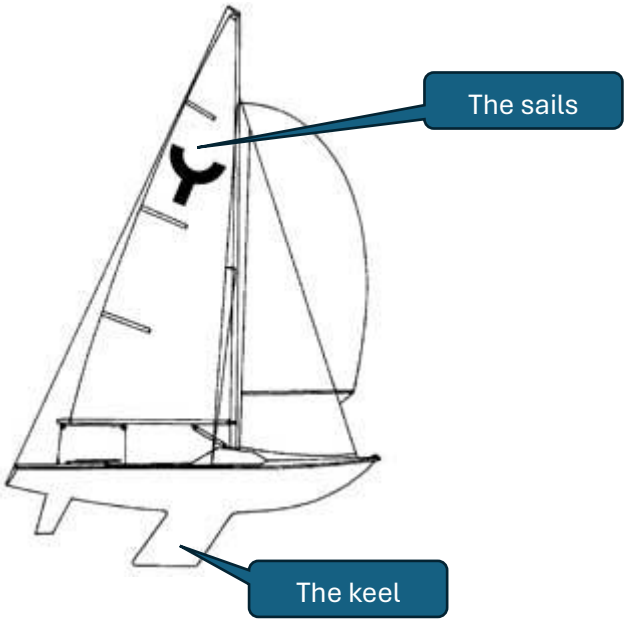


Figure 1The magic tools

The sails provide the propulsion of the boat, thanks to the wind deviation which generates a force on the sails, exactly like it would do on an airplane wing.

The good news is that the pressure on the sail is not related to the wind direction – It is perpendicular to the sail.

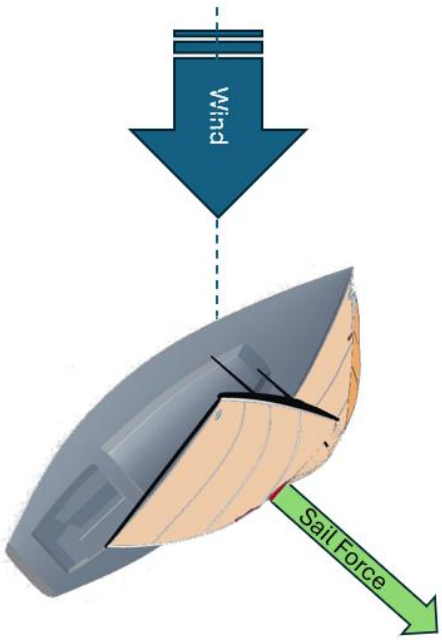


Figure 2 Sail force direction

The direction of the sail force will always be a bit or largely downwind as we see with the green arrows, and the boat would drift downwind in the direction of the green arrow. No chance for a boat to go upwind …

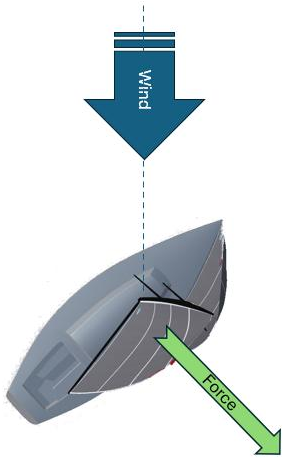


Figure 3 Boat without its keel – Drone view

… till we introduce the second magic wing: the keel. The keel generates a strong resistance to a lateral move of the boat, while having almost no resistance to a move in the axis of the boat. So as the sail force is orientated forward of the boat (green arrow), the lateral component of the force (brown arrow) will be neutralised [1]by the keel and the forward component (red arrow) will generate a forward speed – so that the boat with a keel can now move (slightly) against the wind. In the direction of the red arrow. Hurrah, the boat can now sail upwind !

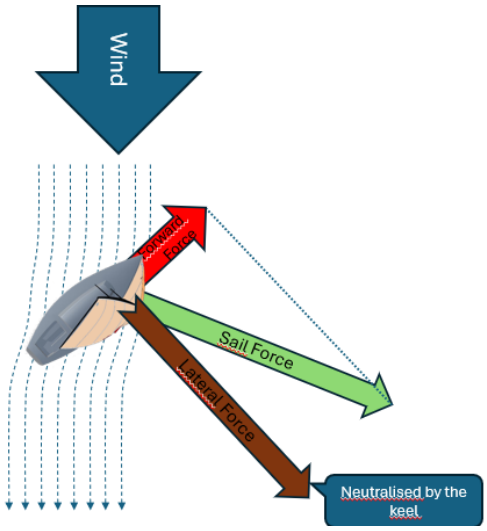


Figure 4 Boat with its keel – Drone view

This leads us to the basics of **sail tuning** :

[1] Not entirely neutralised, the boat will keep a lateral drift of 3-5 degrees.

- The sail must be enough angled – «sheeted in» against the wind so that the wind is deviated and generates pressure on the sails. If there is not enough angulation, the sail is flogging, there is no wind deviation thus no force. We detect the lack of angulation because the front of the sail – the «luff» - is flogging .
- However we want the sail force to be as much as possible in the direction of the boat. If the sail is too closed, there will be a forward force, [2] but not in an optimal direction. The force is very reduced with a strong angulation, as the leeward air flow is "stalling": We can notice in the following picture that the deviation of the wind is on the front of the sail, but also on the back of the sail (leeward). Surprisingly, the air suction on the back of the wind generates more force than the pression on the front of the sail.
- **Thus, the proper tuning of a sail is to open it till the front – the « luff » - starts flogging, then close it back where this flogging just disappears**.
- Note that the forward sail – the jib – deviates the wind to be received by the mainsail (the backward sail). So, it is better to tune the jib first, and the mainsail next.

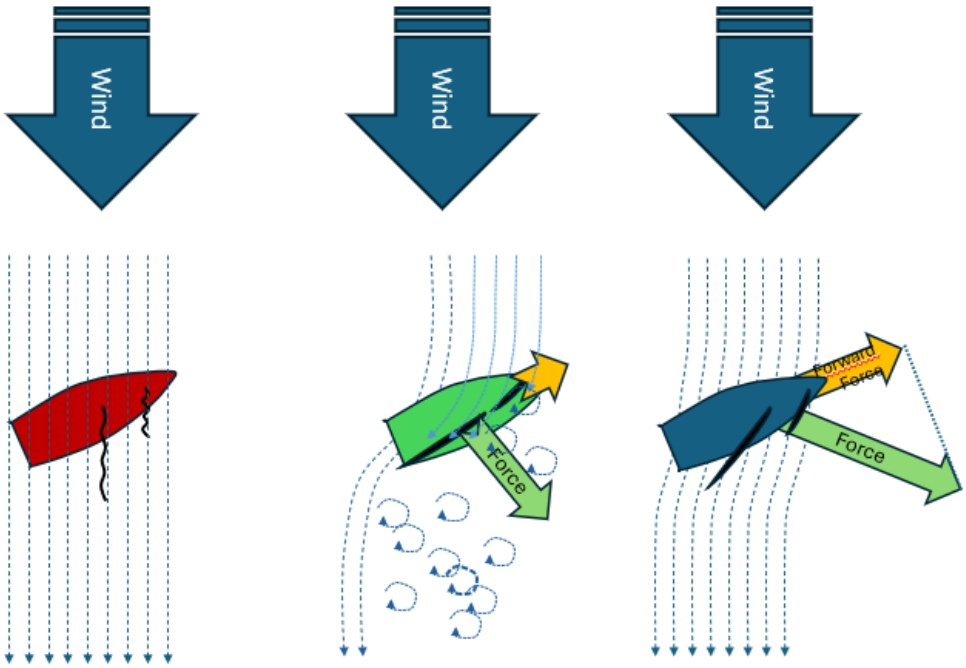


Figure 5 Best sail angulation

In the previous picture with three boats sailing "broad reach", we see

- the Red boat where the sails are fully open: No wind deviation thus no force, no speed
- The Green boat where the sails are quite closed: There is some force but orientated very sideways, little forward force. Poorly efficient.
- The Blue boat is properly tuned, the wind is deviated just enough, the force and the direction of the force are optimal, with the best forward force.

Thus the **process of sails tuning** is as follows[3]:

1. The helmsman turns the boat in the expected direction

[2] Not so good actually as the airflow will be stalled.
[3] Does not apply when beating or reaching

2. He **notifies** the crew that the boat is on its course
3. The crew tunes the jib at the limit of flogging
4. The helmsman tunes the mainsail at the limit of flogging.

Indeed, the resulting angle of the sail *against the boat* (materialised by the amber triangle) is depending on the wind direction. Going upwind will require a closer angle with the boat, while going downwind will require a more open angle of the sails with the boat. But the sails *angle with the wind* doesn't change much !

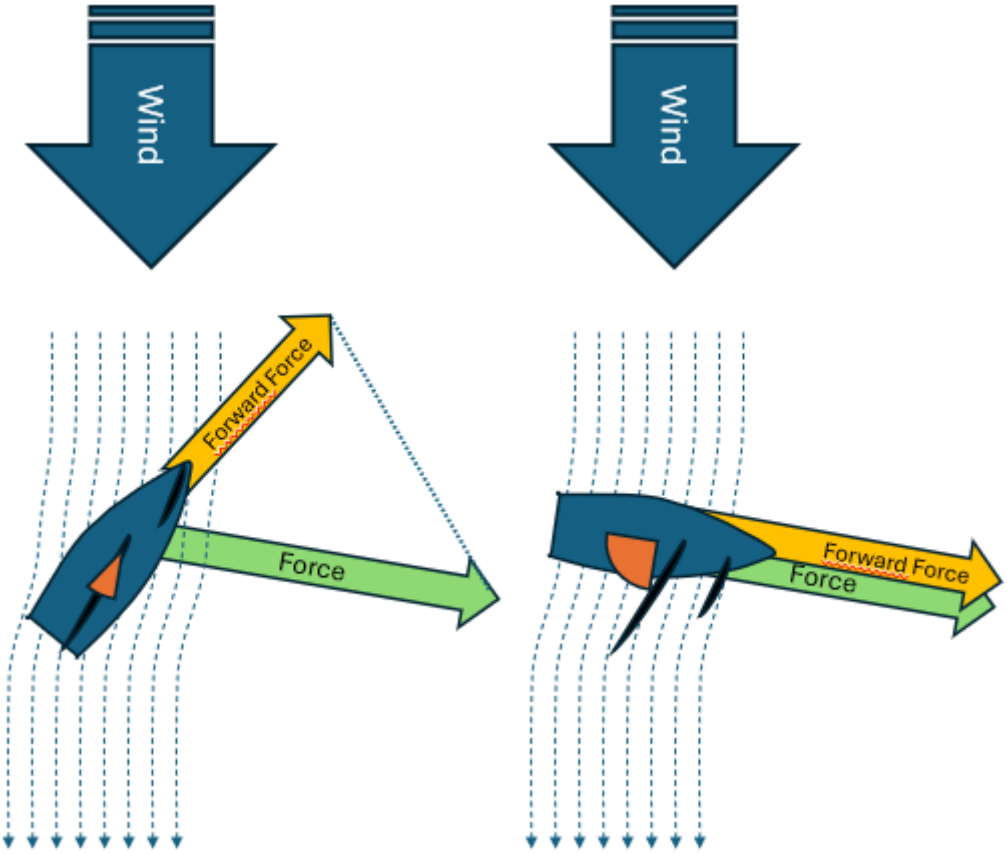


Figure 6 Basic sail tuning depending of the wind direction

Remember that when you are confused with a sluggish boat while your sails seem nicely full, it is most of the time because the airflow is stalled. Just ease your sails and/or luff up and the boat will be back to life (the other less frequent reason is to have seaweed in the keel and rudder).

Points of sail

To facilitate the communication between crew members, there are names of the relative direction of the boat against the wind, which are named "points of sail". It helps the crew getting an idea of the sail tuning needed. We see in the picture below that the angle of the sails with the boat is progressively more open when going downwind.

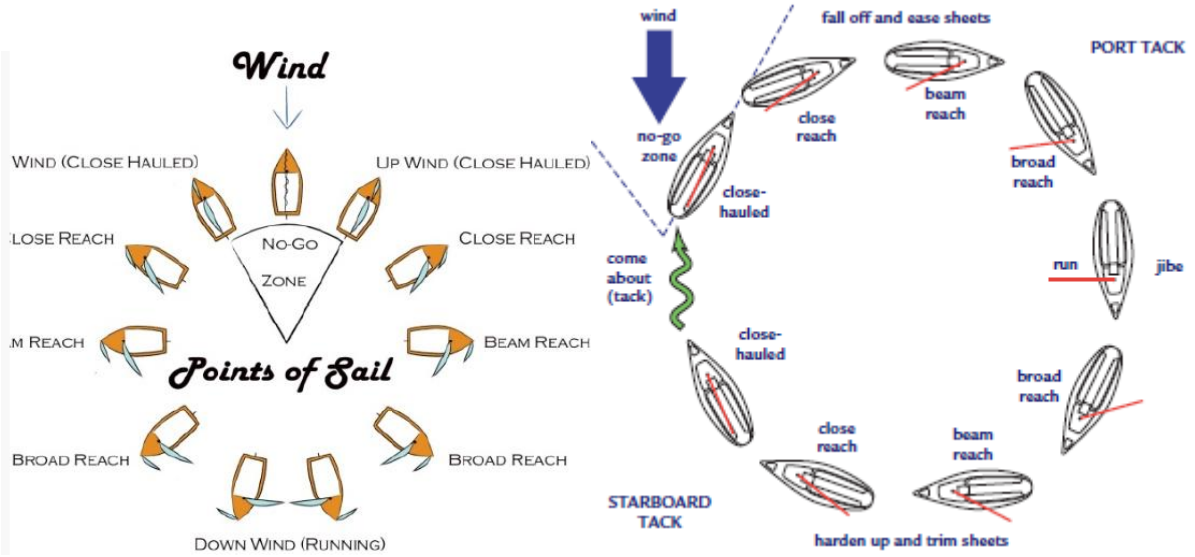


Figure 7 Points of sail two views

As an illustration, the picture below shows examples of sailboats sailing back to Port Choiseul with different points of sail:

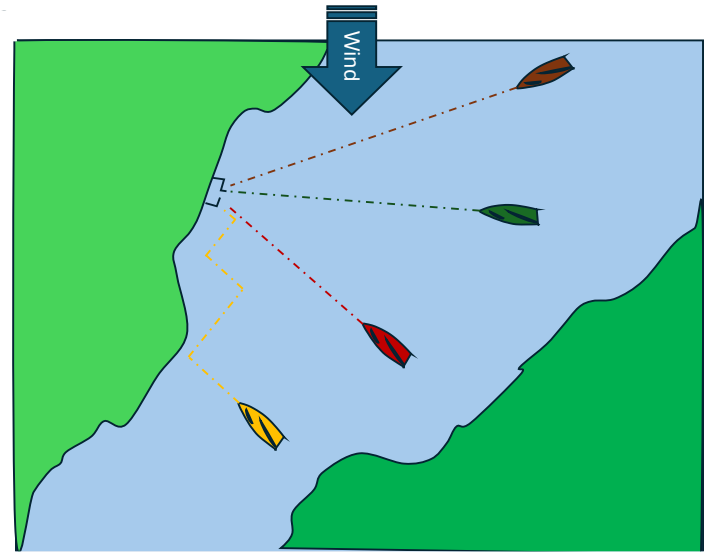


Figure 8 Examples of points of sail

- The red boat point of sail is "Close-hauled"
- The green boat point of sail is "Beam reach"
- The brown boat point of sail is "Broad reach"
- For the amber boat, the harbour is in the "no-sail" or "no-go" sector. She needs to sail a few legs "close-hauled" to reach the harbour.

Basic boat handling and tuning

Beating or Sailing close-hauled

Now in real life, the sailboat speed would be too slow (or stopped) if the boat makes an angle with the wind lower than 45° (an eight of a camembert). So, a sailboat can move in any direction but a sector of 90° in front of the wind. Sailing as close as possible to the wind is named "beating" or "sailing close-hauled".

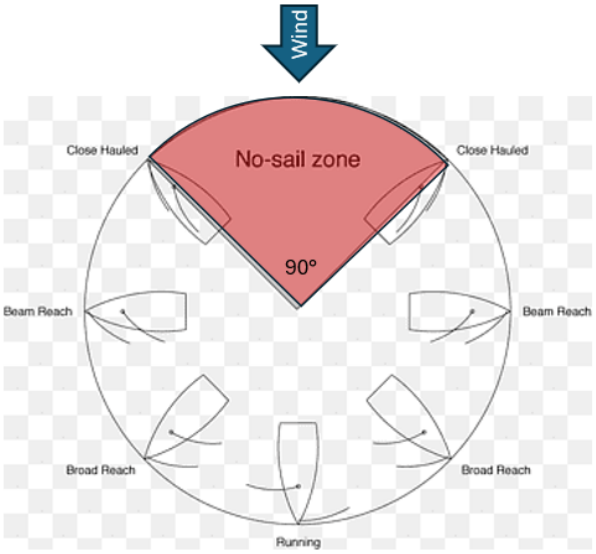


Figure 9 Points of sail

When sailing close-hauled, the sails are tuned so that their angle to the boat is as close as possible.

1. The helmsman asks the crew to sheet in the jib for close-hauled heading[4],
2. Trims in the mainsail close-hauled heading.
3. then steer the boat to be as close as possible to the wind direction without having the front of the jib flapping.

When we want to sail to an upwind destination where a direct route would give an angle with the wind closer than 45°, we then need instead to go there with multiple legs not closer to the wind than 45°.

[4] This will be clarified later

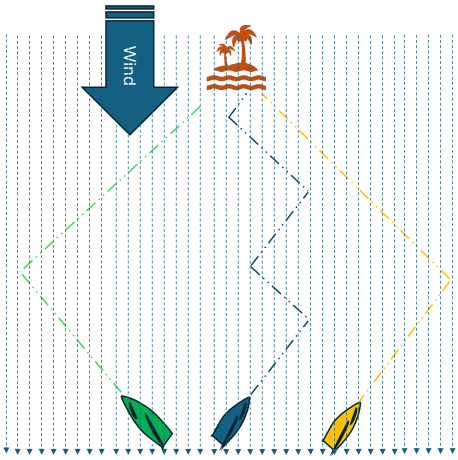


Figure 10 Different legs upwind, equivalent routes

Note that – counter-intuitively for many - the 3 beating boats here on the previous picture will sail the same distance (and the same time) to reach the island, regardless if they do just 2 legs or many small legs.

Tacking

Tacking is when a boat sailing multiple legs close-hauled to reach its destination turns from one leg to the next. This turn is in front of the wind and waves – in the no-go sector - , and as the boat has no propulsive power, she can only use its momentum to keep moving; She will slow down significantly during the manoeuvre.

There are a few requirements for a successful tack:

1. Check visually what will be the heading of the boat after the tack – i.e.- 90° from the current heading (still expecting the boat is close-hauled first): visualise a landmark of your to-be heading after the tack.
2. Then ensure there isn't another boat with risk of collision after the tack.
3. The boat should sail close-hauled before tacking
4. Have a good speed to have enough momentum

Sailing downwind – Running

At first, one would think sailing downwind is easy and relax – which is true, to an extent.

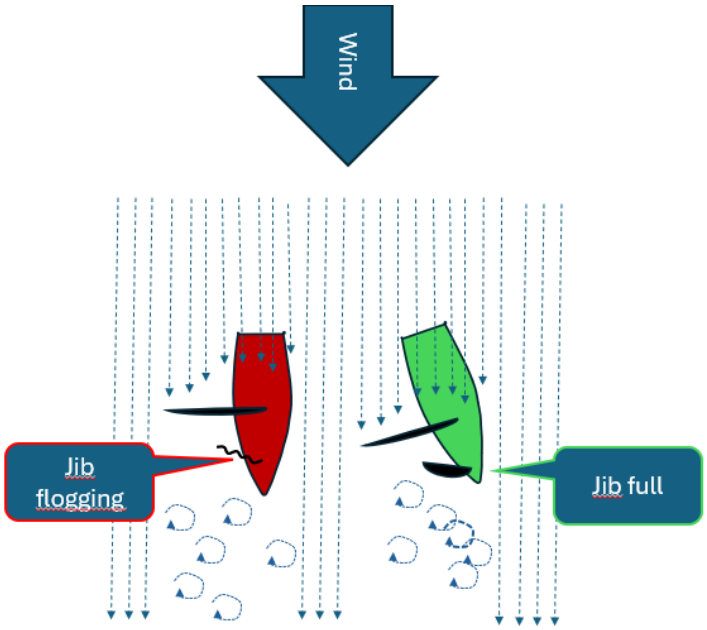
The sail tuning is quite basic downwind (broad reach):

1. Mainsail eased as much as possible
2. Jib wide open.

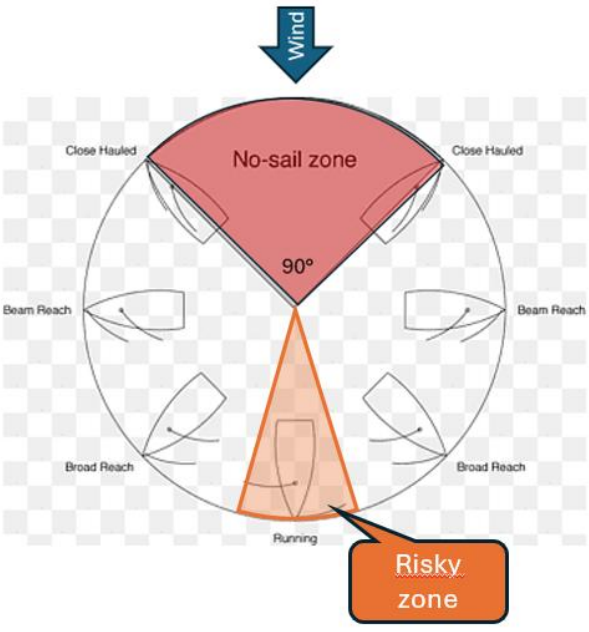
We try to avoid sailing **plain** downwind for two reasons:

1. There is a risk – if the helmsman is distracted, or if the wind is shifting – that the mainsail accidentally passes brutally from one side of the boat to the other, possibly hitting the head of a crew. It may generate severe injuries.

2. Plain downwind (running), the mainsail is masking the jib from the wind, so the jib will be flogging and inefficient, and the boat will be slower.



Instead of sailing plain downwind, we then sail at 20-30° of the plain downwind, the limit being that the jib should not be flogging. We then sail safer and faster.



Also note that the airflow on the leeward side of the sails is always stalled. No need for fine tuning here !

Tip to avoid an accidental gybe: Tiller to the boom to avoid doom.

Likewise beating, if our destination is within this sector at risk, we have to sail multiple legs.

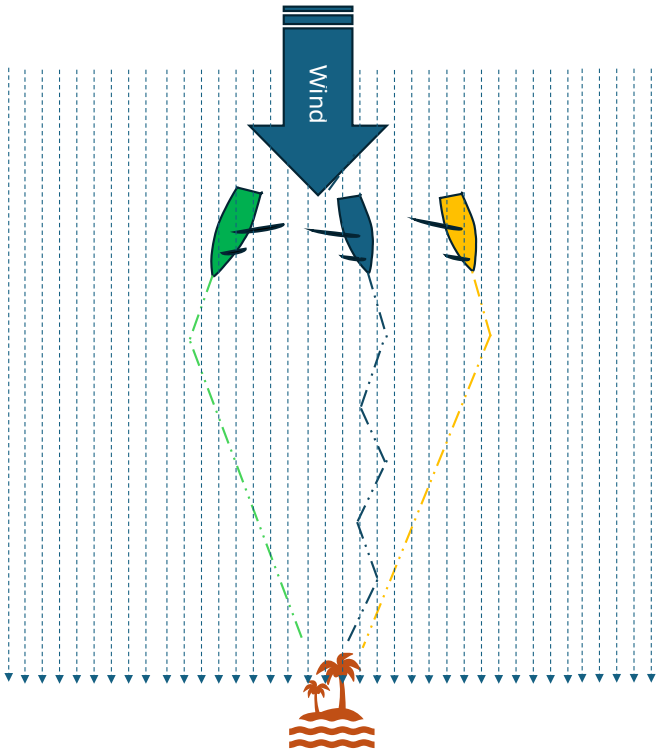


Figure 11 Different downwind legs with same efficiency

Gybing

Turning from one leg to the other – *Gybing* – is a manoeuvre which must be handled carefully to avoid the mainsail boom passing violently, with the risk of injuries to the crew or damages to the boat.

Some keys to prepare successfully a gybe:

1. Anticipate – make sure you start the manoeuvre early enough to avoid a last minute rush
2. Take a visual landmark of your to-be heading after the gybe
3. Notify your crew, especially to keep their heads low
4. If it's windy, tighten the boom vang
5. Ensure there isn't a boat with a collision course after the gybe.

Boat stability – Controlling the heel

Your Yngling is naturally stable – thanks to a ballast of 310kg of steel at the end of a keel 1.05 meter below the water.

The boat is designed to support a heeling angle of up to 30 degrees, when the water level reaches the side of the deck. However, a high heeling angle will slightly slow down the boat. On

the other hand, in low wind, the boat is easier to steer with a bit of heel – like 5-10°. It generates some pressure on the rudder, which helps to "feel" the boat[5].

In low wind, the crew will sit leeward to obtain this little heel .

Figure 12 Heeling control - low wind

In stronger wind, the crew will sit windward to limit the heeling to 10° if possible – but we can accept without problem a heeling angle of up to approximately 30°.

Figure 13 Heeling control - high winds

The limits for a high heel angle are:

- We don't want water ingress into the boat
- We don't want an excessive helm angle which would act like a brake. Typically, not more than 5° of helm angle from the centerline of the boat.

When beating, we can keep the sails fully trimmed in as long as we don't exceed these limits. In case of gust generating too much heel, the immediate actions are:

1. Luff slightly
2. Release a bit the mainsail sheet.

[5] A few degrees of helm angle also helps reducing drifting.

More on sails tuning

Sails tuning – Close reach to broad reach

When our course is not close-hauled, the helmsman sets the course first, then the sails are tuned.

We want the sails to be open as much as possible (ie. sheets eased) – to the limit of flapping :

- To have the force of the sail orientated as forward as possible.
- And because most of the power of the sail comes from the leeward deviation of the air. If the deviation of the wind by the sail was too important, the airflow on the leeward side of the sail would stall, and the power of the sail might reduce by up to 50%.

The symptom of a **stalled airflow** are visible with the telltales **:**

- **For the jib: The leeward telltales not being horizontal.**
- **For the mainsail: The leech telltales curving to the leeward side.**

In both cases, the related sheet should be eased.

Sails tuning close-hauled – Moderate wind

When sailing close-hauled in moderate wind, the sails setting is fixed, and the helmsman points as much as possible in the wind with the limit that the jib should not flap and the jib telltales should remain horizonal or slightly up :

- Jib is sheeted in so that the leech of the jib is parallel to the mast
- Mainsail is sheeted in ideally so that the boom is as close as possible to the centreline of the boat. The limit being that the mainsail leech telltales should keep flying horizontally.

Note that when close-hauled, the helmsman spends 80% of his time looking at the front (the luff) of the jib. To have the best view on the jib, he must sit as outside and as forward as possible.

Figure 14 Jib tuning: Leech parallel to the mast

Breeze tuning

If the boat is heeling too much, i.e. the helm must be pulled a lot to keep the boat going straight, the tuning should be adjusted as follow, preferably before casting off:

- Jib halyard very tight
- Main halyard and cunningham very tight
- Backstay very tight
- Bottom of mainsail very tight

Note that the heeling is generated mostly by the top of the sails. If we are still heeling too much, we need to open the top of the sails:

- Jib car fully backwards. Upper part of the jib leech more open.
- Mainsheet slightly eased.

In big gusts, offload the boat just by releasing the mainsail, but keep the jib working and cleated.

Note that – if you need to bear away in breeze – you must release the mainsail.

Specific manoeuvres

Stopping on a mooring ball

Let's have a specific focus on stopping boat at a mooring ball – what we can learn here is as well applicable to MOB etc.

The key for repeatable success is to have everytime the same method.

First we need to know what is the distance needed to stop the boat once turned head to wind. As a "finger in the air" rule, a keelboat nearly stops within 3 boat lengths if luffing from beam reach at full speed.

The recommended approach is to

1. Visualise a shooting point located 3 boat lengths downwind from the buoy
2. Approach this shooting point approximately beam reach, from at least 10 boat lengths, at full speed
3. Then luff, releasing sails, approaching the buoy head to wind
4. If there is a bit of speed left, backing the main boom on the very last meters will finish stopping the boat.

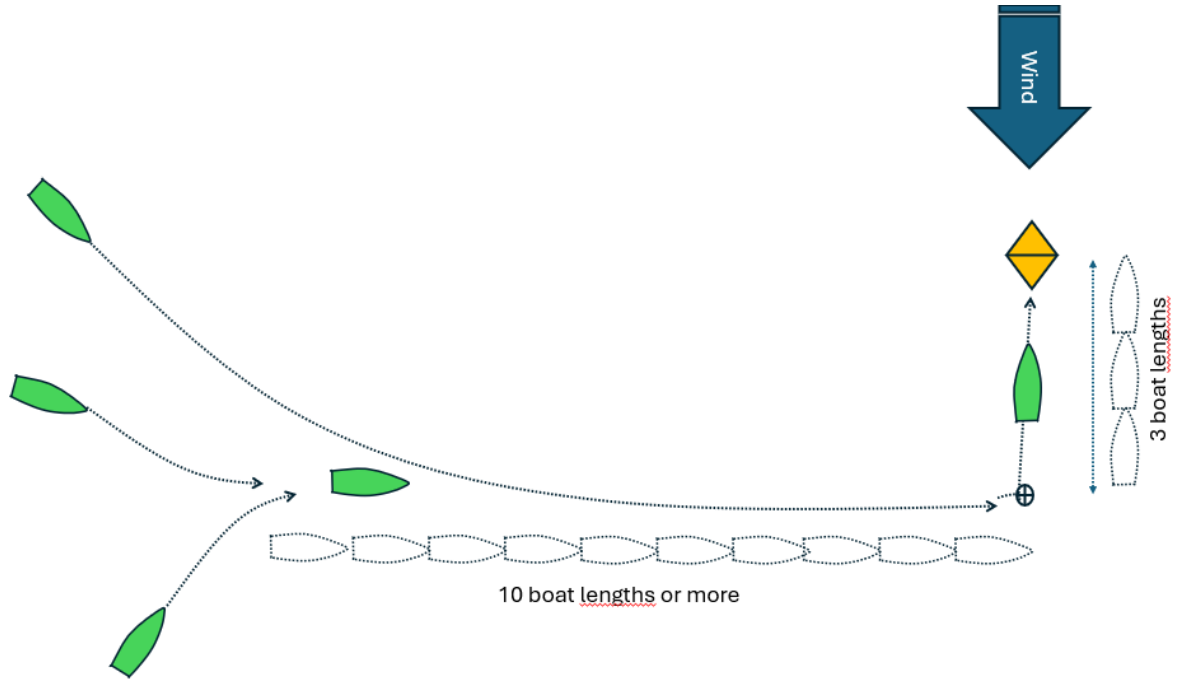


Figure 15 Catching a mooring buoy

Why this method:

- *Why a beam reach approach*? Beam reach approach allows to rectify the trajectory easily by luffing or bearing away while keeping speed. If the approach was close hauled, you cannot luff anymore to correct. If the approach was broad reach, the loss of speed when luffing upwind is hardly predictable.
- *Why full speed*? Because it is easily obtained – just tune your sails as usual.
- *Why 10 boat lengths for the beam reach leg* ? Because some distance helps to accelerate to full speed after your last manoeuvre, likely a tack or a gybe.
- *Why is the shooting point straight downwind of the ball* ? Because if the wind was slightly lateral, once stopped the boat would start drifting laterally.
- 3 boat lengths is a bit "finger in the air", if the water is choppy you may require a shorter distance like 2 boat lengths.

Catched in a storm …

Fortunately or unfortunately, your teacher will not bring you on a Yngling out in stormy conditions, so it would be likely a first for you – if it ever happens.

As described in the next section, the rare cases where we could be catched in a storm are:

- Thunderstorms
- Joran
- … Tornado : Not expected on the Leman, but who knows.

In all those cases, the storm would be quite short: Say ½ hour. Then the most hazardous thing to do would be sail back inside the harbour with very strong gusts ! Provided the wind does not push you to the shore, the safest attitude is to wait in the "middle" of the lake, and take nice pictures.

- How to handle the boat while waiting the end of a storm in the middle of the lake ?
  1. First try to heave-to
- If the wind is pushing you to the shore, do your best to escape against the wind:
  1. Jib sheeted in,
  2. Mainsail open and flapping as needed. In the gusts, it is important to offload the boat by playing with the mainsail only, keeping the jib working.

Keep in mind that during a storm, the level of noise is very high (wind whistling, sails flapping), possibly preventing you from talking/shouting to the crew. Better then to anticipate and explain your crew "what if" as soon as you are aware of a risk.

In the extreme case where the boat would be grounded ashore by the stormy wind (not sure if it ever happened to a YCC keelboat), **stay on the boat as much as possible** – it is likely to be way safer than swimming in the waves to the shore.

Where does the wind come from

We have seen that the success of our manoeuvres requires a precise appreciation of the wind direction. How can we find out ? We will detail a number of ways which can be used depending on the situation.

The first instrument is our body – especially the face, the ears, the neck, the hairs. Good start but not precise, especially if we wear a hat. Not that bad if you face the wind with your face, the ears will give you a good indication, but it is not very practical to turn the head straight to the win while steering. Especially when sailing downwind.

Then we have the waves, perpendicular to the wind. Well in our vision, but they react slowly (a few minutes) to a wind change, and also can be deviated by obstacles.

Better, we have the small riddles /wavelets which follows the wind changes within seconds, and develop even very close to the shore. Very handy, may not work inside the harbour when the gusts often don't reach the water surface.

Remains then the "instruments":

- The wind vane on top of the mast. Very precise in all situations, but not nice to your neck, also not in our natural field of vision. To be used only for quick verifications in case of doubts.
- Then there are the telltales attached to the shrouds, fairly precise and well in our field of vision. Made of wool or better of magnetic audio tape – likely present in the sail repair box. It is always a good idea to check their presence while rigging the boat.
- Within the harbour, you can also have a quick look at the wind vanes of the other moored sailboats !

Interestingly, if we compare the wind direction shown by the water based "instruments" like flags or wavelets, wind boat-based instruments like windvane or telltales - when the boat is moving – they may not align very well. The deviation can be up to 20° (Which is well enough to ruin a manoeuvre).

The wind shown by the boat-based instrument is named "apparent wind" compared to the true wind shown by water-based instruments.

The reason of this difference is the "speed wind" – the one you fell when walking fast or cycling (or motoring on a boat). This speed wind is straight against the move, with a speed equal to the move speed.

The apparent wind is then the addition of the true wind plus the speed wind as we can see in the following picture.

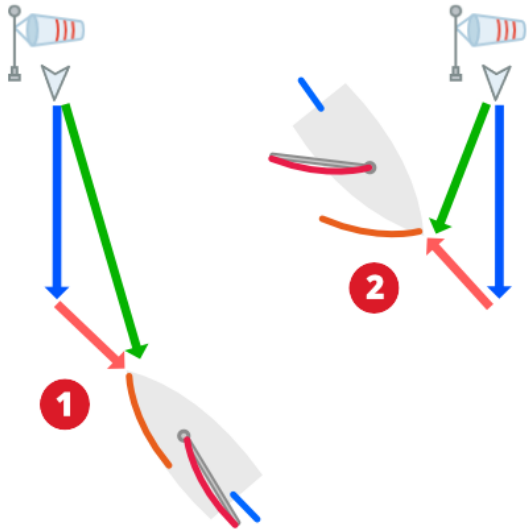
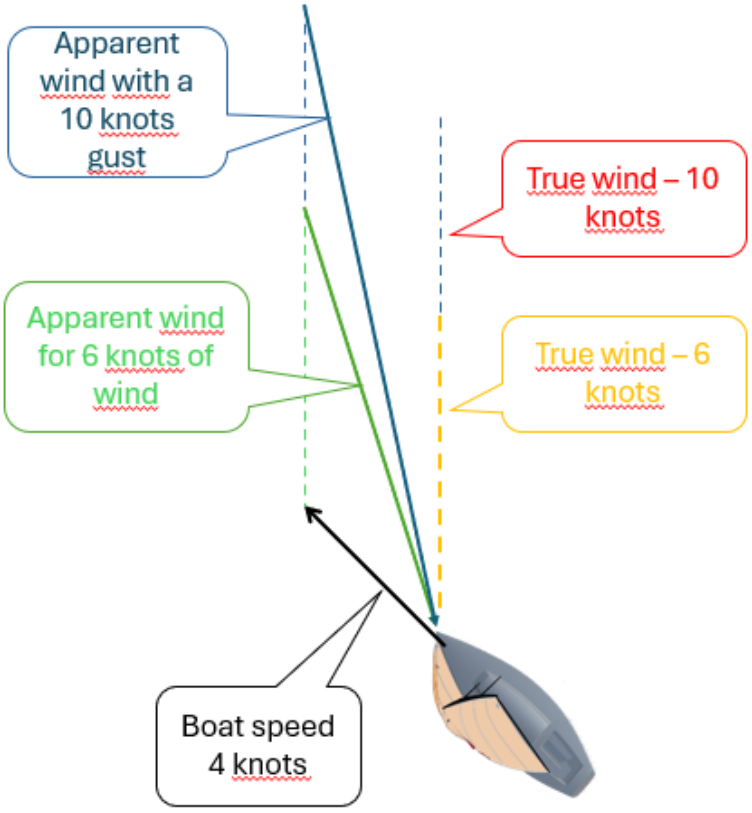


Figure 16 Apparent wind

Then as a simple rule, keep in mind that – in low-medium wind - the true wind is 15-20° away from the boat direction, compared to the apparent wind. Upwind the true wind is more on the side, while downwind the true wind is more on our back.

The following pictures shows the apparent wind (green) for a wind of 6 knots and a boat speed of 4 knots, and then the new apparent wind (blue) with a gust of 10 knots. We can see than with the gust, the apparent wind comes more from the side (by 5 degrees), and the helmsman should react with a luff of a few degrees.



The immediate thing to do on a gust (when beating) is to luff by a few degrees, till the boat accelerates.

Weather forecasting for Versoix – Limitations of Windy & Co

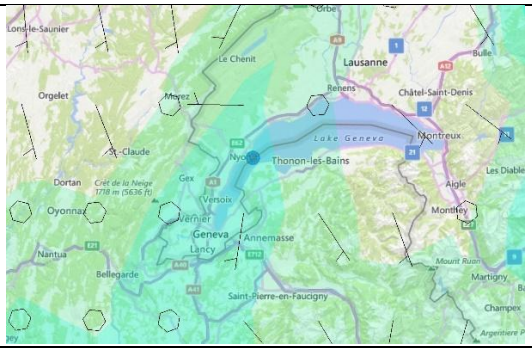
We have those days all these great wind prediction apps like Windy, Weather4D, Windfinder, … but it is important to understand their limitations and how to mitigate these limitations.

The apps have no own intelligence, they "just" display nicely the same data, ie. free public "GRIB" files such as GFS, ECMWF, ICON. So generally there is no need to check different apps. It may be useful to compare the different models – GFS, Arome, ECMWF, ICON within the same app. If these models differ, it means that the forecast is not very accurate. The models are usually very identical the first 2-3 days.

The limitations of the models are:

- The GFS grid provides a prediction point every 27 km, at best every hour. Very wide for our lake.
- An exception is the French Arome HD model, which has a 1km grid every hour. Much better for "local" effects but doesn't show the gusts.
- Considering this scale of 27km, the effect of mountains ant thermals is poorly taken in account for the Leman.

- Beware they display by default the average wind, not the gusts. Sometime gusts can be twice as strong as the average wind.
- Unless you are an expert user, you will not see the thunderstorms, the rain, the Joran.

	
Arome HD – 1.2km between data points	GFS grid – 27km between data points

Human intelligence still helps mitigating the flaws of computer-generated forecasts and the best place to find local human-augmented forecasts is with the local experts ie. Meteosuisse[6].

- While getting a broad picture through your favorite app, also check the wind forecast in Versoix in the Meteosuisse app
- It is also interesting to look at the actual wind recorded in Cointrin airport on the Meteosuisse website https://www.meteosuisse.admin.ch/services-et-publications/applications/valeurs-mesurees-et-reseaux-de-mesure.html#param=messwerte-windgeschwindigkeit-kmh-10min&table=false&station=GVE

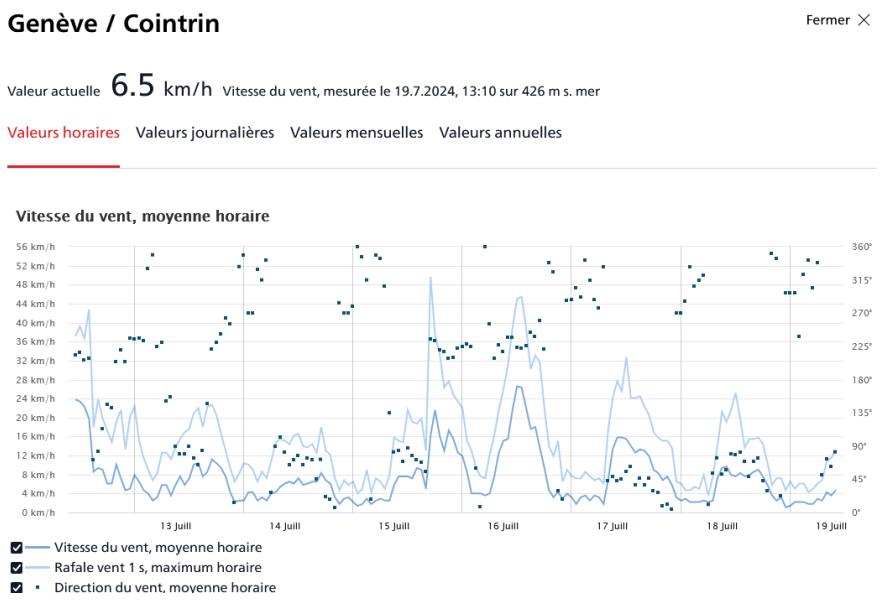


Figure 17 Wind actuals on Meteosuisse website

[6] Read the Meteosuisse post https://www.meteosuisse.admin.ch/meteo/systemes-d-alertes-et-de-previsions/les-systemes-de-prevision-icon.html to understand why they can be more accurate than the Windy models.

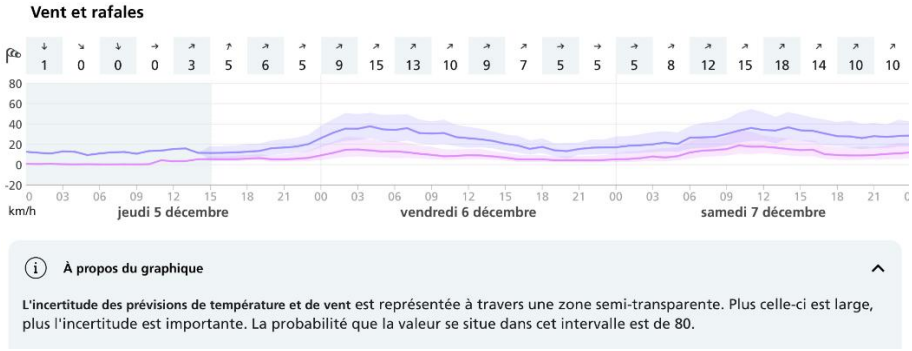


Figure 18 Wind forecast from Météosuisse App

Beware there are 2 "treacherous" conditions in the area of Versoix, which can generate very strong winds very quickly:

- Thunderstorms indeed – you see the clouds developing. The Meteosuisse "radar" is great at showing thunderstorms (but not reliable at predicting the exact trajectory.)
- Joran – falling off the Jura. You may see a cloud cover on the Jura, with a parallel "blue hole" indicating descending wind.

Figure 19 Risk of Joran

As a guideline,

- Check your wind prediction app, pay attention to gusts. Have a look at Arome HD wind prediction (often at charge) remembering it doesn't show gusts.
- Complement with Meteosuisse text forecast which indicates likely thunderstorms and Joran
- Look at Meteosuisse "radar" for rain and thunderstorms, but don't trust the trajectory of thunderstorms.
- Indeed monitor the alerts from Meteosuisse as well as the alarm lights on the lake.

Right of way for Ynglings

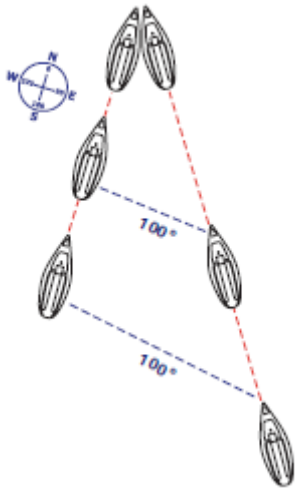
Hopefully the sailboat rights of way illustrated below are understood. However, a few important rules must be added:

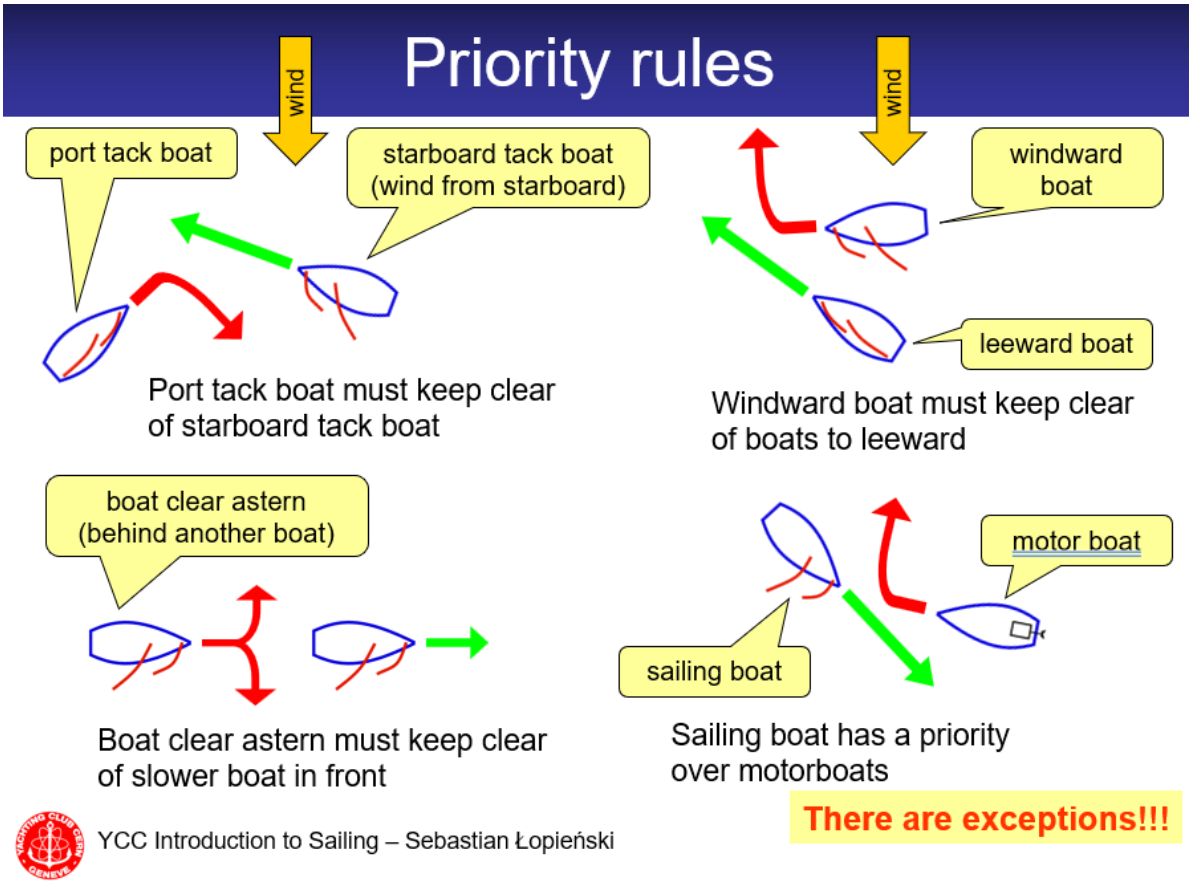
- Sailboats have right of way over motorboats (including sailboats under engine …) – except for "official" motorboats like police, CGN, …
- Professional fishing boats have right of way when fishing – signalled by a yellow ball on their tiny mast. Also fishing boats trailing a fishing line or net are signalled with a white ball.
- Sailboats under rowing propulsion have right of way over motorboats
- Boats going out of the harbour have right of way over entering boats

This is just a highlight. Skippers have the obligation to follow the Swiss navigation rules detailed in https://www.fedlex.admin.ch/eli/cc/1979/337_337_337/fr , with the priority rules listed in art. 44 and following.

Having said that, the probably most important priority rule is to show **a clear and predictable** route, so that the conflicting boats can visually see your expected trajectory.

We can identify a risk of collision when the bearing of the adverse boat does not change.





The knots

If sailors insist about being able to use a handful of different knots, let's pretend it is not only for elegance …

Each of the "need-to-know" knot is unique in specific situations.

The knots have all common features:

- Quick to tie
- Good holding, won't slip
- Easy to undo – even after the knot has been under strong tension
- Can be easily visually checked. Many funny knots respond to the previous requirements, but it's just that the skipper must be sure about the knots in place, with visual inspection.

However the first "knot" to know is just a round turn, which offers a surprising resistance provided one keeps manually the line under tension. If you must secure a mooring line in panic mode, just go for a round turn around anything which will resist, then you have the time to think …

Fear, dangers and security

Many rookie sailors feel in some situations a level of fear. Fear is by nature not rational, but is what keep us alive; However sailing fear is often misaligned with actual dangers, bringing useless discomfort.

For most, fear is triggered when the boat is heeling. However the main risks associated with sailing on keelboats are different. If we look at most usual causes of accidents, there are:

- Generating injuries:
    - Head hit by the boom, mostly during gybes. Less frequent and less violent: When taking, lowering the mainsail, reefing.
    - The hands: Burned by a rope or hit in a clew. Wearing sailing gloves provides an almost comprehensive protection.
    - Falling over board: Rare with Ynglings, as we are quite safe inside the cockpit; We usually stand up on the deck only inside the harbour at very slow speed, where a fall usually doesn't damage more than self esteem.
- Generating only material damages:
    - Hitting another boat
    - Hitting the quay, being grounded
    - Sails or rigging damaged by high winds.

Regarding security recommendations, please do read the YCC related documents (mandatory !): https://yachting.web.cern.ch/Safety.html and keep always in mind the safety 1-pager in appendix.

So what about fear? Unfortunately the feelings of fear is triggered by boat heeling, which doesn't' match at all the most common risks listed here, and just creates useless discomfort.

What can we do to mitigate this discomfort ?

- First the rational:
    - The boat is kept safe from capsizing by the keel and its 310 kg of iron. It is designed to sail well with up to 30° of heeling. And the more the boat is heeling, the more the keel is efficient. It is very difficult to create so much heeling that you get a water ingress in the cockpit !
    - When sailing with a good wind, ask your teacher to try to heel the boat as much as possible and see what happens. Then take the helm and repeat the exercise.
- Then the feelings: You could try the following:
    - From your bed or sofa: Close the eyes and visualise yourself on the heeled Yngling, get used and relax;
    - While on the boat: A reason why you could be scared is because you associate the boat with your "safe home" providing protection against the wild nature of the lake, and it is very disturbing to see your home leaning over. You can try to disconnect mentally your "safe home" from the boat and reattach it to the horizon and the shore.

Appendix

Safety Equipment

Life Jackets

On keel-boats 100N when: water<12° / night / is windy
On dinghies and catamarans 50N buoyancy-aid always

Trapeze harness

Mandatory on catamarans: needed to recovery from capsize. On RS500 and 29er we recommend to wear it/have it always on board.

Whistle, Knife, Light

Ready to be used: A whistle, a knife, and a flashlight/light beacon for night sailing.

Personal protection

Use gloves, bonnet, spraytop, wetsuit, sunglasses for sailing or while doing maintenance. On catamarans use the helmet in strong wind.

Safety items on board

Extra mooring lines, paddles, 'gaffe', anchor, bailer, bilge pump, horn, red flag/firework... check their presence/status on board

First Aid

Bring with you a minimal first aid kit, at least 1 per boat

Radio

YCC default PMR channel is 4 subtone 4 (4⁴)

Safety Actions

ALARME LAC 112

Safety briefing

Names of crew and their, experience, emergency numbers, safety equipment, engine startup, rigging check. Man-Overboard actions, outing planning, roles assignment, expected re-entry time
Ask for questions!

Conditions evaluation

Do not go out when wind > 4-5bft
Check the storm warning lights
Check meteo alerts/wind speed direction and forecast, water level and temperature.
Read previous boat log entries.

Mutual check

Look if there are other YCC boats sailing and if they are ok.
Use the binoculars to spot who is not coming back when expected. Help during dinghy re-entry/mooring.

Responsibility

Skippers are the ultimately responsible on board. YCC event organizers, Qboat drivers, the committee, can enforce additional safety measurements. Identify who is in charge to take responsibility/decisions!

Safe Sailing

Minimal risk

Choose the simplest maneuvers and plan it in advance and prepare your crew for it. Reduce the sailing time inside the harbor to the minimum necessary.

Call for tack/gybe

Call/answer loud for tack and gybe:
Ready to tack? READY! Tack!
Ready to Gybe? READY! Main in the center...Gybe!

Risks around you

Observe always around you, especially on the leeward side, behind the sails: boats,CGN, SUPs, wakeboards,swimmers. Have they seen you?

Position fixing

An approximate position is needed to call for help (i.e. I am in front of Corsier). Practice on the map, compass on coastal navigation!

Solo outing

On Laser, write on the log your destination, expected re-entry time, inform someone in the harbor, take the radio. Come back earlier

Be a good YCC sailor

Read and respect all the YCC rules, the people, the boats, the environment. Be a good sailor. Do all your best to avoid accidents and keep high sail and safety standards. Be an ambassador of the YCC! Thank you.

by Luigi Gallerani
YCC President 2019