



Theory Basics for MWC Rowers

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1. Sailing & Steering on the water

As a rower, you are a participant in traffic. Just like for road traffic, there are rules, commands, and prohibitions on the water.

The primary task of the coxswain is the safety of the boat and crew. In every boat that goes out on or into the water, there is one person responsible for what the boat does and what happens inside the boat. In rowing with coxed boats, it is the coxswain who determines what needs to be done, gives the commands, and thus is in charge on board. In coxless boats, it is the bow rower who assumes that role. Knowing what to do with your boat in order to sail properly, participate safely and correctly in water traffic is called seamanship.

Seamanship involves, among other things, assessing the influence of waves, currents, and wind on its accuracy. You must master the rules on the water and know how to apply them. You must know how to influence the speed, course, and stability of your boat. The coxswain also has an important role on land, during the launching and retrieving of the boat, as well as in emergencies such as capsizing. In such situations, you must be able to act as a leader and show responsibility for the crew and equipment.

2. General security

It boils down to the coxswain ensuring that:

- The boat is in order, and they know the experience level of each crew member.
- The regulations and (club) agreements are followed.
- The boat avoids collisions and does not cause any obstruction for others on the water.
- Damage is prevented.
- Water remains outside the boat, and the crew remains inside.
- The crew clearly knows what they need to do.
- There is calmness in the boat.
- The instructions of the cox, coach, or instructor are followed.

3. Tasks regarding crew, equipment, and conditions:

3.1. Clothing regulations

For the necessary visibility to other water users, every rower must wear conspicuous fluorescent (orange or yellow) clothing.

3.2. After getting the boat ready on the water

Check if the boat, oars, and slides are in order. Pay attention to whether the oarlocks are tightened. Are the oars placed correctly in the oarlocks (starboard green, port red)? Ensure that the steering lines are not crossed. Consider the additional equipment during winter arrangements.

3.3. Decisions on the water:

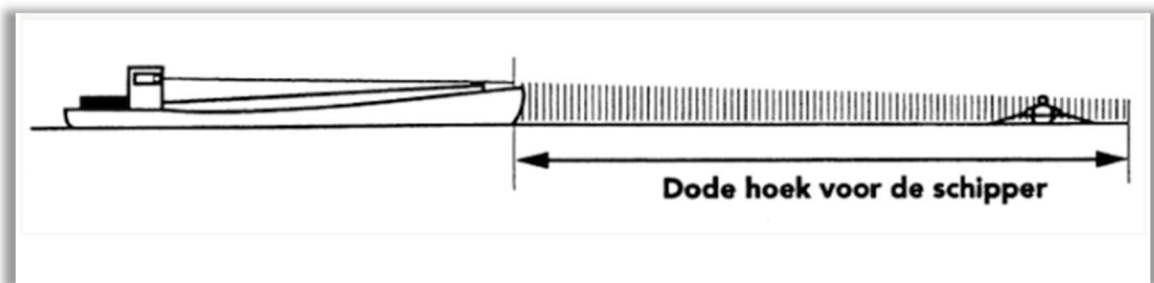
- In principle, we row on the starboard side (right as seen from the cox). We keep a distance of three oar lengths (10m) from the shore.
- There are circumstances where we choose to row on the port side. In such cases, we always give way in time to rowing boats that are rowing on their starboard side, i.e., in the opposite direction. We steer away from the shore so that they can pass unhindered.

This means that it is always of utmost importance to look in the direction of travel so that other water sports enthusiasts (rowers) can be seen.

If an approaching uncoxed rowing boat does not notice you, call out a warning in time.

- Anticipate and respond to weather conditions.
- In case of approaching thunderstorm or storm, return to the harbour.
- Watch out for floating objects in the water and be mindful of fishermen on the shore, avoid fishing lines and swimmers.
- Always clearly indicate (for other water traffic) what you are doing and do not change your course and/or speed unexpectedly, unless you are on a collision course.
- When encountering waves from inland shipping vessels or recreational boating, position your boat parallel to the waves well in advance, along their length. Be careful not to get too close to the shore when riding the waves, as there is a risk of ending up on the shore.
- When riding the waves, make sure not to get too close to the shore, as there is a risk of ending up on the shore.

Inland vessels (commercial shipping) are slow and take a long time to change course or come to a stop. Furthermore, the skippers have limited visibility from their wheelhouses. Stay out of their blind spot.



The blind spot is the part of the waterway that is not visible to the skipper. Not only can the visibility be obstructed in front, but also to the sides, for example, by a high cargo.

If you can't see the bridge of that ship from your rowboat, the skipper can't see you either. You are then in their blind spot.

3.4. When returning the boat

Rinse and clean the boat according to the regulations (including the slides and riggers), open the air chamber, secure the seat, clean and dry the boat, and bring it inside.

Note any damage in the checkout system.

Make sure all equipment is returned to its place.

4. Regulations

4.1. General

If someone is steering without a boating license, one of the rowers with a steering license becomes "the skipper" and is responsible. Discuss this with each other beforehand. Practically speaking, the stroke rower is the most convenient position for the responsible person (can communicate best with the coxswain). Various laws and regulations apply to navigation on Dutch waters. All regulations fall under the umbrella of the Shipping Traffic Act. (BPR) For us, the prohibition of operating a vessel "under the influence" is important in this law. The skipper (or helmsman) must always be competent.

4.2. Shipping regulations for general waterways

The traffic rules, lights, signals, signs, and boards are covered in the BPR (Inland Navigation Police Regulations) and can be found in detail on their website. Here, we limit ourselves to:

Key points from the BPR for rowers:

- Large vessels (length \geq 20 meters) have priority over small vessels (length $<$ 20 meters). A rowboat is considered a "small vessel."
- The coxswain ("skipper") is responsible, and rowers must obey.
- Only leave the rowing dock or mooring when the waterway is clear.
- A small vessel **always** yields to a "large vessel."
- A small vessel yields to another small vessel that keeps to starboard (right side of the waterway).
- If a small vessel is overtaking another small vessel that keeps to starboard, it should pass that vessel on the port side (left side, similar to passing on the left in road traffic).
- In the case of opposing or crossing courses between a rowboat and a sailing or motor vessel where neither vessel keeps to starboard, the motor vessel gives way to the rowboat (and to the sailing vessel), and the rowboat gives way to the sailing vessel.

The rule is:

Wind power takes precedence over muscle power, and muscle power takes precedence over engine power.

If the rowboat is on the starboard side, it does not need to stop or change course for an oncoming sailing vessel. The sailing vessel must give way or tack.

- A sailing vessel operating with its engine is considered a "motor vessel."
- In the case of opposing courses, both vessels yield to starboard (similar to two cyclists on a narrow path).
- In the case of crossing courses between rowing boats and neither vessel keeps to starboard, the vessel approaching from port side has priority; the vessel coming from starboard must give way (similar to right-of-way rules on the road). **However, this vessel should not take but receive priority!**
- The vessel to which priority is granted should not change its course and speed.
- When crossing a fairway, other vessels should not be obstructed.
- At bridges and narrows, a downstream vessel has priority.
- A small vessel should leave a harbour without causing hindrance to other vessels.
- Ships entering a harbour give way to outgoing vessels (note: club rule at MWC, we let boats leaving the harbour first).

"Good seamanship" always takes precedence over navigation regulations! "Good seamanship" means navigating with skill and expertise, acting with foresight and consideration, and always doing what is reasonably within your power to prevent damage, injury, and assist those in need.

You never **have** the right of way.

Another vessel may be obligated to **give way** to you.

You must always do everything possible to prevent a collision, even if the other party makes mistakes!

Note!

You must always consider that any change in your course or speed should not hinder other boats on the water!

BEFORE CHANGING COURSE OR SPEED:

always look around and ensure that you can make this change safely for other vessels and for your own safety!

4.3. Agreements within MWC

Article 4 of the MWC rowing regulations:

Rowing under special conditions

(currents, wind, temperature, water level, season)

- a) During the winter season - from November to March - rowing is only allowed in a boat steered by a certified coxswain.
- b) Rowing is NOT allowed in the following conditions:
 - Fog: the Kennedy Bridge is not visible from MWC.
 - Ice: there is ice in the harbour and/or ice floes in the Maas.
 - Frost: daytime frost or overnight frost (mild overnight frost with a temperature rise during the day should not be a hindrance to rowing, but the boats should be thoroughly dried after use).
 - Wind speed ≥ 5 Bft: there are whitecaps on the Maas.
 - Strong currents: the flowing water of the Maas cannot be kept up with at a walking pace.
 - High water: the boat cannot be launched via the slipway or the slipway is inaccessible without a gangplank.
- c) During the winter season, it is prohibited to row downstream from the club (towards the city).
- d) During the winter season, the coxswain must wear a life jacket, and there should be a waterproof emergency container on board containing: emergency blanket, charged mobile phone (belonging to one of the occupants), whistle. The container should be secured during navigation (not loose in the boat).
- e) All crew members (coxswain + rowers) wear fluorescent clothing.
- f) Under all conditions not mentioned under b, it is the coxswain's responsibility to assess the conditions and decide whether or not to go on the water. In the event of sudden deterioration in weather conditions, the decision to return to the harbour is made.
- g) In addition to specific natural conditions as described under b and c, the experience of the coxswain and rowers should also be taken into account in the decision-making process.
- h) The board is never responsible for decisions made by the coxswain and rowers in this context.

4.4. Courtesy

- Be considerate of the **fishermen** who are enjoying their leisure activities along the shore.
- Be mindful of **swimmers** in the water near beaches, such as in the Grindgat, and near the yellow buoys on the Maas upstream of the lock. Striking someone with an oar can be life-threatening!
- **Allow** boats to **exit** our harbour before entering, contrary to the rule in the BPR (in and outflow of a harbour), to prevent congestion. At MWC, we consider this as "**good seamanship**".

5. Capsizing on the Maas

5.1. Prevent capsizing

- The rower's weight should be suitable for the boat.
- Check that the oarlocks are securely closed.
- Do not position the footboard too close to yourself; the oars should not easily brush against the body. Do not tighten the foot straps too much; the feet should be able to release easily.
- Anticipate unsafe situations.
- When approaching high waves, align the boat parallel to the wave in time. Use the commands "Veilig Boord Stuurboord/Bakboord" ("Safe Board (Starboard/Port)") and if necessary, "Bakboord/Stuurboord Hoog" ("Port/Starboard High"). "Safe Board" refers to the side where the rowing boat is tilted through the wave, and "high" refers to the side where the wave is coming from.

Additional rowing a skiff:

- Cease applying force if something goes wrong.
Return to the starting position.
- Always keep hands together.
- Never let go of the oars.
- Look behind frequently to avoid surprises (waves, obstacles in/on the water, risk of collision).
Look at least every 5 strokes.
- Maintain control of your course, staying as close to the shore as possible (three oar lengths).

5.2. Actions after Capsizing

- **Do not swim in very cold water (< 8°C)!**
- Try to climb back into the boat and row back.
If that is not possible:
 - Lean as far as possible over the boat and wait for help.
Your body will cool down less quickly above water than in the water.
(Pull your upper body onto the boat and try to reach the shore) or
 - Wait for assistance from another boat and follow instructions.
 - If you are near the shore, you can swim with the boat to the shore.
DO NOT swim perpendicular to the current;
swim diagonally with the current and then climb in when the water is shallow.
- **Always stay with your boat.**

It is mandatory to have dry spare clothes and a towel with you at MWC when you go sculling.

6. Emergency on board, need assistance?

You can use a dry mobile phone to call for help, but only if the phone is dry AND emergency numbers are programmed into it.

The emergency number 112 is always accessible;

Enter the numbers of reachable MWC members.
This person can arrange further assistance from the shore.
The club's number? It is rarely answered!

No other boat nearby that can offer help?
Use the "dry mobile phone" from the emergency kit or one that someone has with them.
Be concise and clear when explaining **what, where, and how.**

Therefore, ALWAYS know your location relative to the shore.

For example:

- near Woalenwiert,
- on the Maas at kilometre marker 9,
- at the ENCI jetty,
- etc.

7. Manoeuvring with a boat

For practical execution, refer to the Rowing Book:

Chapter 3: Rowing and steering commands
Chapter 4: Getting to the water
Chapter 5: On the water
Chapter 6: Off the water

8. We are setting sail

The operation of the rudder relies on the force of the oncoming water when a ship is moving forward (axial force). Therefore, no speed relative to the water means no effect from the rudder. In a rowing boat moving in reverse, the rudder usually serves no purpose because we are hardly able to angle it slightly, which can be controlled with the steering cord. The water pushes the rudder transversely against the stern of the boat when moving in reverse and while stationary.

When moving in reverse or standing still, manoeuvring is only possible through rowing actions performed by the rower(s) (commands).

The rule "**entering/leaving a harbour**" must be applied. This rule states that no entering or leaving vessel may force another vessel on the main waterway to suddenly and significantly change its course and/or speed. Since harbours are considered **secondary waterways** in relation to the **main navigable waterway**, this rule explicitly applies to not obstructing boats navigating the main waterway due to vessels entering or leaving the harbour. The principle of **good seamanship** must now be applied.

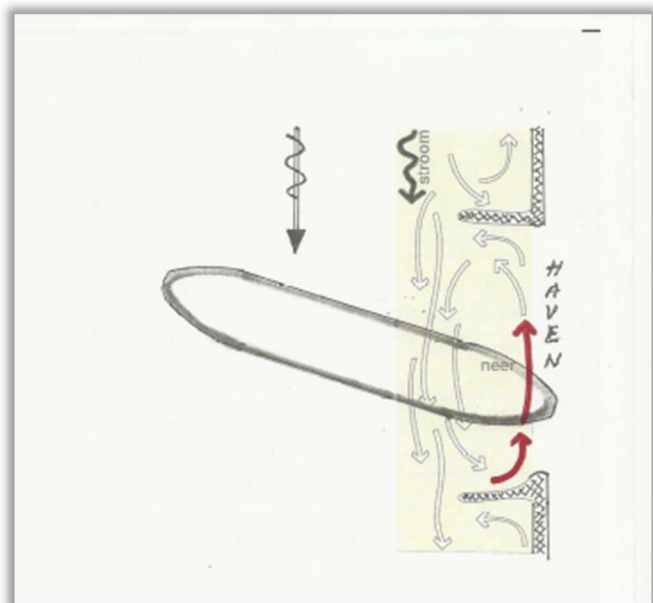
In a small harbour like ours, two aspects need to be considered. It should be noted that the vessel coming from the current (entering the harbour from the Maas) cannot break off its manoeuvre towards the harbour entrance at a certain point without the risk of being swept onto one of the harbour heads by the current. The vessel in the harbour has more opportunities to interrupt its manoeuvre on still water and should give way to the vessel entering the harbour.

A "neer" is a counter current movement of water in the harbour entrance caused by the water flowing along the harbour entrance being deflected by the downstream head, resulting in a slow vortex.

However, if there is congestion in the harbour and there is no space to enter, the vessel intending to enter the harbour must wait outside in a safe place (upstream on the starboard side) so that other boats can easily leave the harbour and the main traffic on the Maas is not obstructed, until space becomes available and then enter the harbour.

Therefore, it is necessary to have a clear view of the harbour entrance before entering in order to assess whether we can initiate and complete our intended manoeuvre.

So, if you need to cross the waterway towards the harbour, do so only when you are more or less perpendicular to the harbour entrance.



A similar situation arises when leaving the harbour, with the difference that you then dive into the open space and can more easily manage the current with some speed. BUT!

9. To catch the current.

9.1. When heading upstream

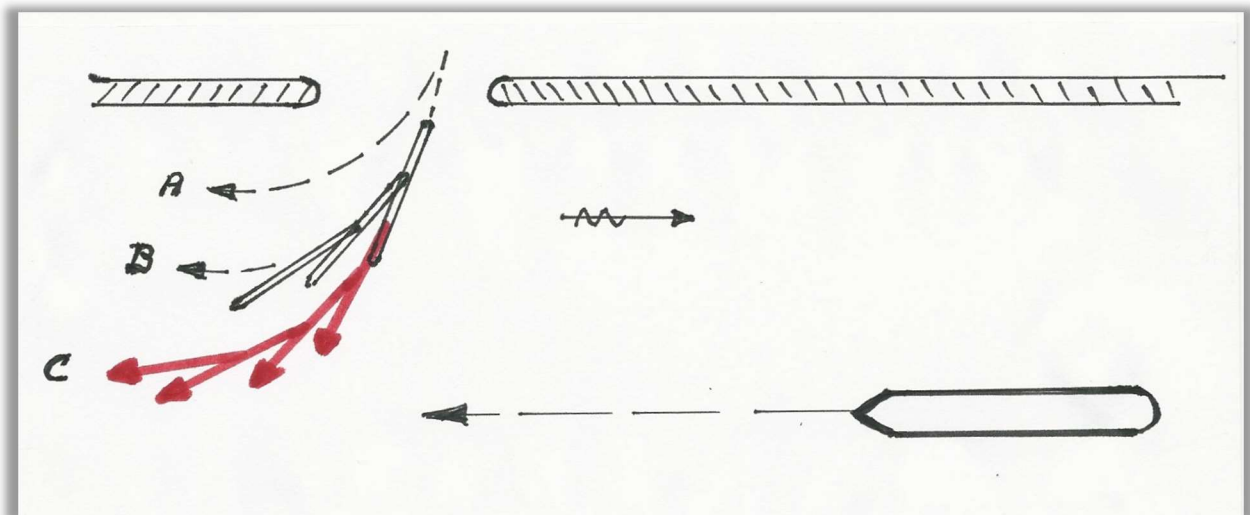
When leaving the harbour heading upstream (towards Eijsden), it can be challenging to keep the bow of the boat close to the shore if we don't immediately start the turn to starboard at the harbour exit.

The river current and the downstream flow work in such a way that, despite initiating the swing to starboard, we will be pushed too far towards the middle of the river.

In strong currents, if the turning motion is not initiated in time, the bow of the rowing boat will be caught by the current while the stern is still in calm water or in the downstream flow.

The temptation to initially navigate straight ahead into the river due to these opposing currents can easily result in us drifting too far towards the middle of the Maas, and... **we end up perpendicular to the waterway.**

Therefore, we should immediately correct by steering hard to starboard (e.g., securing to starboard and taking a continuous stroke on port) to avoid obstructing any shipping traffic on the main waterway (which we intended to keep sufficient distance from) and to stay on the starboard side.



The only correct way to leave the smaller types of boats, from a single scull (skiff) to a quad (C4), is following line A.

Line B will be used by longer boats, such as the eight.

Leaving according to line C does not demonstrate "good seamanship".

9.2. When heading downstream

When leaving downstream (towards the city), the opposite can occur if, due to oncoming ships, we choose to stay on the port side, the left bank, which is the Maastricht side of the Maas.

The current will catch the bow, and the possible downstream flow will reinforce this turning motion on the stern.

Result:

We run the risk of getting too close to the shore at MWC.

9.3. Safe waterway

On the Maas, the safe bank is the STARBOARD BANK, translated in terms of road traffic as Keep Right!

So, when rowing upstream, it's the Sint Pieter bank, and when rowing downstream, it's the Randwijck bank.

This also means that, as long as it is safe and feasible, we should row close to that bank, NOT towards the middle, such as at about 1/3 of the width of the waterway.

We row at approximately 2 to 3 oar lengths from the bank.

HOWEVER, the Inland Navigation Rules (BPR) do not impose a general obligation to stick to this bank, but a vessel traveling along the starboard bank has a much stronger position in dangerous situations than on the opposite bank (port side).

Keep in mind that large vessels almost always have priority.

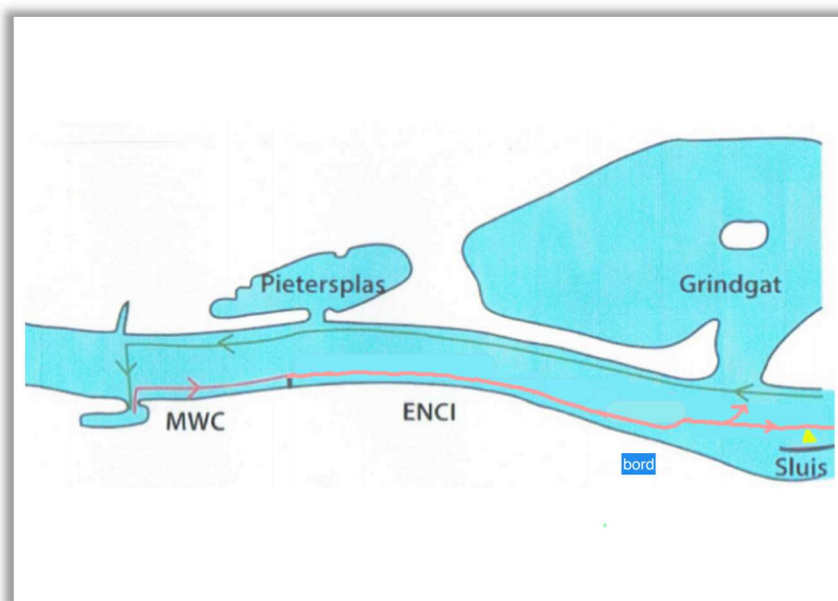
There are even regulations that explicitly mention the requirement to navigate on the opposite bank, but these are indicated by signs (including the "blue" sign next to the wheelhouse, as explained later).

10. Downstream navigation towards Eijsden:

Navigate along the starboard bank.

From the mooring place for the Stiphout excursion boats at Slavante, there are two options.

10.1. Option 1:



Continue navigating along the starboard bank, passing the ENCI wharf until reaching the sign "snel varen kleine motorschepen toegestaan" (speeding allowed for small motorboats). This blue sign with a speedboat and directional arrow is placed on the shore between the last ENCI station and the Belgian slipway for launching small boats (jet skis).

From here, we leave the starboard bank, cross the shipping route for commercial vessels to/from the Ternaaien locks, and navigate towards the Maas side of the wall at the entrance of the feeder channel to the lock.

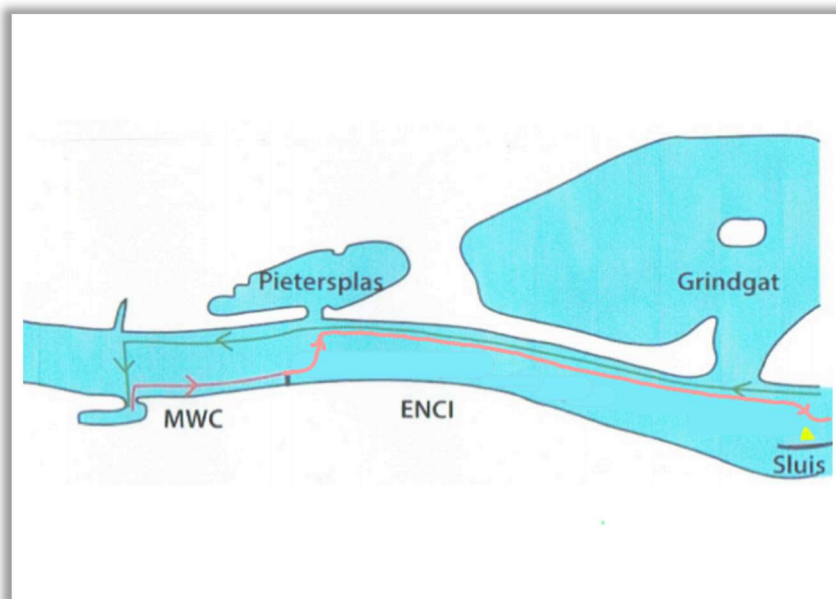
NOTE:

This can only be done if we have ensured well in advance that this path is clear, with no commercial traffic coming out of or heading towards the lock. If we are unable to safely pass or have any doubts, we must wait between the ENCI building and the blue sign.

If we wish to navigate to the Grindgat, we leave the starboard bank at the same location and manner, and after crossing the shipping route, we turn further to port towards the southern head of the entrance to the Grindgat, allowing us to navigate upstream into the Grindgat with a clear view and minimal interference from other water traffic.

If we continue towards Eijsden, we will proceed further along the wall (our new) starboard bank, and outside the yellow buoy belt. Motorized traffic is prohibited on the shore side of the buoy belt, but rowing boats are allowed to navigate there. Swimmers often use this stretch behind the yellow buoys, but they are difficult to spot for us rowers. Therefore, it is recommended that rowers avoid navigating within the yellow buoy belt.

10.2. Option 2:



From the mooring place for the Stiphout excursion boats at Slavante, we cross towards the southern head of the entrance to the Pietersplas at the second pile. We then navigate along the port bank.

While navigating on the wrong bank, we must give way to all downstream small boats (which are keeping to the starboard bank). It is crucial to constantly watch the waterway ahead. In an unsteered boat, it is often necessary to look behind! Always leave enough space for oncoming boats. Stay attentive to inland vessels on this route, as they travel at high speeds and tend to come closer to our bank when passing and overtaking each other.

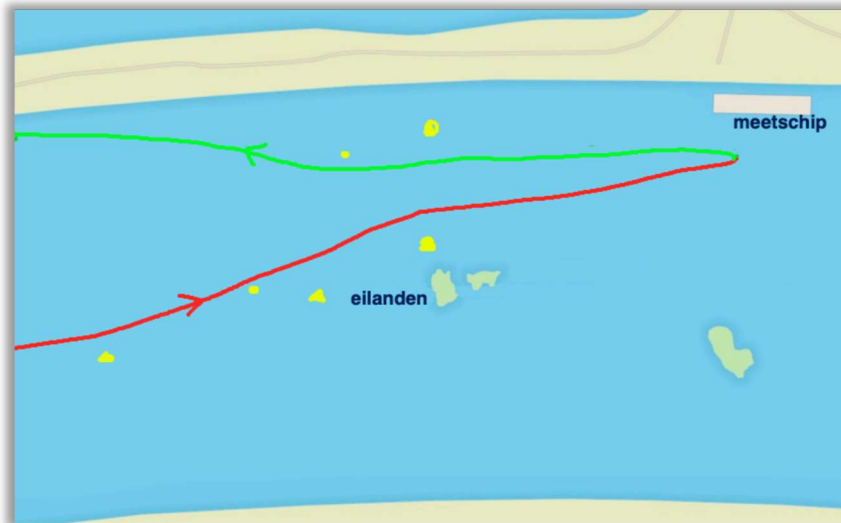
When approaching the Grindgat, steer further away from the shore to ensure sufficient space for downstream rowing boats and other small vessels that want to enter the Maas near the head of the Grindgat.

Despite being on a MAIN NAVIGATION WATERWAY along the port bank, which gives us priority over vessels on a SECONDARY NAVIGATION WATERWAY, we are vulnerable. Other small vessels wishing to enter the Maas from the Grindgat will have to give way to us as they are coming from a secondary waterway. However, do not rely on this. Additionally, larger vessels coming from the secondary waterway have the right of way over us.

If we wish to navigate to the Grindgat, we navigate with space along the entrance of the Grindgat and proceed as far upstream into the Grindgat as described in option 1.

If we continue towards Eijsden, we will proceed along the portside shore with the same ample distance from the bank. Only when we reach the line of yellow buoys, we will cross over to the starboard shore. From there, we will follow the route along the line of yellow buoys as described in option 1.

From the line of yellow buoys, we all follow the same route.



As we approach the measuring station, it becomes increasingly shallow, especially on our starboard side. Therefore, we must strongly veer to port and stay outside the line of yellow buoys, keeping the island in the middle of the Maas on our starboard side.

Then we approach a small yellow round buoy and two large yellow round buoys that span across the Maas. We keep a small yellow buoy on our starboard side and navigate between the two large yellow round buoys towards the measuring ship.

At the latest when we reach the measuring ship, we turn around and row back along the starboard shore, again passing between the two large yellow round buoys, while keeping a small yellow round buoy on our starboard side. Then we continue along the starboard shore.

NEVER row upstream beyond the measuring ship due to shallows.

10.3. Departing from a secondary waterway to a main waterway

If we want to navigate from the Grindgat onto the Maas, it is best to do so from the center of the opening, assuming there is no other vessel traffic. From there, we will quickly have an overview of potential boat traffic and can angle ourselves slightly without rounding and without getting too close to the middle of the fairway, heading towards the starboard shore.

We will apply this method of departing from a spacious harbour mouth or waterway opening (secondary waterway) to a main waterway in similar situations elsewhere, such as when coming from the Pietersplas.

Returning to the club from Eijsden ("DOWNSTREAM"):

When returning from the measuring ship at Eijsden to Sint Pieter, we will generally row along the starboard shore. Sometimes, it may be preferable to choose the wrong shore, for example, during strong westerly winds when the Belgian shore can provide us with good shelter.

However, we must steer back to "our starboard shore" in time to avoid getting into trouble with vessel traffic coming out of the lock, which is not yet visible to us behind the wall of the approach channel to the lock.

When passing the Grindgat and Pietersplas, we will only need to give way to outgoing large vessels but we must also cooperate to provide space for other boat traffic to safely enter the fairway, without suddenly and significantly veering for them. If a situation arises where veering is necessary, we should avoid veering towards the middle of the Maas. It may be best to row slightly farther away from the shore before approaching these exits so that we can indeed veer to starboard if needed, without having to come to a stop.

Remember, on the water, you don't take right of way, you are given right of way.

The challenging aspect of this situation is that you may encounter your fellow rowers under that (starboard for you) shore as oncoming traffic at the entrance of the Grindgat. In this case, it may not be possible to row slightly farther away from the shore.

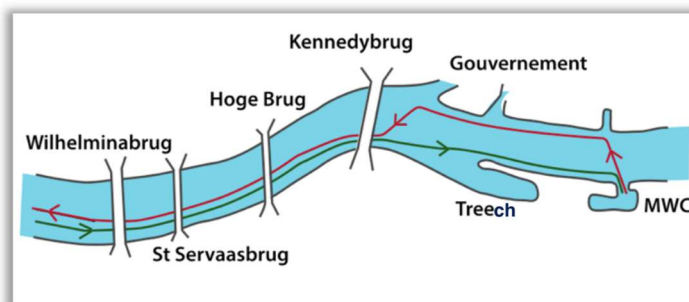
The key here is OBSERVATION. Watch what is moving towards the entrances and assess the approaching speed that could put you in an unpleasant situation. Two rowing boats approach each other with "double speed"!

Unfortunately, most collisions between rowing boats occur at these types of locations.

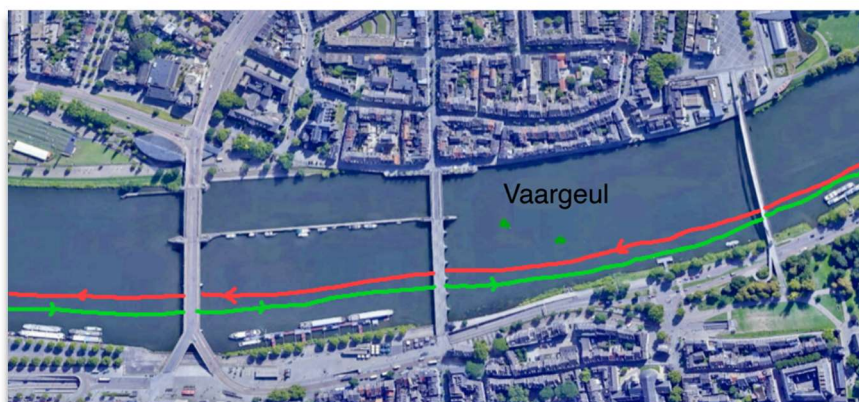
11. Heading downstream towards the city

From the moment we depart from the MWC harbour, there are two options.

11.1. Option 1



In principle, we cross the Maas from the club and then row downstream on the Maas along the starboard shore.

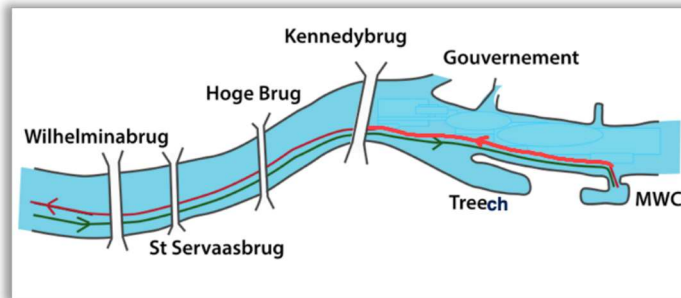


After the Gouvernemen, we cross over to the port side to avoid the inconvenience of cargo traffic going to and from the Sint Servaas bridge.

The fairway between the Sint Servaas bridge and Wilhelmina bridge is **off-limits** for us rowers.

Although it is not prohibited by the BPR to navigate there, safety requires us to avoid that stretch of water. If a large vessel suddenly appears in that channel from the Wilhelmina bridge, we would have nowhere to go.

11.2. Option 2



Since we would need to cross the Maas twice, sometimes we choose to row along the port side directly from the club.

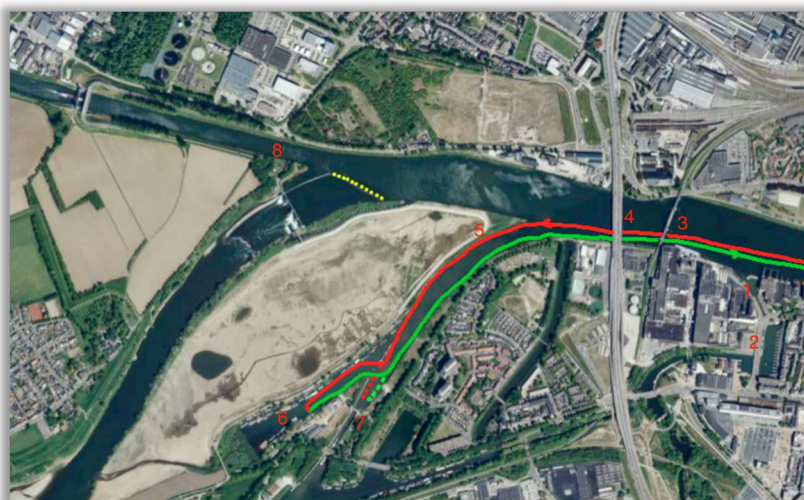
Along this shore, there are watersports clubs with water skiers and the Treech harbour. This can lead to issues if we row along the port side. Additionally, small boats heading upstream that keep to the starboard shore have the right of way over us on the port side. We should keep a bit farther from the shore and always leave space between us and the shore for those boats. Furthermore, KEEP WATCHING.

Recreational boats departing from the Treech harbour should yield to us on the main waterway, even if we are on the "wrong" shore. However, this is often not recognized by these pleasure craft, and they may not yield. Resolve the situation with good seamanship.

From the **Kennedy bridge**, we continue rowing towards the city along the port side and pass under one of the "old" arches of the Sint Servaas bridge. After this bridge, we encounter the boats of Stiphout that make a sharp turn to take their cruise via the Wilhelmina bridge. They need space for this manoeuvre on the port side since they always face upstream, with the starboard side against the shore. Therefore, when passing the Sint Servaas bridge, we should also consider the possibility of departing vessel traffic. They may give a single long signal (warning signal) before making the turn.

After **passing the Wilhelmina bridge**, we continue to row along the port side, and we may encounter vessels manoeuvring near the bunker boat. We yield to commercial traffic as well as recreational boats because we are rowing under the wrong shore.

See numbering in the attached diagram: **1 to 8**.



Regarding the yachts **departing or heading to the lock 1 of the Bassin 2**, the situation is more favourable for us. They are coming out of a lock or leaving the main waterway, and they must not hinder other small vessels. They also have the obligation to give way to rowing boats. However, often disregarding this, the yachts sail out or are afraid they won't be allowed back in. Keep this in mind.

At **Sappi**, you may encounter manoeuvring commercial traffic, so extra caution is required at that moment.

We row under the **railway bridge 3** and **Noorder bridge 4** and head towards the **Zuid-Willemsvaart 5**. There, we switch back to the starboard shore. You may come across yachts that have left the **lock 7**. They usually sail at full speed, and they rarely slow down since rowing boats close to the shore are not visible in time. Therefore, it is advisable to stay reasonably close to your own shore to avoid problems.

A barge can also approach you from the lock. They cannot make a sudden evasive manoeuvre at the last moment. Pay attention.

If you enter the **harbour with houseboats 6** to make space and wait there, you should do so calmly and continue to watch carefully. Be careful to round the corner in a timely manner, well before the weir edge, as the end is shallow and you risk going over the weir.

If, after passing the Noorder bridge, you were to continue straight ahead, you would go to the **Juliana canal 8**.

On your port side, you will see a chain with round yellow buoys. NEVER sail over it. Just behind it is a large weir. In recent years, two motorboats with engine trouble have gone over this weir with fatal consequences!

11.3. Rowing back from Bosscherveld

All the details described above naturally apply to the return journey, with the understanding that you will be rowing under your starboard shore, and other small vessels must not worsen your position (pushing you out of the shore).

The only real obstacle could be the Sint Servaas bridge if the water flow is above average. Normally, we would not attempt to pass through, but there may be a situation where we encounter a stronger current. The water will then swirl strongly around the bridge pillars. To ensure that you don't collide with the pillars, you must row in the middle, under the arch, and perpendicular to the current. Even a slight deviation in rowing against this counterflow can cause the boat to turn, possibly causing the oars to get stuck on the pillar and the boat to end up sideways to the current, with all the associated risks. Capsizing is not unthinkable in such a scenario.

12. Docking

For practical implementation, please refer to Chapter 5.7 of the Rowing Handbook.

13. Manoeuvring with current and wind, passing obstacles

13.1. Current and wind

To compensate for the wind, you need to increase the angle at which you approach the dock or the side of the lock, or increase your speed slightly, but still safely enough to avoid causing damage.

You may not feel the current directly, but it will directly affect the movement of your boat. To perceive the current, you need a frame of reference. This can be achieved by looking at buoys, objects floating in the water, or observing your own movement relative to the shoreline when your boat is stationary in the water (and thus drifting in the water).

It may seem strange, but a boat can be stationary in the water while still moving relative to the shore. In this case, we have a groundspeed equal to the current's speed. Everything in the water moves at the same groundspeed due to the current.

13.2. Passing under a narrow and low bridge

When you see the bridge approaching, inform the rowers in advance.

For example, say: "Low and narrow bridge in 100 meters. We need to lean backward and slide." This allows the rowers to prepare. ...

Then, give the command: "Over vijf slagen en tel je af vijf... vier... drie... twee... één... NU! Vallen en slippen" ("In five strokes, count down five... four... three... two... one... NOW! Lean backward and slide"). Position yourself in front of your seat and **lean backward**. The blades will naturally move into a slanted position during the slide. Sometimes, this is sufficient, and no further slippage is required.

Never instruct the rowers to duck.

After the countdown, always give the execution command. If more strokes are needed before the bridge, repeat a previous number, such as: "Drie... twee... twee... één... NU! Vallen en slippen." ("Three... two... two... one... NOW! Lean backward and slide.") If fewer strokes are needed, skip a number, for example: "Vijf... vier... twee... één... NU! Vallen en slippen." ("Five... four... two... one... NOW! Lean backward and slide.")

Depending on the length of the bridge, it may be useful to execute the last strokes with extra power to ensure you have enough speed to pass under the bridge smoothly. If you don't have enough speed to clear the bridge completely, the bow rower can "walk" with their hands against the underside of the bridge while others "follow along" and pull the boat forward.

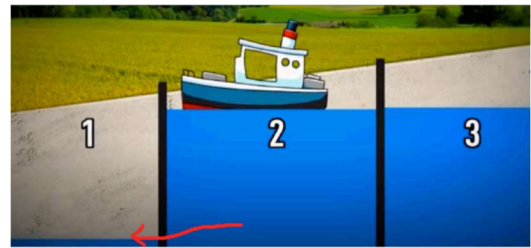
Once the bow rower is past the bridge, they should be the first to release the oars, sit upright, and resume rowing.

13.3. Passing under a narrow and tall bridge, narrow water, obstacles

Build up speed and only perform a slide. Again, announce the manoeuvre and count down. Slipping may not be necessary on both sides. You can slip on one side while rowing on the other, but be cautious not to exert too much force with the bow rower to avoid the boat veering off course.

13.4. Passing a lock

Follow the instructions of the lock keeper. Position the boat on one side near a step or bollard. Use a boat hook to keep the boat in position relative to the lock wall during the rise or fall. This can also be done with a mooring line around a bollard that moves with the water level. NEVER secure a boat to a step or an immovable bollard. In that case, the boat will be submerged during the rise and suspended during the fall. Maintain a safe distance on the free side.

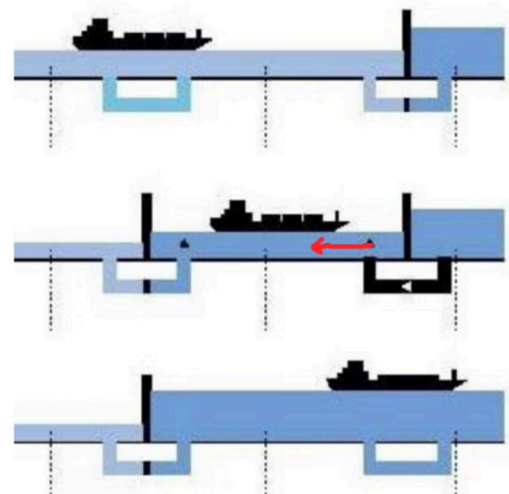


Never approach too close to either of the doors, as there is a risk of the boat getting trapped in revolving doors or getting stuck on an underwater threshold. This unsafe area is often marked with a yellow stripe on the shore side.



If multiple rowboats want to pass through a lock at the same time, it is often possible to form a "raft." In this case, a second boat moors alongside the first rowboat that is against the shore. The second boat lies about halfway onto the other boat, and one or two oars from each boat are placed on the other boat. Maintain a safe distance on the free side of the second boat.

A third boat can then also moor to that raft, and so on. During the passage, water flows through the lock chamber, always from high to low. This causes the rowboat to tend to turn sideways with the current.



To prevent this, during the descent (when the current comes from behind), the coxswain or stroke should be the "attachment point" on the shore.

During the ascent (when the current comes from the front), the bow rower is the "attachment point" on the shore.

14. Lights and Signals

The standard navigation lights are as follows:



Top light:

A white light visible over an arc of 225 degrees when viewed from the front.

Green sidelight:

Visible on the starboard side over an arc of 112.5 degrees when viewed from the front.

Red sidelight:

Visible on the port side over an arc of 112.5 degrees when viewed from the front.

Stern light:

A white light visible over an angle of 135 degrees when viewed from the rear.

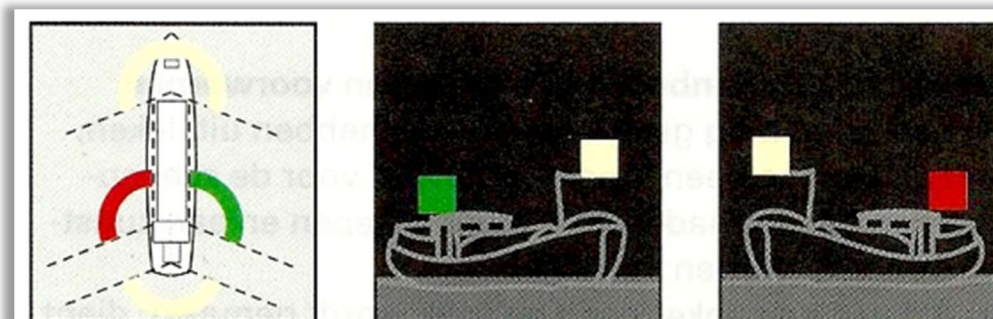
All-around white light:

Shines over the full 360 degrees of the horizon.

In addition to the standard navigation lights displayed at night, vessels involved in special transports show a variety of category-specific signals and lights both during the day and at night.

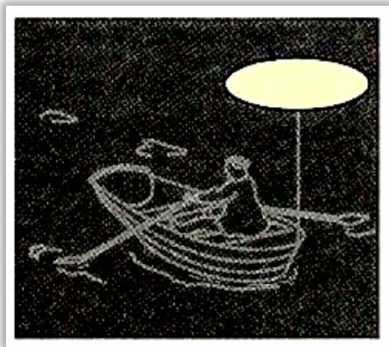
As rowers, we try to leave as much space as possible for other vessels due to our vulnerability, although we don't always have control over it. It is crucial to be aware of the presence of other vessels at night, considering the background lighting on the shore. This is particularly important during Night Rowing, an annual event that takes place in late October and should not be underestimated.

Most commonly seen on the water:

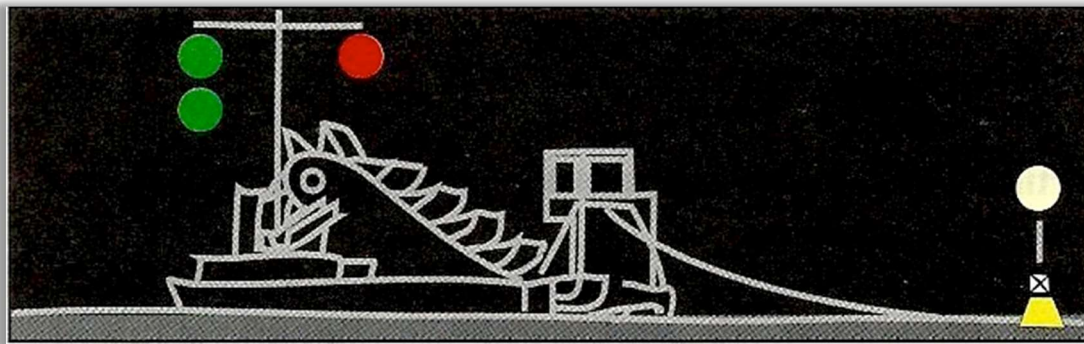


The lights of a single "large" motor vessel.

Even a small motor vessel displays a masthead light, a red and a green sidelight, and a stern light.



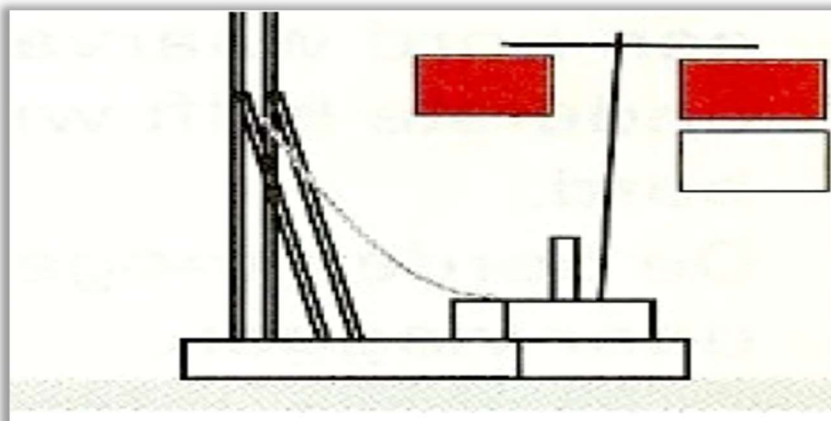
Rowing boats should have an all-around white light at night (from sunset to sunrise). However, a small open motor or sailboat can be equipped with a single all-around white light.



When vessels are engaged in work or if there is limited passage, it is indicated by specifying the side along which navigation can pass without danger. The easiest way to remember this is that the majority of lights or signals are displayed on the free side.

The side along which we can pass is marked by the green lights. Passing vessels may be requested, due to the condition of the specific ship or circumstances such as our rowing races, to proceed at a moderate speed. Instead of green and red lights, white and red lights are displayed. During the daytime, corresponding signals of the same colours are shown.

Alternatively:



- Red:
Prohibited passage
- Red and white:
Passage allowed with a prohibition on creating nuisance water movements, meaning no significant waves or suction.



Sometimes we see vessels displaying additional **all-around flashing blue lights**. These indicate the presence of hazardous cargo. The more blue lights there are, the more dangerous the cargo.

An important signal for us is the **blue board** displayed on the starboard side of the wheelhouse of large vessels, indicating their intention to navigate on the port (**wrong**) side of the channel. Passing this vessel should be done on its starboard side!

However, large vessels may not always indicate their intended "wrong-side" navigation to smaller craft using this blue board. Therefore, we need to be alert to this phenomenon on waterways with heavy commercial traffic. It can be expected on rivers with strong currents, near ports, or in side channels.

At night, this "wrong-side" navigation is indicated by a white flashing all-around light on the side where the other vessels should pass.

15. Sound Signals

The Inland Navigation Rules (BPR) include various sound signals. Of importance to us rowers are:

1 prolonged blast means attention

The attention signal is also allowed for small vessels.

16. Indications on the Water

16.1. Water Charts

In a water chart, you can find everything that may come across your path on the waterway.

All the essential elements that make a river, canal, polder, or ring canal navigable can be found in it. Just as road signs provide indications of road conditions and circumstances on land, in navigation, you can find "water" traffic signs and "water" signposts in a water chart.

The signs are located along the banks, while the signposts are in the form of buoys and beacons. Lighthouses that provide or used to provide positioning for maritime navigation along the coast are also part of this.

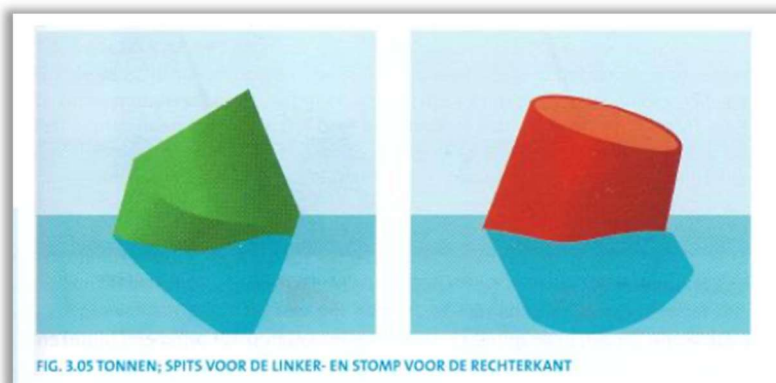
In navigation, you primarily deal with the condition of the waterway concerning depth and width. You also take into account possible tidal effects. The heights of bridges, whether they are movable or not, and the division into main and secondary waterways indicated by signs or by buoys and beacons are crucial navigational information found in a water chart.

Locks form a separate chapter within this. They are naturally included in the water chart but are necessary "obstacles" for navigation that, albeit to a lesser extent than opening or lifting bridges, can cause delays. The process of "locking" (using a lock) takes longer than opening a bridge, not to mention the bidirectional nature of the lock operation.

16.2. Waterway Markings

The navigable waterway with guaranteed depth is indicated by means of buoyage, which marks the navigable channel.

When viewed in the direction of the current:



- **Green buoy:**
pointed top, on the left side of the navigable channel
- **Red buoy:**
flat top, on the right side of the navigable channel (mnemonic: red = right)

The buoys are numbered from the endpoint upstream.
Odd numbers for green buoys, even numbers for red buoys.

For example:

on the Maas river, green buoy 41 can be found near the Sint Servaas bridge, and further upstream, green buoy 43.

At a waterway junction, separation buoys are placed.

For example:

At the entrance of the Treech harbour, this buoyage can be seen during periods of shallow water in a section of the Maas river.

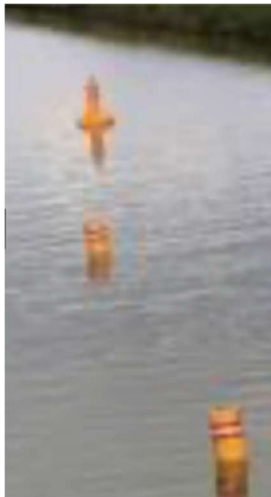
Considering the direction of the buoys:



Green on top,
indicating it lies in the green buoy line,
with the main waterway located to the right of that buoy.



Red on top,
indicating it lies in the red buoy line,
with the main waterway located to the left of that buoy.



Yellow buoy: special marking
Indicates a location where "something" is happening.



Additional signs may indicate the meaning,
in the photo: prohibited entry, exit, or passage (red-white-red stripe).

On the Maas river between Eijsden and the Ternaaijen lock:
Motorboats are prohibited.

17. Signs

In navigation, various signs are used to communicate important information. These signs provide guidance and warnings to mariners. Some common signs include:

- **Regulatory Signs**
- **Prohibition signs**
These signs indicate activities that are prohibited, such as no entry, no overtaking, or no anchoring.
- **Mandatory signs**
These signs indicate actions that are mandatory, such as keeping to a specific channel or maintaining a certain speed.
- **Information Signs**

- **Navigational aids**
These signs provide information about navigational aids such as buoys, beacons, or lighthouses.
- **Water depth markers**
These signs indicate the depth of the water at specific points, allowing mariners to navigate safely.
- **Warning Signs**
- **Hazards**
These signs warn mariners of potential hazards, such as rocks, shoals, or wrecks.
- **Restricted areas**
These signs indicate areas where navigation is restricted or prohibited due to safety concerns or environmental reasons.

It is important for mariners to understand and comply with these signs to ensure safe navigation on the waterways.

17.1. Prohibition Signs

a) verbodstekens

A.1	In-, uit- of doorvaren verboden (algemeen teken)	 of  of 
	<p>Het gebruik van twee boven elkaar geplaatste borden, lichten of vlaggen duidt een verbod van langere duur aan. Een brug met dubbel rood licht wordt op dat moment niet bediend, enkel rood betekent dat de doorvaart op dat moment verboden is</p>	 of 
A.1a	Buiten gebruik gesteld gedeelte van de vaarweg: vaarverbod, geldt niet voor een klein schip dat geen motorschip is	
A.2	Voorbijlopen verboden/inhaalverbod	

A.1 Prohibition of Entry, Exit, or Passage (General Sign)

The use of two signs, lights, or flags placed one above the other indicates a prohibition of longer duration. A bridge with double red lights is not operated at that moment, while a single red light means that passage is prohibited at that time.

A.1a Out of order section of the waterway:
Navigation prohibited, except for small non-motorized vessels.

A.2 No overtaking/No passing

17.2. Mandatory Signs








b) gebodstekens		
B.1	Verplichting te varen in de richting die de pijl aanwijst	 
B.3b	Verplichting de stuurboordzijde van het vaarwater te houden	
B.5	Verplichting vóór het bord stil te houden onder bepaalde omstandigheden	
B.6	Maximumsnelheid in kilometers per uur	

- B.1 Requirement to navigate in the direction indicated by the arrow.
- B.3b Requirement to keep to the starboard side of the water.
- B.5 Requirement to come to a stop before the sign under certain circumstances.
- B.6 Maximum speed limit in kilometres per hour.



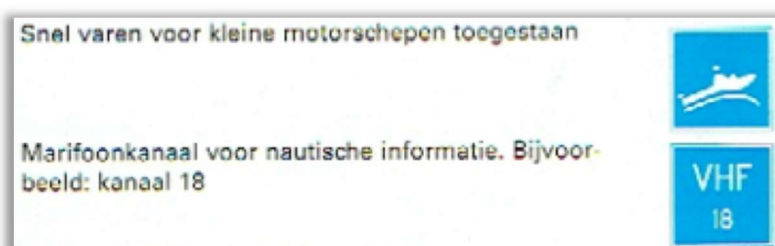
- B.8 Obligation to pay special attention
e.g., when exiting the channel near the Government building

17.3. Restriction Signs

c) beperkingstekens		
C.1	Bepaalde waterdiepte; als de minimale diepte bekend is, wordt dit aangegeven in centimeters	 
C.2	Bepaalde doorvaarthoogte; de hoogte van het punt waar de scheepvaart onderdoor moet, wordt eventueel aangegeven in meters* * Bij een vaste brug met slechts één doorvaartopening kan een geel licht boven die doorvaartopening zijn aangebracht als oriënteringslicht (zie G.1)	 
C.3	Bepaalde breedte van doorvaart of vaarwater; eventueel de beschikbare breedte aangegeven in meters	 
C.5	Het vaarwater bevindt zich op enige afstand van de oever; het getal op het bord geeft in meters de afstand die de schepen uit de oever moeten blijven, gerekend vanaf het bord	

- C.1 Limited Water Depth:
If the minimum depth is known, it is indicated in centimetres.
- C.2 Limited Vertical Clearance:
The height of the point that vessels must pass under is indicated, potentially in meters.
For a fixed bridge with only one passage opening, a yellow light may be installed above that passage opening as an orientation light.
- C.3 Limited Width of Passage or Waterway:
The available width may be indicated in meters.
- C.5 Waterway is at a Distance from the Shore:
The number on the sign indicates, in meters, the distance that vessels must stay away from the shore, measured from the sign.

17.4. Directions



- Fast sailing allowed for small motor vessels.
- Maritime information on VHF channel.
For example, channel 18.

17.5. Other indications.



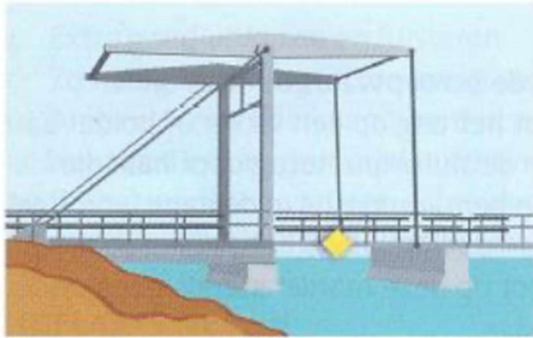
Stated at secondary waterway when approaching main waterway, e.g., at the exit of Pietersplas.



Distance indication
e.g., kilometre post located on the shore



Vertical clearance



DOORVAARTOPENING MET TEGENLIJGERS
Passage opening with oncoming traffic



DOORVAARTOPENING ZONDER TEGENLIJGERS
Passage opening without oncoming traffic



DOORVAART VERBODEN
Passage prohibited



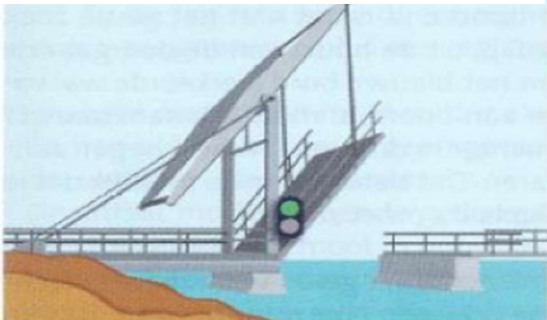
KLAARMAKEN VOOR DOORVAART
Prepare for passage



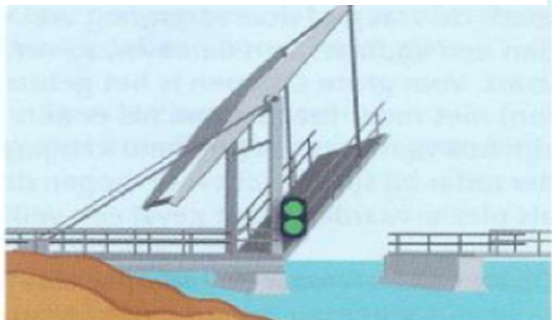
DOORVAART VERBODEN; BRUG BUITEN BEDRIJF
Passage prohibited; bridge out of operation



DOORVAART MET TEGENLIJGERS
Passage with oncoming traffic



DOORVAART TOEGESTAAN
Passage allowed



DOORVAART; BRUG IS ONBEWAAKT
Passage; bridge is unattended

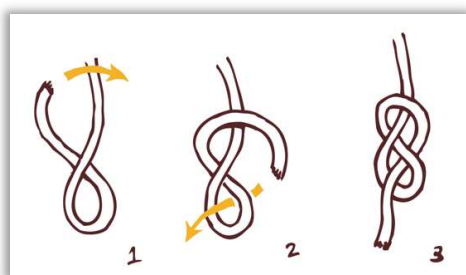
Bridges and locks have identical lights/signs for passage.

18. Knots

Securing a boat with a mooring line.

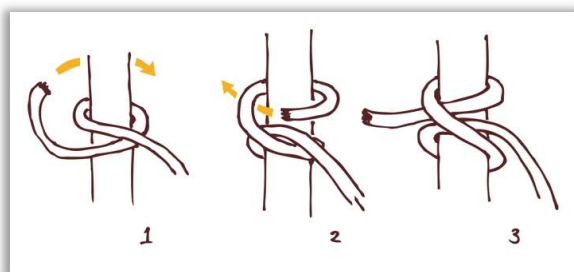
Boats should be securely tied to land. For this purpose, a mooring line is used to fasten the boat to the shore. The mooring line must be attached to the boat on one end and to a pole, ring, or cleat on the shore on the other end. To achieve this, various knots or hitches are used. A knot is considered reliable if it doesn't come undone unintentionally ("farewell, boat!") but can be untied when needed. Below are the knots that are generally sufficient for our use and their intended applications:

18.1. The "Stopper Knot" or "Overhand Knot"



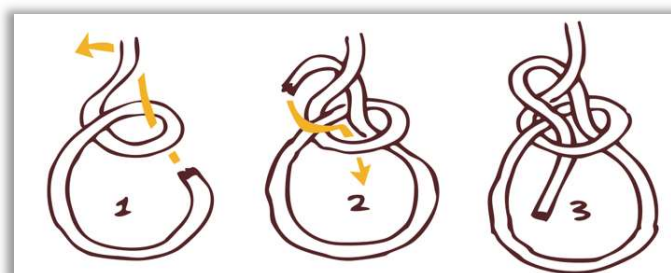
This knot is used to make the end of a rope thicker, so that it doesn't slip out of a pulley or your hand.

18.2. Clove Hitch



This knot is used to secure a rope to a pole or a railing. The advantage of this knot is that it becomes tighter when pulled.

18.3. "Belaying Hitch" or "Round Turn and Two Half Hitches"



This knot is used to create a loop in a rope that remains secure.

18.4. Double Half Hitch



This knot is used to secure a line to a ring or post on the shore. It is suitable when there is not too much tension on the line.

18.5. Sheet Bend



This knot is used to connect ropes of different thicknesses together.