

PADDLING BLINDFOLDED

by Derek Hairon

We awoke enveloped in fog, not that misty stuff which creates a haze, but instead something that felt like we were wrapped in cotton wool. By the time we'd had breakfast and broke camp during the previous two days the fog had started to lift, so we were not unduly concerned; forecasts also confirmed this would occur. Hours after launching however we found ourselves paddling in visibility of less than 100 m. Sometimes Tony, paddling less than 50 m away, became a misty shadow. We were six miles offshore and 12 miles from our destination... After five and a half hours a faint outline formed in the mist. Land ahoy! Suddenly we burst through the fog into bright sunlight within yards of our target. I'd like to think this was down to our navigational skills and not just good luck; I've been rather more cautious of forecasts that say fog will clear since then, however.

Sea kayaking in fog and poor visibility is something most active sea kayakers encounter at some stage. Around Jersey (my local waters) fog and forecasts of poor visibility are an irritating occurrence, which can stop flights and delay ferries. Annoyingly this often coincides with otherwise great paddling conditions. Over the years I've found myself paddling in poor to very poor visibility but, with the right mindset, the experience can be enriching.



What is fog?

There are various types of fog and the causes of poor visibility, which are covered in great detail on the UK Met Office website. Fog is caused by tiny water droplets suspended in air; in other words it is very low cloud. Read more at the Met Office website: www.metoffice.gov.uk/learning/fog

Fog is defined as visibility of less than 1 km; mist is visibility between 1 km and 2 km; and haze is visibility from 2 km to 5 km. Forecasts define visibility as: very poor if less than 1000 m; poor if between 1 km and 3.7 km; moderate if between 3.7–9.26 km; and good if more than 9.26 km (5 nautical miles).

Even in poor visibility the range is 1–3.7 km. Paddle at the upper end of the scale and you fall into the trap of assuming that poor visibility on a coastal trip is no big deal. Density of fog varies, so plan for the poorest visibility forecast and do not assume it will remain at the upper end of the scale. To complicate matters (or add to the 'fun'), fog banks also move. On a number of occasions I've paddled in bright sunlight and good visibility while just a few kilometres away visibility was less than 1 km. Even if you have good visibility, when poor or very poor visibility is forecast build into your trip plan the risk of visibility deteriorating.

Useful kit

If you expect to encounter poor visibility, a few items can make a big difference, as long as you know how to use them.

Everyone needs a compass

Paddlers without a compass often end up having to follow the leader, which is very demanding for everyone. Mount the compass away from you so you do not have to constantly look down. This allows your focus to move between the horizon, compass, chart and monitoring other paddlers. This helps break up the uniformity of the scene and may also reduce feeling sea sick. Small base-plate-style compasses are often difficult to read.

If everyone paddles on a bearing then life becomes easier because the route of the kayakers across the water tends to average out. If you have only one compass in the group, everyone will be matching the slightest turn of the leader.

Years ago I watched fog descend while on Herm. Mutterings were heard around the bar as the ferryboat prepared to leave, and was followed by the mass exodus of small boats following one behind the other as they followed the ferry back to Guernsey. We wondered what would have happened if the ferry had in fact been on a private charter and was heading to Jersey.

If you stop paddling, you will probably drift around a little. In good visibility this is usually irrelevant, but in fog a pause may result in you facing a different direction. Without a compass bearing you'll rapidly become disorientated and end up heading in the wrong direction.

Charts and communication

Charts are invaluable because they allow you to monitor your route and identify any visible bits of coastline. Even familiar sections of coast may appear different in fog. Carry some form of communication which, ideally, is duplicated within the group. This is especially important if you are paddling where other craft are; they may be focusing on their radar and chart plotters and will not be expecting kayakers.

Foghorns and laser flares

In some countries (e.g. France) a foghorn is a required item of kayaking kit; they can be powered by a small compressed air container (which usually gets discharged by your friends having fun) or a simple plastic horn you blow into. The range is usually greater than a whistle.

Modern laser flares can penetrate fog more effectively and powerful LED strobes, used in conjunction with recently released retro glow tapes, produce up to 3000 times the reflection of a beam of light to increase detection, even in fog. Small, low-cost, high-visibility glow patches can also help, especially when available in different colours. If the group becomes separated you are heading for deep trouble; maintaining group awareness and not technology is the key.

Dealing with poor visibility

If you are heading out with forecasts of poor or very poor visibility, add a few compass bearings into your trip plan. Even a short point-to-point crossing may become challenging. Consider hand-railing (following the coastline rather than jumping from one point to another) your way around the coast.

Expect your speed to drop in poor visibility. It helps to have a good idea of your normal paddling speed so you can revise your ETA to allow for a probable slower crossing.

When land is rapidly vanishing into the haze try and get a few compass bearings on any headlands or features. If things deteriorate and you lose sight of land these bearings will be your last accurate bit of information and can be used to counter mutterings from others (and even yourself) that you are being pushed by the wind/currents more off course than expected. This will also give you a dead reckoning of your position. Returning to Jersey on a 6 mile crossing from les Écréhous we found ourselves in fog (about halfway through the trip with a 3-knot cross-tide). Within minutes of the fog arriving came the comment: "I think we need to head east a bit more". Had we not grabbed a last bearing on a distant headland we might well have changed course and found ourselves well offshore.

Trust your pre-trip navigation (assuming you normally trust it) as this is not the time to start doubting it; your pre-trip chartwork should remain valid, even in fog. Why start changing your bearings because self-doubt or the doubt of others has crept in? Even a hazy bearing on a distant landmark helps validate your navigation. This data and preparations made are going to be your only solid bits of information, so trust them; it's all you have. ►

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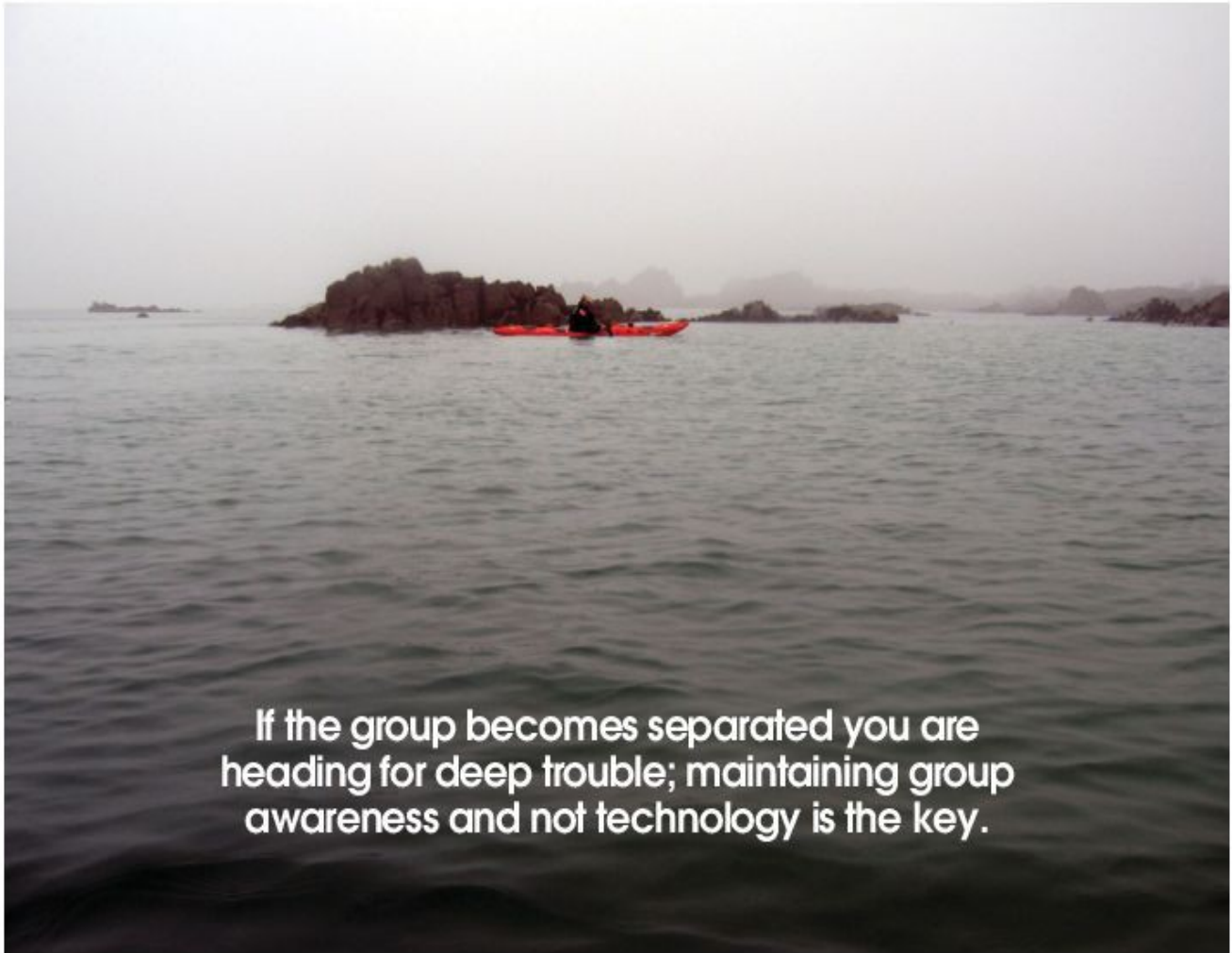
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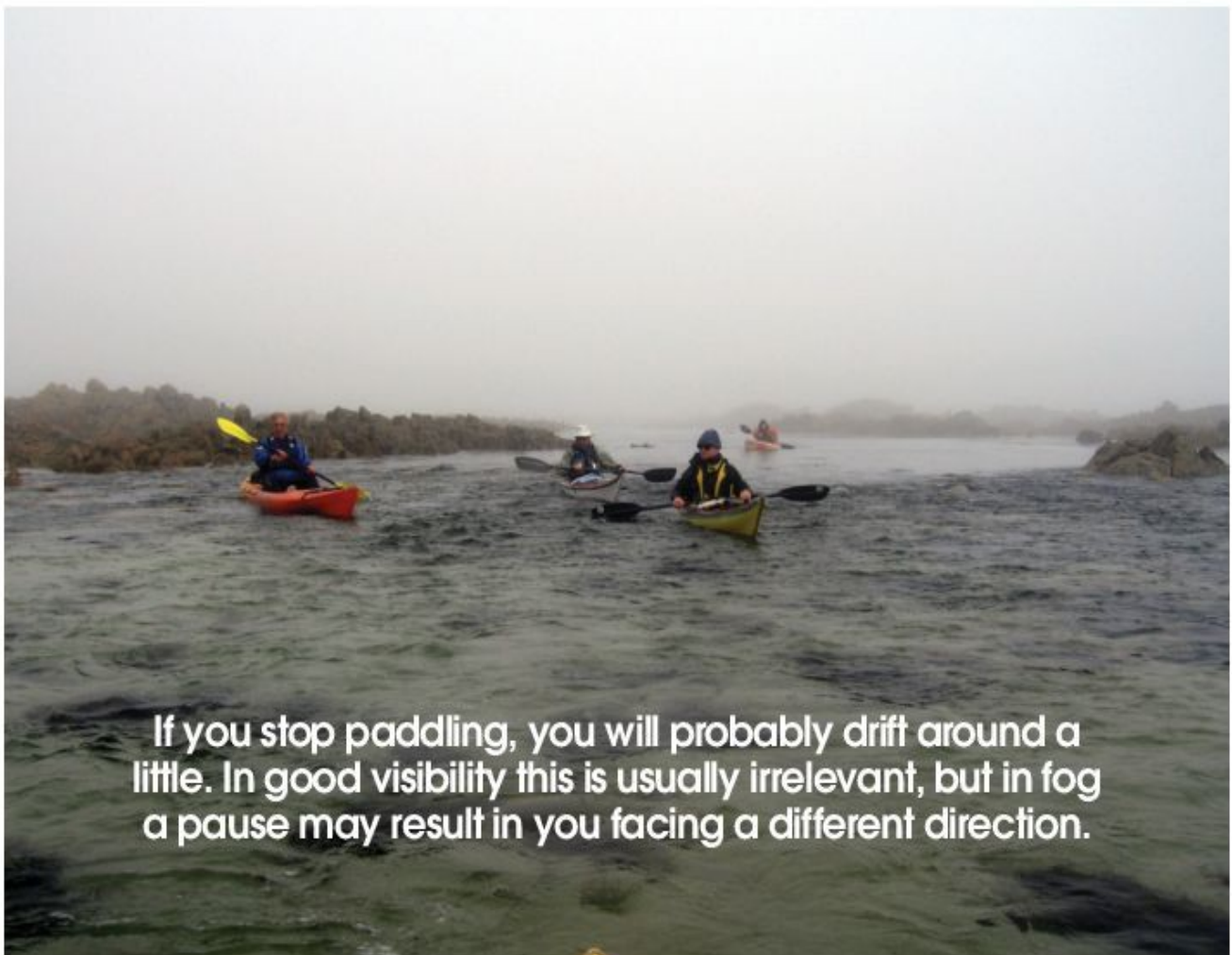
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Involve others in the trip planning to share responsibility within the group and reduce the risk of small (but possibly significant) errors creeping in. If your paddling partners are part of the process they must share some of the responsibility for the outcome.

Attending a practical kayak navigation course is a great way to develop your confidence and navigation skills, especially if you have the opportunity to practice micro and night navigation and tide streams.

Wind, sun and sound

Wind can clear or push fog banks onto you. In poor visibility you can sometimes use the sensation of any breeze or even swell patterns to maintain a rough course. Keep wind or swell coming from the same direction as you paddle. Both wind and swell directions may change and should be used with caution; they are best combined with maintaining a compass course.

Sound can travel a considerable distance in fog, but is deceptive. Tiny waves washing onto a beach may sound like crashing surf. Use sound as an additional source of information and rarely make major course changes based solely on this. If the sounds validate your navigation and dead reckoning, that's great.

During a very foggy 18 nautical mile crossing from France to Jersey we heard vehicles an hour before our planned ETA and wondered if we had drifted along the more populated south coast of the island. We stuck to our course and later realised that the vehicle sounds were caused by a couple of cars going up and down a hill a short distance from our destination.

If you are lucky, the sun sometimes makes an appearance and can indicate that the fog is thinning. The position of the sun relative to your course can act as a handy guide and may let you relax, albeit temporarily, from staring at the compass.

Tune into the environment

Poor visibility is an opportunity to focus on small changes in the sea and tide streams. Look for variations in the colour of the water which might indicate changes in depth. Link this to your chart work and it may indicate you are approaching the shore or moving into shallow or deeper water. Changes in the swell may warn of an approaching beach long before you see or hear the waves.

In rocky areas look out for boomers, especially in areas exposed to swell. Even the passing swell of ships and motorboats can seem to come out of nowhere.

Work as a team

How you manage the group will depend on many factors, such as their previous experience. There will often be a range of skills and experience of paddling in poor visibility within the group. It usually feels more comfortable for everyone to see each other rather than 'buddying up', which can result in paddlers focusing only on their partner and losing contact with the rest of the team.

Check how the group feels about the forecast and actual conditions both before and during the trip. All too often incidents have occurred when others were uneasy with the plans, but felt uncomfortable voicing their

feelings. A simple method is to ask the team to stand with their backs to you and then indicate by the number of fingers raised on one hand how comfortable they feel about the trip. No one except the team leader will know who raised one finger (not at all happy) compared to the five fingers (no hassle/great rating). If you are feeling uncomfortable about the trip, you can be fairly sure others are feeling the same.

Ultimately, if things get very difficult rafting up and waiting may be the best option (providing you have some form of communication).

GPS and technology

'It's okay, we have a GPS' sounds fine until you learn it is the only one in the group. A single shared GPS is not sufficient. Faced with a trip in very poor visibility I'd hope to see everyone carrying a GPS. Having a GPS can also cause the navigator to feel overconfident and keep paddling at their normal speed, while the others play catch up and become separated. This once happened to a group of experienced kayakers heading to Les Écréhous; luckily the rest of the group appeared out of the fog 10 minutes later.

If you wish to fine-tune your navigation skills while maintaining a safety back-up then the GPS is invaluable, as long as it is not your sole aid. Don't fall into the trap of thinking that because you have a wonderful bit of technology everything will be okay. Batteries go flat, water seeps in and gear gets washed overboard.

Other vessels

If you are in an area where other vessels are likely to be sailing, be afraid, very afraid... In poor visibility a ship's crew will be busy monitoring the radar and trying to maintain a watch for known hazards and other vessels. Sea kayakers may, quite literally, fall beneath their radar.

Writing about a 60 mile crossing of the English Channel from Alderney to Weymouth, Kevin Mansell describes how in poor visibility he has '...seen the bow wave of a large ship at close quarters and it frightened the life out of me... The forecasts said fog patches soon clearing so we were not unduly worried. In this case the fog patch was about 58 miles across.'

In March 2011 a high-speed ferry travelling in fog at 35 knots cut a 9.3 m fishing boat in half, killing the skipper and injuring the crew. The enquiry revealed that despite the radar echo showing a collision course, the crew failed to notice the boat due to a lack of attention.

On my practical navigation courses I highlight how, when a large ship cannot notice a 9 m aluminium boat with radar reflectors in fog, we should not be surprised if in better visibility vessels of any size may not detect sea kayakers. Ditch the idea other craft are going to see you and assume you are invisible. Fog is not the time to be crossing shipping lanes. If you are in areas where you expect to encounter other craft, inform the Coastguard so other skippers are made aware and be ready to put out a call on your marine radio to alert other vessels of your presence. ☞

About the author

Derek Hairon is a BCU Level 5 sea kayak coach who has been paddling in various foggy places around the world for more than 40 years. He is director of Jersey Kayak Adventures Ltd www.jerseykayakadventures.co.uk and organises sea kayak tours and courses around the coastline of Jersey and to the offshore islands (which are usually fog free).



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