

Port of Milford Haven
LEISURE SAFETY DIGEST
2020



Port of Milford Haven

Introduction

Welcome to the second edition of the Port of Milford Haven's Leisure Safety Digest which looks back at 2020. The first edition covering the 2019 season has been very well received which has inspired us to continue with this publication and to see how many more lessons can be learnt. After all, the marine environment is still a potentially dangerous place, and anything we can do to prevent ourselves or our friends becoming a statistic has got to be a good thing.

One way we can all do this is by spending time reflecting on past experiences. We will never eliminate accidents, however by paying attention to our experiences and those of others, hopefully we can reduce them over time.

Once again, we will replicate the format used in the excellent MAIB Safety Digest and use the events on our own Waterway to tease out where lessons can be learnt, what has gone well and what has gone not so well. This way the wider marine community can learn from others' experiences and aim to reduce the number of incidents.

Here at the Port of Milford Haven we are obligated under the Port Marine Safety Code to report incidents to the MAIB, and to investigate them ourselves so we can ascertain if there are lessons to be learnt. Lessons are of course for all parties, including commercial operators and the Port. Over the years this process has highlighted some important issues. One in recent times was a persistent failure of moorings, 19 in the year compared to an average of 4. When investigated, it transpired that many of these failures could be attributed to a shackle available from a major online retailer that was made so cheaply that it was not fit for purpose. Having identified this, we bought one, then spread the word using the shackle as a practical demonstration. The following year mooring failures dropped to a more usual 3, still too many but a significant reduction.

As an essential element of the Port's safety management and monitoring, we record all reported Port Incidents (PIRs) and Near Misses (NMRs); these are a broad mix of commercial and leisure orientated incidents, with the occasional combination of both. In 2020 we recorded 134 NMR events and 36 PIR events. Of the 134 NMRs, 16 involved leisure vessels and of the 36 PIRs, 7 involved leisure vessels. Throughout this document all incidents discussed will be anonymised to protect the individuals. We have also grouped them together as types rather than focusing on numerous individual events.

Lastly, once you have finished reading this, please take the time to pass the information onto someone you feel will benefit from other mariners' experiences.

Abbreviations

AIS	Automatic Identification System
BST	British Summer Time
COLREG	Collision Regulations (International Regulations for preventing collisions at sea)
CPA	Closest Point of Approach
EPIRB	Emergency Position Indicating Radio Beacon
EVDS	Electronic Visual Distress Signal
LNG	Liquefied Natural Gas
LNCG	Liquefied Natural Gas Carrier
LOA	Length Over All
MAIB	Marine Accident Investigation Branch
MCA	Maritime and Coastguard Agency
MHCGOC	Milford Haven Coastguard Operations Centre
NMR	Near Miss Report
NtM	Notice to Mariners
PCC	Pembrokeshire County Council
PDFT	Pembroke Dock Ferry Terminal
PIR	Port Incident Report
PLB	Personal Locating Beacon
PMSC	Port Marine Safety Code
RHIB	Rigid Hull Inflatable Boat
SART	Search and Rescue Transponder
TCPA	Time to Closest Point of Approach
VHF DSC	Very High Frequency Digital Select Calling
VLCC	Very Large Crude Carrier

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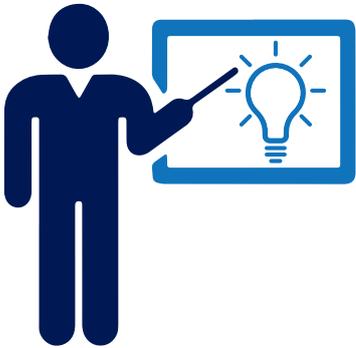
6. That's not where I left it

'Ferry' hard to spot



At around 00:30 hours mid-July, the twice-daily running Isle of Inishmore ferry was on a steady course 050 degrees between Wear Spit beacon and Carr Spit beacon. Calm weather conditions, calm seas and no moon. During the approach to Carr Spit beacon she started to alter course to starboard. At the same time the Master spotted small waves on the surface in the area of Carr Spit No2 buoy. Immediately the bridge team started to search for a source of the waves. Shortly after, they spotted a small speed boat without any navigation lights passing Carr Spit beacon and crossing their bow approximately 20 meters ahead. The Isle of Inishmore was making approximately 10 knots at this point and the small speed boat passed their port side less than 10 metres off. The Master immediately arrested the swing to starboard to avoid hitting the small craft with the stern. The lookout on the port wing shortly after reported the boat passing clear, so the Inishmore regained her swing to starboard to follow the safe water channel and berthed safely at Pembroke Dock Ferry Terminal (PDFT).

Lessons



1. This was potentially a very serious incident. Had the Isle of Inishmore not been vigilant in spotting the wake of the small craft, her stern could easily have collided with the small vessel. What many do not realise is that when large vessels are making a turn, their stern will swing correspondingly to the other side. In addition to this, her wash could have caused the small craft to capsize. In the dark, even in summer, the chances of survival are minimal. Cold water shock can cause heart attacks, even in the relatively young and healthy.
2. Leisure vessels often assume that because they can see a commercial vessel, the commercial vessel can see them. Often this mistake is compounded by failing to assess closing speeds accurately, thinking that the larger vessel is going slower than it is. This combination of factors serves to put the leisure vessel in close quarters with the commercial vessel and in an extremely dangerous and vulnerable position. We assume that the leisure vessel on this occasion hadn't planned to be in such close proximity in the dark, perhaps it was this misjudgement that found it there. A lack of situational awareness contributes to 22.5% of near misses in UK waters annually.
3. The Merchant Shipping Act 1995 and, in particular, the International Regulations for Preventing Collisions at Sea 1972 (COLREGS) Part C – Lights and Shapes apply in this context and state in Rule 23 that a power driven vessel of less than 12 metres in length should exhibit an all round white light and sidelights. Annex 1 covers the positioning and technical details of lights and shapes. Part A Rule 1. makes clear that the regulations apply to all vessels upon the high seas and in all waters connected therewith navigable by seagoing vessels.
4. How well do you think you stand out on a large vessel's radar? The simple answer is not very well at all. Small fibreglass or plastic vessels are virtually impossible to spot on radar as they rarely give a return. For radar to pick you up, you need to be larger and preferably metal. One way you can help is by fitting AIS 'B' to your vessel or another solution is the installation of an 'Active See Me' radar target enhancer so increasing your vessel's radar cross section.
5. Notwithstanding the inherent danger, it must also be noted that breaching the 'COLREGS' leaves the master of a vessel liable to prosecution under the Merchant Shipping Act, which on a guilty verdict would leave the master facing a fine of up to £50,000 and/or a prison sentence of up to 2 years.



Late summer and a commercial workboat was attending to maintenance on fixed navigation beacons east of Wear Spit. The works were notified to mariners through the Port's Notice to Mariners system and vessels were asked to pass at slow speed with minimum wake. Over the course of the works, several large cruisers from local marinas transited past at speed causing a large wash to impact the workboat, on one occasion causing damage to the vessel's lifting equipment and on another occasion causing the vessel's tender to break away.



A sunny evening in summer, spring tides and approaching high water. Lots of leisure vessels were moving through the Waterway and the youth sailing groups were preparing their dinghies on shore ready for the evening's racing. As it was approaching high water, they were limited as to how much space they had to rig boats and so were close to the water's edge. Large cruisers, although not at full speed, were coming through on their approach to Neyland Marina carrying considerable wash behind them. This large wash impacted onto the slipway as the preparations were underway causing dinghies to be swept about, impacting on each other and the young people attending them.

Lessons



1. Situational awareness - we are mostly aware of the need to look forwards when we are boating, but how often do we look behind to see what our wash is doing? How large is it and is it going to impact someone? We all have a duty to navigate safely and with due consideration to others. Port pilot vessels and tugs are all instructed to reduce speed when east of Wear Spit for this very reason. Your wash can carry a considerable distance and impact others long after you have passed.

2. Byelaw 20 Vessels To Be Navigated With Care: A vessel shall not be navigated or manoeuvred within the Haven in such a manner or at such a speed as will or may-, (e) cause damage, danger or inconvenience to other users of the Haven.

3. Notice to Mariners - these works were the subject of a NtM therefore had the vessels involved been up to date with these they would have been aware of the works and taken appropriate measures.

4. Helping others be aware - the workboat had erected a 'Slow Down' banner, however the positioning of it took no account of visibility to other vessels. As a result, it was difficult to see from many angles and until they were very close.

5. Local knowledge - the yacht clubs on the Haven are well established and follow a regular calendar of training throughout the season. By keeping up to date with happenings on the Waterway and by keeping a good watch out for things like dinghies preparing on the shore, mariners can adjust their track and speed accordingly to avoid causing problems.

Sinking feeling

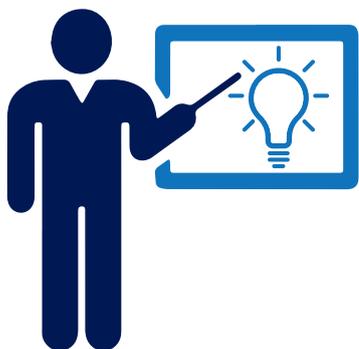


Mid-summer and a report came into Port Control of a vessel sinking at Hobbs Point pontoon. Approximately 17ft LOA, it was tied to the pontoon with the stern facing the incoming tide while the owner went to fetch some spares. The vessel had started to sink and on return the owner had entered the water to retrieve some items including petrol and to try and save the boat. This resulted in a call to the ambulance service to attend to the casualty. The owner was young and had only just purchased the boat.



Port Control received a telephone call from a local marina explaining that they had a vessel apparently swamped on one of their berths. On investigation the vessel had been out the previous evening and secured alongside around 20:00 hrs. Through the cycle of the tide, a particularly large range that evening, the vessel appeared to have grounded. Then, as the tide rose, the stern had been caught under the pontoon causing the vessel to flood. The owner and marina staff were quickly on scene and a recovery vessel from a local company was contracted to lift it on board and take it to shore.

Lessons



1. Perhaps the most important lesson in this first case is that a boat is replaceable, you are not. Never place yourself at risk to try and save a boat, especially as you leave yourself open to cold water shock. Sudden immersion in water below 15°C causes the blood vessels in the skin to close, which increases the resistance of blood flow. Heart rate also increases. As a result, the heart has to work harder and your blood pressure rises. Cold water shock can therefore cause heart attacks, even in the young and healthy. The sudden cooling of the skin by cold water also causes an involuntary gasp for breath. Breathing rates can change uncontrollably, sometimes increasing as much as tenfold. All these responses contribute to a feeling of panic, increasing the chance of inhaling water directly into the lungs. This can all happen very quickly: it only takes half a pint of sea water to enter the lungs for a fully-grown man to start drowning. You could die if you don't get medical care immediately. If you enter the water unexpectedly, take a minute - the initial effects of cold water pass in less than sixty seconds. Relax and float on your back to catch your breath. Keep calm and call for help or swim to safety if you can.
2. On investigation it transpired that the stern of the first vessel had been modified by cutting holes in the transom, it was not established why this was the case. The owner had only just bought the boat and in his enthusiasm had not actually considered the seaworthiness of it. If you do not know much about the vessel you are buying always take someone more knowledgeable with you to advise and act as a second pair of eyes.
3. **Prepare for sea** - the Waterway may look like a calm serene place much of the time, but the wind and tide can do a lot of damage, especially if water starts to get in the boat. Always ensure your boat is fitted with a bilge pump or some way to automatically clear the water if you plan to leave it unattended for a period of time.
4. **Prevent pollution** - in the second case, the first thing the marina staff did was to secure a boom around the vessel to prevent any pollution escaping into the Waterway. Thankfully on that occasion it was not needed, but it was the correct thing to do and prevented untold damage to the marine Special Area of Conservation.

Ground to a halt

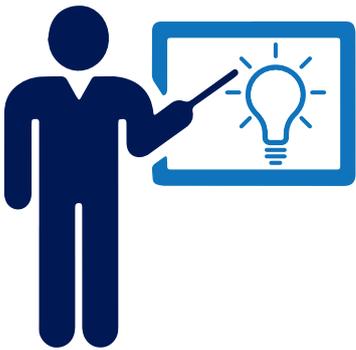


Port Control received a call from MHCG informing them of a 22ft sailing vessel aground above the Cleddau Bridge. Angle's RNLI lifeboat had been tasked to assist. On investigation it transpired that the main halyard had parted leaving only the jib to sail on. The vessel was getting drawn into the shore, so the helm had tried to start the auxiliary engine, however that failed and the vessel grounded.



Late July and Port Control were conducting their continuous watch of the Haven and approaches by radar and CCTV. Just after midday they noticed that a yacht appeared aground on Neyland Spit, so contact was made via VHF channel 12 to clarify the situation. On confirmation, the yacht was advised to lay an anchor out and position fenders to protect the vessel as the tide continued to ebb. Angle lifeboat was tasked however could not get close, so the Y boat was deployed to assist. They deployed tyres to provide additional protection for the hull and awaited the flood tide. The yacht eventually re-floated around four hours later. The helm stated later that the echo sounder had been showing intermittent depth all day and he believed he had his plotter on the incorrect zoom for his situation, meaning that he tacked too late.

Lessons



1. A sensible skipper maintains their vessel, however often the auxiliary engine is forgotten about and so when we need it, it fails. As part of your regular maintenance don't forget the 'other bits'. More details on pre-season boat checks can be found online at www.mhpa.co.uk/pre-season-boat-checks

2. Situational awareness - it is all too easy when navigating on the Milford Haven Waterway to assume that you know where you are and where you are going, but a moments lack of attention, especially when trying to deal with erratic instrument readings, can cause gaps in that situational awareness. If you ensure that your navigation equipment is set up correctly for your given situation then you will be able to pick up your awareness more easily.

3. Inspect your keel - in 2014 the sad loss of all on board the yacht Cheeki Rafiki while on passage across the Atlantic to the UK was reported. The subsequent MAIB investigation determined the keel had become detached from the yacht causing it to capsize. The crew did not get a chance to deploy the life raft. One of the causes of the keel failure was determined as being due to the repeated groundings over its lifespan. In any grounding situation, the Port always recommends that the yacht is lifted from the water, and while suspended, the keel bolts, keel and where the keel joins the yacht are all inspected closely, and any repairs carried out professionally.

Fibreglass gives way to steel



Mid-January and a small sailing vessel was making her way back to Milford Marina from a day's sailing around Dale Roads and beyond. They were approaching the pinch point between the west end of Valero and the east end of Puma Energy when the pilot launch approached to advise them that a 298 metre LNGC was being swung off Milford Shelf and requested they remained clear. The pilot launch then returned to Cunjic Buoy. The yacht remained to the south, passing the vessels moored at Valero inside the 100-metre exclusion zone, being lost to radar on several occasions. Then with the LNGC facing head south, the yacht passed between it and a vessel berthed on Valero, 10 metres off the Valero vessel and 80 metres off the LNGC. On investigation it stated that the yacht offered to either turn around or head north but was advised to remain to the south.

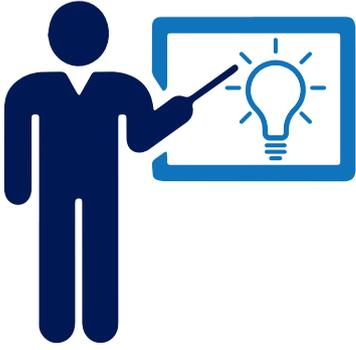


A VLCC inbound in the west channel, the pilot boat was patrolling ahead by 6 cables, both vessels around 10 knots. A small vessel was seen approaching from Dale Roads, across the channel towards Angle Buoy, she then passed east of the buoy. The pilot boat moved to intercept to prevent the vessel crossing ahead of the VLCC. They turned to starboard on the edge of the channel showing their port side to the oncoming vessel. The pilot boat reported that they told the vessel not to cross the channel ahead of the VLCC, but although the pilot boat had slowed to around 0.7 knots, the other vessel did not slow appreciably and made a turn to starboard between the Angle Buoy and the pilot boat, then crossed the channel at an approximate 90° angle. It took them around 30 seconds to cross the channel into safe water approximately 6 cables ahead of the VLCC.



Early afternoon and the Isle of Inishmore requested permission to break away on channel 12. This was in keeping with her established regular schedule and Port Control granted permission. At this point, there was a vessel showing on the radar on the north side approaching the Neyland Point beacon from the east. The target vessel continued its track west on a steady bearing (approx. 250°), slowly crossing the channel from north to south. As the Isle of Inishmore left PDFT, the target vessel was near Neyland Point beacon in the channel continuing west. A call was heard on Ch 16 to 'Irish Sea Ferry' from the target vessel, followed around 15 seconds later on Ch 16 to 'Irish Sea Ferry in Milford Haven'. The Isle of Inishmore did not respond. As the Isle of Inishmore continued her course, she increased to 8 knots. The Isle of Inishmore passed clear of the target vessel by Carr Spit No.2. On reviewing CCTV it looked to be around 20 to 30 metres clearance. This entire incident took around 7 minutes. The Isle of Inishmore reported to Port Control that the target vessel had obstructed their path and despite multiple 5 blasts on the ship's horn, the yacht paid no attention, meaning the Isle of Inishmore had to deviate from its course. Port Control advised the Isle of Inishmore that the Water Ranger had been tasked to intercept the target vessel and talk to the helm, however while on route to the first, a further incident needing an immediate response meant the Water Ranger was tasked to the new incident.

Lessons



- 1.** The first case is one faced almost daily on the Waterway. Had the helm taken the decision to head north and clear then there would have been no issue. Either the advice from the pilot launch was incorrect or misinterpreted by the yacht, so causing the incident. One for launches to take account for is that it's very easy to state an instruction to a vessel and assume they have understood. As the launches are generally considerably larger, they cannot get in close proximity to a vessel to ensure clear communication so they must make every effort to ensure their message is clear and concise. What is worth noting is that the master of a vessel is ultimately responsible for its safety and if they consider the situation or instruction to be unsafe, then they have a responsibility to act accordingly. This applies from the smallest to the largest vessels, including those under pilotage. Safety is paramount, the rest can be dealt with afterwards.

- 2.** As a leisure user of the Waterway, you need to be aware of all the rules and regulations, and in particular the exclusion zones that surround the terminals. Breaching these is not only an offence under the byelaws, but it is placing you and your vessel in danger.
For more details visit www.mhpa.co.uk/rules-and-regulations

- 3.** The action of the vessel in the second narrative is not advisable. If he had engine failure or became fouled on something then there would have been an extreme risk of collision, however he 'technically' didn't breach the controlled zone as he passed between the pilot boat and the Angle Buoy and not between the pilot boat and the VLCC. Regardless of any control and/or exclusion zones, crossing ahead of a vessel restricted in its ability to manoeuvre within the defined channel significantly reduces the options available to avoid a collision should they be needed.

- 4.** Had the pilot boat been at the full 1 mile controlled-zone then they would possibly been in a better position to intercept and ask the vessel to go round the stern of the VLCC, however it's equally possible that the vessel would not have been identified as a potential issue due to its southerly track with an assumption that they were heading out of the Haven and not for Watwick as it transpired.

- 5.** In reviewing the radar and VHF footage, it is clear that important messages were missed by the target vessels. Had a listening watch been maintained on Channel 12 then they would have been aware of the vessel movements and been able to remain clear of the channel. All LNGC and VLCC vessel movements are subject to a broadcast on channels 12 and 14 advising mariners of the movements.

- 6.** Local knowledge would have informed the helm in the first narrative of the ferry movement times as well as the ferry name and also that channel 12 is the Port working channel, therefore a call on Ch12 would have been more appropriate.

- 7.** The third narrative led a vessel to ultimately impeding the safe transit of a vessel that could only navigate within the narrow channel (COLREGS Rule 9) breaching the 'COLREGS' leaving the master of a vessel liable to prosecution under the Merchant Shipping Act, which on a guilty verdict would leave the master facing a fine up to £50,000 and/or a prison sentence of up to 2 years.

- 8.** It used to be said "power gives way to sail". While technically correct, there are caveats to this that are explained in the COLREGS Rule 18 'Responsibilities between vessels'.

9. Sound signals - many leisure users believe that 5 blasts on a ship's horn is to let you know that she is there. The definition of 5 blasts is that the vessel "does not understand what your intentions are so please make them clear". In a narrow channel such as Milford Haven, your immediate response should be a bold alteration of course to take you clear of the channel, so allowing safe passage for the vessel confined to the channel.

That's not where I left it



This first incident occurred in late 2019 with a report of a vessel aground near a mooring area. Once the vessel was identified the owner was contacted and he took measures to secure his vessel. Fast forward to March 2020 and the same vessel was reported as sunk having broken off its mooring. Once again, the owner was contacted and he took measures to secure the vessel, then on low tide was able to make initial repairs to enable it to float slightly and moved it higher on the shore on the tide. Due to a combination of the Covid-19 pandemic and tides, the owner was only able to make sporadic visits to his vessel and attempt temporary repairs. Fast forward again to the summer and the same vessel was again adrift. It transpired that the owner was trying to move it to safe ground for permanent repairs but ran out of tide so had left the boat on its anchor which subsequently dragged. The vessel was then moved on the high water to safe ground to dry out and be repaired. During the investigation it was identified that the vessel was not registered to the mooring it was on and that the mooring was laid for a 7 metre 1-ton vessel, whereas this vessel was longer, twice the beam and twice the weight.



A sunny summer's day and Port Control heard an unknown station attempting to call another vessel as their anchor was dragging. Subsequent attempts by Port Control to contact the vessel failed so the Water Ranger was tasked to assist. On arrival at the location there was a vessel manoeuvring to anchor and after a couple of attempts did so successfully. Once completed, the Water Ranger approached to talk to the vessel's owner. It transpired that their awareness was eventually raised to the situation, so they had recovered the anchor to reset it. They had set their anchor in around 6 metres of water on a falling tide and deployed approximately 20 metres of chain and no anchor watch. On investigation the maximum depth anticipated in that location that day was to be 8.8 metres.

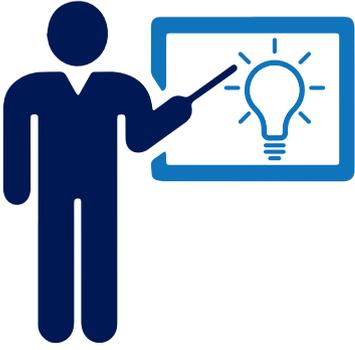


Early season and MHCGOC contacted Port Control to report a vessel going adrift from its mooring overnight. The winds experienced were 35 to 40 knots and a 5-metre swell coming in through the 'Heads'. No one was on board, so a coastline search was conducted in the daylight. The vessel was found smashed on the rocks.



Mid-summer and Port Control were notified of a yacht aground near Neyland. The vessel was not registered on a mooring, so investigations were conducted to find the owner. The owner then attended and managed to re-float the yacht and remove it from the Waterway.

Lessons



1. On two of these occasions the response was delayed due to the vessels not being registered for the moorings they were on. All vessels on swinging moorings must either be licensed through the Port of Milford Haven or, in the case of the two commercial mooring areas, be registered directly with the company.

2. Many people have been cautious throughout the Covid-19 pandemic and limited the time they have had their vessel on the moorings. We have seen a few cases where, due to lockdowns and travel restrictions, boats have been left unattended for much longer periods than would be normally. Always consider how you are going to look after your boat as they need checking regularly.

3. **Chafe protection** - in two of these cases it was the pennant that failed due to no chafe protection being fitted and no secondary line in case the primary failed. Unfortunately, this is an expensive lesson for some.

4. Moorings on the Milford Haven Waterway are in the main privately owned and constructed to the specifications of the registered vessel. By putting a larger vessel on the mooring you risk overloading it causing failure.

5. **Maintenance** - more often than is acceptable we find that a lack of servicing contributes significantly to failures. Salt water is an aggressive environment for mooring tackle, this needs thoroughly checking every year and many steel parts will need replacing after two or three years.

6. **Weather** - in Milford Haven we are regularly hit with gale force winds, even in the summer months, so keeping an eye on the forecast is essential. As an 'aide-memoire', if an email address is provided with your mooring licence application we automatically save this to use for weather warnings (no marketing related emails will be sent).

7. **Anchoring** - when laying a full chain anchor line, it is recommended that three times the maximum anticipated depth is laid. To aid you in this calculation, markers should be placed on the chain at set intervals so that you can deploy an accurate length.

8. **Anchor watch** - most modern navigation equipment has the ability to place an anchor watch around your vessel which will set off an audible alarm should the perimeter be breached. This is a vital safety measure, especially for overnight stays.

Useful Links

www.mli.org/safety/know-the-risks/cold-water-shock

www.metoffice.gov.uk/weather/forecast

www.mli.org/safety/lifejackets

www.mli.org/safety/how-to-call-for-help-at-sea

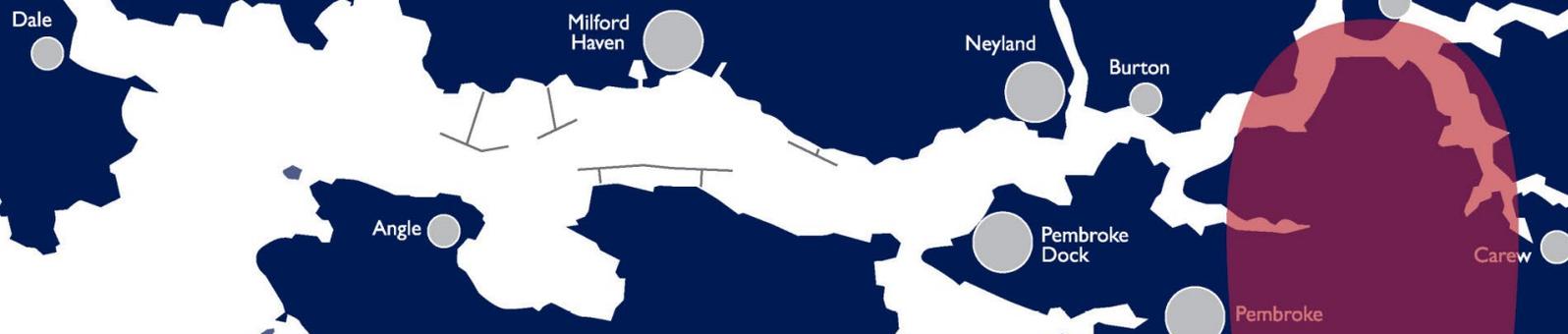
www.mli.org/safety/respect-the-water

www.mhpa.co.uk/enjoy-the-waterway

www.collisionregs.com/MSNI781.pdf

Stay safe...

WEAR A SUITABLE LIFEJACKET OR BUOYANCY AID
SERVICE EQUIPMENT
GET TRAINED
MAKE A PLAN
KNOW YOUR LIMITS
CARRY DISTRESS SIGNALS
USE THE KILL CORD
KNOW YOUR BOAT
HAVE A RADIO
CHECK THE WEATHER



on the Milford Haven Waterway!

The Milford Haven Waterway is regulated by the Port of Milford Haven and it's important to us that all users continue to enjoy the many recreational opportunities offered by this fabulous Waterway, in a way that is safe.

We recommend that you:

- ✓ **Understand the local byelaws** and other directions such as collision regulations www.mhpa.co.uk/marine-services
- ✓ **Listen in to VHF Channel 12** for shipping and port information and navigation warnings
- ✓ **Be aware of local codes of conduct** that exist to minimise disturbance to wildlife www.pembrokeshiremarinocode.org.uk
- ✓ **Respect wildlife and natural habitats** www.pembrokeshiremarinesac.org.uk
- ✓ **Wear a Lifejacket** whenever you are on the water completeguide.rnli.org/lifejackets
- ✓ **Get to know the zoned areas for specific low and high speed activities** by picking up a leisure user guide or downloading one from www.mhpa.co.uk/safety-on-the-water
- ✓ **Subscribe to receive Notices to Mariners** www.mhpa.co.uk/subscribe



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