MAIB
MARINE ACCIDENT INVESTIGATION BRANCH

ACCIDENT REPORT

VERY SERIOUS MARINE CASUALTY | REPORT NO 10/2021 | AUGUST 2021

Foundering of leisure boat *Globetrotter* with the loss of one life off Fleetwood, England 31 May 2020

SUMMARY

At about 0800 on 31 May 2020, the 12m leisure boat *Globetrotter* sank in 5m of water during a sea angling trip off the coast of Fleetwood, England. Its owner raised a "Mayday" just before he, his 40-year-old son and a friend all entered the water. None were wearing personal flotation devices, but the son and the owner's friend were both holding on to the boat's lifebuoys. Despite the exhaustive rescue efforts of the crews of two other boats, the owner's son was dragged under water and drowned after one of his legs became entangled in the anchor rope.

The MAIB investigation concluded that:

- *Globetrotter* was not in a seaworthy condition and had not been properly prepared for a trip to sea.
- The boat probably grounded and suffered damage below the waterline during its passage out of the harbour.
- The owner was an experienced leisure boat user but had little appreciation of the risks he was taking and the importance of passage planning.
- The son's chances of survival would have been increased had he been wearing a personal flotation device.
- The owner and his friend were fortunate that help was close by.

The MAIB has written to the Royal Yachting Association, the UK Harbour Masters' Association, the Cruising Association, British Marine, and the Angling Trust to highlight the lessons learned from this accident and other similar accidents and to request assistance with promulgating the advice contained in Emily's Code to leisure boat users.

Globetrotter

FACTUAL INFORMATION

Background

Globetrotter was a 12m wooden hulled motorboat. It was berthed at Jubilee Quay in Fleetwood, England, and had been given to its owner at the beginning of May 2020. After receiving the boat, the owner had spent a few weeks preparing it for angling trips with his son. At the end of May, *Globetrotter*'s owner arranged to accompany *Fivebuoys*, a recreational sea angling boat, to a local fishing ground close to the River Lune estuary **(Figure 1)**. *Globetrotter*'s owner had not been to the fishing ground before, and he decided he would follow the other boat. The trip was planned for 31 May and *Globetrotter*'s owner had invited the boat's previous owner, who was a friend, to join them.

The owner's son was 40 years old and had learning difficulties. He was able to swim but was not a strong swimmer.

Narrative

At about 0630 on 31 May 2020, *Fivebuoys* departed its berth at Jubilee Quay, Fleetwood, followed by *Globetrotter*. *Globetrotter*'s owner was at the helm and his son and friend were on the outer deck; neither was wearing a personal flotation device (PFD).

As the two pleasure boats motored from Jubilee Quay into the buoyed Dock Channel **(Figure 1 inset)** they were followed by *Pisces*, a commercial fishing boat, which was heading out for a day's fishing. *Globetrotter*'s course alteration through the first set of Dock Channel buoys was executed later than *Fivebuoys* **(Figures 2a** and **2b)**, and *Globetrotter* stopped briefly, then sheered to port before continuing its passage towards the River Wyre main channel **(Figure 1 inset)**. Those on board *Fivebuoys* saw *Globetrotter*'s sheer and it was captured on Fleetwood Harbour Authority's CCTV system[1] **(Figures 2a** and **2b)**.

Fivebuoys was the faster of the two pleasure boats, and by the time *Globetrotter* had reached the main channel **(Figure 1 inset)**, *Fivebuoys* was almost out of sight of *Globetrotter*'s owner. At 0724, *Globetrotter*'s owner contacted *Fivebuoys*' skipper by mobile telephone and told him that he was having problems with the boat's steering. After discussing the issue, *Globetrotter*'s owner decided to continue with the trip.

As *Globetrotter* continued along the channel and into open water it began to slam into the waves quite heavily. The weather was fine and clear, the wind was easterly Beaufort force 3 to 4, the tide was ebbing in a south-westerly direction at a rate of about 0.6 knot, and the sea water temperature was 15.3°C. When the boat was adjacent to King Scar **(Figure 1)**, the owner's son pointed out to his father that there was water on the deck aft. *Globetrotter*'s owner looked aft and saw that the water level was about 10cm above the deck and rising. The owner quickly realised that the boat was flooding rapidly and passed the helm to his friend. He then ran to the deck and looked over the stern to check the bilge pumps' discharge, but the outlets were already submerged. The owner began to bail the water out using a bucket, while his friend placed the engine control to neutral, left the wheelhouse and went onto the deck.

Realising that *Globetrotter* was sinking by the stern, the owner instructed his son and friend to climb onto the wheelhouse roof. The owner entered the cabin space to collect buoyancy aids and raise the alarm using the boat's fixed very high frequency (VHF) radio. With the water level now at waist height, he aborted his plan and ran aft toward the open deck. On his way, he grabbed the boat's flare pack and hand-held VHF radio, which were stowed by the cabin door.

At 0742, *Globetrotter*'s owner used the hand-held radio to broadcast a "Mayday" on VHF channel 16. This was received by Holyhead Coastguard. In his "Mayday" broadcast the owner reported that *Globetrotter* was taking on water and sinking, and he gave its location as "off Bispham" **(Figure 1)**. The coastguard operator requested *Globetrotter*'s latitude and longitude, but the owner did not have these;

[1] CCTV – Closed Circuit Television

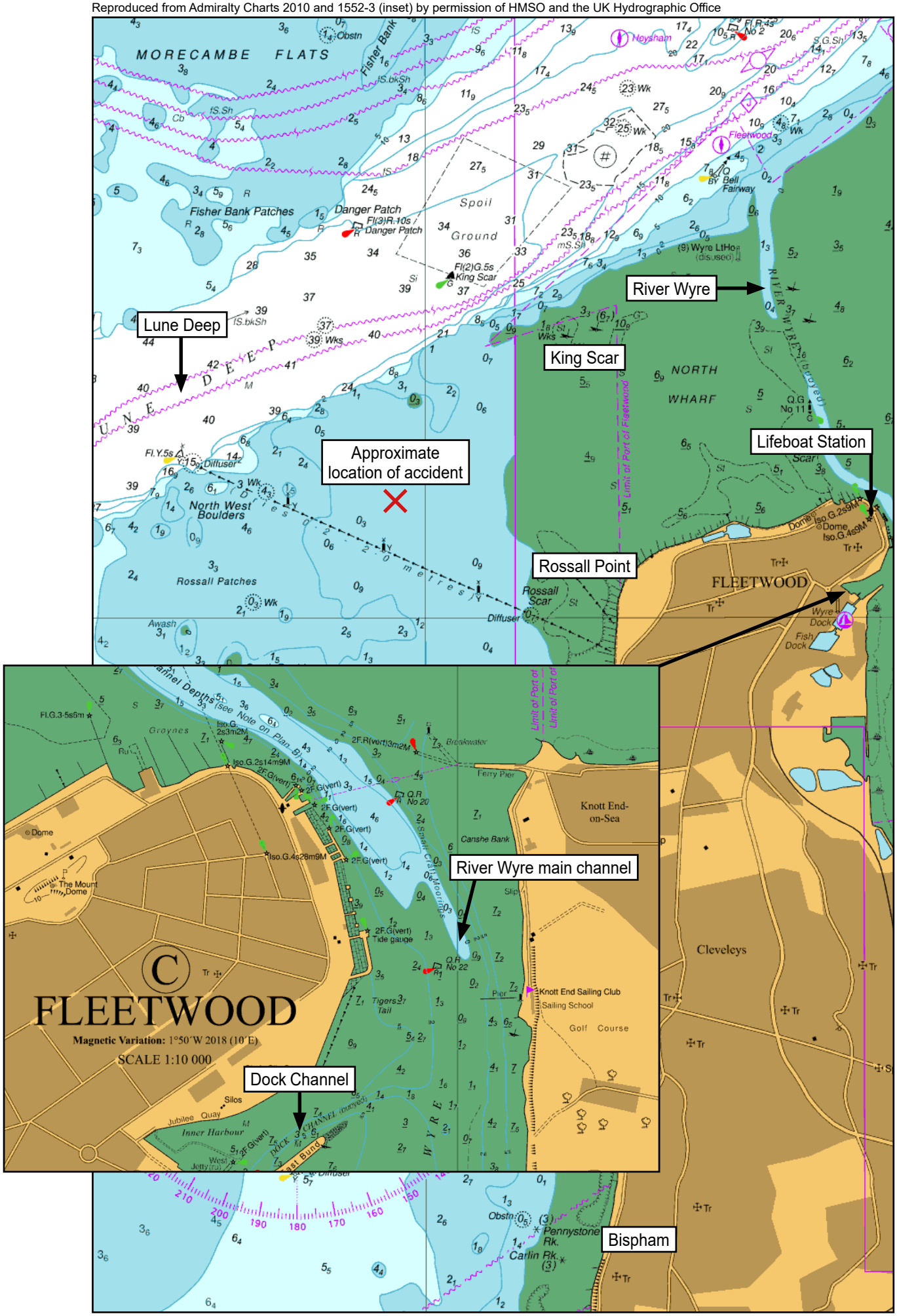

Figure 1: Extract of BA Chart 2010 and inset shows approaches to Fleetwood

instead, he told the coastguard that the boat was “near the lifeboat station, off Fleetwood”. The owner then climbed onto the top of the wheelhouse and placed a lifebuoy around his son’s torso. The friend was holding the boat’s second lifebuoy.

By that time, *Fivebuoys* had reached the fishing ground and its crew had rigged their fishing lines. At 0747, *Globetrotter*’s owner called *Fivebuoys*’ skipper on his mobile telephone and told him that *Globetrotter* was sinking. *Fivebuoys*’ skipper told the owner he would return as quickly as possible, then ordered his crew to recover their lines.

At 0747, the coastguard tasked the Fleetwood Royal National Lifeboat Institution (RNLI) inshore lifeboat to assist, and 2 minutes later it also assigned Fleetwood’s all-weather lifeboat to the incident.

At 0752, Holyhead Coastguard transmitted a ‘Mayday Relay’, which included *Globetrotter*’s last reported position off Fleetwood lifeboat station. Many boats in the vicinity responded, including *Pisces*, which was in sight of *Globetrotter*. *Pisces* immediately made its way towards the sinking boat. At 0757, the RNLI inshore lifeboat crew reported that nothing could be seen off the lifeboat station, but that there appeared to be a boat in trouble near Rossall Point **(Figure 1)**.

Globetrotter sank shortly afterwards, and the three men entered the water. The owner held on to his son’s lifebuoy while the friend held on to the second lifebuoy. The owner’s son quickly became distressed; his left leg had become entangled in the boat’s anchor rope and he was being pulled down. The owner held on desperately to his son and tried to help him keep his head above the water.

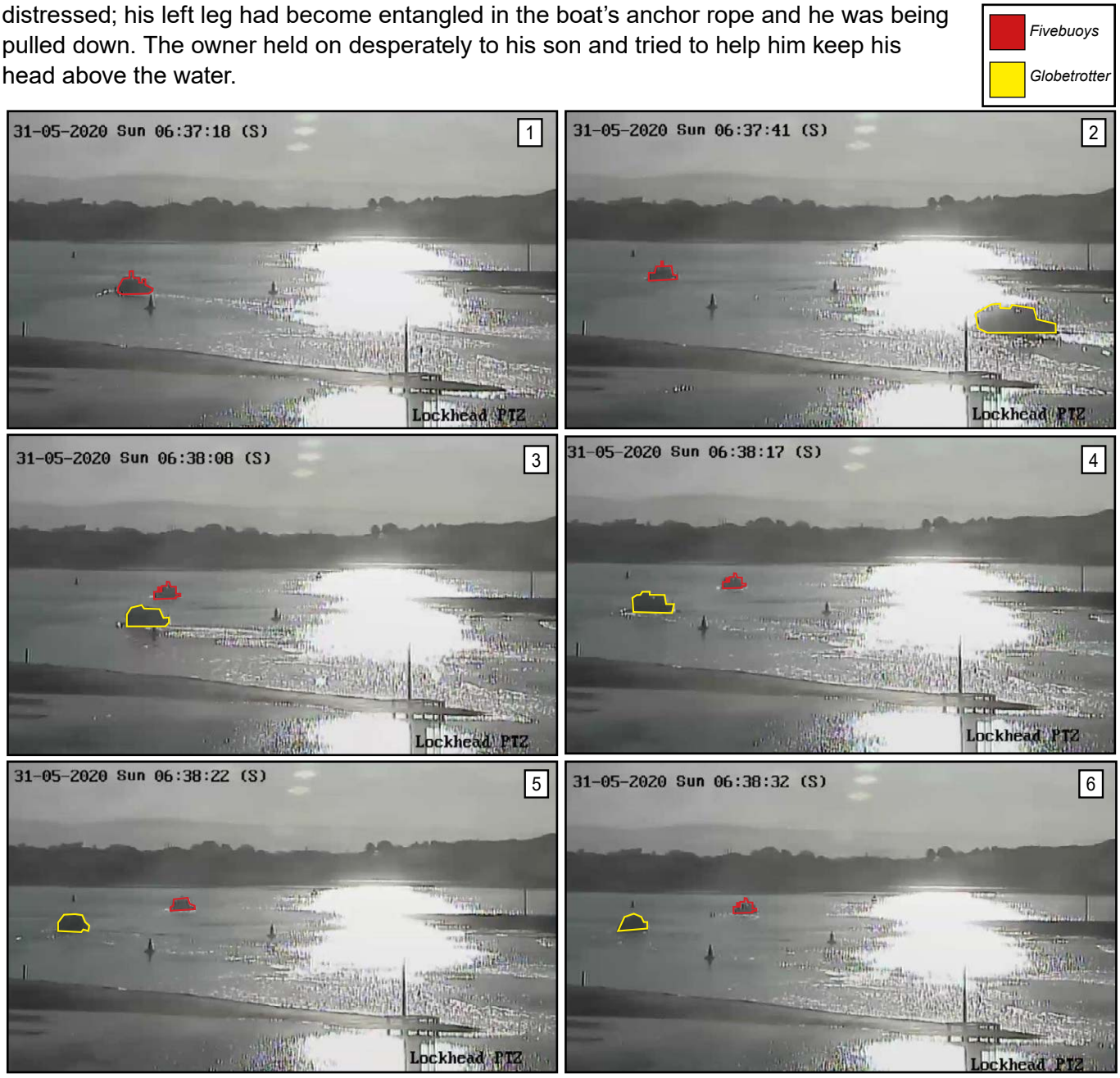

Figure 2a: CCTV stills of *Globetrotter* and *Fivebuoys* in the Dock Channel showing vessels’ aspect

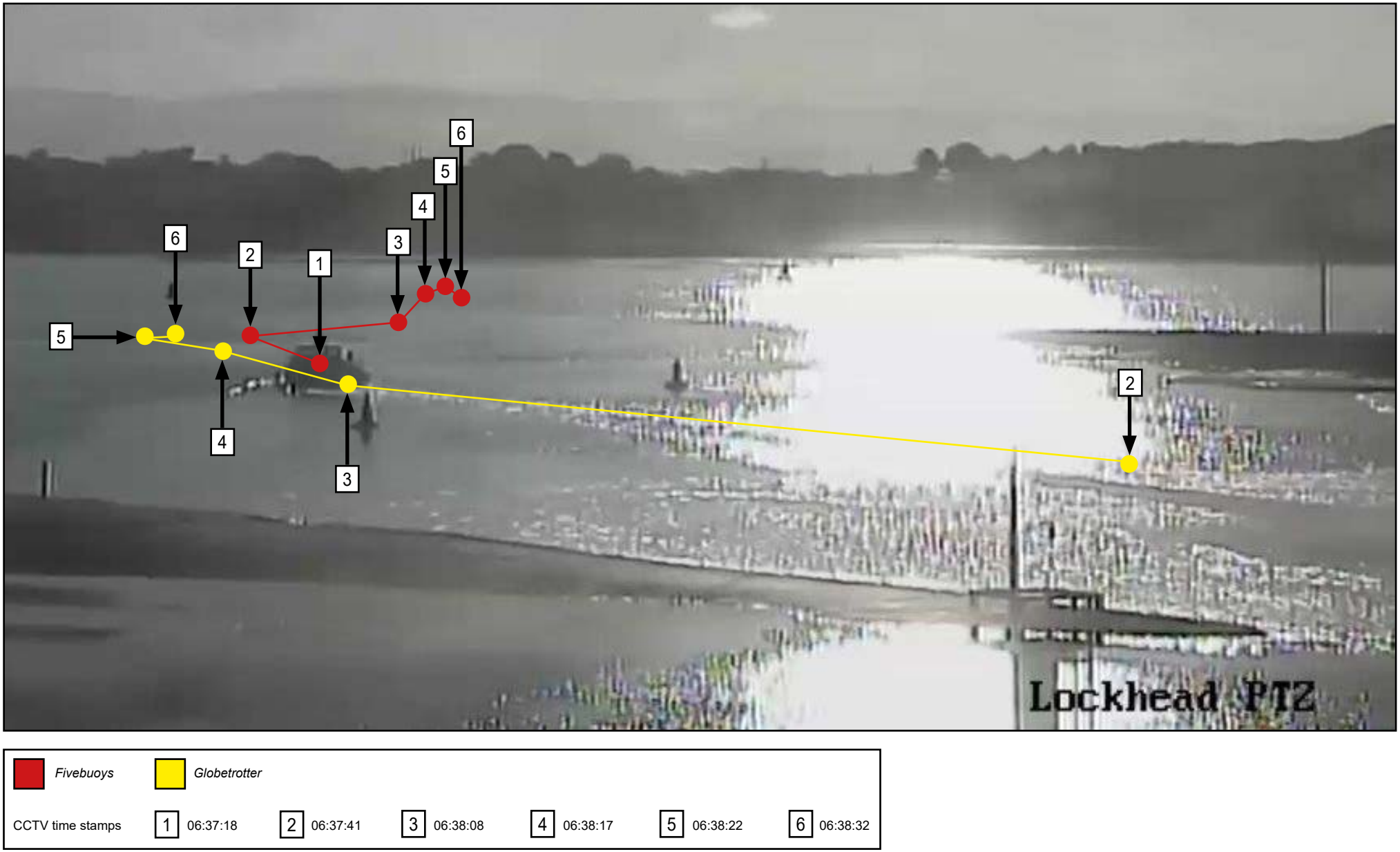

Figure 2b: Reconstruction of *Globetrotter*'s and *Fivebuoys*' tracks through the Dock Channel

At 0801, the coastguard assigned search and rescue helicopter R936 to the incident, and by 0804 six boats were heading towards Rossall Point. *Pisces* reached the three men in the water first and its crew threw a lifebuoy and line to the owner's friend, who was recovered on board. *Pisces*' crew then persuaded the owner to grab the lifebuoy that they had thrown to him; he, too, was pulled on board. The owner's son was still in the lifebuoy and was struggling to keep his head above the water.

Fivebuoys arrived at the scene just after *Globetrotter*'s owner had been rescued. One of *Fivebuoys*' crew donned a manual activation inflatable lifejacket, jumped into the sea and swam to the owner's son to assist him.

Debris from the sunken boat made it difficult for *Fivebuoys*' crewman to reach the rope that was still entangled around the distressed casualty's leg, and despite his best efforts the crewman quickly weakened. After a final attempt to pull the casualty in his lifebuoy, towards *Fivebuoys*, the crewman, by now very cold and weak, aborted his rescue attempt and swam back to his boat.

At about 0807, two of *Fivebuoys*' crew attempted to lift the owner's son out of the water using his coat as purchase. By that time he was silent, and his face was blue. As they lifted him towards the boat, he slipped out of the coat and disappeared below the surface of the water. The RNLI lifeboats arrived on scene shortly afterwards.

Globetrotter's owner and friend were transferred to the all-weather lifeboat and taken ashore, where they were met by an ambulance and taken to hospital for medical assessment.

A search of the area commenced by sea and air. At 1114, the owner's son was found by R936, which directed the inshore lifeboat to his location using a smoke flare. He was taken on board the lifeboat and pronounced deceased at 1121.

After sinking, *Globetrotter* quickly began to break up. The wheelhouse had become detached from the hull during the first hours of the boat being overwhelmed, and sightings of sections of the hull were reported during the days that followed the accident. A section of the forward part of the hull above the waterline was later recovered from a beach.

Globetrotter

Globetrotter's wooden hull was of carvel construction and was built from solid oak frames and diagonal iroko timbers with cotton and a linseed based putty caulking. The boat had a transom stern, solid wooden deck, deep continuous bulwarks and no internal watertight compartments. *Globetrotter*'s hull tended to leak sea water, and the owner had fitted two bilge pumps. The larger pump, which had a rating of 2500 l/hr, was located midships while the second smaller pump rated at 1500 l/hr had been fitted forward. The bilge pumps could be operated manually from the steering console or set to operate automatically by bilge float-operated switches, and both pump outlets were at the stern. *Globetrotter*'s owner always left the bilge pumps in automatic mode and they operated regularly in all weather conditions while the boat was on its drying berth.

Globetrotter had a forward wheelhouse, which had been extended aft at some point in the past to create a larger covered deck area, and a two-berth cabin space in the bow. *Globetrotter* had a single marinised Perkins diesel engine, which was in the centre of the wheelhouse space below an insulated cover that was designed to reduce noise. The boat's electric battery bank was located at the stern.

The wheelhouse steering console was located on the port side and was equipped with a fixed VHF radio set. The skipper sometimes used a hand-held Global Positioning System (GPS) Plotter with chart display feature to assist in navigation; he was not using it on the day of the accident.

The date of *Globetrotter*'s construction, its last out of water inspection and its survey and maintenance history were unavailable to MAIB inspectors. The investigation established that *Globetrotter* had had four different owners during the 18-month period prior to the accident. During each change of ownership, no historical documentation or specification details were passed on with the boat to the new owner.

Globetrotter's other recent owners had undertaken some maintenance, both functional and cosmetic. In September 2019, the boat had been moved from Liverpool to Fleetwood. The owner at the time reported that, during the passage, *Globetrotter* performed well, and he had no concerns about its seaworthiness. *Globetrotter*'s recent owners, none of whom had taken the boat out of the water for maintenance on the hull, did not report any concerns about the boat's condition.

The safety equipment on board *Globetrotter* was limited and its provenance largely unknown, but included fixed and hand-held VHF radios, a pack of parachute flares, two lifebuoys and a number of buoyancy aids stowed in the forward cabin. In addition, a new automatic-inflation lifejacket bought for the owner's son was hanging on a hook inside the wheelhouse door. The lifebuoys were stowed in a holder on top of the wheelhouse roof, where an assorted collection of ropes and a grapnel type anchor were also stowed. The anchor chain was connected to the foredeck by a length of synthetic rope. There was no liferaft on board.

Examination of wreckage

Following the accident, a member of the public retrieved a section of *Globetrotter*'s wreckage **(Figure 3)** from the shoreline at Rossall Point. The section, which measured approximately 1320mm x 2300mm, was sent to an expert in wooden boatbuilding for examination. The conclusions reached by the expert were that:

- The boat was of traditional build used for centuries, but the use of Iroko planking dated the construction after the 1940s.
- The wreckage section was from the port side of the boat and would have been above the waterline.
- Some of the planking in the wreckage section was in poor condition.
- It was likely that the hull sections under the waterline were in a similar, if not worse, condition.

Figure 3: Recovered wreckage section

Crew

Globetrotter's owner was 71 years old and was a retired heavy goods vehicle driver. He had been a sea angler for over 40 years and had owned many small pleasure craft. He held a VHF Radio Licence but had no yachting or boating qualifications and had not completed any maritime courses. He had no knowledge of the regulations or guidance that were applicable to him as a non-professional mariner. At the time of the accident, he owned five other boats that were berthed in the Fleetwood area. None of the other boats was in a seaworthy condition and they were not taken out on the water.

The owner's friend was 70 years old, was also retired and had formerly been in the armed forces. He had no formal maritime qualifications and had not completed any safety courses. He had owned various pleasure boats for about 4 years.

Keith Chew was 40 years old. His learning difficulties made him dependent on his family and, although he was not a strong swimmer, he very much enjoyed going on fishing trips with his father. His post-mortem examination report stated that his cause of death was drowning.

Fleetwood Harbour and Jubilee Quay

The Port of Fleetwood is located on the edge of Morecambe Bay, adjacent to the Irish Sea, and it is owned and operated by Associated British Ports.

In 2016, Fleetwood's harbourmaster issued *Notice to Mariners 11 of 2016* referencing a controlling depth between the fairway and number 20 buoys. The notice stated that:

> *The remainder of the Fleetwood and Dock Channels are currently drying to various heights; Mariners are advised to consult the latest sounding chart outside the Marine office.*

In 1972, Jubilee Quay was constructed in Fleetwood's Inner Harbour by the British Transport Board. Associated British Ports took ownership of Jubilee Quay in 1981.

Boat owners choosing to use Jubilee Quay are not subject to mooring fees. Because the quay dried out, access to and from the berth was restricted to 1 hour before and 1 hour after high water.

The last full survey of the inner harbour and Jubilee Quay was completed in 2018 and there was no dredge campaign in place to maintain depths. The inner harbour was approached through a series of mud banks and flats.

Regulation and guidance

The Maritime and Coastguard Agency (MCA) provided guidance for pleasure boat users on the applicability of the international SOLAS[2] regulations in its Marine Guidance Note (MGN) 599 (M) *Pleasure Vessels – Regulations and Exemptions – Guidance and Best Practice Advice*. Section 7 of the MGN detailed the elements of SOLAS Chapter 5 (Safety of Navigation) that were applicable to all boats, regardless of size. Elements included, but were not limited to:

- The limitations of the boat for the proposed trip and that sufficient safety equipment and stores are on board,
- the experience and physical ability of the crew,
- navigational dangers and hazards that may be encountered during the trip, and
- a contingency plan that takes into consideration actions to be taken in the event of an incident.

Although there was no requirement for leisure craft to have a formal passage plan, there was a requirement for voyage planning to have taken place in line with the guidance detailed in MGN 599.

The Royal Yachting association's (RYA) website had a wealth of information available for mariners. The *Safe Boating* section of the website provided information on how to plan for a day on the water, advice on how to ensure your boat and crew are properly equipped and appropriate communications both before and during a voyage.

Following an accident in 2015[3] that resulted in the death of 14-year-old Emily Gardner, her family, in co-operation with the RYA, HM Coastguard, British Water Ski and Wakeboard[4], and the RNLI, launched Emily's Code **(Figure 4)**. The aim of the Code was to increase safety awareness for small boat owners and users.

Globetrotter's owner and his friend were unaware of the SOLAS regulations, MGN 599 (M) or Emily's Code.

Figure 4: Emily's Code

[2] SOLAS – International Convention for the Safety of Life at Sea 1974, as amended.

[3] MAIB report 21/2015 – Fatality following capsize of Fletcher speedboat, Tor Bay on 2 May 2015.

[4] British Water Ski and Wakeboard are the water sports' governing body and membership organisation in the UK.

ANALYSIS

The accident

The investigation was unable to establish the exact cause of the water ingress that led to the foundering of *Globetrotter* and the subsequent loss of one life. However, it is likely that the brief grounding observed during the departure from Jubilee Quay led to a catastrophic failure of the boat's hull. This is further supported by the steering problems encountered immediately after the grounding. It is also possible that the wave action resulting in slamming of the boat's hull exacerbated the damage and increased the rate of water ingress.

When *Globetrotter* foundered, without a liferaft, the three men on board had no choice but to enter the water as the boat sank beneath them. The owner's son, who was not a strong swimmer, was not wearing a PFD but had put a lifebuoy under his arms before the boat sank. Despite this, he quickly became distressed as one of his legs became entangled with the anchor rope, which started to pull him down. As he, and those attempting to help him, became tired and increasingly incapacitated due to the debilitating effects of being immersed in cold seawater, his resilience and the ability of his helpers decreased.

In this section of the report the condition of *Globetrotter*'s hull, its preparedness and that of those on board to put to sea will be analysed. The emergency response will also be discussed.

Hull condition - potential sources of water ingress

Globetrotter quickly broke up after foundering, with its wheelhouse floating free while the search for the casualty was still ongoing. This, and the findings of an expert in wooden boatbuilding, strongly suggested that *Globetrotter*'s material state was poor, and that the maintenance completed by the various owners did little to enhance the boat's hull integrity.

Globetrotter's history could not be traced prior to January 2019 when it was purchased without a condition survey by the first of its known recent owners. Since then, *Globetrotter* had mainly been lying at Jubilee Quay, a drying berth, where the boat's hull below the waterline was exposed during every low water. The repetitive cycle of drying may have allowed some of the hull planking to shrink, loosening the caulking and leading to water ingress. In addition, during each low water when sat on the bottom, the hull would have been susceptible to damage from items discarded into the water from the adjacent quayside. Although the vessel had completed a trip to sea in September 2019, its hull was known to leak when afloat, requiring the bilge pumps to be operational and always left in auto-mode.

Although the most likely source of water ingress was hull planking failure or damage to the rudder stock caused during the grounded on its outbound transit, with no evidence of regular maintenance a failure of a through-hull fitting or critical pipework cannot be discounted. However, it is evident that, during the passage, the boat's hull integrity was sufficiently compromised to allow an ingress of water at a faster rate than *Globetrotter*'s pumps could remove it.

Globetrotter was not in a seaworthy condition, its hull was not watertight, and the condition of its planks and their fastenings was unknown. Old wooden hulled boats will be susceptible to plank failures and leakage through joints and fastenings if they are not regularly and properly maintained. Hull plank and fastening damage can sometimes be difficult to identify and therefore the importance of regular out of water inspections and surveys cannot be emphasised enough.

Passage planning and execution

Globetrotter's owner had discussed the passage to the fishing grounds with *Fivebuoys*' skipper and had planned to follow the sea angling boat through the Dock Channel before crossing the main channel to reach the area to the south of the Lune wind farm. *Fivebuoys* was faster than *Globetrotter* and the distance between the boats increased quickly once they left the quay. This reduced the ability of *Globetrotter*'s owner to accurately follow *Fivebuoys*' track around the numerous mud banks. It was evident from the CCTV footage **(Figure 2a** and **2b)** that the two vessels did not follow the same track through the Dock Channel and that *Globetrotter* grounded when it left the channel shortly after passing the first set of buoys.

Globetrotter was required to comply with the elements of SOLAS Chapter 5 that were applicable to pleasure boats of any size. MGN 599 (M) detailed the elements that should be considered by skippers of pleasure craft when planning a trip. *Globetrotter* was not equipped with a radar or echo sounder and there were no navigational charts on board, instead, the owner relied heavily on his local knowledge to navigate in and out of the port.

Although the regulations do not require pleasure boat users to produce a formal passage plan, navigational hazards should always be properly assessed, and safe passages planned before leaving a berth and/or putting to sea. Had *Globetrotter*'s owner used his handheld GPS Plotter this would have substantially improved his situational awareness both during the channel transit and during the emergency phase of the accident. Had an initial accurate position been passed to the coastguard, a quicker rescue response may have been possible.

Without a clear passage plan, the short tidal window, numerous mud banks surrounding the Dock Channel, and absence of navigation aids on board *Globetrotter*, the likelihood of grounding during the boat's departure was substantially increased.

Emergency preparedness

In order to minimise the consequences of a marine accident, a boat and those on board need to be prepared to deal with a variety of emergency situations. Boats are prepared through the provision of safety equipment, and persons on board are prepared through the delivery of safety briefings, training and the wearing of personal protective equipment.

Globetrotter was equipped with two bilge pumps but there was no bilge alarm to provide the owner with an early indication of a problem. Consequently, by the time the owner was aware of the water ingress it was too late for him to take action to save the vessel. It is possible that had an inspection below decks been conducted after the grounding or when a fault had developed with the steering that effective alternative action could have been taken to avoid the situation escalating. However, despite the substantial capacity of the bilge pumps, the rate of water ingress meant that quick and decisive action was needed. Having already raised the alarm, effective preparations for abandonment, including fetching the spare buoyancy aids and the stowage of loose lines, would have been prudent.

The provision of a liferaft would have provided the opportunity for the three men to abandon the sinking vessel without the need to enter the water. It is recommended to wear PFDs when getting on and off small pleasure craft and while on the deck at sea. Given the circumstances of this accident, the wearing of a PFD when outside the cabin might not have prevented the loss of life. However, the use of PFD's and carriage of a liferaft would probably have increased the chances of *Globetrotter*'s crew's survival.

In the United Kingdom, there is no requirement for pleasure craft owners or users to complete any maritime training or safety courses. The RYA provides advice on safe boating on its website, in addition to a wide range of training courses that are aimed at pleasure boat users of all abilities and boat types. *Globetrotter* was not the owner's first boat; he was a keen angler and had built up a working knowledge of small boats over more than 30 years. However, despite the owner's history of boat ownership it is likely that his lack of formal maritime training meant that he did not fully appreciate the risks and, along with his friend, was ill-prepared for taking the boat to sea.

MGN 599 (M), the RYA's *Safe Boating* website information and Emily's Code provided important guidance for planning a trip on the water and for improving levels of emergency preparedness. The MGN was readily available on the MCA's website and Emily's Code had been widely promulgated by both marine safety organisations and the media. However, as pleasure boat users, with no formal maritime training, *Globetrotter*'s owner and his friend were unaware of these publications, and neither was fully prepared to deal with the grounding incident or the subsequent sinking. It is possible that, had *Globetrotter*'s owner been aware of, and followed, the available advice, alternative actions might have been taken to ensure the safety of the boat and those onboard during the trip.

Emergency response

Globetrotter's owner was able to alert both the coastguard and *Fivebuoys*' skipper, but gave two incorrect positions for the sinking boat. It was fortunate that the proximity of *Pisces* meant that its skipper was able to quickly identify the boat in trouble. In addition, *Fivebuoys*' skipper's estimation of *Globetrotter*'s likely position meant that he was also able to locate the casualty and provide assistance, albeit not before *Globetrotter*'s crew entered the water. Without the protection of a liferaft or the use of the PFDs on board, *Pisces*' prompt arrival was instrumental in the survival of *Globetrotter*'s owner and his friend.

Despite the commendable actions of the crewman from *Fivebuoys*, the owner's son was lost when rescue was close-at-hand. However, without knowing how the struggling owner's son was entangled, and given the debilitating effects of immersion in cold seawater, there was very little the crewman could do to alter the situation.

CONCLUSIONS

- *Globetrotter* most likely sank due to flooding caused by catastrophic hull failure or damage to the rudder stock.
- The hull damage was probably the consequence of the boat grounding on a sand bank during its passage out to sea.
- *Globetrotter* was in a poor material state and its hull was not watertight when it departed for the fishing trip.
- The boat and those on board were not fully prepared for a trip to sea and the passage to and from the fishing ground had not been properly planned.
- The owner and his friend had little appreciation of the risks they were taking and the importance of passage planning.
- Had the owner's son been wearing a PFD when he entered the water, his chances of survival would probably have been increased.

ACTION TAKEN

MAIB actions

The **Marine Accident Investigation Branch** has written to the Royal Yachting Association, the UK Harbour Masters' Association, the Cruising Association, British Marine, and the Angling Trust to highlight the lessons learned from this accident and other similar accidents, and to request assistance with promulgating the advice contained in Emily's Code to leisure boat users.

RECOMMENDATIONS

In view of the actions already taken, no recommendations have been made.

SHIP PARTICULARS	
Boat's name	*Globetrotter*
Flag	United Kingdom
Type	Motor cruiser
Registered owner	Private owner
Year of build	Unknown
Construction	Wooden
Length overall	Approximately 12m
Registered length	Not applicable
Gross tonnage	Unknown

VOYAGE PARTICULARS	
Port of departure	Fleetwood, England
Port of arrival	Fleetwood, England
Type of voyage	Coastal
Manning	3

MARINE CASUALTY INFORMATION	
Date and time	31 May 2020, at about 0800
Type of marine casualty or incident	Very Serious Marine Casualty
Location of incident	Fleetwood, England
Place on board	Hull
Injuries/fatalities	One fatality
Damage/environmental impact	None
Ship operation	On passage
Voyage segment	Transit
External & internal environment	Fine and clear, wind easterly Beaufort force 3 to 4, Ebb tide south-westerly direction at a rate of about 0.6 knot, sea water temperature 15.3°C
Persons on board	3