

Report on the investigation of
the collision between
Carrie Kate and ***Kets***
resulting in one fatality
near Castle Point, St Mawes, Cornwall
16 July 2005

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Extract from
The United Kingdom Merchant Shipping
(Accident Reporting and Investigation)
Regulations 2005 – Regulation 5:

“The sole objective of the investigation of an accident under the Merchant Shipping (Accident Reporting and Investigation) Regulations 2005 shall be the prevention of future accidents through the ascertainment of its causes and circumstances. It shall not be the purpose of an investigation to determine liability nor, except so far as is necessary to achieve its objective, to apportion blame.”

NOTE

This report is not written with liability in mind and is not intended to be used in court for the purpose of litigation. It endeavours to identify and analyse the relevant safety issues pertaining to the specific accident, and to make recommendations aimed at preventing similar accidents in the future.

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GLOSSARY OF ABBREVIATIONS AND ACRONYMS

BST	-	British summer time (UTC +1)
COLREGS	-	The International Regulations For Preventing Collisions At Sea
DfT	-	Department for Transport
GPS	-	Global positioning system
GRP	-	Glass Reinforced Plastic
hp	-	horse power
kW	-	kiloWatt
m	-	metres
MCA	-	Maritime and Coastguard Agency
mph	-	miles per hour
PMSC	-	Port Marine Safety Code
RNLI	-	Royal National Lifeboat Institution
RYA	-	Royal Yachting Association
SAC	-	Special area of conservation
UTC	-	Universal co-ordinated time
VHF	-	Very high frequency

Figure 1



Carrie Kate

Figure 2



Kets

SYNOPSIS



On 16 July 2005 at 2220 (BST), in near darkness, two powerboats collided near Castle Point, St Mawes, resulting in the death of one of the helmsmen.

On the day of the accident, *Carrie Kate* was operated by a friend of the owner. This helmsman had held a 'quay-quay' licence for 2 years, issued by the Isles of Scilly Council, which entitled him to operate a vessel with fewer than 12 passengers between certain quays of the Isles of Scilly.

Carrie Kate was a 6.5m powerboat. She was propelled by a petrol inboard engine, via a stern-drive, enabling her to reach speeds of between 38-41 knots. There were no flares, lifejackets or VHF radio carried onboard, and her only navigation light was a red and green combined sidelight on her bow. The pole-mounted all-round white light, a non-permanent fitting which plugged into the starboard quarter, was broken and not onboard the vessel at the time of the accident.

The helmsman of *Kets* had been a fisherman for 11 years. Having grown up and fished out of St Mawes, he was very familiar with the local waters. He was one of four owners, who had bought *Kets* in April 2005.

Kets was a 4.55m Dell Quay dory, powered by an outboard engine which was controlled from a conning position on the starboard side. The vessel was capable of well over 20 knots. Again, no safety equipment was carried and the vessel had no navigation lights, as the owners did not intend to use *Kets* in the dark.

Carrie Kate visited several harbours in the Fal estuary on the day of the accident. The helmsman consumed alcohol throughout the day, and the St Mawes harbourmaster had noted the vessel due to the excessive wash she had created when departing the harbour earlier in the day. In the evening, *Carrie Kate* had again visited St Mawes, this time with four people onboard. At 2220 they departed St Mawes for the return trip to Falmouth. It is unclear whether the helmsman switched on his navigation light.

The helmsman of *Kets* had crossed to Falmouth from St Mawes, and from about 1800 onwards consumed alcohol. At 2215 the helmsman, his brother and a friend started their trip back to St Mawes. The sun had set at 2123, the weather was fine with little wind, and there was nearly a full moon.

At about 2220 those onboard *Kets* saw a bow wave and boat dead ahead. The helmsman turned *Kets* to port, but too late to avoid a collision with *Carrie Kate*. The helmsman of *Carrie Kate* had seen nothing but clear water ahead until *Carrie Kate* hit the starboard bow of *Kets*, riding over her and hitting the helmsman's console. The stern-drive of *Carrie Kate* was virtually sheared off as it hit the side of *Kets*. The helmsman of *Kets* was killed in the impact, his brother was flung into the water but fortunately remained conscious, and the other passenger remained in the boat but was knocked unconscious. Both vessels ended up stopped in the water.

Nobody was injured on board *Carrie Kate*, and they raised the alarm using a mobile phone. They were unable to assist the other vessel as they had no propulsion. The man in the water managed to swim to *Kets* and climb back aboard. The lifeboat arrived 10 minutes after the accident and the fatally injured helmsman was evacuated by helicopter shortly after.

Carrie Kate's helmsman was breathalysed after the accident and the alcohol in his body was found to be twice the legal limit permitted when driving a road vehicle. The helmsman of *Kets* was found to be over twice the legal limit also.

Analysis-

The tragic accident occurred because neither of the helmsmen saw the other vessel in enough time to take effective avoiding action. Contributing factors were:

- The speed of the vessels;
- The lack of navigation lights;
- The training and experience of the helmsmen; and
- That both helmsmen were navigating while under the influence of alcohol.

The COLREGS require that vessels proceed at a safe speed, taking due account of traffic density, visibility and the presence of background lights at night. They also require that appropriate navigation lights are exhibited between sunset and sunrise. This accident occurred an hour after sunset. It is thought highly unlikely that even the single navigation light on *Carrie Kate* was illuminated, thus both vessels were unlit. Although both helmsmen were described as experienced boatmen, their knowledge and application of the COLREGS was inadequate for operating high speed craft at night in a busy area of water.

In the UK, leisure craft users require no qualifications, although training is recommended. The RYA National Powerboat Scheme provides appropriate training at various levels where students learn the rudiments of the COLREGS and the benefits of carrying lifesaving equipment; both areas that were deficient in this case. How extensive this lack of essential knowledge is in the leisure industry, is difficult to quantify, as there is little statistical information collected on leisure accidents.

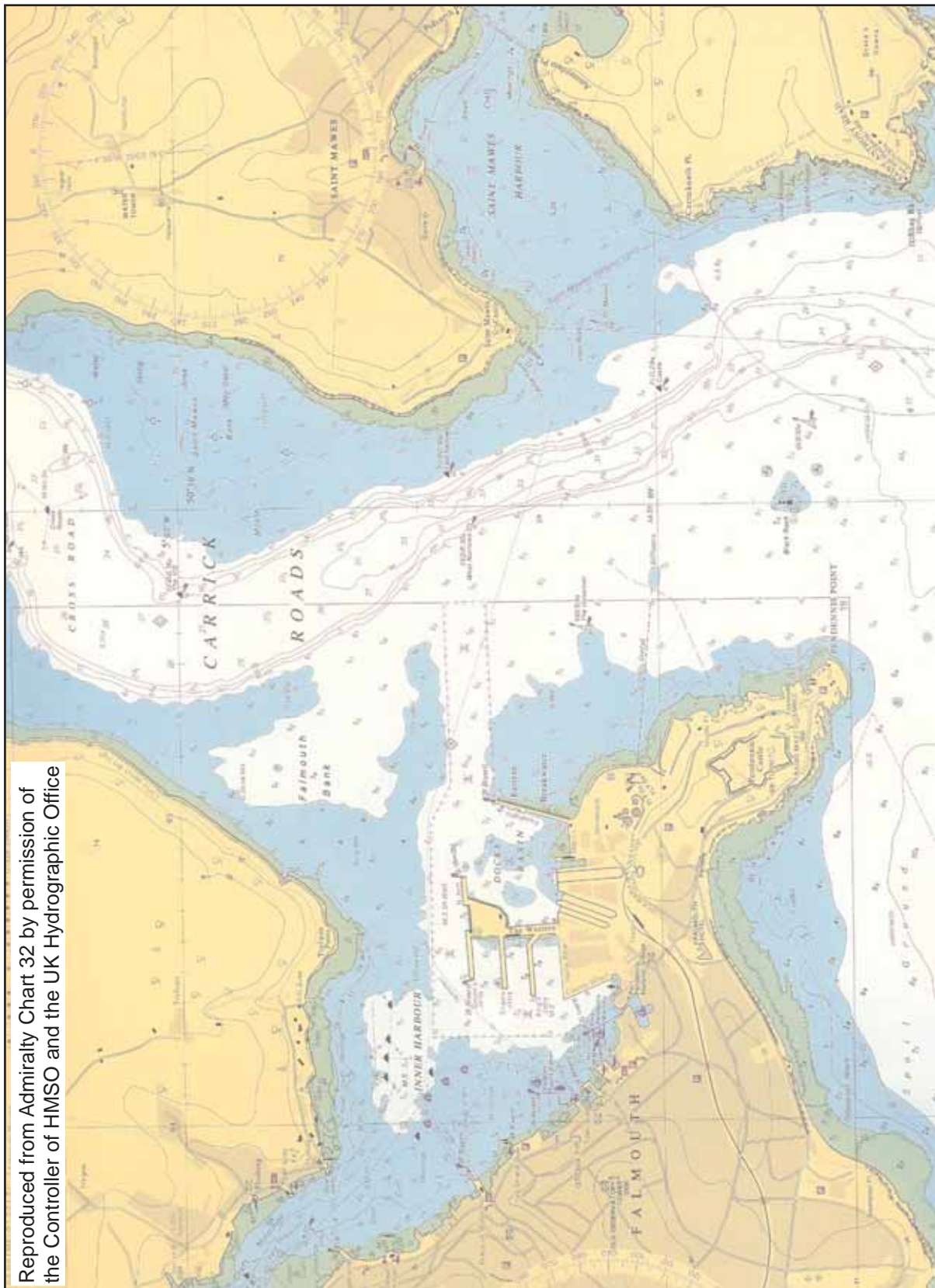
The key effects of alcohol consumption pertinent to this accident are: reduced peripheral vision, poor night vision, deterioration of judgment and slower reaction times. These factors are all key to navigating a high speed craft in near darkness. There are currently no national laws against recreational users navigating on water while under the influence of alcohol. Had there been such a law, both helmsmen might have thought twice before drinking and driving their water craft.

Local Fal estuary issues with respect to speed limits, unlit craft and bye-law approval were also raised during the investigation.

As a result of the recent MAIB investigation into the high speed grounding of the powerboat *Sea Snake*, which resulted in the loss of three lives, and this investigation, a recommendation has been made to the Department for Transport (DfT) concerning the

introduction of an alcohol limit for leisure users. The DfT is also recommended to improve the harbour bye-law approval process. The local harbour authorities have been recommended to review the standard of leisure boat activities in their area.

Chart 1



Falmouth and St Mawes harbours

SECTION 1 - FACTUAL INFORMATION

1.1 PARTICULARS OF *CARRIE KATE* AND ACCIDENT

Vessel details

Registered owner	:	Privately owned
Flag	:	UK
Type	:	Pleasure craft
Built	:	1998
Type	:	Sea Ray 215 Express Cruiser
Construction	:	GRP
Length overall	:	6.55m
Engine power and/or type	:	164kW (220HP), 5.0 litre Mercruiser
Maximum speed	:	38.3-41.7 knots (44-48 mph)
Other relevant info	:	Single stern drive

Accident details

Time and date	:	2225 16 July 2005
Location of incident	:	50° 09.2' N 005° 01.5'W
Persons on board	:	4
Damage	:	Stern drive disabled

1.2 PARTICULARS OF *KETS* AND ACCIDENT

Vessel details

Registered owner	:	Privately joint owned by 4 persons
Flag	:	UK
Type	:	Dell Quay Eurosport 15 Dory
Built	:	Pre 1970
Construction	:	GRP foam sandwich
Length overall	:	4.55m
Engine power and/or type	:	52kW (70hp) Yamaha outboard
Service speed	:	Estimate 20+ knots
Other relevant info	:	Console steering

Accident details

Time and date	:	As above
Location of incident	:	As above
Persons on board	:	3
Injuries/fatalities	:	1 fatality, helmsman - Ben Cochrane, 2 injured
Damage	:	Starboard side: significant impact damage above waterline

1.3 ENVIRONMENTAL CONDITIONS

All times are BST (UTC+1)

On Saturday 16 July 2005 the weather was fine and sunny. The visibility was good, there was only a gentle breeze, and it was ideal weather for boating. The evening was similarly good, with an almost full moon. Low water at Falmouth occurred at 1825, and high water was at 0108 the next day. It was neap tides. The sun set at 2123, and civil and nautical twilights occurred at 2205 and 2303 respectively.

1.4 NARRATIVE

1.4.1 Events leading to the collision

The helmsman of *Carrie Kate* on the day of the accident was an employee of the vessel's owner. The helmsman had been asked by his employer to house-sit while he was out of the country, and had been allowed the use of the employer's speedboat, *Carrie Kate* (**Figure 1**), which was moored at the bottom of his garden, on the Truro River.

Around midday on 16 July 2005, *Carrie Kate* left her mooring with her helmsman and two friends onboard. They proceeded south, and refuelled at Mylor before heading for St Mawes harbour (**Chart 1**). The harbourmaster met them as they tied up ready to visit a local public house and charged them the standard £2 mooring fee. Approximately an hour later, the helmsman and his friends left St Mawes harbour. The harbourmaster noticed *Carrie Kate* creating a large wash as she left, and made a mental note to speak to her helmsman when he saw him again. *Carrie Kate* made the short passage to Falmouth, and the helmsman's two friends were put ashore.

Not long after, the helmsman picked up another friend and his family in Falmouth, and suggested they go to St Mawes for lunch. *Carrie Kate*, with three adults and three children onboard, returned to St Mawes, arriving at 1410 and mooring against the harbour wall. As the helmsman tied up *Carrie Kate*, the harbourmaster approached to speak to him about the earlier wash incident. From the helmsman's demeanour, he assessed that he might be confrontational, and therefore handed him a St Mawes harbour guidelines pamphlet and suggested the helmsman read it over lunch. The harbourmaster did not charge the helmsman a second mooring fee.

Conscious of the tide and depth of water, *Carrie Kate's* helmsman left St Mawes harbour around 1630-1645. As she left, the harbourmaster again observed her generating excessive wash, which almost swamped a small dinghy heading out to the yacht moorings. The harbourmaster used his binoculars to note the name of the vessel, and considered calling ahead to see if someone could intercept her. However, he decided against this course of action as he did not know *Carrie Kate's* destination. The harbourmaster then closed the harbour

office and went home. *Carrie Kate* headed towards Mylor and followed a gig race back to Falmouth where the helmsman's friend and family left the vessel. The helmsman then secured *Carrie Kate* to the visitors' pontoon and went ashore.

Ben Cochrane was a part owner of *Kets* (**Figure 2**) and was her helmsman on the day of the accident. He had rowed out to the mooring in St Mawes harbour, and brought *Kets* back to shore at about 1630 ready to go to Falmouth for a working boat festival that was being held at a local public house. He and two friends made an uneventful crossing from St Mawes, and met Ben's brother in the public house at about 1730. A little later, *Carrie Kate's* helmsman joined the four friends for no more than an hour, he being acquainted with them through local rugby and gig rowing.

At about 2115, the helmsman of *Carrie Kate* was in another public house to meet a male friend and two girls for a pre-arranged visit to St Mawes in *Carrie Kate*. He retrieved *Carrie Kate* from the visitors' pontoon and collected the three others at the Prince of Wales pier in Falmouth. The sun had just set, but it was still light and visibility was good. They arrived in St Mawes at about 2145 and went to a local hotel for another drink. Half an hour later, the helmsman was conscious that it was getting dark, and he was keen to return to the working boat festival in Falmouth.

The party departed St Mawes in *Carrie Kate* at about 2215. It is not known whether the navigation lights on *Carrie Kate* were switched on, but it is likely they were not, as the helmsman could not remember switching them on, and no witnesses could recall seeing navigation lights on *Carrie Kate* at the time of the accident. The helmsman headed south-west after clearing the quay and applied full throttle, as he had done all day. It is estimated that with four people onboard, this corresponded to a speed of 25-26 knots. He then turned the vessel in a gentle turn to starboard, and steered a straight course for the lights of Falmouth, clearing Castle Point to starboard. He was standing at the wheel to maximise his view ahead and, as it was a clear night with the moon out, the helmsman felt he had good visibility and believed he had clear water ahead on his course.

Ben Cochrane, his brother and two friends left the festivities at the first public house and had one drink at another local public house. Ben was conscious that it would be getting dark soon, so three of the group made their way back to *Kets*; the fourth person decided to stay in Falmouth. The group stopped briefly at a fast-food takeaway to allow Ben's brother to buy something to eat.

Some time after 2200, *Kets* left Falmouth with Ben at the wheel on the starboard side, his brother in the port side seat and their friend lying on his back in the bottom of the boat with his head towards the bow, this being the best position for a comfortable ride.

Within Falmouth harbour, the 8 knot speed limit was adhered to. Once clear of the limit, Ben increased to approximately $\frac{3}{4}$ throttle, as was his normal practice. This setting was sufficient to set the boat planing while delivering economical fuel consumption. The speed of *Kets* at this time was estimated to be 15-20 knots. No navigation lights were shown as *Kets* was not fitted with any. Castle Point and St Mawes Castle could be seen clearly, and Ben headed slightly to starboard of the point on a straight course with no craft visible ahead.

1.4.2 The collision

At about 2220, Ben and his brother saw the bow of a boat and the white of a bow wave dead ahead and very close. Ben turned *Kets* to port, but there was insufficient time to avoid a collision. Onboard *Carrie Kate*, the helmsman did not see *Kets*, although the passenger beside him saw a dark silhouette travelling from right to left briefly before the collision. There was a loud bang as *Carrie Kate's* bow collided with the starboard side of *Kets*.

Those onboard *Carrie Kate* felt the vessel jump up as they hit *Kets* and passed over her, then came to a halt in the water on landing. The two people sitting on the aft seat were thrown into the air, but fortunately landed back on their seat. As *Carrie Kate* stopped, those onboard initially saw *Kets* outlined against St Mawes Castle to their left, apparently with no-one onboard, and one person in the water between them and *Kets* (**Chart 2**).

Onboard *Kets*, the force of the collision lifted Ben's brother out of his seat and threw him into the water. He was still conscious, and managed to swim to the water surface and tread water. The passenger lying down in the bottom of the boat was knocked unconscious. Tragically, Ben Cochrane was killed instantly in the impact.

1.4.3 Damage and post accident actions

Carrie Kate's stern drive demolished a large section of the starboard side of *Kets* (**Figures 3 & 4**), but the vessel remained afloat. The helmsman's console in *Kets* was knocked over the starboard side and was left hanging by the engine control cables. The engine had stopped as a result of the collision, but the kill-cord was still in place. *Carrie Kate's* helmsman managed to start his vessel's engine, but he was unable to manoeuvre her to pick up the man in the water because the stern drive had been damaged in the impact and was hanging loosely from the transom (**Figure 5**).

There was a lot of shouting from those in the two boats, and also from guests at a wedding reception at St Mawes Castle who had seen the accident. One of the ladies on *Carrie Kate* raised the alarm for the emergency services, by calling the coastguard using her mobile telephone. A passing vessel offered some assistance, and provided a small set of flares to those onboard *Carrie Kate*. However, the battery of the only torch onboard died, preventing anyone from reading the instructions on the flares to make use of them.

Figure 3



Damage to Kets starboard side

Figure 4



Kets damage aft



Carrie Kate stern drive damage

The lifeboat crew were paged at 2226. The inshore lifeboat was launched at 2231 and arrived on scene by 2235, by which time the passing vessel had departed. The lifeboat put one crewman onboard *Kets* and then checked on *Carrie Kate*. On establishing that no one on *Carrie Kate* was injured, the lifeboat returned to *Kets* to administer first-aid. A pilot boat and the all-weather lifeboat arrived a short while later. Ben was transferred to the inshore lifeboat, and from there was evacuated by helicopter. The other two injured crew from *Kets* were taken into St Mawes to a waiting ambulance and were taken to hospital. Ben's brother required an operation on a deep laceration on his right arm, and their friend suffered significant bruising and some internal injuries.

A search was briefly conducted for a fourth person, believed to be from *Kets*, until it was confirmed that only three people had been onboard when she left Falmouth.

Carrie Kate's passengers were transferred to the lifeboat and the vessel was towed into St Mawes harbour.

The police briefly interviewed those onboard and the helmsman was breathalysed. The alcohol in his body was found to be twice the legal limit permitted when driving a road vehicle. The postmortem for Ben Cochrane also revealed he was over twice the legal limit for a road vehicle.

1.5 EXPERIENCE OF HELMSMEN INVOLVED

Ben Cochrane, aged 30, had grown up near the sea and it had played a large part of his life. He left school at the age of 16 to start fishing with his father, before working for 11 years on a small trawler based at St Mawes. After that, Ben returned to work with his father on their 'under 10m' vessel for 2 years, before the decision was made to sell the family boat. Ben then became a painter and decorator.

Ben was very familiar with the local waters, was a keen gig rower and, before owning *Kets*, had been known to row between St Mawes and Falmouth. He had attended all four of the mandatory fishing safety courses: fire-fighting, sea survival and first-aid in April 1998, and the safety awareness course in September 2002.

Carrie Kate's helmsman, aged 30, had operated powerboats with his family from an early age, for both water skiing and general recreation, but had limited experience of navigating at night. In 1999, he moved from Cornwall to the Isles of Scilly, and began working for a local company as a crewman on a passenger ferry. After completing a practical examination, he obtained an 'EE' qualification (see **Annex A** for Isles of Scilly certification structure) issued by the Isles of Scilly Council on 28 April 2000. This enabled him to crew on larger passenger ferries around the Isles of Scilly and also to bring the ferry alongside the quay when no passengers were onboard. Having accrued sufficient experience, and after a further assessment, he obtained a 'DD' qualification in July 2003. This allowed him to helm vessels with fewer than 12 passengers onboard, from quay to quay, from an hour before sunrise until an hour after sunset. After obtaining this qualification, he continued to act as a crewman on the larger ferries but, when required, would helm one of the company's smaller ferries which carried only 12 passengers.

In May 2004, *Carrie Kate's* helmsman returned to the UK mainland to work in an office in Truro. The owner of *Carrie Kate* was his employer, and together they had taken 3-4 trips in *Carrie Kate* during which he had become familiar with the vessel and its controls.

The helmsman operating *Carrie Kate* at the time of the accident was considering his future career, and was contemplating obtaining an MCA Boatmaster's licence. This would have permitted him to operate a wider range of vessels within, and outside, the Isles of Scilly.

1.6 VESSEL DESCRIPTIONS

1.6.1 *Carrie Kate*

Carrie Kate was a Sea Ray 215 Express Cruiser, built in 1998 in the USA, **(Figure 1)**. The model had been in existence in various forms for 20 years. The design included a large cockpit with a small forward cabin containing two berths. The cockpit had comfortable seating for four, with two armchairs immediately behind the cabin, and a bench seat across the back of the boat. The vessel was propelled by a 5 litre inboard petrol engine, driving through a steerable stern drive. The manufacturer's figures quoted a maximum speed of the vessel as 38.3 to 41.7 knots (44-48 mph), dependent on the number of people onboard and how much fuel was carried.

The helm position was on the starboard side, with the basic controls and instruments as shown **(Figure 6)**. The throttle was mounted on the starboard side next to the seat. The instruments included a log, calibrated in mph, echo sounder, and engine oil and temperature gauges. The electrical switches controlled the horn, bilge pump, bathing platform shower and navigation lights. The navigation lights consisted of a combined red and green sidelight unit on the bow **(Figure 7)**, and an all-round white light on top of a 1.95m metal pole, which could be slotted into a socket on the starboard aft bulwark when required **(Figure 8)**. *Carrie Kate's* all-round white light and pole were reported as having been broken, and were not onboard at the time of the accident.

Carrie Kate had been purchased privately by her current owner 2-3 years before the accident. *Carrie Kate* was the largest boat he had owned, having owned a number of smaller speedboats over the previous 13 years. He mainly used the vessel to travel to local public houses and restaurants located on the banks of the Fal estuary and its creeks. His longest trip in *Carrie Kate* had been across Falmouth Bay to Helford Passage, and he had never intended to use the boat outside sheltered waters. When the owner was travelling in the dark, which was quite often, he would switch on the combined sidelight on the bow, and he carried a large torch onboard. He was not unduly concerned about the broken all-round white light, as he believed it was required only when anchoring.

1.6.2 *Kets*

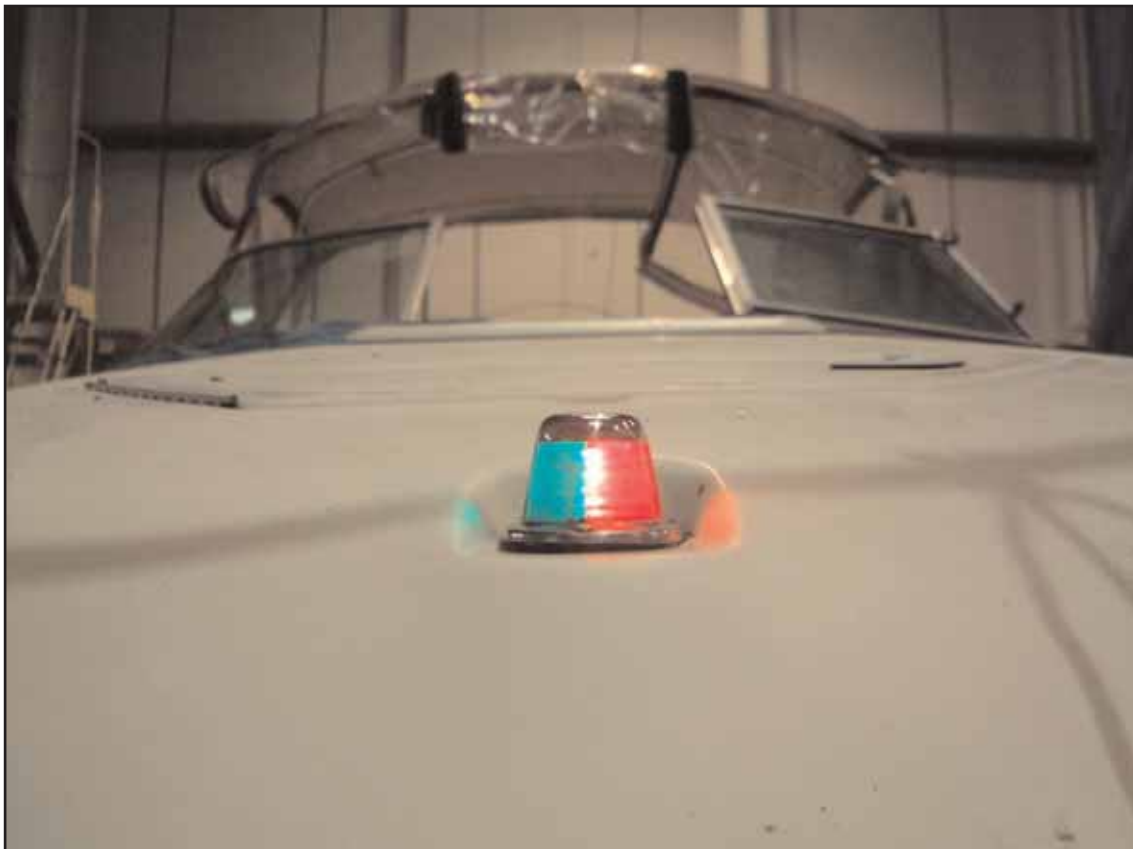
Kets was a 4.55m general purpose Dell Quay Dory **(Figure 2)**. Her age could not be determined, but it is known that Dell Quay stopped manufacturing this model of dory in 1970. The hull was of GRP foam sandwich construction which, the makers claimed, made the vessel unsinkable. *Kets* was powered by a 70hp Yamaha outboard engine with an electric power tilt for trimming the vessel when planing. Her top speed was not known, but was believed to be well in excess of 20 knots.

Figure 6



Carrie Kate's helm position

Figure 7



Carrie Kate's combined sidelight

Figure 8a



Carrie Kate's all round white light socket

Figure 8b



All round white light shown in position on another similar vessel

The helmsman's console, with its small windshield, was positioned on the starboard side of the boat, the throttle being mounted just inside the starboard grab-rail. A kill-cord was fitted, but the helmsman was not wearing it at the time of the accident. *Kets* had no navigation lights as the owners had not intended that she would be used in the dark. There were no other instruments or safety equipment onboard.

Kets was bought early in 2005 by four men in equal partnership. Ben Cochrane and his father were two of the owners. The previous owner was a friend of the Cochrane family and, as the vessel had been based in St Mawes for many years, she was well known to her new owners who kept the boat on a mooring on the Percuil River, not far from St Mawes harbour. *Kets* was described as being tidy and in good condition, and was intended purely for recreational activities in the local waters and not for use beyond St Anthony's lighthouse.

1.7 LOCAL INFORMATION

1.7.1 General

The Fal estuary (**Chart 3**) is a large natural harbour, and is a busy port as well as a popular recreational area. As a result of its diverse marine wildlife, the area has also been designated a special area of conservation (SAC). There are believed to be 6,500 boat moorings in the area, including those on the Helford River, and this figure does not include boats dry stored or launched from slipways. During the summer months in particular, the number of craft on the water is considerable. The area is well served by public houses and restaurants adjacent or near to the water.

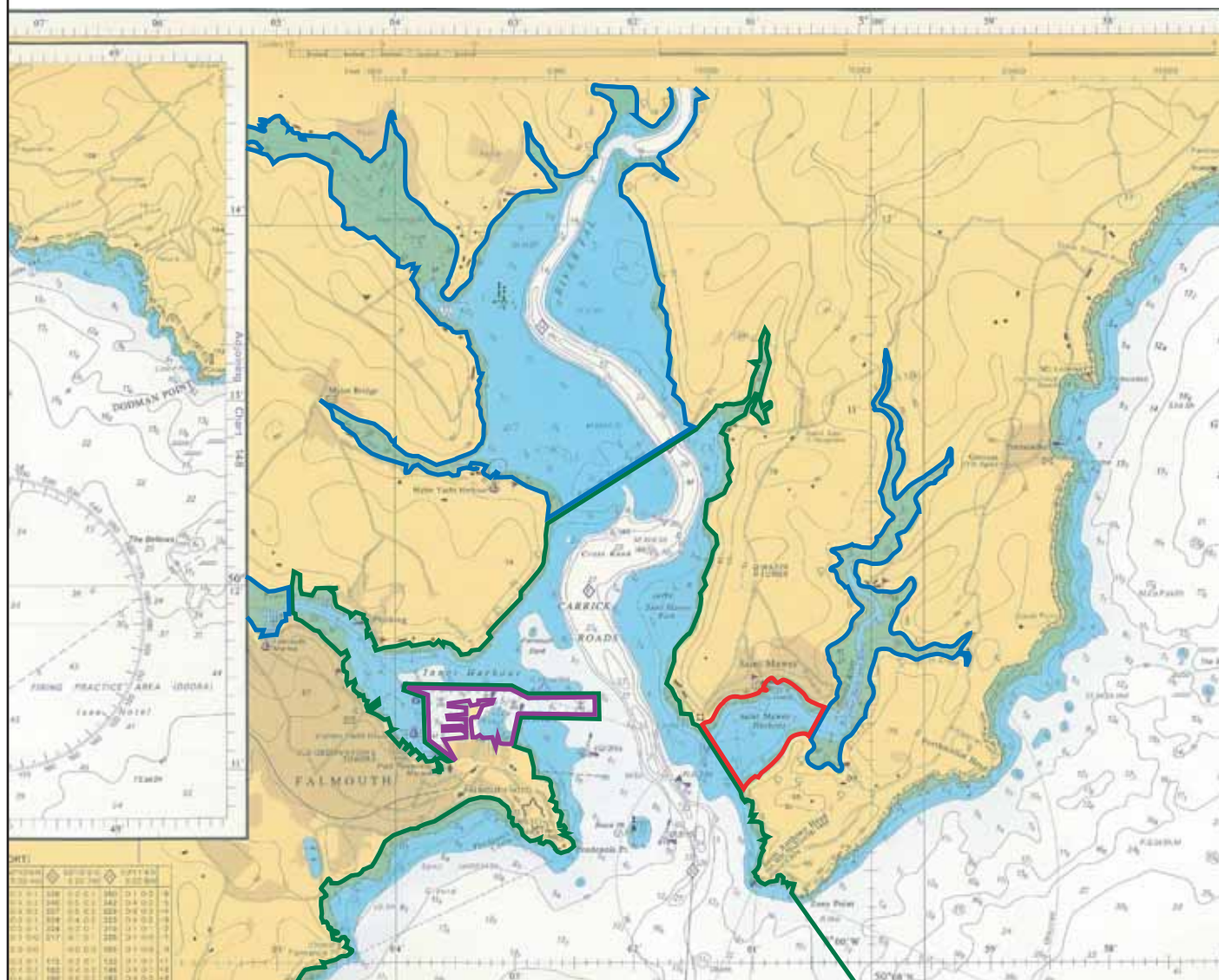
The 2.3 nm route between Falmouth and St Mawes is relatively sheltered and is especially busy during the summer season. At the entrance to St Mawes harbour area, an unlit cardinal buoy indicates safe passage to the south of Lugo rock. However, many small craft pass north of this mark as it is a shorter route and has adequate water at most states of the tide. At night, there is a reasonable amount of background light from Falmouth, but not from St Mawes. During the investigation it was reported on several occasions to MAIB inspectors that significant numbers of unlit craft were on the water at night during the summer, some of which were believed to be angling or vessels engaged in illegal fishing.

The control of the waters in this region, for mostly historical reasons, is complex. **Chart 3** shows the areas of responsibility of Falmouth Harbour Commissioners, Falmouth Docks, Carrick District Council (including Truro Harbourmaster) and the St Mawes Pier and Harbour Company.

Key

- St Mawes Pier and Harbour Company
- Falmouth Harbour Commissioners
- Falmouth Docks
- Under authority of Truro Harbour Master

Reproduced from Admiralty Chart 154 by permission of the Controller of HMSO and the UK Hydrographic Office



Falmouth Estuary and controlling Harbour Authorities

1.7.2 St Mawes Harbour Authority

St Mawes harbour is very busy during the summer, with numerous passenger services calling at the quay. It is a popular destination for recreational craft, with its picturesque harbour and local amenities, has a busy sailing club, and many of the boats from the estimated 750 moorings in the Percuil River have to pass through the harbour area to reach the Fal estuary and the sea.

The statutory harbour authority of St Mawes Pier and Harbour Company is privately owned and was constituted by Acts of Parliament in 1854 and 1934.

On 1 April 2005, a new harbourmaster was appointed by the board of directors. The resources available to him were relatively limited: a deputy, a launch, the quay and an office. He runs the harbour under the current harbour bye-laws, which came into force in 1979. The following pertinent extracts from the bye-laws concern speed, alcohol and navigation:

Vessels to be navigated with care

20. *The master of a vessel navigating in the Harbour shall ensure that his vessel is navigated with care and caution and at such a speed and in such a manner as not to be liable to endanger the lives of or cause injury or nuisance to persons or endanger the safety of or cause damage to other vessels or any moorings or any structure or to the banks of the harbour or any other property.*

Care and caution shall be used in navigating vessels when passing other vessels of all kinds whether moored or under way and in the neighbourhood of public swimming and bathing places or in or near small craft mooring areas.

Offence to navigate under the influence

21. *No person shall navigate any vessel within the Harbour whilst under the influence of drink or drugs to such an extent as to be incapable of taking proper control of the vessel.*

No water-skiing or aquaplaning

34. *No person shall take part in water-skiing or aquaplaning in the Harbour.*

Although aquaplaning was forbidden, and instructions to navigate with care had been included in the bye-laws, St Mawes harbour did not have a specific speed limit. No prosecutions have been pursued under these bye-laws, partly because their imprecise wording made prosecution difficult, but also because the fines that could be imposed were very limited. However, it had been acknowledged that the bye-laws were in need of updating, and the harbourmaster has embarked on this process. Since his arrival, the new harbourmaster has also introduced the harbour guideline pamphlet, reproduced at **Annex B**. This was the document handed to the helmsman of *Carrie Kate* on his second visit.

1.7.3 Falmouth Harbour Authority

Falmouth Harbour Commissioners first came into being in 1870. Their area of authority, 16nm² as shown in **Chart 3**, is the largest in the region stretching into Falmouth Bay, but not including Falmouth Docks which is its own authority. The harbour is operated as a trust port, reinvesting all profits for the benefit of all port users. They provide the pilot service for the port and the whole Fal estuary.

The current Harbour General Bye-laws, in place since 1986, were amended in 1996. In this amendment, only the penalties for infringement were updated to align with standard levels which are nationally set, so could be increased over

time. The harbourmaster believed the bye-laws needed further updating but, as there were significant delays processing new bye-law legislation in the Department for Transport, he did not see this as an immediate way to improve matters. Other approaches have therefore been pursued. For example, an advisory group was created to bring all the water users together once a year, with the aim of discussing and eliminating conflicts. Anglers, divers, sailors, fishermen and water-skiers have all been represented in the past, and the forum was considered to be very successful. A pamphlet was also produced for distribution to water users, and is reproduced at **Annex C**.

The existing Falmouth Harbour Commissioners' bye-laws included an identical paragraph to that in the St Mawes bye-laws on navigating under the influence of alcohol. Water-skiing, aquaplaning etc were permitted in designated areas, and a speed limit of 8 knots was imposed west of a line drawn from the light on the Northern Arm of Falmouth Docks Basin, to Trefusis Point, see **Chart 1**. There was no speed limit in Carrick Roads. Prosecution under the harbour's bye-laws was unusual because they could be difficult to apply.

1.7.4 Truro Harbour Authority

Truro Harbour is a municipal port run by Carrick District Council. The harbourmaster had authority for the port of Truro as defined in **Chart 3**, the Port of Penryn and the Percuil River. The harbourmaster also licensed craft and operators of 'under 12 person' craft, having been delegated authority to do so by the MCA. Of all the local authorities, Truro had the most modern bye-laws, which had been brought into force in November 1992.

The bye-laws defined an 8 knot speed limit north of Turnaware Bar starboard hand mark for the port of Truro, in the Port of Penryn, and in the Percuil River. The harbour authority carried out patrols everyday between April and September, including occasionally covering the Percuil and Penryn rivers.

A Marine Safety Committee was created in 2002, whose membership comprised Falmouth Docks, Falmouth Oil Services, Falmouth Pilots, Falmouth Harbour Commissioners and the Ports of Truro and Penryn. The aim of the group was to ensure the safety of marine operations across the local authorities. At the time of the accident, St Mawes harbour was not represented on the committee. The issue of vessel wash was a major concern of the committee, as highlighted at its meeting in June 2005, speedboats being seemingly unaware of the wash they create and how it affects smaller craft. This was in spite of a 2 year campaign of the harbour patrol stopping any vessels creating excessive wash and briefing their helmsmen on the hazard they were creating. In summer 2005, RYA leaflets promoting considerate behaviour by water users were circulated in the Falmouth Harbour Commissioners and Truro Harbour areas. However, many of those consulted during this investigation commented on the significant number of speedboats, and their excessive wash, operating locally during summer 2005.

1.8 THE INTERNATIONAL REGULATIONS FOR PREVENTING COLLISIONS AT SEA (COLREGS)

The COLREGS apply to all vessels on the high seas, and in all waters connected to the high seas navigable by sea-going vessels. As such, a basic understanding of the COLREGS is essential before venturing on to the water. **Annex D** contains extracts from the COLREGS which are pertinent to this accident.

1.9 SECOND COLLISION NEAR CASTLE POINT

A second collision near Castle Point occurred on 12 August 2005 between a water taxi and an angling vessel. The angling vessel's bow was severed in the collision, and the boat sank. The two occupants were rescued by the water taxi, which suffered some minor damage. Fortunately there were no injuries.

Accident investigations were carried out by the St Mawes Harbourmaster and Truro Harbourmaster. The former, because the accident was in St Mawes harbour waters, and the latter because Truro Harbourmaster had licensed the helmsman of the water taxi.

The accident occurred at night, very close to the location of the *Carrie Kate* and *Kets* collision. The water taxi had left St Mawes with just the helmsman onboard, and was headed towards Mylor. As he rounded Castle Point, the helmsman saw an oyster punt immediately ahead. He turned to starboard, but the water taxi still caught the bow of the punt. The helmsman estimated he was doing 20-24 knots at the time of the collision. The men in the punt had been fishing, and were not showing any fixed navigation lights.

SECTION 2 - ANALYSIS

2.1 AIM

The purpose of the analysis is to determine the contributory causes and circumstances of the accident as a basis for making recommendations to prevent similar accidents occurring in the future.

2.2 CAUSE OF ACCIDENT

The cause of this tragic accident was that neither of the vessels involved saw the other in enough time to take effective avoiding action. Contributing to this was:

- The speed of the vessels;
- The lack of navigation lights;
- The training and experience of the helmsmen; and
- That both helmsmen were navigating while under the influence of alcohol.

2.3 FATIGUE

Fatigue is not considered to be a contributory factor in this accident.

2.4 COLREGS FACTORS

2.4.1 Speed

High closing speed was a significant factor in this accident. A slower closing speed would have increased the time available to sight the other vessel and react. It would also have lessened the impact, and therefore the effect of the accident. The resulting consequences of the other contributory factors would therefore have been diminished.

Safe speed, as defined in Rule 6 of the COLREGS (**Annex D**), requires that *'Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions'*. Rule 6 discusses the factors to be taken into account, specifically: visibility, traffic density and the presence of background lights. The helmsmen should have considered the following:

- As local water users, they might well have been aware that unlit boats were a regular hazard.
- Although it was not quite fully dark, visibility of unlit objects was significantly reduced when compared to daylight visibility. The background light from the shore would have hampered further the visibility of unlit objects, and the area was known to be busy, particularly in the summer.

- Although under normal conditions both helmsmen could reasonably have expected other vessels operating at night to be showing identifying navigation lights, their own vessels were almost certainly unlit.

Neither helmsman believed they were travelling too fast for the conditions, and both thought they had clear water ahead of them. However, their vision was not sufficiently good so as to prevent them from colliding at high speed with an unlit object, in this case another boat. Their speed was therefore too fast for the prevailing conditions.

Excessive speed can also affect the safety of other water users. Operators of powerboats can forget the hazard their wash creates, particularly to smaller craft. Often, failure to realise there is a problem is due to the effect of the wash being felt some distance from the vessel creating it. Waves created by wash can travel long distances, and the waves will increase in size if they pass from deep water into shallower areas such as beaches, anchorages and harbours. Inexperienced boat users may be unaware of the hazard created by excessive wash if they have not undergone any training before taking to the water. However, experienced boat operators will be aware of the dangers of excessive wash and most, in consideration of other water users, will moderate their speed accordingly.

2.4.2 Rights of way

The COLREGS (**Annex D**) also define, for different situations, which vessel must give way and what avoiding action they must take to prevent a collision. When two vessels are approaching each other head on or near head on Rule 14 applies, and both vessels shall alter course to starboard. If two vessels are in a crossing situation then Rule 15 applies, and the vessel with another on her starboard side shall keep clear.

A number of factors were considered relevant to this accident:

- a) Given that *Carrie Kate* and *Kets* were on reciprocal passages between St Mawes and Falmouth harbours it is highly likely they were in a head on, or near head on situation. Instinctively, in this situation, both helmsmen should turn to starboard and not to port, which is what *Kets* did on this occasion, after seeing a bow wave broadly ahead. This may suggest the vessels were not head on, or that the rules in the COLREGS were not appreciated.
- b) A passenger in *Carrie Kate* believes they saw a dark silhouette moving from right to left immediately before the collision. This, coupled with the fact that *Kets* turned to port may suggest there was some crossing component to the two vessels' courses. If the dark silhouette moving from right to left was *Kets*, then *Carrie Kate* was the give way vessel and should have taken avoiding action.

- c) Evidence from the impact damage shows that *Carrie Kate* struck *Kets* at an acute angle on the starboard side, and crossed *Kets* at an angle of 20°-30°. This may suggest that *Kets* had *Carrie Kate* on her starboard side and that *Kets* was the give way vessel.

MAIB was unable to be certain of the exact approach angles, and whether either vessel bore more burden than the other for altering course. It was also impossible to determine whether, if *Kets* had altered to starboard instead of port, she would have avoided the collision. However, the argument of which vessel should or should not have given way is academic, as neither vessel's helmsman saw the other, in enough time to prevent a collision.

2.4.3 Navigation lights

Part C of the COLREGS (**Annex D**) requires the appropriate navigation lights to be exhibited from sunset to sunrise [Rule 20], and vessels of under 12m to exhibit an all-round white light and sidelights [Rule 23]. Navigation lights achieve three main purposes: they make a vessel visible at night; they help the observer determine the aspect of the vessel; and they provide vital information on the type of vessel and dangers it presents. In this accident, the conditions were described as being not really dark, due to the moonlight. However, the COLREGS leave no room for ambiguity – sunset had occurred an hour before the accident, and both vessels should have been showing the appropriate navigation lights.

Kets was not equipped with any navigation lights as her owners did not intend to use her at night. It is assessed, therefore, that in choosing to navigate after sunset, without navigation lights, the helmsman was either unaware of the requirements in the COLREGS, or chose to ignore them.

Carrie Kate could only have exhibited her combined red and green sidelights, the all-round white light pole fixture being absent from the vessel at the time of the collision. Witnesses ashore and in *Kets* could not remember seeing any navigation lights on *Carrie Kate*. Also, given the helmsman's lack of experience of navigating at night, and other evidence collected, it is concluded that the sidelights on *Carrie Kate* were probably not illuminated. Like the helmsman of *Kets*, the helmsman was either unaware of the requirements of the COLREGS, or chose to ignore them.

2.4.4 COLREGS awareness

There is no requirement for leisure craft users, or fishermen operating fishing vessels under 16.5m in length, to undertake any training in, or demonstrate any knowledge of the COLREGS, though they are bound by the regulations themselves to apply them when navigating on the high seas or waters connected to the high seas.

Ben Cochrane had attended all the mandatory fishing safety courses, but none of these covered any aspect of safe navigation by day or night, or application of the COLREGS. *Carrie Kate's* helmsman had obtained local Isles of Scilly qualifications in boat operation, but the test for this had been a practical pilotage assessment which did not include night navigation, high speed operations, or application of the COLREGS.

Both helmsmen were described as experienced boatmen. However, their experience does not appear to have equipped them well for operating fast craft in a busy shipping area by night, and in this accident their application of the COLREGS was inadequate.

2.5 SAFETY EQUIPMENT

Neither of the vessels involved in this accident carried any safety equipment. None of the personnel involved were wearing lifejackets for the night passages across the Fal estuary, and neither boat carried lifejackets for the crew and passengers onboard. Nor, did either vessel have any distress flares or marine band VHF radios, leading to the alarm being raised by using a mobile phone. When flares were offered by a passing boat, the torch onboard *Carrie Kate* failed, rendering the flares useless because no-one onboard could read the instructions and they were not familiar with the flares' operation.

Although not a contributory factor to this accident, the outboard engine's kill-cord on *Kets* was not attached to the helmsman. The purpose of the kill-cord is to stop the engine if the helmsman is thrown from the steering position. If the kill-cord is pulled, it breaks the ignition circuit of the engine and causes it to stop. It was very fortunate in this accident that the engine on *Kets* stopped as a result of the collision, otherwise the vessel could have continued out of control, causing further damage and injury.

Advice on basic safety equipment in leisure boats is available from the MCA and RYA, and the RNLI runs a highly regarded Sea Check scheme which involves inspection of vessels by suitably trained volunteers. However, unlike commercially operated craft, there is no mandatory requirement for leisure craft to carry basic safety equipment. A list of mandatory safety equipment for an equivalent commercially operated vessel is at **Annex E**.

In this accident, neither helmsmen had considered the safety equipment appropriate for their trips, and both were completely unprepared for any emergency.

2.6 TRAINING

In the UK, leisure craft users are not required to hold any qualification in vessel operation before taking their boats to sea, although a number of local harbour authorities require proof of competence before allowing some activities in their area. Where proof of competence is required, many authorities accept appropriate RYA qualifications as adequate evidence of ability.

The RYA offers training under the National Powerboat Scheme (**Annex F**) to meet the needs of those who use small, open powerboats for leisure. Due to *Carrie Kate's* size, her helmsman could have trained under this scheme or, for extended cruising, under the more comprehensive RYA Motor Cruising Scheme. The National Powerboat Scheme covers night navigation on the 2 day Advanced Powerboat Course, the aim of which is: *'to teach boat handling, seamanship, pilotage and navigation up to the standards required to drive a planing powerboat safely by day and night in tidal coastal waters with which the candidate may be familiar'*. Before attempting the advanced course, candidates following the scheme will usually have completed 5 days' training at an RYA recognised training centre (a 1 day Level One course, 2 days Level Two course and 2 days Intermediate course), and they must hold first-aid and VHF operator's certificates. The step to high speed navigation at night must not be underestimated and, even with training, night navigation skills are only really honed through practice and experience.

Neither the mandatory fishing safety courses, nor the Isles of Scilly boatman's qualifications, provided the helmsmen of the two vessels with the level of training found in the RYA's Advanced Powerboat Course. Had they undergone RYA training or similar, they would have been aware of the COLREGS requirement to travel at a safe speed and the need to show the appropriate navigation lights at night. They would also have understood the benefit of carrying, and at night possibly wearing, lifejackets, and would have ensured their vessels carried basic safety equipment such as flares, VHF and torches. Ben Cochrane would also have been alert to the vital safety role played by the kill-cord.

That there are leisure boaters regularly operating without basic safety equipment, and with little or no awareness of the principles of navigation and the COLREGS, is a cause for concern. Unfortunately, the extent of the problem is difficult to quantify, as there is little reliable statistical data collected on leisure accidents. The Merchant Shipping (Accident Reporting and Investigation) Regulations 2005, require that commercial users of the sea report all accidents, as defined by the regulations, to the MAIB. This regulation does not apply to leisure users. However, an MAIB trial during the summer months of 2005, using data reported to HM Coastguard showed that during the peak leisure boating season, leisure boat accidents outnumbered combined merchant and fishing vessel accidents by 3:1. In one summer month alone, leisure accidents equalled half the total number of accidents normally reported to MAIB in a whole year.

In this case, as discussed below, both helmsmen were significantly over the drink-drive limit for car driving, and therefore the cause of this accident cannot be blamed solely on inadequate training. However, with evermore people spending their leisure time on the water, it is essential that information on the number and type of leisure craft accidents is obtained, to enable problem areas and trends to be identified and addressed.

2.7 ALCOHOL AND BOATING

2.7.1 The effects of alcohol

The effects of alcohol vary highly between individuals. Impairment of motor coordination, unsteady gait, slurring of speech, and slowed reaction time are the classic, visible effects. Mood is affected by reducing anxiety, relaxing inhibitions, and increasing confidence. This may be manifest in impulsiveness, deliberate risk taking, or insensitivity to risk.

A blood alcohol concentration of roughly twice the drink-driving limit is sufficient to induce gross intoxication in 90% of individuals.

2.7.2 Alcohol and the accident

The key effects of alcohol pertinent to this accident are:

- Reduced peripheral vision;
- Poor night vision;
- Affected cognitive ability and deterioration of judgment; and
- Significantly slower reaction times.

In short, drinking alcohol affects an individual's ability to think clearly and act wisely, and the hazards of drinking and driving a car have been recognised for a long time. The UK's alcohol limits for road driving, set in 1966, established a legal limit at 80mg of alcohol per 100ml of blood, at which level there is already a marked effect on an individual's ability to make decisions. In this accident, both helmsmen were found with levels of alcohol in their bodies which were over twice the legal limit permitted when driving a road vehicle. Travelling across a stretch of busy water, in near darkness, at speed, requires good vision, good judgment and quick reaction times: everything alcohol will suppress.

In choosing to undertake their night crossings between Falmouth and St Mawes, with no lifejackets or safety equipment onboard and, in one case, without any navigation lights available, both helmsmen showed poor judgment. That they then chose to travel at high speed in the prevailing circumstances, was also unwise, especially since their reduced night vision and slowed reaction times caused by alcohol consumption had already eroded their safety margins. In these circumstances, the key effects listed above had fatal consequences.

Even if there had been no question at all about the training and experience of the helmsmen involved with respect to navigating high speed craft at night, it is certain is that the alcohol they had consumed impaired their judgment and their ability to react to a dangerous situation.

2.7.3 Legislation

Carrie Kate's helmsman did recognize the dangers of drinking while driving a car, and would not drink while helming professionally. However, he had seen leisure boating in a different light, and had not considered anything wrong with being in charge of a speedboat and drinking. *Carrie Kate's* owner had actually bought the vessel so he could visit local public houses and restaurants without worrying about drinking and driving his car.

There were no national laws against navigating on water while under the influence of alcohol until the Railways and Transport Safety Act 2003 (Commencement No 2). Order 2004 imposed alcohol limits on professional mariners. It was originally intended that leisure craft users would also be covered by the Act, but, in the event, they were initially exempted due to objections raised during the first consultation. That only professional mariners were subject to restrictions remains a contentious issue within the industry, and the Department for Transport (DfT) carried out a further consultation in 2004 seeking views on how the Act should be extended to non-professionals. DfT has committed to further reviewing the need to include leisure users in the Act.

Like many harbours, the local harbour bye-laws covering the Fal estuary area include sections prohibiting navigation while under the influence of alcohol. However, the wording is imprecise, and a local harbourmaster has been advised that prosecution under the bye-laws would be difficult to achieve. Also, in one case, the scale of punishments available following a successful conviction is totally inadequate. Some harbourmasters are actively attempting to update their bye-laws, but those interviewed locally were unanimous in wanting national alcohol limits set, which they would then apply locally.

Introducing an alcohol limit for users of leisure craft, in line with the national driving limits and that applied to commercial mariners, would act as a deterrent. Applying the regulation nationally would avoid legislation-free zones which could become magnets for those choosing to continue navigating while under the influence of alcohol. The consumption of alcohol played a major role in this accident. Without it, the judgment of the helmsmen would not have been impaired, and their ability to see at night and react to emergencies would have been improved. Had boating while under the influence of alcohol been illegal, both helmsmen might have thought twice before starting their trips.

2.8 LOCAL ISSUES

2.8.1 Speed limits

The accident occurred on the edge of Carrick Roads, a wide area of deep, sheltered water which is used by many different craft and includes a waterskiing area. Imposing a speed limit in this area would be difficult for the local harbours to enforce, due to the extra resources required, and would be very unwelcome to the users. The adjacent St Mawes harbour area did not have a speed limit at

the time of the accident, but the harbour bye-laws prohibited aquaplaning, an outdated term that lacked contemporary meaning and was unenforceable. The St Mawes Harbourmaster had twice identified *Carrie Kate* as a vessel which was creating excessive wash due to speed on the day of the accident, and it was from the St Mawes harbour area that *Carrie Kate* had emerged just before the accident.

While imposing a sensible speed limit in St Mawes harbour area might not have prevented this accident, it would reduce the risk to other water users within the busy harbour area. Extending this speed limit into the Carrick Roads area to cover the local busy convergence point of Castle Point, would reduce the chance of high speed collisions occurring there.

2.8.2 Unlit craft

It has become apparent during this investigation that unlit craft were known to operate at night in parts of the Fal estuary. This occurred more frequently in the summer months and included anglers, illegal fishermen, and others travelling home in small craft after an evening out. Individually and collectively, these craft placed themselves and others at great risk. However, the issue of unlit craft had never been raised at any of the local marine safety advisory group meetings.

Operating power driven craft at night without navigation lights is expressly forbidden by the COLREGS. The Port Marine Safety Code (PMSC) (Section 1.2.1.A) requires harbour authorities '*... to take reasonable care ... that all who may choose to navigate it [the harbour] may do so without danger to their lives and property*'. Section 2.4 of the PMSC provides guidance on the regulation and management of navigation, sub-paragraph B, stating that '*Harbour authorities have a duty to make proper use of powers to make bye-laws, and to give directions (including pilotage directions) to regulate vessel movements in their waters*'. The harbour authorities, therefore, have a duty and the powers to tackle the issue of unlit craft in their area, if known to be a problem.

2.8.3 Local bye-laws

During this investigation, the effectiveness of some local harbour bye-laws has been questioned, possibly due to the bye-laws being out-of-date. There have been long delays in the process of harbour bye-law revisions in the past, with the consequence that bye-laws were not seen as a practical reactive means of managing safety in the Fal estuary ports and harbour areas. Accelerating the process for reviewing and approving bye-laws would restore their usefulness and credibility with harbour authorities, who would then have no reason not to apply them rigorously.

2.8.4 Culture

The sheltered and picturesque Fal estuary, with its many creeks, is an ideal area for recreational craft. It is justifiably popular with the leisure boating community. There is also a significant number of restaurants and public houses in close proximity to the water. Three separate parties in this investigation apparently saw nothing wrong in consuming alcohol and navigating on the water. This might be indicative of a wider drinking and boating culture in this area. The local bye-laws currently do little to discourage this activity as, in their current form, they are unenforceable. It would be appropriate for the issue to be the subject of a local education campaign, which should be aimed at persuading the leisure boating community that drinking and boating is dangerous, and can kill.

2.9 **SIMILAR ACCIDENT**

A month after the fatal accident, a second collision occurred in the same area off Castle Point between a high speed water taxi and an unlit fishing dory. The dory was cut in two by the water taxi and sank, but fortunately both the occupants of the fishing vessel were uninjured. In this accident, alcohol was not involved, but in other respects there were many striking similarities between the two accidents. Speed, and the absence of any navigation lights on the angling vessel, were again significant issues, preventing the helmsman of the water taxi from taking evasive action early enough to avoid the collision. This second accident serves to reinforce many of the safety issues identified in this investigation, and the need for local action.

SECTION 3 - CONCLUSIONS

3.1 SAFETY ISSUES

The following safety issues have been highlighted by the investigation. They are not listed in any order of priority.

COLREGS factors

1. The closing speed of the vessels was a key factor in the collision. [2.4.1]
2. Neither vessel was using navigational lights as required by the collision regulations. [2.4.3]
3. Both skippers were described as experienced boatmen yet, in this accident, their application of the COLREGS was inadequate. [2.4.4]

Training

4. Neither craft involved in the accident carried any useful safety equipment. [2.5]
5. The engine's kill-cord was not connected to the helmsman in *Kets*. [2.5]
6. Leisure craft users are not required to hold any qualification in vessel operation before taking their boats to sea. [2.6]
7. Neither the mandatory fishing safety courses, nor the Isles of Scilly boatman's qualifications provided the helmsmen of the two vessels with the level of training that was sufficient for them to operate high speed craft at night. [2.6]
8. The extent to which leisure boat users operate their craft without appropriate levels of safety equipment, or with insufficient knowledge of the principles of navigation and the COLREGS, is difficult to quantify because there is little reliable statistical data collected on leisure accidents. [2.6]

Influence of alcohol

9. Both helmsmen were operating their vessels while under the influence of alcohol, and were over twice the drink driving limit for road vehicles. [2.7.2]
10. There is currently no national law against navigating a privately owned leisure vessel while under the influence of alcohol. [2.7.3]

Local issues

11. There was no speed limit within the waters of St Mawes Harbour. [2.8.1]
12. Unlit craft frequently operate at night in areas of the Fal estuary. [2.8.2]
13. The effectiveness of some local harbour bye-laws is questionable. [2.8.3]
14. Evidence collected in this investigation might be indicative of a wider drinking and boating culture in the Fal estuary. [2.8.4]

SECTION 4 - ACTION TAKEN

4.1 ACTION TAKEN BY ST MAWES HARBOURMASTER

Since the accident, the harbourmaster at St Mawes has arranged and held the first St Mawes harbour users' meeting on 6 October 2005. At that meeting, one of the key decisions taken was to introduce an 8 knot speed limit in the St Mawes harbour area, and a 5 knot speed limit within the moorings. This is planned to be in force from the spring of 2006, ready for the summer season.

4.2 ACTION TAKEN BY FALMOUTH HARBOURMASTER

The St Mawes Harbourmaster has also now been invited to attend the Marine Safety Committee by Falmouth Harbourmaster.

4.3 ACTION TAKEN BY THE RYA

The RYA will produce and publicise information providing advice to leisure boat users in the event of a major accident. The advice will include a recommendation to contact the MAIB.

SECTION 5 - RECOMMENDATIONS

The **Department for Transport** is recommended to:

- 2006/133 Work closely with the RYA, MCA and other relevant stakeholders to realise the urgent introduction of national regulations to establish limits on the amount of alcohol which may be consumed by operators of leisure vessels.
- 2006/134 Review the process for approval of new harbour bye-laws with a view to reducing the time taken for this.

St Mawes Pier and Harbour Company, Falmouth Harbour Commissioners and Truro Harbour Authority are recommended to:

- 2006/135 Collectively review the standard of leisure boat activity in their area, and consider what steps should be taken to improve the overall safety of leisure boat operations.

Marine Accident Investigation Branch
February 2006

Safety recommendations shall in no case create a presumption of blame or liability