

Extract from The United Kingdom Merchant Shipping (Accident Reporting and Investigation) Regulations 2012 – Regulation 5:

“The sole objective of a safety investigation into an accident under these Regulations shall be the prevention of future accidents through the ascertainment of its causes and circumstances. It shall not be the purpose of such an investigation to determine liability nor, except so far as is necessary to achieve its objective, to apportion blame.”

As the full investigation report will not be published within 12 months of the accident date, this interim report is published, pursuant to Regulation 14(2)(b) of the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012.

NOTE

This report is not written with litigation in mind and, pursuant to Regulation 14(14) of the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012, shall be inadmissible in any judicial proceedings whose purpose, or one of whose purposes is to attribute or apportion liability or blame.

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Interim report on the investigation of the collision between the high speed passenger craft *Seadogz* and a navigation buoy resulting in one fatality in Southampton Water on 22 August 2020

The aim of this interim report is to inform operators of small high speed passenger craft and UK port authorities of the circumstances of the accident and MAIB’s initial findings so that appropriate actions can be taken ahead of the boating season. A full report will be published when the investigation is complete.

The information contained in this interim report is based on investigations to date. Readers are cautioned that new evidence may become available that might alter the circumstances as depicted in this report.

Background

Seadogz Rib Charter Ltd owned and commercially operated two rigid inflatable boats (RIB), *Seadogz* and *Jack Black* (Figure 1). The company offered a range of excursions using the boats within the Solent area, which included: *Extreme RIB Experiences*, *Treasure Hunts*, *Corporate Team Building Events*, and trips for Stag and Hen parties. *Seadogz* was approved to operate in area Category 4¹, and its compliance with *The Small Commercial Vessel and Pilot Boat Code of Practice* (SCV Code) was verified by the Yacht Designers and Surveyors Association, a Maritime and Coastguard Agency (MCA) approved certifying authority.



Figure 1: *Jack Black* at Ocean Village marina - illustrating a similar seating arrangement to *Seadogz*

¹ Up to 20 miles from a safe haven, in favourable weather and in daylight.

Seadogz was designed and manufactured by Red Bay Ribs Ltd in 2012 with a high sheer bow, deep 'v'-shaped hull, and inflatable tubes with seven buoyancy chambers. *Seadogz* was equipped with twin 300hp Yamaha outboard engines that, when first fitted, could drive the RIB at speeds of up to 55kts. The passenger seating on *Seadogz* comprised of nine cushioned jockey style seats and one cushioned bench seat that could accommodate three passengers. A semi-circular stainless-steel handrail was provided for each passenger at the front of their seat. Except for the front row seats, the passenger handrails were built into the jockey seat back rests. Due to the staggered configuration of the jockey seats, the handrail for the central position on the bench seat was extended and stiffened by a stainless-steel tie rod. There were two further jockey seats behind the helm console for crew.

Seadogz's skipper was a highly qualified and experienced RIB driver; he had local knowledge of Southampton Water and had worked for *Seadogz* Rib Charter Ltd on an ad-hoc basis for over 8 years. The North-West Netley buoy was painted green. It weighed about 5 tonnes, had a diameter of 3m and when afloat there was about 4.6m visible above the waterline.

Narrative

At 0930 on 22 August 2020, 11 pre-booked passengers gathered at the RIB operator's meeting point at Ocean Village marina, Southampton, for a 60-minute excursion on board *Seadogz*. The group included two families of four, a party of two and one individual passenger.

Seadogz's skipper introduced himself to the group and explained that the ride would be fast with high speed turns, reaching speeds up to 40kts. The skipper continued with a safety brief, which included instruction on the automatic inflation lifejackets issued and Covid-19 protection measures. Finally, he told the passengers that the boat was "very fast" and that if they felt uncomfortable during the excursion, they should raise their hand in the air and he would bring the boat to a stop. After leading the passengers to the boat the skipper allocated seating, keeping the family groups together as much as possible; three female passengers, a mother and her two daughters, were assigned the bench seat.

At 0946, *Seadogz* departed the marina (**Figure 2**) and moved toward Southampton Water. The weather was overcast with bright spells, the winds were 17kts from the west-south-west with gusts of 25kts, and the sea state was slight.

At 0959, *Seadogz* passed the Weston Shelf buoy (**Figure 2**) at a speed of about 33.1kts. Once clear of the buoy, the skipper put on some loud music and increased to speeds between 30kts and 40kts. During the next 12 minutes *Seadogz* carried out high speed manoeuvres up and down Southampton Water, zig-zagging across the main channel, passing close to navigation buoys and conducting figure-of-eight turns in order to cross its own wake (**Figure 3**).

At 1008, *Seadogz* passed the car ferry *Red Falcon*, which was proceeding on a south-east course down Southampton Water. This offered the skipper an opportunity to drive *Seadogz* across, and so to jump over the ferry's wake. As *Seadogz* passed astern of *Red Falcon* for the fifth time the RIB accelerated on a steady easterly heading for 10 seconds until, at 1011:09 and at a speed of 38.4kts (44.2mph), it collided with the North-West Netley starboard hand buoy (**Figure 4**).

The force of *Seadogz's* head-on impact knocked the buoy over to an almost horizontal position and threw the RIB's bow upwards. The impact and abrupt deceleration forces caused all on board to be thrown violently forward from their seats. Two of the passengers seated in the front row of jockey seats were thrown out of the boat and into the water where their lifejackets inflated automatically.

Injuries and damage

Everyone on board *Seadogz*, except for one passenger, sustained injuries during the collision, including; broken limbs, fractured vertebrae, dislocations and a punctured lung. Emily Lewis, a 15-year-old passenger who was sitting on the bench seat in the middle, sustained fatal internal injuries.

The forward three sections of the buoyancy tubes on *Seadogz's* port side were punctured and the bow of the GRP hull was severely damaged. Several of the steel framed jockey seat backs were bent forward by the force of passengers hitting them.

Initial findings

The accident

Seadogz collided with the North-West Netley buoy because the RIB's skipper was concentrating on conducting high speed manoeuvres in close proximity to another vessel and did not see the fixed navigational mark in time to take avoiding action. The reasons why the skipper did not see the buoy and the factors that contributed to the tragic consequences of the collision will be discussed in detail in the full investigation report.

The Passenger Safety on Small Commercial High Speed Craft & Experience Rides voluntary Code of Practice

Commercial passenger RIB tours, RIB thrill rides and other similar high speed trips have become increasingly popular in locations around the UK with the number of operators rising significantly over the past 10 years. Most high speed passenger ride craft are certified by the MCA, so meet the standards set out in the SCV Code, but the conduct of operations and safety management are largely self-regulated.

In 2010, in response to an MAIB investigation report², the *Passenger Safety on Small Commercial High Speed Craft & Experience Rides* voluntary Code of Practice (CoP) was published. The voluntary CoP, aimed at commercial operators of high speed passenger craft, was last reviewed and Edition 3 published by British Marine, the Royal Yachting Association and the Passenger Boat Association in 2019.

Reproduced from Admiralty Chart 2041 by permission of HMSO and the UK Hydrographic Office

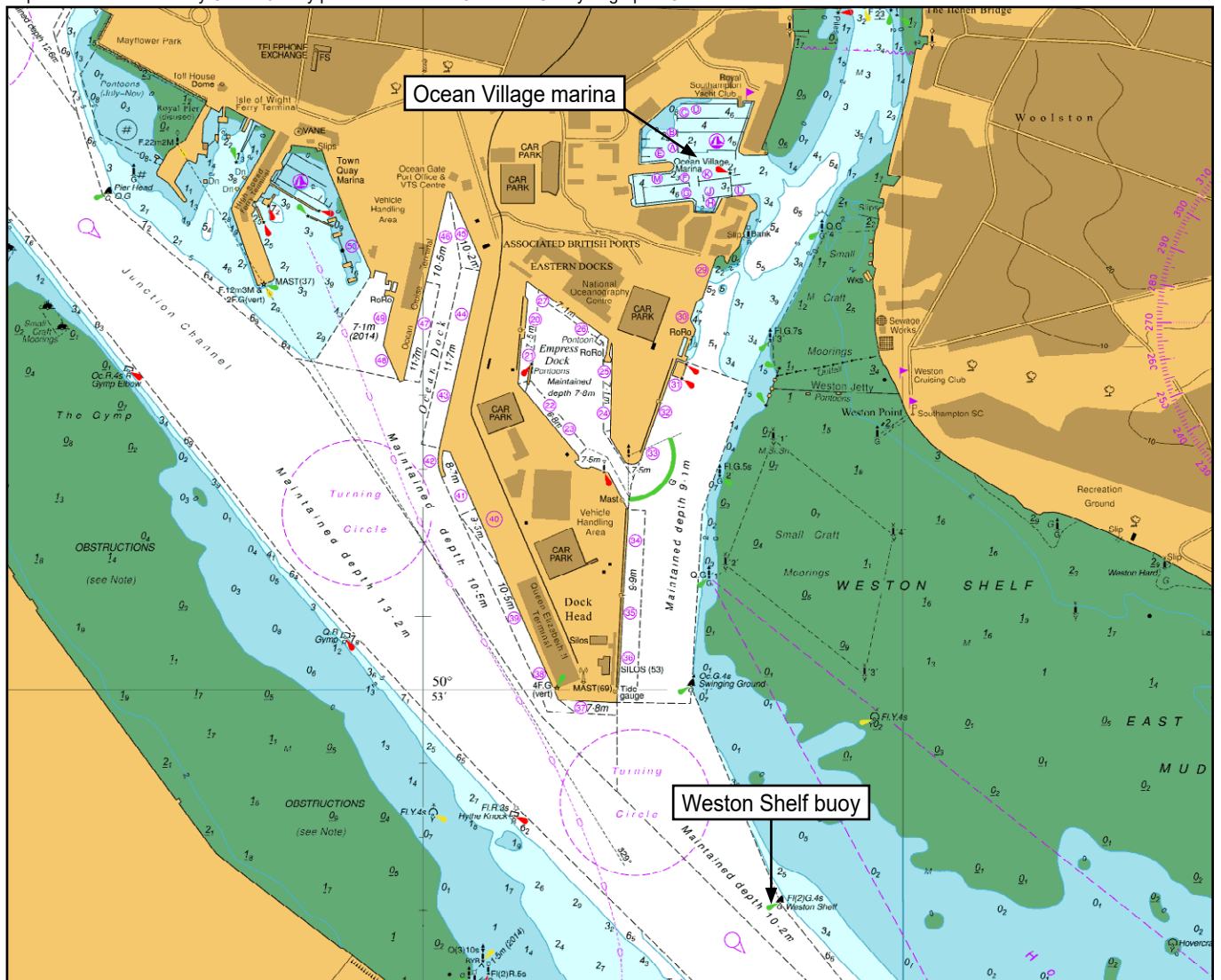


Figure 2: Extract of BA Chart 2041, showing Ocean Village and the Weston Shelf buoy

² MAIB Report 11/2009.

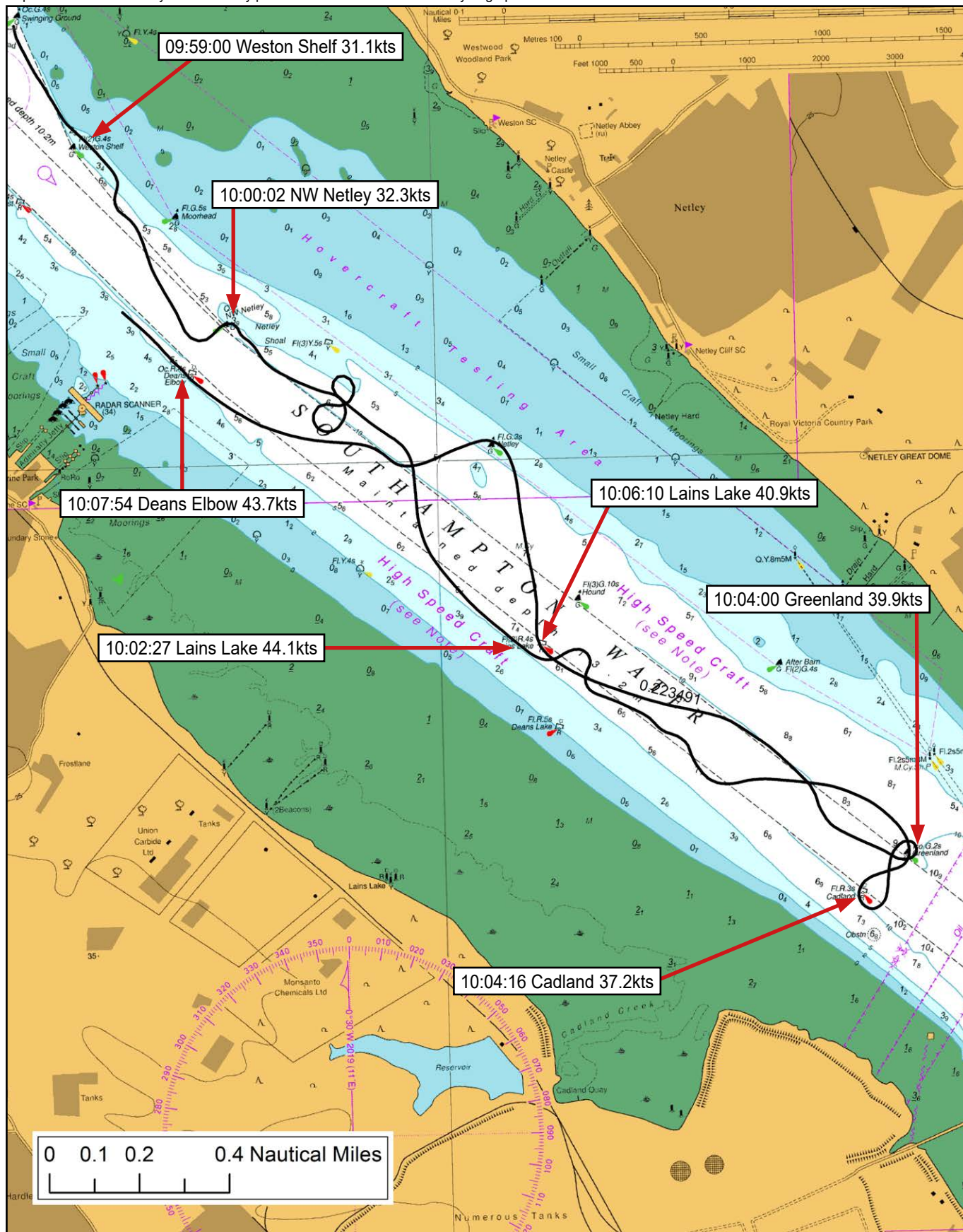


Figure 3: Still from MAIB MADAS replay showing route and speeds

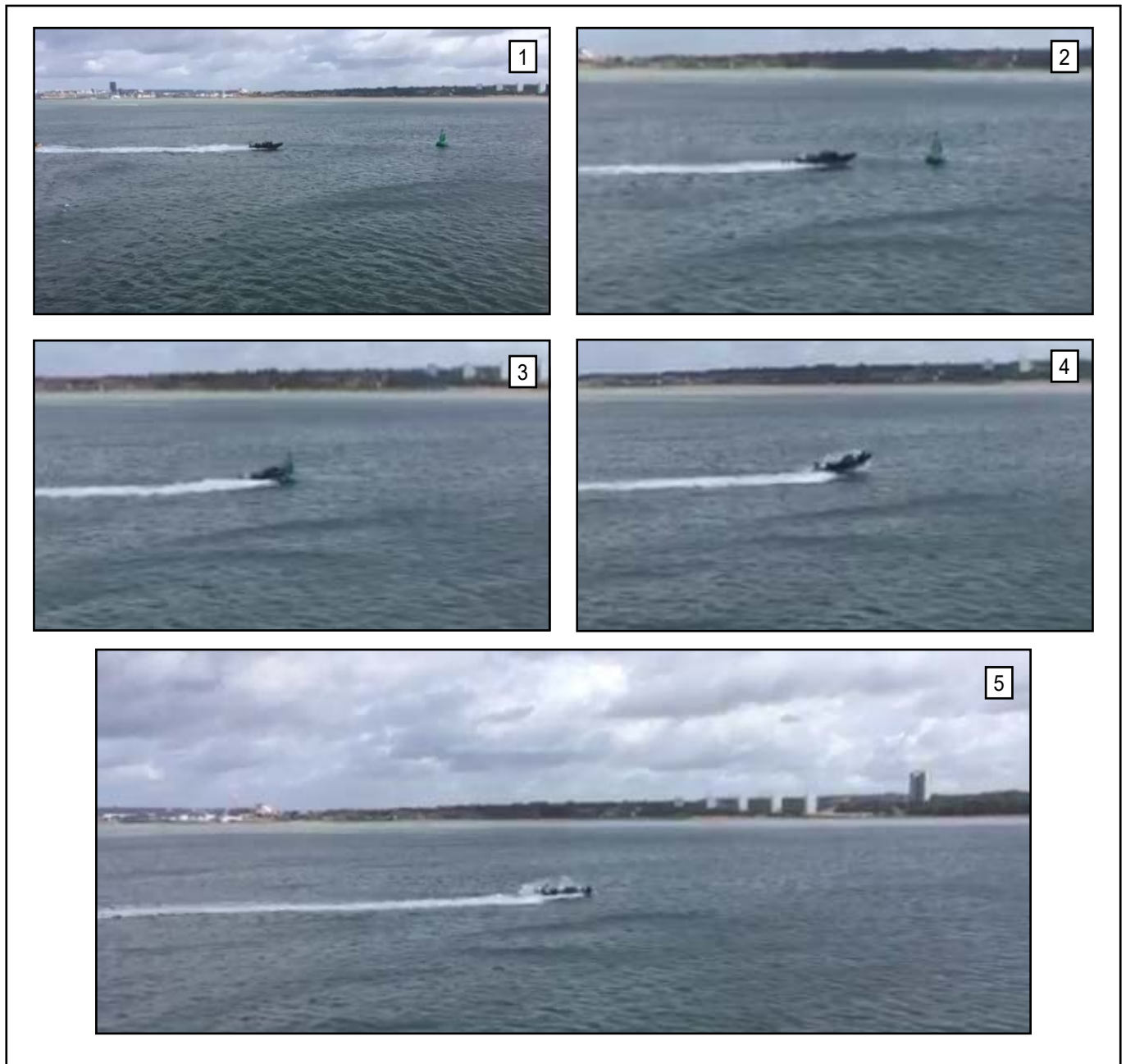


Figure 4: The collision

Operators of small high speed passenger craft have a responsibility for ensuring that the risks to passengers, crew, vessels and the environment are assessed and adequately addressed. While there is currently no regulatory requirement for them to operate a formal safety management system (SMS), the voluntary CoP advises:

In the general interests of safety and the industry image, it is recommended that operators implement a Safety Management System (SMS) and arrange and undertake their own audits of their SMS.

The voluntary CoP provides owners, operators, skippers and crew with best practice guidance for the safe operation of small commercial high speed craft engaged in carrying passengers on fast sightseeing trips, adventure trips and charters. The guidance covers topics including: crew manning and qualifications; passenger safety, seating and handhold design; area of operation; operations in close proximity to other craft; hazard perception and voluntary auditing of operations.

Urgent safety considerations

The voluntary CoP was issued following an accident to *recommend and promote common safe working practices for the industry*. The investigation so far has found, and it is of concern, that few of the safe working practices in the voluntary CoP were being followed on the day of the accident. The implementation of the guidance in the voluntary CoP and the conduct of safe navigation will be further discussed in the final report, but of particular note are:

- During the trip, the passengers became accustomed to passing close by large navigation buoys at high speed, so they were unconcerned that the RIB was heading directly towards North-West Netley buoy immediately prior to the collision and so did not attempt to alert the skipper.
- High speed figure-of-eight turns increase the risk of the RIB hooking or spinning-out.
- The skipper was operating single-handedly, at high speed and did not see the navigation buoy, which was directly ahead, for 10 seconds before impact.
- Crossing the ferry's wake at high speed increased both the risk of the passengers suffering spinal injuries and of the RIB coming close to a craft or object previously obscured from view by the ferry's hull, leaving the skipper little time in which to react.

The execution of the Seadogz Experience Ride conducted on 22 August 2020 was not untypical of such operations. Further, that while many Statutory Harbour Authorities are aware of similar commercial operations in their area of responsibility, they do not feel empowered to intervene. These issues will also be addressed in detail in the final report.

Recommendations

All UK Operators of small commercial high speed craft such as Rigid Inflatable Boats, sports boats and other vessels engaged in carrying passengers on trips and charters are recommended to:

- 2021/109M** Review the risk assessments for the operation of their vessels and take measures, as appropriate, to ensure that they comply with the safe working practices and standards contained in the *Passenger Safety on Small Commercial High Speed Craft & Experience Rides* voluntary Code of Practice. Where an operator cannot comply with the provisions outlined in the Code of Practice, steps should be taken to mitigate against risk, and details of those measures included in the relevant operating procedures.

The Chief Inspector has written to industry bodies and certifying authorities requesting that they bring this interim report and its recommendation to the attention of their members.

Ongoing action

The MAIB's investigation into the accident is ongoing. A report of the investigation will be drafted and will be distributed to key stakeholders for a 30-day consultation period in due course.

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

SHIP PARTICULARS

Vessel's name	<i>Seadogz</i>
Flag	United Kingdom
Type	Red Bay RIB – Stormforce 950 Safari
Registered owner	Seadogz Rib Charter Ltd
Manager(s)	Not applicable
Year of build	2012
Construction	Glass reinforced plastic
Length overall	9.5m
Engine power	2 x 300 HP Yamaha outboards
Capacity	2 crew + 12 passengers

VOYAGE PARTICULARS

Port of departure	Ocean Village, Southampton
Port of arrival	Saxon Wharf, Southampton
Manning	1

MARINE CASUALTY INFORMATION

Date and time	22 August 2020, 1011:09
Type of marine casualty or incident	Very Serious Marine Casualty
Location of incident	Southampton Water
Place on board	Bow
Injuries/fatalities	10 injured, 1 fatality
Damage/environmental impact	Extensive damage to bow and structure
Voyage segment	Mid-water
External & internal environment	West-south-westerly winds, force 4-5, slight seas, overcast with bright spells, good visibility
Persons on board	12