MCIB
Marine Casualty Investigation Board
Bord Imscrúdú Taismí Muirí

REPORT OF AN INVESTIGATION INTO A MARINE CASUALTY INVOLVING THE SAILING YACHT JELLY BABY IN OR AROUND CORK HARBOUR, CO. CORK 24 OCTOBER 2021

REPORT NO. MCIB/314
(No.5 OF 2024)

The Marine Casualty Investigation Board (MCIB) examines and investigates all types of marine casualties to, or onboard, Irish registered vessels worldwide and other vessels in Irish territorial waters and inland waterways.

The MCIB objective in investigating a marine casualty is to determine its circumstances and its causes with a view to making recommendations to the Minister of Transport - for the avoidance of similar marine casualties in the future, thereby improving the safety of life at sea and inland waterways.

The MCIB is a non-prosecutorial body. We do not enforce laws or carry out prosecutions. It is not the purpose of an investigation carried out by the MCIB to apportion blame or fault.

The legislative framework for the operation of the MCIB, the reporting and investigating of marine casualties and the powers of MCIB investigators is set out in the Merchant Shipping (Investigation of Marine Casualties) Act, 2000.

In carrying out its functions the MCIB complies with the provisions of the International Maritime Organisation's Casualty Investigation Code and EU Directive 2009/18/EC governing the investigation of accidents in the maritime transport sector transposed into Irish law by the European Communities (Merchant Shipping) (Investigation of Accidents) Regulations 2011.

Leeson Lane, Dublin 2.
Telephone: 01-678 3485/86.
email: info@mcib.ie
www.mcib.ie

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The Marine Casualty Investigation Board was established on the 25th March 2003 under the Merchant Shipping (Investigation of Marine Casualties) Act, 2000.

Glossary of Abbreviations and Acronyms

C	Celsius
CGBU	Coast Guard Boat Unit
CGU	Coast Guard Unit
CoP	Code of Practice for the Safe Operation of Recreational Craft
CV	Committee Vessel
ECHO	East Coast Handicap Organisation
HW	High Water
IRCG	Irish Coast Guard
ISA	Irish Sailing Association
ISAF	International Sailing Federation
LB	Lifeboat
MCIB	Marine Casualty Investigation Board
MOB	Man Overboard
MOP	Member of the Public
MRSC	Marine Rescue Safety Centre
OD	Officer of the Day
OSR	Offshore Special Regulations
PFD	Personal Flotation Device
PRO	Principal Race Officer
RCD	Recreational Craft Directive
RCYC	Royal Cork Yacht Club
RIB	Rigid Inflatable Boat
RNLI	Royal National Lifeboat Institution
RO	Race Officer
ROPG	Race Official Policy Group
RRS	Racing Rules of Sailing
SITREP	Situation Report
UTC	Co-ordinated Universal Time
VHF	Very High Frequency
Z	Zulu

Hour	hr
Kilogram	kg
Kilometre	km
Knot	kt
Metre	m
Newton	N

CONTENTS

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11th June 2024.

1. SUMMARY

1.1 On the 24 October 2021 Yacht Jelly Baby with nine persons onboard was competing in the last race of the 2021 Autumn League series race in Cork Harbour. On rounding the third mark of the racecourse, W2 buoy, the crew were preparing to change sails when they encountered difficulties rigging a gennaker which is a type of downwind sail. During efforts to overcome these difficulties the gennaker and the Bowman went over the side of the yacht.

1.2 The Bowman was pulled back onboard by the crew but the gennaker became entangled around the keel, rudder and propeller and disabled the yacht. The yacht luffed up to port towards the shore and shortly thereafter went aground on a lee shore (according to the Skipper's report to the Marine Casualty Investigation Board (MCIB)) on Bull Rock at Weavers Point on the west side of the entrance to Cork Harbour.

1.3 The Bowman was successfully recovered and the crew were uninjured, but the yacht remained aground until floated on the following flood tide and was then towed to Crosshaven. The damage to the yacht was such that its insurers declared it to be a constructive loss (i.e. deemed a total loss). The yacht was repaired and the MCIB was advised it sails on Belfast Lough.

Note: Times are local time = UTC + 1 (Co-ordinated Universal Time + 1 hour).

See Appendix 7.1 - Yacht Jelly Baby.

See Appendix 7.2 - Yacht Jelly Baby Aground on Bull Rock, Weavers Point.

See Appendix 7.3 - Typical Sail Plan - J109 Yacht.

2. FACTUAL INFORMATION

2.1 Vessel Particulars

2.1.1	Name:	Jelly Baby.
	Hull Identification Number:	FRJBE19194K405.
	Type:	Bermudan Sloop, cruiser/racer.
	Manufacturer:	J Composites. Les Sables-d'Olonne, France.
	Date of Manufacture:	2005.
	Model Type:	J109.
	Recreational Craft Directive (RCD) Design Category:	RCD Category A (i.e. recreational craft designed for winds that may exceed wind force 8 (Beaufort) and significant wave height of 4 metres (m) and above, but excluding abnormal conditions such as storm, violent storm, hurricane, tornado and extreme sea conditions or rogue waves).
	Description:	Fractional rigged sloop with fin keel and spade rudder. J109's racer/cruisers are designed for offshore racing. The J109 racing cruiser has a relatively long waterline and a low vertical centre of gravity designed for optimum stability (www.j109.org).
	Registration:	Yacht Jelly Baby was registered in Ireland.
	Length Overall:	10.74 m.
	Beam:	3.51 m.
	Displacement:	4,944 kilograms (kg).
	Construction:	Glass Reinforced Plastic, Aluminium alloy spars, stainless steel wire standing rigging.

2.1.2 Yacht Jelly Baby was purchased by its owner in 2017 and primarily used for racing purposes. The yacht had a major refit in 2020 when spars and rigging were renewed throughout the vessel.

2.1.3 Vessel Equipment: Yacht Jelly Baby was competing in the 2021 Royal Cork Yacht Club (RCYC) Autumn League races and was carrying essential equipment only. Equipment onboard at the time of the incident on 24 October 2021 was as follows:

- An outline drawing of the boat on a bulkhead indicating where all emergency equipment was positioned.
- Grab bag containing handheld Very High Frequency (VHF) radio, spare batteries, knife, torch.
- Halyards and sheets.
- Alloy mast and boom with vang.
- Wire cutters (for rig).
- Two independent and fixed bilge pumps.
- Boat hook.
- Two large, sheathed knives taped to vang and steering pedestal for emergency cutting of lines etc.
- Lifebuoy.
- Five 300 newton (N) auto inflatable spare lifejackets to supplement Personal Flotation Devices (PFD) owned and brought to the boat by crewmembers.
- Eight sets of lifelines with overload indicators, (tethers).
- First aid medical kit.
- Flares pack comprising two parachute red rockets, two Mk7 red hand-flares, two pinpoint hand-smoke flares.
- Bung pack for stopping hull fitting leaks.
- Torch.
- Three independent navigation systems.
- Compass.
- Navigation lights (International Regulations for Preventing Collisions at Sea compliant).
- VHF radio, fixed.
- Five PFDs (spares as crew used their own).
- Emergency steering tiller.
- Anchor and warp (folding anchor and chain kept in a bag ready for use).
- Volvo marine diesel ‘sail-drive’ engine regularly serviced.

- Two fire extinguishers.
- One fire blanket.
- Two buckets.

2.1.4 At the time of the incident, all crew were wearing their own inflatable PFDs while the Bowman was wearing a buoyancy jacket type PFD. In addition, five spare PFD's (300 N auto inflatable) were carried onboard yacht Jelly Baby. None of the nine crew were using any of the eight sets of lifelines with overload indicators (tethers) that were onboard.

2.2 Crew Details

2.2.1 At the time of the incident, yacht Jelly Baby had onboard nine crew including the Skipper.

- Skipper: Owner of the yacht, an experienced yachtsman and sailor. Qualified yachtmaster (Offshore) since 1993. Restricted radio operator licence.
- Bowman: Assessed as being an experienced yachtsman on different classes of yachts, particularly J109 type having operated in all crew positions and particularly comfortable in the racing yacht bowman's position and associated tasks. Participated in the Round Ireland Race 2018. Sailed as part of Jelly Baby's crew since 2019. Extensive experience cruiser racing in Dublin Bay and Shannon inland waterways.
- Seven crewmembers: All crew were yacht racers and familiar with Jelly Baby. The Skipper recounted that all the crew had raced together onboard Jelly Baby multiple times throughout the year and during the Autumn series of races. He was absolutely satisfied with the experience of his crew.

No written evidence was provided to verify the crew training or experience.

2.2.2 The yacht was the third boat in the lead when the incident occurred, and the crew had performed very well throughout the (Autumn) series and were third place in the league before the incident.

2.3 Voyage Particulars

2.3.1 Yacht Jelly Baby left its berth in Crosshaven at approximately 11.00 hours (hrs) on 24 October 2021 in order to participate in a race, part of the Autumn 2021 series of races hosted by the RCYC and sailed in the waters of Cork Harbour and its approaches. There were approximately 35 to 40 keelboats competing in this race event which was the last of the keelboat races in the Autumn Series.

2.3.2 The start line for this race was between No.9 buoy and No.11 buoy located approximately 700 m north of Whitegate Marine Terminal jetty. The Race Officer (RO) was stationed at this location onboard the Committee Vessel (CV) overseeing the race start, and throughout the duration of the race, anchored at this location for the day. First Gun was at 11.25 hrs for an 11.30 hrs race start.

2.3.3 There was a prevailing fresh south westerly breeze in the harbour. The first leg from the start line was a beat from No.11 buoy south southwest towards and around No.8 buoy (Race No.8 mark), then a reach east towards and around a race mark moored in Cork Beg. The next leg was a beat southwest to W2 buoy which was to be rounded with W2 on the boat's starboard side before turning northwards and sailing with a following wind back into Cork Harbour.

See Appendix 7.4 - Royal Cork Yacht Club Notice of Race.

See Appendix 7.5 - Chart - Cork Harbour Autumn Regatta Race Course 24 Oct 2021.

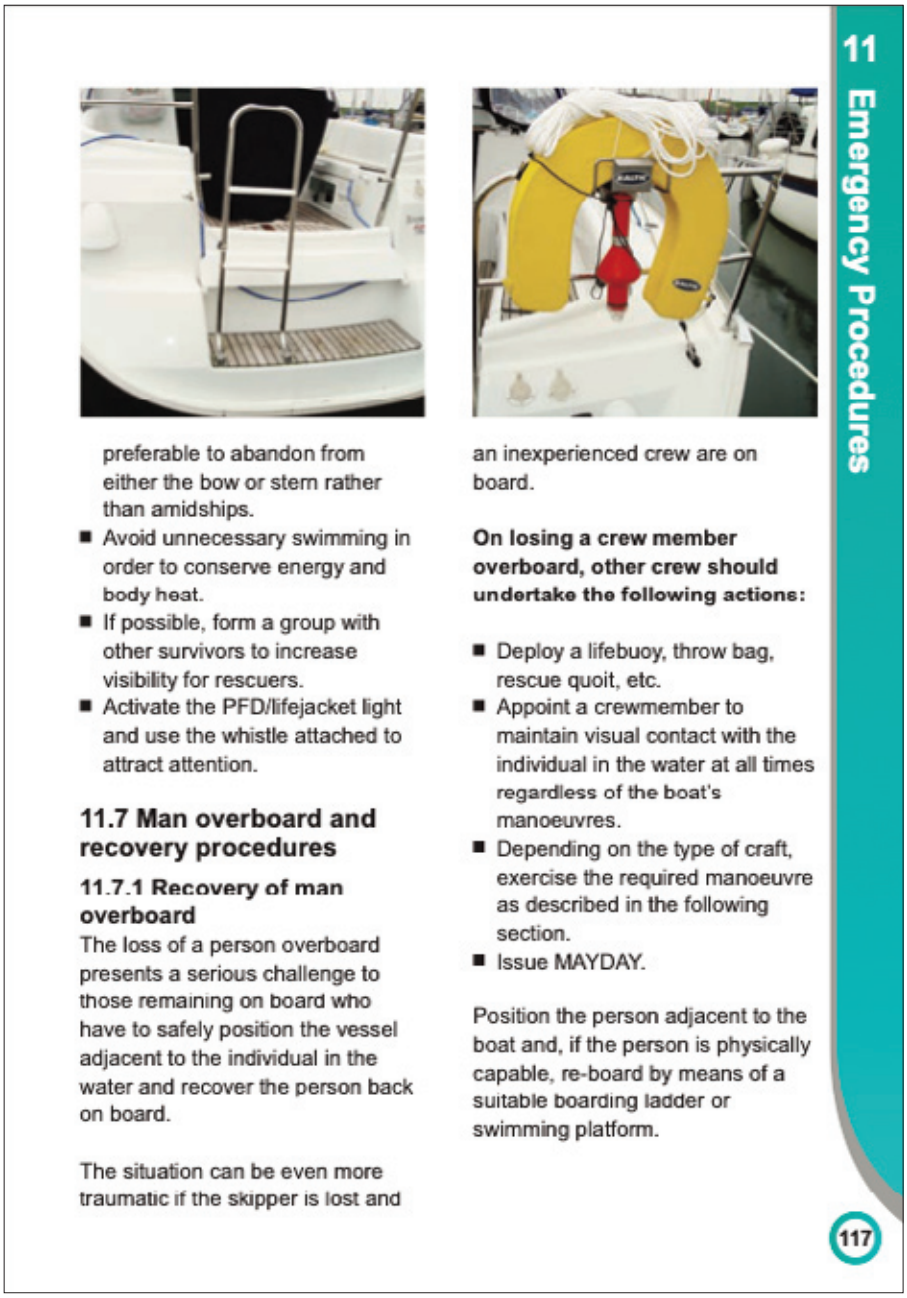
See Appendix 7.6 - Chart - Race Course to W2 Buoy at Weavers Point.

2.3.4 The two lead yachts rounded the W2 buoy, changed foresails and headed for No.11 buoy and the finish line. Yacht Jelly Baby was in third place (and was then placed third in the league). On rounding W2 the crew were preparing to change foresails when they encountered difficulties rigging the large gennaker sail. During efforts to overcome these difficulties the Bowman and the sail went overboard. The Bowman held on to the side of the yacht and was hauled back onboard by the crew. The Man Overboard (MOB) procedure was not followed and in particular the sails were not eased or dropped to de-power and stop the yacht. The sail became waterlogged and eventually entangled around the keel, rudder and sail drive thereby disabling the yacht. Shortly thereafter, the yacht grounded on rocks at Weavers Point approximately two cables (200 yards) from W2 buoy at the west side of the entrance to Cork Harbour at approximately 12.09 hrs.

2.3.5 The incident is described in a report submitted by the RCYC, which gives some pertinent information regarding the actions of the crew after the yacht rounded W2 and were preparing to rig the gennaker. The report describes the effort of the Bowman to contain the gennaker as it slipped over the side of the boat during which the report describes the Bowman as being *"pulled from the boat by the trailing gennaker ending up with him and the gennaker in the water"*. However, the report goes on to state that *"Two crew went to his aid and successfully retrieved him from the water"*.

2.3.6 The MCIB learned subsequently from witnesses onboard the yacht that the Bowman clung on to the yacht's side and was never separated from the yacht. Witnesses recounted that the Bowman was quickly retrieved safely back onboard by fellow crewmembers without further mishap. However, that event combined with the gennaker going overboard led to the ultimate outcome.

2.3.7 A description of *"Man overboard and recovery procedures"* may be found in the Code of Practice (CoP): The Safe Operation of Recreational Craft[1] at Chapter 11, section 11.7 page 117 as shown below. This section describes the loss of a person overboard as presenting *"a serious challenge to those remaining onboard who must safely position the vessel adjacent to the individual in the water and recover the person back on board"*. The Code also prescribes appropriate emergency actions including broadcasting a MAYDAY distress VHF call for assistance amongst other actions.



11 Emergency Procedures

preferable to abandon from either the bow or stern rather than amidships.

- Avoid unnecessary swimming in order to conserve energy and body heat.
- If possible, form a group with other survivors to increase visibility for rescuers.
- Activate the PFD/lifejacket light and use the whistle attached to attract attention.

11.7 Man overboard and recovery procedures

11.7.1 Recovery of man overboard

The loss of a person overboard presents a serious challenge to those remaining on board who have to safely position the vessel adjacent to the individual in the water and recover the person back on board.

The situation can be even more traumatic if the skipper is lost and an inexperienced crew are on board.

On losing a crew member overboard, other crew should undertake the following actions:

- Deploy a lifebuoy, throw bag, rescue quoit, etc.
- Appoint a crewmember to maintain visual contact with the individual in the water at all times regardless of the boat's manoeuvres.
- Depending on the type of craft, exercise the required manoeuvre as described in the following section.
- Issue MAYDAY.

Position the person adjacent to the boat and, if the person is physically capable, re-board by means of a suitable boarding ladder or swimming platform.

117

1. Updates to the Code of Practice: The Safe Operation of Recreational Craft 2017 (Marine Notice No.51 refers) were published in November 2019. The updates can be downloaded in electronic format at: https://www.gov.ie/en/publication/66ff7e-safe-operation-of-recreational-craft/

2.3.8 The CoP does not describe the actions required in the case of a "Tethered MOB" situation where the MOB remains attached to the boat by a lifeline or other means. The risk of drowning can be more severe in a tethered MOB situation as the casualty is being dragged through the water at the speed of the boat. This constitutes an imminent threat to life and the MOB procedure, including stopping the boat and MAYDAY call, should be instigated and the boat stopped whilst efforts are made to retrieve the casualty. Training schemes for this type of event will specify the use of an MOB procedure for such event. MOB procedures should be specific to the craft in question. Full details of MOB procedures can be found in the training manuals of recognised sail training schools.

2.3.9 During this incident the prescribed emergency procedures outlined in the CoP, were not implemented. This may have been due to the speed at which events unfolded and lack of crew training for such an eventuality. The Bowman was successfully hauled back onboard in a short time. MAYDAY relay broadcasts were made by two other competing yachts.

2.3.10 The CoP has little other content of relevance to sailing yachts and refers readers to the Irish Sailing Association (ISA) (now called Irish Sailing) and to its website:

"The Irish Sailing Association (ISA) is the national authority for sailboat racing in Ireland. All vessel owners/skippers participating competitively must be members of the ISA and all such racing must comply with the World Sailing Racing Rules of Sailing, the rules of the National Authority and the rules of the particular Class Association, where applicable. When a vessel sailing under these Rules meets a vessel that is not, the vessel shall comply with the International Regulations for Preventing Collisions at Sea (see Appendix 1)."

See Appendix 7.7 - Royal Cork Yacht Club Report on an Incident Involving J109 Yacht Jelly Baby Grounding at Cork Harbour 24 October 2021.

See Appendix 7.8 - Chart - Poolnacallee Bay to Weavers Point.

See Appendix 7.9 - Chart - Race Flotilla Approach to W2 Buoy.

See Appendix 7.10 - W2 Buoy to Weavers Point.

See Appendix 7.11 - Satellite Image, Yacht Jelly Baby Grounding Position.

See Appendix 7.12 - Lead Yachts after Rounding W2 Buoy.

2.3.11 The MCIB obtained video footage showing the leading yachts and yacht Jelly Baby dispositions as the incident developed. Still photographs were lifted from the 39 second video footage at two second, three second 13 second, 25 second, 29 second, 31 second and 39 second intervals showing the sequence of the events as the yacht steered off course and luffed up towards the shore.

See Appendix 7.13 - Video Stills of Incident.

- Video still 00/39 Crew preparing to hoist gennaker.
- Video still 02/39 Yacht steers off course to port.
- Video still 03/39 Bowman slips over the side.
- Video still 13/39 Crew moves forward.
- Video still 25/39 Gennaker over the side.
- Video still 29/39 Yacht - standing into danger.
- Video still 31/39 Yacht - not under control.
- Video still 39/39 Yacht - imminent grounding.

To view video on YouTube click here

2.4 Marine Incident information

2.4.1 The significant damage to the yacht Jelly Baby (or its "constructive" total loss as insurers assessed that the costs of repairs were more than the value of the vessel), and the risk posed to the threat of death or serious injury to the Bowman and crew, amounted to a marine casualty within the meaning of the Merchant Shipping (Investigation of Marine Casualties) Act, 2000. This type of casualty is as defined in Part 1, Section 2 as follows:

"marine casualty" means an event or process which causes or poses the threat of—

(a) death or serious injury to a person;

(b) the loss of a person overboard;

(c) significant loss or stranding of, or damage to, or collision with, a vessel or property; or

(d) significant damage to the environment, in connection with the operation of—

(i) a vessel in Irish waters;

(ii) an Irish registered vessel, in waters anywhere; or

(iii) a vessel normally located or moored in Irish waters and under the control of a resident of the State, in international waters contiguous to Irish waters,

and includes an accident or damage referred to in section 26(1)(b);"

2.4.2 There was no report of pollution from this incident.

2.5 Emergency Response and Timeline

Emergency Response as per Irish Coast Guard (IRCG) Marine Rescue Sub Centre (MRSC) Valentia - Situation Report (SitRep) UIIN22606/21. Day Time Group: 24 11.49 Z OCT 21.

Note: All times in this SitRep are stated in Co-ordinated Universal Time (UTC), i.e. ZULU (Z) time, one hour behind local time.

The following sets out the time line extrapolated from the "N- Additional Information" content of the SitRep

24 October 2021

11.09 Z Member of the Public (MOP) reported a yacht aground on Weavers Point.

11.11 Z IRCG tasked Crosshaven Royal National Lifeboat Institution (RNLI) lifeboat (LB), Crosshaven Coast Guard Boat Unit (CGBU) and IRCG rescue helicopter R117. MAYDAY relay broadcast.

11.19 Z Yacht owner Jelly Baby advised all people onboard were ashore and well. No medical assistance required.

11.23 Z Rescue helicopter R117 stood down. MAYDAY relay cancelled.

11.26-29 Z RNLI LB and CGU launched and proceeding to incident scene to check the yacht.

11.33 Z Crosshaven CGBU reported being on scene (being the first on scene) and advised that the vessel was high and dry and that all persons were ashore, safe and well.

11.45 Z RNLI LB on scene waiting for high water (HW).

11.52 Z CGU returned to base. No pollution and waiting for HW.

See Appendix 7.14 - Irish Coast Guard SITREP.

2.6 Environmental Conditions

2.6.1 Weather Conditions according to IRCG SitRep UIIN2606/21 at 12.00 hrs and from an unknown location; the following is a partial extrapolation from the section "H-Weather on scene" content of the SitRep:

Wind:	Beaufort Force 4, south westerly.
Sea:	Moderate.
Swell:	Low wave.
Air temp.	14.7 degrees Celsius (0°C).

2.6.2 Met Éireann – 24-hour Sea Area Forecast issued at 06.00 hrs Sunday 24 October 2021 for all Irish coastal waters and the Irish Sea included the following:

"Small craft warning[2] in operation:

Text of small craft warning: South-westerly winds will reach force 6 or higher at times on all Irish coasts today (Sunday) and tonight

Wind:	*Southwest force 6, occasionally reaching force 7 in the Irish Sea this morning. Later veering west force 6 and occasionally reaching force 7 in the northwest, Sunday night"*
Coastal Reports:	at 05.00 hrs Sunday 24 October 2021
Roches Point Automatic:	Wind South, 13 knots (kts), mist, 3 miles, 1008 falling slowly.

2.6.3 Met Éireann - Estimated weather conditions for Cork Harbour/Roches Point area on Sunday 24 October between 11.00 hrs and 13.00 hrs local time. From the report issued on 22 March 2022:

"Meteorological

Synopsis:	*A complex area of low pressure (983 hPa) in the north Atlantic directed a fresh to strong unstable southwest airflow over Ireland with showery troughs in the flow.*
Wind:	*Winds in the Roches Point area were estimated as fresh to strong Beaufort Force 5 or 6 southwesterly (mean wind speed 18 to 22 knots) with occasional gusts of 31 knots.*
Visibility:	*Visibility was generally good (greater than 5*

2. According to Met Éireann, Small Craft Warnings are issued if winds of Beaufort Force 6 (minimum mean of 22 knots) are expected up to 10 NM offshore. The next most serious level of warning is a Gale Warning (issued if winds of Beaufort Force 8 are expected).

nautical miles); visibility was moderate (2-5 nautical miles) in showers.

Weather: *The Roches Point area remained mostly dry with only occasional light passing showers, variable cloud and sunny spells during the period in question. Although a band of blustery heavy showers affected Cork City area, these heavy showers did not reach Roches Point area where overall rainfall totals was not more than a trace.*

Temperatures: *Air temperature of 14 or 15 degrees Celsius.*

Estimated Sea State Conditions (offshore): I estimate that the sea state conditions in the offshore area south of Roches Point was moderate, occasionally rough (significant wave height of 1.5 – 2.5m occasionally 3m); the swell direction was south-westerly.

Sea temperature 14 degrees Celsius."

2.6.4 Tide times: Cobh, Cork Harbour for 24 October 2021 (courtesy of tidetimes.co.uk.).

High/Low water	Time	Height
1st Low Water	02:09 hrs	0.82 m
1st High Water	08:06 hrs	3.89 m
2nd Low water	14:28hrs	0.90 m
2nd High Water	20:21 hrs	3.87 m

2.6.5 The time of the incident was approximately 12.09 hrs local time when the tide was approximately four hours past HW and the tidal stream was ebbing out of Cork Harbour, broadly in a north to south direction See (see Appendix 7.17 - Royal Cork Yacht Club Autumn Series 2021 Sailing Instructions Appendix C). This is a wind against tide situation where the incident occurred. Wind against tide can exacerbate the sea state where it occurs.

See Appendix 7.14 - Irish Coast Guard SITREP.

See Appendix 7.15 - Met Éireann Estimated Weather Conditions 24 October 2021, Issued 22 March 2022 which includes the Forecasts at 00.00 hrs, 06.00 hrs, 12.00 hrs and 18.00 hrs on 24 October and 00.00 hrs on 25 October 2021.

See Appendix 7.16 - Tidal Times for Cobh, Cork Harbour 24 October 2021.

2.7 The Race Organisation and Race Rules and Regulations

2.7.1 The race was a local race organised by the RCYC based in Crosshaven, Cork. The RCYC's Executive Committee carries oversight of the Club's activities and comprises the following appointments:

- Admiral (chair)
- Vice-Admiral
- Rear Admiral Dinghies
- Rear Admiral Keelboat Racing
- Rear Admiral Cruising
- Treasurer
- Chairman – Membership and Events
- Chairman – Marina and Facilities Committee.

2.7.2 The incident occurred in the last race of a series of races for keelboats which takes place on each Sunday in October every year. Advertised as the Autumn Series, the races are sailed in the waters of Cork Harbour and its approaches and organised by the RCYC. The races are local events and do not have regional, national or international status.

2.7.3 The responsibility for the organisation of the keelboat racing rests with the RCYC's appointed Rear Admiral Keelboat Racing who chairs the keelboats Race Committee. Rear Admiral Keelboats Racing reports to the Executive Committee. The MCIB learned from Rear Admiral Keelboats Racing (2021) that this appointment carries a portfolio of responsibilities. In addressing these responsibilities, the Rear Admiral Keelboat Racing (2021) was assisted by the Keelboats Race Committee.

2.7.4 The Keelboats Race Committee comprises:

- Rear Admiral Keelboat Racing (chair).
- Marina Manager.
- A panel of ROs who carry out Officer of the Day (OD) duties during the keelboat race events. All RO/ODs are volunteers and members of the RCYC.

2.7.5 Each race in the series is conducted by the OD otherwise known as the RO assisted by the Club's Marina Manager both of whom are members of the Keelboats Race Committee.

2.7.6 The responsibilities of the Rear Admiral Keelboat Racing and Race Committee are as follows:

- To take charge of organising the RCYC's keelboats.
- Safety management of race events.
- To set out a calendar of keelboat events for the year.
- Review and implement decisions regarding the Club East Coast Handicap Organisation (ECHO) Handicap System.
- The planning, preparation, and organisation of race events.
- The implementation of Rules and Regulations.
- The implementation of amendments to the Rules and Regulations.
- Review race incidents and determine and disseminate lessons learned.

2.7.7 With regard to race incidents, the Rear Admiral Keelboats Racing (2021) recalled that in his experience incidents were few and usually involved only personal injuries. He could not recall any incident on the scale of the loss of a yacht like Jelly Baby while racing. He explained that when there was a safety incident there was an investigation with an incident report being made to the Executive Committee by the appointed Rear Admiral Keelboats Racing. Lessons learned are implemented by the Executive Committee through the relevant committee officer and their respective committees down to end users.

2.7.8 The Autumn Series racing in 2021 was scheduled for 26 September, 3 October, 17 October and 24 October with a maximum of two races per day all of which were governed by a number of instructions, rules and prescriptions as provided in the Notice of Race, sailing instructions promulgated by the RCYC as the Autumn Series 2021 Sailing Instructions.

2.7.9 The Autumn Series 2021 Sailing Instructions are a set of instructions promulgated by the RCYC and uses several documents as reference, namely:

- The Racing Rules of Sailing (RRS).
- The prescriptions of the ISA (now known as Irish Sailing).
- 2021 International Rating Certificate rules.
- Relevant Class rules where applicable.
- The RCYC Club ECHO handicapping system.
- RCYC Notice of Race.

They provided that in the event of conflict, the RCYC's Autumn Series 2021

Sailing Instructions prevailed.

2.7.10 The Autumn Series 2021 Sailing Instructions addressed numerous factors applicable to the conduct of the 2021 Autumn Series such as:

- Communications regarding the race: Arrangements for communications for the race were available from numerous sources. For instance:

  - Section 3 - Notices of changes to the 'Sailing Instructions' were to be posted on the notice board and RCYC website before 09.30 hrs on the day they were to take effect.

  - Section 6.5 - Flag signals made ashore were to be displayed at the RCYC flagstaff while Code Flag "Y" flown on the CV before the start of the race indicated that all competitors must wear life jackets.

  - Section 19.2 - VHF radio using the appropriate channel (CH 71 in this instance). Used primarily by the RO announcing the location of the CV, the course for the Start Area and the race course for each fleet, before the start. Channel 71 was exclusively used for race management.

- The RO: The RO (otherwise called the OD) had discretionary responsibilities outlined in the Sailing Instructions. Namely, the race courses to be followed by the groups of competitors, alterations to existing courses and the order and grouping of race starts.

- Classes of competing boats: There were six class divisions described in the Sailing Instructions, Class 0, Class 1, Class 2, 1720's/Sports boat/Day boat, White Sail 1 and White Sail 2. Jelly Baby belonged to Class 1.

- Race Areas: This section describes where the racing Areas, the race Courses, the race Marks, 'Areas that are Obstructions' and the Start and Finish lines are described.

2.7.11 The RCYC Notice of Race reiterated the rules applicable to the Autumn Series as being those as described in the RCYC's Autumn Series 2021 Sailing Instructions. The RCYC Notice of Race also referred to rules and yacht classifications contained in World Sailing's current RRS and Offshore Special Regulations (OSR) Category 4 safety regulations governing offshore racing respectively. The Notice of Race states that competing yachts in Classes 0,1 and 2 and White sail 1 and 2 must be capable of satisfying (without the necessity for modifications) World Sailing OSR Category 4 safety regulations governing offshore racing. Yacht Jelly Baby had Class 1 classification so was subject to this provision. So, while the Autumn Series was not directly regulated by OSR safety regulations, the RCYC Notice of Race used them as reference for standards of vessels.

2.7.12 In addition to the Autumn Series 2021 Sailing Instructions, the Race Committee used the RCYC's website (royalcork.com/sailing/keelboats notice board) supplemented by the Racing Notice Board located in the RCYC clubhouse as

platforms for communicating race organisational information to its members. The website also directed readers to the following reference documents:

- RCYC General Sailing Instructions for Cruiser Racing 2021. The information contained in these Sailing Instructions are reflected in the Sailing Instructions provided by the Club in their Sailing Instructions for the 2021 Autumn Series of races. In particular, this notice states at:

  "Section 15 Safety Regulations

  15.2 All competitors must wear life jackets if the CV/OOD/RO displays Code Flag "Y".

See Appendix 7.4 - Royal Cork Yacht Club Notice of Race.

See Appendix 7.17 - Royal Cork Yacht Club Autumn Series 2021 Sailing Instructions.

See Appendix 7.18 - Royal Cork Yacht Club General Sailing Instructions for Cruiser Racing 2021.

See Appendix 7.19 - Racing Declaration and Entry Form for 2021.

See Appendix 7.20 - World Sailing Offshore Special Regulations.

2.8 Race Safety, Skipper and Racing Declaration and Entry Form for 2021

2.8.1 The RCYC's Racing Declaration and Entry Form for 2021 requires the yacht's person in charge to declare that they have paid particular attention to, and agree to be bound by, the World Sailing OSR. World Sailing OSR relate to, and govern, offshore racing for monohulls and multihulls structural features, yacht equipment, personal equipment and training.[3] The race in question was a Category 4 inshore sailing race and was therefore not directly subject to all OSR, however the Skipper agrees to be bound by them in the Racing Declaration.

2.8.2 The Racing Declaration and Entry Form for 2021 had to be signed by the yacht's person in charge. The person in charge otherwise known as the skipper of the boat is required to sign and date this document prior to entering for a RCYC organised race. The RCYC have confirmed that the Skipper did sign the required Declaration. The terms stated in this form are read and agreed by the person in charge as defined in RRS 46. *"A boat shall have onboard a person in charge designated by the member or organisation that entered the boat".*

2.8.3 The Declaration made by the person in charge stipulates that he/she has *"paid*

3. See Appendix 1 World Sailing Offshore Special Regulations and RORC Prescriptions and are dated 'January 2020 - December 2021' and notated as Version 0.3 - 11 December 2020.

particular attention to and agree to be bound by the Racing Rules of Sailing (RRS), the ISA prescriptions thereto, the ISAF[4] Offshore Special Regulations (OSR) and any class rules which may govern the type of boat that I am sailing. See www.sailing.ie/Racing/Rules.aspx. I have also read and understand and where appropriate agree to be bound by, the RCYC General Sailing Instructions 2021".

2.8.4 The RRS sets out specific rules regarding the responsibility to wear safety equipment, decision to race, appointment of a skipper in charge and limitations on crew.

RRS *"1.2 Life-Saving Equipment and Personal Flotation Devices: A boat shall carry adequate lifesaving equipment for all persons onboard, including one item ready for immediate use, unless her class rules make some other provision. Each competitor is individually responsible for wearing a personal flotation device adequate for the conditions."*

Specific lists of required safety equipment are published, depending on the type of boat and the nature of the event.

RRS *"3 Decision to Race: The responsibility for a boat's decision to participate in a race, or to continue racing, is hers alone."*

RRS *"46 Person in Charge: A boat shall have on board a person in charge designated by the member or organization that entered the boat."*

RRS *"48.2 Limitations of Equipment and Crew: No person on board shall intentionally leave, except when ill or injured, or to help a person or vessel in danger, or to swim. A person leaving the boat by accident or to swim shall be back in contact with the boat before the crew resumes sailing the boat to the next mark."*

2.8.5 In addition to the above, the fundamental rules of sailing commence with the following:

RRS *"1.1 Helping those in danger. A boat, competitor or support person shall give all possible help to any person or vessel in danger."*

Providing help to someone in danger is, as stated above and in the RRS is a fundamental rule and so stated at Rule 1.1. It is also an integral part of the culture of the sport. In addition, if a boat, while racing, provides aid to another boat in distress (such as having a MOB situation), it will be awarded "redress" against so that it does not suffer loss of competitive position as result of giving aid.

2.8.6 Under the heading "Responsibility": The person in charge declares that *"Before*

4. ISAF is now known as World Sailing

racing I shall ensure that my crew and I are aware that:

a. Yacht racing can be dangerous.

b. Crew members attention is drawn to RRS 1.2 (life-saving equipment): "A boat shall carry adequate life-saving equipment for all persons onboard, including one item ready for immediate use, unless her class rules make some other provision. Each competitor is individually responsible for wearing a personal flotation device adequate for the conditions". [under lineation added]

c. The Person In Charge and crew will be held jointly responsible for the conduct of the yacht's crew before, during, and after a race. Misconduct may result in both the Person in Charge and crew being excluded from future races and renders a yacht liable to disqualification.

d. No yacht will be accepted for entry unless the person in Charge has, before the start of the race, or at some time previously signed a declaration in the terms set out herein.

e. My crew and I are aware of the ISAF Offshore Special Regulations, (OSR), especially 1.02 (printed below)."

International Sailing Federation (ISAF) OSR 1.02 (Responsibility of Person in Charge).

"1.02.1 The safety of a yacht and her crew is the sole and inescapable responsibility of the person in charge who must do his/her best to ensure that the yacht is fully found, thoroughly seaworthy and manned by an experienced crew who have undergone appropriate training and are physically fit to face bad weather. He/she must be satisfied as to the soundness of hull, spars, rigging, sails and all gear. He/she must ensure that all safety equipment is properly maintained and stowed and that crew know where it is kept and how it is to be used.

1.02.2 Neither the establishment of these Special Regulations, their use by race organisers, nor the inspection of a yacht under these Special Regulations in any way limits or reduces the complete and unlimited responsibility of the Person in Charge.

1.02.3 Decision to race - The responsibility for a yachts decision to participate in a race or to continue racing is hers alone - RRS Fundamental Rule 4."

2.8.7 The yacht owner is also required to declare that they have read, understand, and where appropriate, agree to be bound by the RCYC General Sailing Instructions 2021 (www.royalcork.com/notice-board).

2.8.8 World Sailing OSR Special regulations OSR Appendix 1 addresses, among other matters, the following criteria considered relevant to this investigation and referenced according to the page of OSR Appendix 1 as follows:

- *"Section 1 – Fundamentals and Definitions.*

  Regulation 1.02 Responsibility of Person in Charge.

  1.02.1 – Under RRS 3 the responsibility for a boats decision to participate in a race or continue racing is hers alone. The safety of a boat and her crew is the sole and inescapable responsibility of the Person in Charge who shall do his best to ensure that the boat is fully found, thoroughly seaworthy and manned by an experienced and appropriately trained crew who are physically fit to face bad weather. The person in charge shall also assign a person to take over his responsibilities in the event of his incapacitation".

- From regulation 1.03 which sets out a series of definitions, including the following:

"Lifeline	*Rope or wire line rigged as a guardrail/ guardline around the deck.*
Safety Line	*A tether used to connect a safety harness to a strong point.*
Static Safety Line	*A safety line (usually shorter than a safety line carried with a harness) kept clipped on at a workstation".*

- Section 2 – Application and General Requirements. Regulation 2.01, Categories of Events – *"Organising Authorities shall select from one of the following categories and may modify the OSR to suit local conditions."*

  Regulation 2.01.5,

  Category 4 – *"Short races, close to shore in relatively warm or protected waters normally held in daylight".*

  The RCYC 2021 Autumn Series Notice of Race classified the race as Category 4, being a short race, close to shore in relatively warm or protected waters normally held in daylight.

- Section 3 – Structural Features, Stability, Fixed Equipment.

  Regulation 3.14, - *"Pulpits, Stanchions, Lifelines".*

  3.14.1. - *"The perimeter of the deck surrounded by system of lifelines and pulpits as follows: a) Continuous lifelines fixed only at (or near) the bow and stern…".*

Yacht Jelly Baby was rigged in compliance to the regulation.

- Section 5 – Personal Equipment.

Each crewmember shall have:

5.01 – *"Lifejacket" (a full specification for same is set out)."*

5.01.5 - *"RORC Prescription: A combined harness and lifejacket shall be worn when on deck.*

a) between the hours of sunset and sunrise

b) when alone on deck

c) when reefed

d) when the true wind speed is 25 knots or above

e) when the visibility is less than 1 nautical mile".

5.02 - *"Safety Harness and Tethers"*

5.02.3 *"All of the crew shall have either:*

a) a tether not exceeding 1m (3'3") including the length of the hooks, or

b) an intermediate self-closing hook on a 2 m (6'-6") tether."

5.02.4 *"a boat shall carry spare harnesses and tethers as required in OSR 5.02 above sufficient for at least 10% of the crewmembers (minimum one unit)."*

5.02.5 *"A tether which has been overloaded shall be replaced."*

Yacht Jelly Baby crewmembers were wearing lifejackets at the time of the incident.

Tethers are attached to safety harnesses or PFDs incorporating a harness and tether connection point, and harnesses were available onboard. The crew were not wearing tethers.

- Section 6 – Training

6.01.1 – *"Every member of a crew including the Person in Charge shall have undertaken training within the five years before the start of the race in 6.02 Training Topics".*

6.01.2 – *"At least 30% but not fewer than two members of the crew, including the Person in Charge shall have undertaken training within the five years before the start of the race in OSR 6.02 Training Topics".*

6.01.4 – *"Except as otherwise provided in the Notice of Race, an in-date certificate gained at a World Sailing/ISAF Approved Offshore Personal Survival Training course shall be accepted by a race organising authority as evidence of compliance with Special Regulation 6.01".*

6.04 - *"Routine Training On-Board. At least annually the crews shall practice the drills for Crew Overboard Recovery, Abandonment of vessel".*

Note: There was no evidence provided to the MCIB that the crew of yacht Jelly Baby had undertaken training in accordance with regulation 6.01.1. or 6.01.2. While it should be noted that the training in Section 6 does not apply to Category 4 inshore sailing races, the Race Declaration provides that the skipper has agreed to have regard to, and be bound by, the OSR.

See Appendix 7.20 - World Sailing Offshore Special Regulations.

2.9 Wearing of Personal Flotation Devices, and Use of Tethers

2.9.1 There are no regulations requiring the wearing of PFDs onboard a recreational vessel save as set out in the *Pleasure Craft (Personal Flotation Devices and Operation) (Safety) Regulations 2005 (S.I. No. 921 of 2005), as amended by the Pleasure Craft (Personal Flotation Devices and Operation) (Safety)(Amendment) Regulations 2012 (S.I. No. 349 of 2012).* Those Regulations provide that:

a) all persons on board any craft of less than 7 m in length who must wear a personal flotation device (PFD) or a lifejacket while onboard an open craft or while on the deck of a decked craft, other than when the craft is made fast to the shore; and

b) the master or owner is required to take all reasonable steps to have PFDs worn by those under 16 years of age.[5]

2.9.2 The CoP provides the following in part 2.6 in respect of the competitive use of yachts:

"The Irish Sailing Association (ISA) is the national authority for sailboat racing in Ireland. All vessel owners/skippers participating competitively must be members of the ISA and all such racing must comply with the World Sailing Racing Rules of Sailing, the rules of the National Authority and the rules of the particular Class Association, where applicable. When a vessel sailing under these Rules meets a vessel that is not, the vessel shall comply with the International Regulations for Preventing Collisions at Sea (see Appendix 1)."

2.9.3 The RCYC Notice of Race and Sailing Instructions do not directly address crew on the wearing of PFDs. Paragraph 6.5 of the Sailing Instructions requires PFD wearing if Code Flag "Y" is flown by the RO before the start of Class B craft. The Racing Declaration and Entry Form for 2021, under Responsibility b., states that

5. See also the CoP section 1.2.4

each competitor is individually responsible for wearing a PFD adequate for the conditions in accordance with RRS, rule 1.2. A skipper within his/her general management and safety obligations may mandate the wearing of PFDs.

2.9.4 Code Flag "Y" was not flown for the race. As set out above the Met Éireann – 24-hour Sea Area Forecast issued at 06.00 hrs for all Irish coastal waters and the Irish Sea provided for winds and for a Small Craft Warning as follows:

"Small craft warning in operation:

South-westerly winds will reach force 6 or higher at times on all Irish coasts today (Sunday) and tonight.[6]

Wind: Southwest force 6, occasionally reaching force 7 in the Irish Sea this morning. Later veering west force 6 and occasionally reaching force 7 in the northwest, Sunday night."

The prevailing wind speed recorded at Roches Point Automatic at 05.00 hrs on the day in question was wind speed of 13 kts.

2.9.5 The IRCG SitRep at 12.00 hrs noted the weather at the position from where the initial call was received, as Beaufort F4. This information was taken from the IRCG meteorological logging system and stated the wind as "Beaufort Force 4". The Met Éireann report Coastal report at 11.00 hrs at Roches Point shows South to Southwest 18 kts (F5) as follows:

"Wind: Winds in the Roches Point area were estimated as fresh to strong Beaufort Force 5 or 6 southwesterly (mean speed 18 to 22 knots) with occasional gusts of 31 knots."

2.9.6 It is understood by the MCIB that Code Flag "Y" is only flown in adverse conditions. Code Flag "Y" was not being flown from the Committee Vessel (CV) as the RO determined that weather forecast did not present adverse weather conditions in Cork Harbour, and, that the Small Craft Warning which was in place did not warrant such a step to be taken. All the crew of Jelly Baby were, notwithstanding, wearing PFDs, which was apparently common practice during RCYC racing and it was reported that it was unusual for skippers not to follow this practice. That would suggest that Code Flag "Y" should in fact have been flown by the RO.

2.9.7 Tethers are attached to safety harnesses or PFDs incorporating harnesses and hooked onto Jackstays or specified strong points on the vessel. World Sailing OSR special regulations describe what is required to be available for ocean racing, and when PFDs and harnesses should be worn. These regulations do not apply to inshore racing and the use of tethers is a matter for the skipper to mandate or

6. According to Met Éireann, Small Craft Warnings are issued if winds of Beaufort Force 6 (minimum mean of 22 knots) are expected up to 10 NM offshore. The next most serious level of warning is a Gale Warning (issued if winds of Beaufort Force 8 are expected).

not. They are designed to prevent or reduce danger to any crew going overboard. They were available onboard but were not being worn by any of the crew.

2.9.8 It is recognised that in competitive sailing there is a reluctance in some quarters to consider the wearing of tethers by any crewmembers as they have a restrictive effect on movement. The RCYC Notice of Race and Sailing Instructions were silent on the wearing of tethers, so it was a matter for the RO to consider whether the sea conditions warranted taking this safety precaution. It was also up to the Skipper given their safety management obligations. In this incident it was the Bowman who went overboard. That is the crew position where this is most likely to happen. A Bowman carries out functions that are particularly risky onboard as he/she operates forward of the mast and therefore at much greater risk of going overboard. The relevant weather conditions on the day in particular required that regard be had to the Small Craft Warning.

3. NARRATIVE

3.1 Organisation of the Race

3.1.1 The RCYC hosts a number of international, national and local racing events. Club officials and officers are experienced in organising these events. The incident on the 24 October 2021 occurred during one of a series of local yacht races (Autumn Series) organised by the RCYC specifically for keelboats. The RCYC's Rear Admiral Keelboat Racing (referred to as Rear Admiral hereafter) has overall responsibility for the organising of keelboat racing within the Club. The Rear Admiral is supported in this task by a race committee comprising a panel of ROs and the Club's Marina Manager. Each race is managed and run by a RO (also commonly known as the OD), and assisted by the Marina Manager for club supporting services.

3.1.2 The Rear Admiral for 2021 is an experienced yachtsman and has been involved in competitive yacht racing both as a RO and as a competitor in Cork Harbour and abroad. He was in the yacht racing fourth behind Jelly Baby just before the incident happened. The RCYC RO rostered for keelboat racing on the 24 October 2021 (the OD), was an experienced yachtsman and involved in competitive yacht racing for over 40 years as a race organiser, a RO and as a race competitor in Cork Harbour and abroad. He had filled senior appointments in the RCYC, the ISA and the Irish Cruiser Racing Association.

3.1.3 Both officers stated that each had experience and knowledge of race organisation, race planning and management, international rules and regulations regarding offshore racing, weather forecasting and conditions affected by the topography of Cork Harbour from a racing perspective. The RCYC's Autumn Series is a series of races for leisure sailors and has been an annual local event organised, managed, and hosted by the RCYC for several decades. The RCYC is an Irish Sailing Category 1 Club affiliated sailing club and as such is an approved organising authority.

3.1.4 No records were provided to verify the officer's experience and knowledge. The MCIB ascertained that neither the RO applicable on the day or the Rear Admiral for 2021 are on the website of Irish Sailing on the current list as being valid race officials in any capacity.

3.1.5 Irish Sailing Policy for race officials regarding management of, and training for, race officials was provided to the MCIB and is as follows: *"All Irish Sailing Affiliated clubs, as the Organising Authority of a race, would evaluate the qualifying criteria of the event and search a published panel of Race Officials in the appointment of their race management team."*

3.1.6 Rear Admiral and OD appointed to the race on the 24 October recounted that it was normal practice prior to a RCYC race that the RO appointed to the race would roughly plan out the race course. The RO routinely prepared and planned

by downloading a list of scheduled ship traffic movements within the harbour and the weather forecast for the day of the race.

3.1.7 The RO appointed to the race on the 24 October recounted that he made preparations and had downloaded the scheduled list of traffic movements for the 24 October and the weather forecast. On 23 October, the day before the race, the RO contacted Cork Harbour Port Operations to confirm the ship movements for the day of the race. The RO also considered the weather forecast and tides and made a rough plan for the course for the race taking place the following day.

3.1.8 It was the practice on the morning of the upcoming race for the Rear Admiral and appointed RO to meet at Weavers Point to discuss the RO's rough plan for the race and carry out a close review of prevailing conditions for the potential racing areas, in order to decide and finalise the plan for the upcoming race.

3.1.9 Both Club Officers advised that typical decisions made at a Weavers Point meeting would be the best race area (whether inside or outside the harbour), the race course to be followed, the support and safety cover required and the way the competitors passed around the race marks, i.e. to port or starboard of their boat.

3.1.10 On the morning of the race, at approximately 08.30 hrs, the Rear Admiral and RO met at Weavers Point. The RO outlined his race plan and they both surveyed the weather and sea inside and outside the harbour. They assessed various factors influencing the organisation of the planned race including the day's weather forecast, the prevailing and projected wind direction and strengths, the tidal situation, sea conditions and scheduled shipping movements. Other factors discussed were the number of yachts expected to participate that day, the classes of competing yachts and the planned race course relative to main shipping channels and the race marks.

3.1.11 Code Flag "Y" was not flown for the race. As set out above the Met Éireann 24-hour Sea Area Forecast issued at 06.00 hrs for all Irish coastal waters and the Irish Sea provided for winds and for a Small Craft Warning as follows :

"Wind: Southwest force 6, occasionally reaching force 7 in the Irish Sea this morning. Later veering west force 6 and occasionally reaching force 7 in the northwest, Sunday night.

Small craft warning in operation: South-westerly winds will reach force 6 or higher at times on all Irish coasts today (Sunday) and tonight."[7]

The MCIB was not advised as to whether this was considered and why Code Flag "Y" was not flown given skippers were directing their crew to wear PFDs. No recommendations were made about the wearing of tethers.

7. Small Craft Warnings are issued if winds of Beaufort Force 6 (minimum mean of 22 knots) are expected up to 10 nautical miles offshore). The next most serious level of warning is a Gale Warning (issued if winds of Beaufort Force 8 are expected).

3.1.12 The RO proposed a start line between No.9 and No.11 buoys giving enough water for the number of boats expected to race and this start line was out of the way of any unscheduled ship traffic using the main channel. The RO positioned at Weavers Point that morning was of the opinion the wind had made a significant shift to the west despite the forecast for that day. A wind shift to the west would negate the risk of sailing close to a lee shore at that mark as it would in effect blow a yacht in difficulty away from the lee shore. This perceived wind shift influenced his decision with regard to W2 buoy being the outer mark for the race and the question of which side the flotilla of racing yachts were to round this mark. W2 buoy is also a normal outer mark for racing in the harbour and there was sufficient water there for the expected number of converging yachts that day to safely round the mark. The alternative outer mark was E2 buoy off Roches Point but the RO considered weather conditions favoured W2 buoy on this occasion.

3.1.13 The RO proposed W2 buoy on the west side of the entrance to the harbour to be the outer mark which was agreed by the Rear Admiral. The westerly wind shift influenced the decision with regard to W2 buoy being the outer mark for the race.

3.1.14 The other question considered at this time by the RO and Rear Admiral was how the yachts were to round the W2 buoy outer mark. There were two options considered by the RO. The first option of rounding W2 buoy to yachts port side would necessitate:

- The flotilla of competing yachts beating southwards through the harbour entrance and along its west shoreline to Poulnacallee Bay and its outer W2 mark. The RO considered this would cause a congestion of tacking yachts as they beat south towards W2 buoy with a shoreline close to their starboard sides.

- With a more westerly breeze, the yachts coming up to the W2 mark would have had little option but to gybe around the mark as their angle of approach and constrained by the proximity of the shoreline along the west side of the entrance to Cork Harbour.

- Once round W2 mark the lead yachts would be racing through the flotilla of slower yachts approaching the mark thereby causing congestion at the approaches to the mark.

The second option of rounding W2 to the yachts starboard side would allow:

- The flotilla of competing yachts to beat up to the outer W2 mark using the sea room provided by White Bay and The Sound. Yachts therefore would have more latitude and choices for their angles of approach to W2 buoy.

- The more westerly breeze offered the crews of the yachts a ‘softer’ rounding because if they were on a port pole they would be able to ease into a “bear-away set” on their sails.

- Once round W2 buoy the leading yachts would be heading northwards on a run centrally through the harbour entrance to the next mark, No.11 buoy, thereby avoiding a converging stream of slower yachts heading for the W2 mark. By directing the leading group of yachts away from crossing the flotilla stream of slower yachts and maintaining separation within the yacht stream reduced the risk of collision and upset in the racing flotilla.

3.1.15 The Rear Admiral and RO took into consideration the number of competing yachts in the different three or four classes and their varying speed ranges and discussed the options for rounding the outer mark, W2 buoy. They concluded that the yachts would be safer rounding W2 buoy on the starboard side. Decisions were agreed and the final plan was:

- To race inside Cork Harbour.
- To start the race between No.9 and No.11 buoys at the edge of the main channel passing the Oil Terminal jetty.
- The outer mark for the race was to be W2 buoy.
- Competitors were to pass W2 to starboard.
- The finish line was after No.11 buoy.

3.1.16 Both club officers recounted that there was a final pre-race meeting at the clubhouse to further discuss and finalise decisions with the Marina Manager on the organisation and management of the race including facilities in respect of the two support Rigid Inflatable Boats (RIBs) (each approximately 5-6 m length with two crew) on the water for the race (with one more available for launch if needed).

3.1.17 Directions regarding the race course, start and finish lines, sailing directions for the race and other information for the yacht skippers and crews were posted on the clubhouse Racing Notice Board and communicated to the race flotilla competitors immediately prior to the competing crews making their way to their boats.

3.2 The Race

3.2.1 Yacht Jelly Baby with nine crew onboard left its berth in Crosshaven at approximately 11.00 hrs on 24 October 2021 to participate in a race regatta, part of the Autumn Series 2021 of yacht races. There were approximately 35 to 40 keelboats participating in this race. The wind was fresh, prevailing from the southwest. However, witnesses recalled that the wind direction was variable being influenced by the harbour's topography and backing between west southwest and south southwest with gusts.

See Appendix 7.4 - Royal Cork Yacht Club Notice of Race.

See Appendix 7.5 - Chart, Cork Harbour Autumn Regatta Race Course 24 Oct 2021.

3.2.2 The start line for this race, between No.9 buoy and No.11 buoy located approximately 700 m north of Whitegate Marine Terminal jetty. The RO/OD was stationed at the Start Line onboard the CV overseeing the race start. The OD advised that he remained at this location throughout the duration of the race. First Gun was at 11.25 hrs for an 11.30 hrs race start.

3.2.3 The first leg of the race was against the prevailing winds with a beat (tacking into the wind in a zigzag fashion) from No.11 buoy south-southwest towards and around No.8 buoy, then a stretch (a broad reach) east towards and around a race mark moored in Cork Beg. The next leg was a beat into the prevailing southwest wind out through Cork Harbour entrance, across White Bay and The Sound channels to W2 buoy.

3.2.4 W2 buoy is the most westerly navigation buoy of a series of four buoys moored across the harbour entrance between Roches Point and Weavers Point marking two shipping channels which guide shipping around the hazard of Harbour Rock in the middle of Cork Harbour entrance. W2 buoy is moored between the 10 m and 15 m depth contours off Poulnacallee Bay approximately 0.2 nautical miles (2 cables, 400 yards) south of Weavers Point.

See Appendix 7.6 - Chart, Race Course to W2 Buoy at Weavers Point.

3.3 The Skipper's Perspective of the Incident

3.3.1 Approximately 39 minutes after the race start the race fleet yachts were beating (tacking) across White Bay and The Sound towards W2 buoy. Yacht Jelly Baby was third yacht in the lead. The Sailing Instructions required competing yachts to round W2 buoy on their starboard side before heading north back through the entrance to Cork Harbour to the finish line near Buoy 11.

See Appendix 7.4 - Royal Cork Yacht Club Notice of Race.

See Appendix 7.9 - Chart - Race Flotilla Approach to W2 Buoy.

3.3.2 The Skipper of Jelly Baby planned to round W2 buoy on the boat's starboard side, ease off the mainsail after rounding, lower the headsail and hoist the gennaker foresail. Crew positions at this juncture were as follows:

- The Skipper was on the helm steering the boat and giving directions to the crew.
- The Bowman was on the foredeck overseeing the deployment of the various foresails as they were hoisted and lowered.
- The remainder of the crew were in or around the cockpit with designated tasks controlling the sails.

3.3.3 The gennaker is an asymmetric sail. Unlike the spinnaker (which is fixed at the tack to a spinnaker pole clipped at one end to the mast), the gennaker tack is attached to a running tackline through a block fixed at the end of a 2 m bowsprit protruding from the stem (bow) of the boat. The gennaker is a large sail and imparts a significant amount of power to moving the vessel. Although the gennaker is large its construction is of especially light material allowing the sail to be readily stowed away and/or retrieved from its usual stowed position under the foredeck in the yacht's forecabin. The gennaker is pulled into and out of the forecabin through the foredeck hatch located immediately in front of the mast, by the bowman normally stationed on the foredeck.

3.3.4 Deploying or recovering the gennaker requires timely and co-ordinated actions by the crew in the cockpit and the bowman on the foredeck as follows:

- Deploying the gennaker. A gennaker is deployed when the wind is abaft the beam of the yacht. As the yacht's heading changes direction bringing the breeze around past the beam and aft of the yacht the bowman opens the forehatch and clips on the three corners of the gennaker sail (head, tack, and clew) to their designated lines. The sheet (a line attached to the clew) is left slack but not loose. The halyard (a line attached to the head of the gennaker sail) and tack line (attached to the tack of the gennaker) are simultaneously hauled by the crew in the cockpit. Pulling these two lines brings the connected parts of the sail (the head and tack) out of the forehatch overseen by the bowman. As the gennaker sail emerges from the forehatch under the control of the bowman it begins to fill and billow out downwind and ahead of the yacht.

- It is important at this stage not to let the sail or lines flap uncontrollably thereby causing lines and sail to become snagged or dip into the sea. Of particular importance is not to let the halyard become too slack and flick around behind a mast spreader as the halyard may pull and damage the mast spreader or its standing rigging when the gennaker sail catches the breeze. The gennaker halyard must always be kept forward of the spreaders.

- Setting the gennaker. The gennaker halyard is hoisted until its head is fully at the top of the mast and the tack is now pulled by the tack line to the end of the bowsprit by the crew in the cockpit. The halyard and tack line are clamped and secured in the cockpit. The gennaker unfolds downwind from the yacht and begins to take shape as the gennaker sheet is brought in and trimmed by the cockpit crew. The gennaker sheet is adjusted by the crew to control the sails aspect in relation to the yacht's direction of travel and relative wind direction.

See Appendix 7.3 - Typical Sail Plan - J109 Yacht.

See Appendix 7.12 - Lead Yachts after Rounding W2 Buoy.

3.3.5 Yacht Jelly Baby rounded W2 buoy to starboard and bore away on port gybe with the mainsail boom fully eased out to starboard similar to the two yachts ahead of Jelly Baby (then third in the race and in the series). Preparations were being made to hoist the gennaker foresail. The Bowman opened the foredeck hatch and clipped on the three lines to the sails head, tack, and clew. The bowman is a pivotal member of the crew and carries out functions forward of the mast that puts him/her in the greatest risk of going overboard. The Bowman noticed the gennaker halyard had become snagged behind a leeward (downwind) spreader. The Bowman informed the Skipper who called for the crew to ease the halyard and allow the Bowman to flick the halyard around in front of the spreader. While freeing the halyard from behind the spreader the lightly constructed and now unrestrained gennaker caught the wind and was snaking out of the foredeck hatch and over the side. The sail rapidly billowed out overboard and spilled into the sea.

3.3.6 The Bowman, now on the starboard side of the yacht's foredeck, made attempts to contain the gennaker and pull it back inboard from the sea. However, the gennaker partially filled with seawater and was heavy with trapped water and streaming aft along the side of the yacht. The Bowman recounted that due to the influence of the weight of water in the sail, the seas swell and gyrations of the foredeck he lost his footing and went over the side of the yacht. While doing so he was able to grab and hold onto the yacht but at the same time the Bowman was in imminent danger and required immediate assistance from the crew to get back onboard. He was not wearing a tether.

3.3.7 The Skipper stated his priority was to recover the Bowman back onboard. The Skipper recounted that at this time Jelly Baby was moving forward at approximately 8 kts and heading for the entrance to Cork Harbour powered by the mainsail and foresail with the wind behind the boat and the sheets eased out. The Bowman was over the side on the starboard side of the boat without a tether while all but one of the crew had gone forward onto one side to pull him back onboard. The gennaker was in the water over the starboard side. The Skipper and one crewmember remained in the cockpit while the remaining crew were attempting to recover the Bowman and also the gennaker which was out on the leeward or starboard side, filling with water and passing under the boat. The mainsail and genoa were still raised and powering the yacht forward. There was no evidence of any MOB protocols being put into operation. The sails had not been released to stop the boat moving forward. The gennaker rapidly wrapped around the keel and rudder and could not be dislodged by the crew. The Skipper recounted that steering became restricted due to the rudder being fouled by the wrapped gennaker.

3.3.8 The crew recovered the Bowman, however, the gennaker sail was now in the water and entangling the keel, rudder and propellor. The mainsail and foresail remained deployed moving the boat forward. The Skipper recalled he was now concerned for the safety of the boat and crew, as the boat slowed down by the trailing gennaker was rounding up into the wind on its port side and closing on

to the shore off Weavers Point. He recalled he tried starting the engine to manoeuvre but it did not engage with the propellor. It is however evident in the photo Appendix 7.2 that the sail had wrapped around the saildrive unit. The remnants of the sail can be seen in the photo when the yacht was aground. Steering was limited due to the entangled rudder. The immersed gennaker sail was now entangled around keel, rudder and propellor. The Skipper called for the gennaker lines to the sail to be cut hoping the sail would clear away but the sail was firmly fixed around the yacht's hull.

3.3.9 The Skipper estimated the tide was ebbing at 2 kts, and recalled the yacht was in imminent danger of grounding and there was little time left before the yacht struck ground. The Skipper indicated to the MCIB that he considered at the time of the grounding that he was on a lee shore. Weavers Point and the foreshore along this west side of Cork Harbour is rocky and edged with steep inclines and cliffs dropping down to harbour. He maintained the west winds blowing over the high ground curled around, thereby forming winds that blew Jelly Baby ashore. He instructed the crew to brace themselves in preparation for the grounding as the boat luffed up to port and towards the shore. Two of yacht Jelly Baby's crew decided to jump overboard off the stricken yacht and swim to attending vessels. Both swimmers were shortly picked up; one by a regatta yacht and the other by a tour operated RIB. The Skipper thought the yacht was under the lee of the land and the tide fully took over causing the boat to drift ashore and strike Bull Rock. Now grounded, the yacht settled over to its port side onto the Rock.

See Appendix 7.2 - Yacht Jelly Baby Aground on Bull Rock, Weavers Point.

See Appendix 7.11 - Satellite Image, Yacht Jelly Baby Grounding Position.

3.3.10 A number of yachts were in close vicinity and stopped to render aid. However, the shoaling waters meant these craft could not get close safely to the yacht. The two RCYC RIBs were nearby but both were unable to go alongside due to the unpredictable movement of the yacht in the strong inshore swell and waves.

3.4 Video Recorded Footage

3.4.1 Video footage taken from the shore south of Weavers Point provided a visual record of the incident from which still photos were made for this report. This video footage (which was available on social media) was made available to the investigator by a member of the RCYC who was racing on the day on another yacht and who, coincidentally had been appointed to the panel of MCIB investigators in February 2022 (subsequent to the incident on 24 October 2021). That member of the RCYC who, like other participants had observed that something was amiss with the yacht Jelly Baby, provided technical assistance to the MCIB investigation with regard to the relevant race rules and regulations and related policies and procedures. The 39 second recording starts by showing yacht Jelly Baby (to left of screen) and another competing yacht (centre

screen), both having rounded W2 buoy, bearing away on a port gybe with eased sheets. In the background are some competing yachts in the race flotilla tacking towards W2 mark which is out of view but immediately on the right side of the frame. The video recording then shows the crew of Jelly Baby making preparations to hoist the gennaker. It is estimated this footage starts approximately 40 to 50 seconds before the yacht grounds on Weavers Point. Its content is consistent with what the Skipper described as having unfolded.

3.4.2 Still photographs were taken from the 39 second video footage at 00 second, 2 second, 3 second, 13 second, 25 second, 29 second, 31 second and 39 second intervals and described as follows:

See Appendix 7.13 - Video Stills of Incident.

- Video still 00/39 Crew preparing to hoist gennaker.
- Video still 02/39 Yacht steers off course to port.
- Video still 03/39 Bowman slips over the side.
- Video still 13/39 Crew moves forward.
- Video still 25/39 Gennaker over the side.
- Video still 29/39 Yacht - standing into danger.
- Video still 31/39 Yacht - not under control.
- Video still 39/39 Yacht - imminent grounding.

3.4.3 Video still 00/39 shows yacht Jelly Baby to left of frame preparing to hoist the gennaker. Race mark W2 buoy lies astern out of frame while the two yachts in the forefront of frame are on parallel course, with the wind behind them, heading for the finish line at No. 11 buoy in Cork Harbour.

3.4.4 Video still 02/39 shows yacht Jelly Baby two seconds later. The yacht has steered to port off its previous course. At this point it is surmised the halyard has snagged behind the mast spreader and the Bowman has been directed to free it. It appears the yacht's mainsail has been sheeted in so far as to assist the Bowman in freeing the halyard. The yacht appears to be rounding up to windward (to port) either by the helm or as a result of the main sheet having been taken in.

3.4.5 Video still 03/39 shows yacht Jelly Baby three seconds into the sequence. The yacht has luffed up further to port as indicated by its wake which shows a distinct change in track direction. The yacht has sharply heeled to starboard, the mainsail is sheeted in, the genoa can clearly be seen to be eased considerably more than the mainsail which would result in the re-centre of effort of the sails moving aft contributing to the luffing up moment of the vessel

into the wind. It is surmised this is when, or shortly after, the Bowman slips over the side.

3.4.6 Video still 13/39 shows yacht Jelly Baby on a more even keel but steering to port of the race course 13 seconds into the sequence. It can be seen that all the crew, bar the Skipper and one crew, are moving forward out of the cockpit all to the starboard side, presumably to assist the Bowman back onboard and confine the gennaker. The main sheet has still not been released as should have happened and the sail is full. The competing yacht close by is deploying its spinnaker. The presence of up to a half a ton of crew on the starboard deck would have contributed to the boat heeling over even more. The effect of heeling to leeward is to cause the boat to steer up further into the wind, to port in this case and towards the land.

3.4.7 Video still 25/39 shows yacht Jelly Baby 25 seconds into the video sequence. Two figures, probably the Skipper and a crewmember can be seen in the cockpit while the remaining crew are out of view. It may be surmised that the crew have or are recovering the Bowman and attempting (unsuccessfully) to recover the gennaker which was reported as being in the water over the starboard side about this time. The yacht has slowed down as indicated by its shortened wake. The yacht close-by appears to be overtaking Jelly Baby. The yacht has reduced speed as indicated by its shortened wake when compared to its previous wake length in video still 13/39. This reduction may be due to the sail in the water causing drag. The sails have still not been eased to slow/stop the vessel to support the recovery of the MOB.

3.4.8 Video still 29/39 shows yacht Jelly Baby 29 seconds into the video sequence. The yacht is continuing its trajectory towards the shoreline and standing into danger. It is surmised that at this point the yacht has lost effective steering control reportedly due to the sail fouling its rudder. However, the main and genoa sails remain filled and powering the yacht forward. This sail configuration has caused the yacht to round up into the wind (on its port side) and point it towards the shoreline at Weavers Point.

3.4.9 Video still 31/39, 31 seconds into the video sequence shows yacht Jelly Baby further luffing up to port and into the wind and continuing its trajectory towards the shore. The sails are filled, and the yacht's wake length appears unchanged from the previous two stills, (video still 25/39 and 29/39). Steering is compromised and the yacht appears not to be under control.

3.4.10 Video still 39/39 at the end of the 39 second video sequence shows the yacht Jelly Baby showing little wake although the sails are still filled, and the sheets remain taut and have not been eased. Crew can be seen clustered at the foot of the mast and in the after end of the cockpit and perhaps braced for impact. The yacht is either in imminent danger of grounding or has actually touched bottom and lost its previous momentum. The two crew who jumped overboard are not shown.

3.4.11 Yacht Jelly Baby grounded on Bull Rock at Weavers Point. Bull Rock's eastern edge slopes down to the sea. The yacht came to rest against the rock on its port side enabling the crew (save the two that jumped into the water) to climb down to dry land and make their way safely ashore. The two swimmers were picked up from the water; one by a regatta yacht and the other by a tour operated RIB. There are remnants of the gennaker visibly wrapped around the propeller above of Yacht Jelly Baby aground on Bull Rock, Weavers Point.

See Appendix 7.2 - Yacht Jelly Baby Aground on Bull Rock, Weavers Point.

3.5 The RCYC Race Organisers and the Incident

3.5.1 The RO onboard the CV was a distance away and out of sight of the race flotilla as it approached and rounded the outer mark off Weavers Point. The RCYC's Rear Admiral was onboard a yacht competing in the race behind yacht Jelly Baby. The first indication to the RO of the incident was a general broadcast on VHF radio Channel 71 by the Rear Admiral who, seeing the incident unfolding, broadcast a summons to all available RIBs and motor launches in the vicinity of Weavers Point for assistance and to make their way to the area at speed.

3.5.2 This broadcast was shortly followed by Yacht Coracle on VHF radio Channel 71 who also alerted the RO that an incident had occurred. Five 112/999 calls were received alerting MRSC Valentia to the grounded yacht. The first was from a MOP and a subsequent 112/999 call at 1109z advised that the vessel was aground at Weavers Point with ten persons onboard.

3.5.3 The Rear Admiral contacted the RO directly to advise him of the incident and that a yacht was aground. MAYDAY relay broadcasts on VHF radio Channel 16 were also made by two other competing yachts.

3.5.4 In response to this new information the RO sent the two RCYC Rescue/Safety RIBs supporting the race out to Weavers Point. A third support RIB was launched from the RCYC marina to assist. The RO also broadcast to the racing flotilla that racing for the day was cancelled and all participating yachts should stop racing.

3.5.5 The RO also contacted the Coast Guard via mobile telephone 999 call to advise them of the unfolding incident but was informed by the Coast Guard that they were already alerted to the incident and assistance was underway from the RNLI and IRCG.

3.6 The Casualty

3.6.1 The Bowman was successfully recovered, having gone overboard. Both members of the crew who elected to swim off the boat were brought to the RCYC clubhouse in Crosshaven and landed ashore safely. The crew that remained

onboard climbed down off the yacht to dry land and made their way to safety by climbing the rocky cliff at Weavers Point, an elevation of approximately 20 m, at the mouth of Cork Harbour. At 12.19 hrs, ten minutes after the yacht going aground the Skipper advised the Coast Guard that all crew were safely ashore, and that medical assistance was not required.

3.6.2 At approximately 12.09 hrs yacht Jelly Baby was aground on Bull Rock, Weavers Point. Yacht Jelly Baby went aground on a dropping tide. The boat was refloated two hours into the next flood tide and towed to Crosshaven Boatyard.

3.6.3 In Crosshaven Boatyard the yacht was lifted ashore for inspection. Yacht Jelly Baby was found to be substantially damaged. The Skipper reported that the yacht's insurers declared the yacht to be a "total constructive loss" meaning, in their terms, that the repairs would cost more than the vessel was worth.

3.6.4 There was no pollution in the vicinity of the grounding reported.

4. ANALYSIS

4.1 Factors in the Incident

4.1.1 Yacht Jelly Baby ran aground and was substantially written off due to the damage caused (although the MCIB was advised that it was repaired and continues to sail). The grounding occurred when the halyard became snagged during a racing manoeuvre, leading to a crewmember going overboard. The crewmember was wearing a PFD but not a tether. As a result, the immediate focus of the Skipper was on recovering the Bowman. MOB procedures were not activated. The sails were not released so the yacht kept driving forward. All the crewmembers except one rushed to the starboard to assist the Bowman and to try and recover the gennaker. This led, in turn to the boat heeling even more to leeward. The effect of heeling the boat to leeward is to make it luff up into the wind. The greater the angle of heel, the greater is the turning moment towards the wind direction, in this case towards the land. The crew responded to the emergency in a manner that evidenced the lack of a MOB procedure and appropriate training in that procedure. The Bowman was wearing a PFD even though the race organisers determined that race conditions including the weather on the day did not warrant the competitors wearing PFDs. The Bowman was not wearing a tether as that was not required by the Skipper or the race organisers.

4.1.2 This incident involved several factors which influenced the incident and its outcome. The factors identified are as follows and are explained in the numbered sub paragraphs:

4.2 Environmental Conditions

4.3 Events Onboard Yacht Jelly Baby

4.4 Crew Training and Performance

4.5 Man Overboard and Wearing of Tethers

4.6 The Club's Position on Crew Training

4.7 Club Oversight on Crew Training

4.8 The Club and Race Organisation

4.9 The Club Race Safety Arrangements

4.10 The Yacht

4.2 Environmental Conditions

4.2.1 Information on prevailing weather conditions in Cork Harbour on 24 October 2021 during the incident was gained from three independent sources; Met Éireann, the Coast Guard, and RCYC ROs. Also taken into consideration was tidal information published for Cork Harbour (Cobh).

4.2.2 The Met Éireann 24-hour Sea Area Forecast issued at 06.00 hrs on Sunday 24 October 2021 for all Irish coastal waters and the Irish Sea provided, inter alia for the following likely conditions:

"Small craft warning in operation

Text of small craft warning

South-westerly winds will reach force 6 or higher at times on all Irish coasts today (Sunday) and tonight.

Wind: Southwest force 6, occasionally reaching force 7 in the Irish Sea this morning. Later veering west force 6 and occasionally reaching force 7 in the northwest, Sunday night."

Included in the Coastal Report at 05.00 hrs Sunday 24 October 2021:

"Roches Point Automatic: Wind South, 13 knots, mist, 3 miles, 1008 falling slowly."

Included in the Coastal Report at 11.00 hrs on Sunday 24 October2021:

"Roches Point Automatic: Wind South-Southwest 18 Knots, Mist, 4miles 1009 Rising Slowly."

4.2.3 The subsequently reported weather conditions, according to the Met Éireann report of 22 March 2022, for Cork Harbour/Roches Point area on Sunday 24 October between 11.00 hrs and 13.00 hrs local time, winds in the Roches Point area included the following:

> *"Wind: Winds in the Roches Point area were estimated as fresh to strong Beaufort Force 5 or 6 southwesterly (mean speed 18 to 22 knots) with occasional gusts of 31 knots.*
>
> *Weather: The Roches Point area remained mostly dry with only occasional light passing showers, variable cloud and sunny spells during the period in question. Although a band of blustery heavy showers affected Cork City area, these heavy showers did not reach Roches Point area where overall rainfall totals was not more than a trace.*

Estimated Sea State Conditions (offshore): The estimated sea state conditions in the offshore area south of Roches Point was moderate, occasionally rough (significant wave height of 1.5 – 2.5m occasionally 3m); the swell direction was south-westerly."

4.2.4 Both club officers assessed that the weather at their 08.30 hrs pre-race reconnaissance to Weavers Point for that day was Force 4 wind (termed a moderate breeze at 11-16 kts) from the southwest notwithstanding the forecast of Force 6 occasionally reaching Force 7 and the Small Craft Warning for all Irish coasts. However, both officers, from their vantage point local to Weavers Point, shared the opinion that the wind had a significant shift from south to the west (which is what the forecast anticipated, but much later).

4.2.5 Their weather assessment was consistent with the Met Éireann 06.00 hrs 24 hour Sea Area Forecast's Coastal Station report from Roches Point Automatic which recorded a south wind at 13 kts at 5.00. The Met Éireann report of 22 March (11.00 hrs to 13.00 hrs) estimated weather conditions were:

"Winds in the Roches Point area were estimated as fresh to strong Beaufort Force 5 or 6 southwesterly (mean speed 18 to 22 knots) with occasional gusts of 31 knots.

The estimated sea state conditions in the offshore area south of Roches Point was moderate, occasionally rough (significant wave height of 1.5 – 2.5m occasionally 3m); the swell direction was south-westerly."

4.2.6 As described in Report No. MCIB/304 *"Weather forecasting is a very particular skill and Met Éireann has a number of experts in that field. It is therefore unsafe to disregard what the State's meteorologists say about the forecast."* All weather forecasts are a computerised numerical prediction, using complex mathematical equations to try and describe motions in the atmosphere. However:

- Met Éireann's forecasts use an 'ensemble' approach, where multiple different predictions are created for what the weather might be at any given time, which are then examined by a forecaster before being assimilated into the published forecast. Other forecasting models, like those typically used by commercial apps, use a 'deterministic' system that produces only a single forecast.

- Met Éireann's forecasts have a regional focus centred on Ireland and the north Atlantic, whereas other forecasting models like those typically used by commercial apps, have a global focus on large-scale weather patterns.

- Met Éireann's weather forecasts analyse a grid area measuring approximately 2.5 kilometre (km) in width, whereas many commercial apps use a much lower resolution, sometimes with an analysed grid area that is 11 times

wider, at approximately 28 km in width. Met Éireann's higher resolution means that they can analyse coastline features in a more accurate and realistic way, and inland features such as river valleys, and the associated weather variations that are important to safety afloat such as wind speed, gusts, rainfall and temperature.

4.2.7 Typically, weather forecasts are only updated every six hours. The starting point for all weather forecasts is the actual weather conditions when the computer model is run, which may have been some hours beforehand. Therefore, it is important for those going afloat to use the most up-to-date forecast when making any weather based decision. For example, a weather forecast published on the day or night before a boating activity may be considerably different from the weather forecast published on the morning of that activity just before it commences.

4.2.8 Met Éireann has additional information published[8] on their website www.met.ie about the weather forecasting process. Irrespective of the source of a weather forecast, no weather forecast can be expected to definitively account for the effects of very localised features, such as small coastal headlands or inland river valleys. Therefore, those going afloat must be cautious in their approach. Recreational boaters must appreciate that forecasts are simply a prediction of what might occur. The forecasted weather will not necessarily be the actual weather, but the forecasted weather is what is most likely to occur.

4.2.9 Neither the weather conditions forecast and estimated by Met Éireann or assessed by the RCYC's ROs were unusual for weather experienced in Cork Harbour in the Autumn and were not outside the design criteria for a RCD category 'A' designed yacht such as yacht Jelly Baby. However, given the forecast and the Small Craft Warning the RO should have mandated the wearing of PFDs, and the skippers should have considered the use of tethers in particular, for bowmen.

4.2.10 Tidal information published for Cork Harbour (Cobh), indicated that the tide was four hours into the ebb tide streaming out of Cork Harbour. The southwest to west winds and southwest sea swell direction provided a lee shore between Weavers Point and Rams Head for the racing flotilla on this race leg. It was considered that any yacht in difficulty or incapacitated at this stage of the race should be blown eastwards away from the shoreline thereby providing a margin of safety for the boat and its crew. According to the weather report from Met Éireann of March 2022 the wind at the time of incident was as forecast for 06.00

8. Sources: www.met.ie/education/the-met-eireann-podcast
www.met.ie/education/publications/technical-notes
www.met.ie/education/how-met-eireann-produces-a-forecast
www.met.ie/upgrade-to-met-eireanns-weather-forecast-system-april-may-2020
www.met.ie/education/publications/peer-reviewed-journal-articles-by-met-eireann-staff-members

hrs that day: SSW, (210 degrees) 22 kts as measured at Roches Point. A Small Craft Warning was in place. In spite of this wind direction the Skipper of Jelly Baby reported to the MCIB that he experienced a lee shore prior to the yacht grounding. The wind against the tide exacerbated the sea condition and the Skipper experienced pitching and rolling on surf prior to the Bowman going overboard.

4.2.11 The Skipper and Bowman assessed the tide flow as ebbing at approximately between 2 to 5 kts at Weavers Point and both recounted that the yacht was in the lee of the land and thought the wind (in the lee of the land) and ebbing tidal eddies at the location of the grounding, pushed the yacht onto the southeast facing Bull Rock at Weavers Point. The sea swell was from the southwest and against the tide making sea conditions worse.

4.2.12 Video still 39/39 shows the yacht with sails filled and moving forward immediately prior to grounding. The yacht was not stopped in the water at this point. It is considered that wind and tidal eddies may have an influence on a yacht stopped and drifting in the water but their effects on a yacht with sails filled and moving through the water would be negligible.

4.2.13 It is surmised that wind and tidal eddies may have affected the yacht after it struck the rock and stopped moving and may have caused the yacht to settle over onto its port side against the rock. However, there are no wind or tide data or records available to the MCIB to support the crews' account for the yacht's final position on Weavers Point. Environmental conditions prevailing in the area between Roches Point and Weavers Point and local to Bull Rock were likely a factor in the final grounding of Jelly Baby. This was notwithstanding that although the yacht was under power it was not under any control and was at the mercy of wind and sea.

4.3 Events Onboard Yacht Jelly Baby

4.3.1 The 39 second video footage taken from ashore south of Weavers Point shows yacht Jelly Baby as it races for the finish line, to the yacht as it moves uncontrollably towards the shoreline. From the sequence of events indicated in this 39 second video it is estimated the incident occurred over a very short period before the yacht grounded at Bull Rock.

4.3.2 Although the Bowman was over the side (but still attached to the yacht) he was wearing a lifejacket, and there were other boats in the vicinity. The Bowman, according to the Skipper's report, was in the water without the presence of a tether, but holding on to the yacht while it was still moving at speed, as the sails had not been dropped. The yacht was heading towards the shore and yacht and crew were standing into danger. The yacht's wake trail indicates the yacht was moving forward at some speed.

4.3.3 Video stills from 02/39 to 13/39 indicate the escalation of the situation during which the Skipper was confronted with a conjunction of rapidly changing events.

- The Bowman was over the side and required immediate crew assistance to haul him back onboard.
- The gennaker was spilling over the side and into the sea.
- On Jelly Baby's starboard side and slightly astern there was a competing yacht.
- On Jelly Baby's port side was the shoreline with limited sea room to manoeuvre.

4.3.4 At this juncture the Skipper had a number of possible courses of action to expedite recovery of the Bowman and gennaker and keep the yacht from standing into danger:

a) Instigate the MOB procedure which defines the actions to be carried out, and by whom, in different circumstances and apply specifically to that boat. This as standard would include a MAYDAY call and the stopping of the boat to recover the overboard crew. MCIB was unable to establish if such a procedure existed or was practiced by the crew. No MOB procedure was instigated by the crew in this instance.

b) Steer to starboard and decelerate the yacht by coming up into the wind, dropping the sails, starting the engine and heaving-to. This would allow the crew to recover the Bowman and gennaker. In doing so this action would require the crew to manage a gybe (as the wind crossed its stern) and risk a collision with the overtaking yacht on Jelly Baby's starboard side. However, assuming the overtaking yacht was able to take measures to avoid collision. This action would have enabled Jelly Baby under power and manoeuvrable and further off the shoreline with adequate sea-room to carry out the recovery of the Bowman and gennaker.

c) Steer to port and decelerate the yacht by turning about into the wind, dropping the sails or letting go the sheets and heaving-to; then manoeuvre under engine power to recover the Bowman and gennaker. This action needed to be taken immediately as delay would bring the yacht closer to the shoreline with reduced sea-room for recovery operations. The 39 second video sequence indicates that the crew had approximately 26 seconds to turn the yacht into the wind, decelerate the yacht by whatever means while recovering the Bowman and gennaker. That being the situation, 26 seconds is not considered sufficient time to carry out these evolutions simultaneously considering the agility of a racing yacht and the reported capability of its crew. The ability to complete these manoeuvres safely was restricted by the proximity of the land on the portside and the inability of the yacht to steer effectively.

d) Maintain the yacht's course and 8 kts speed and recover the Bowman and gennaker while underway. The yacht would maintain its safe distance from the competing yacht on the starboard side and the shoreline on its port side. However, this course of action risked the Bowman becoming detached from the yacht or drowning as he was being dragged through the water at speed. Likewise, there was also a risk to crewmembers assisting the Bowman and those recovering the gennaker.

4.3.5 As all the crew bar one were fully engaged in recovering the Bowman back onboard there was no reserve crew capacity to carry out these actions. The Skipper recalled that events were moving very fast but his main priority at this time was to recover the Bowman and he directed the crew to this task, and also to try to recover the gennaker. Video recording shows that there appeared to be no action at that moment to initiate any of the four possible courses of action mentioned above to enable recovery of the Bowman and keep the yacht from standing into danger of grounding.

4.3.6 The MCIB have been urged by the RCYC (and by Irish Sailing) to assess the situation that occurred as not amounting to a MOB (or Man Overboard Tethered) as the Bowman remained attached to the yacht. No authority or source has been provided to support this interpretation. The MCIB has considered this but does not agree that this is the correct interpretation of the situation as it is clear that there was a MOB. The absence of a practiced MOB procedure which would define the appropriate actions to be taken by the crew before the yacht struck the ground at Weavers Point, was a causative factor in the loss of yacht Jelly Baby.

4.4 The Crew Training and Performance

4.4.1 A characteristic of a successful racing yachts' crew is that they perform as a team in co-ordinated unison at their assigned tasks. A crew team performs as a single entity anticipating the yacht's evolutions while obeying the skippers directions on sailing the yacht. Experience with racing their yacht and consistent attendance and participation as a regular team crewmember is crucial to co-ordinated, safe and successful operation of a racing yacht.

4.4.2 While racing, the co-ordination between the foredeck man (bowman) and the cockpit crewmembers is critical in that it must be seamless to achieve team success. Control and teamwork between the bowman and designated cockpit crewmembers prior to and during deployment of the foredeck sails is essential.

4.4.3 The first indication of any disruption in the performance of the crew team was the mishap of the gennaker halyard snagging behind the mast's leeward spreader. Ordinarily, a snagged halyard as the yachts' crew prepared to deploy the gennaker would require a cockpit crewmember to pull in the main sheet to create a gap between the mainsail and mast spreader allowing a second crewmember to flick the halyard through the gap and thereby free the halyard. These actions should not be challenging for a practiced and experienced racing

crew team and should not disrupt the performance of a racing yachts' crew.

4.4.4 Perusal of video still 02/39 appears to show the main sheet has been sheeted in indicating that efforts to unsnag the halyard were likely initiated at that instance. However, instead of a cockpit crewmember being designated, the Skipper tasked the Bowman to unsnag the halyard (thereby leaving the gennaker unattended) while the other seven crew initially remained in the cockpit. The occurrence of the snagged halyard was the initial indication that essential co-ordination between the crew was absent, and the performance of the crew was compromised.

4.4.5 The incident initiated with a snagged halyard. The crews' response to events subsequent to the initial snagged halyard mishap were not consistent with those to be expected from an appropriately trained team and allowed events to escalate rapidly to further mishaps as the gennaker and the Bowman slipped over the side in quick succession.

4.4.6 The Bowman held onto the yacht but was at risk of being dislodged or drowning. Video footage between video still 03/39 and video still 13/39 indicates a number of crew moved from the cockpit, presumably firstly to recover the Bowman onboard and then to attempt to recover the gennaker. By not following a recognised and practiced procedure in response to the events, the crew were not in position to assist in controlling the main and foresail's sheets and halyards as it also appears that the main and foresail continued to power the yacht as it deviated from its course and sailed towards the shore line. The presence of so many crew on the starboard would have resulted in greater heeling of the yacht. The effect of heeling the boat to leeward is to make it luff up into the wind. The greater the angle of heel, the greater is the turning moment towards the wind direction, in this case towards the land. This was another indicator of a breakdown in the crews' co-ordination.

4.4.7 Prior to the yacht grounding, two crewmembers abandoned the yacht and jumped into the water. They were subsequently picked up uninjured and returned to shore safely. This is a further example of the lack of preparation aboard the yacht for the emergency that occurred, the lack of a practiced Abandon Ship Procedure, and the lack of cohesion in the crew actions during the event. Those abandoning not only put themselves in additional danger but also distracted the attentions of the Skipper and crew from mitigating the effects of the imminent grounding. Abandon Ship should only be carried out as per a practiced procedure on any vessel and only on instructions from the Skipper.

4.4.8 Taken in isolation the unfolding series of mishaps (snagged halyard, spilled gennaker and a bowman going over the side) were relatively benign in that such mishaps are not uncommon in yacht racing. It would be reasonable to expect that sail training including club training, onboard training, and regular racing experiences would prepare the crew to overcome such mishaps adequately and expeditiously as they occur. The absence of this level of training outstretched

the capability of the crew to effectively manage a succession of escalating mishaps and rapidly placed the crew including the Bowman and yacht in danger.

4.4.9 The Skipper and the RCYC stated that the crew were highly experienced and trained. However, one mishap rapidly led to another, and these series of minor mishaps together with the lack of procedures to deal with the MOB situation overwhelmed the crew's capability to cope and effectively control the yacht. The crew's response to events subsequent to the initial snagged halyard mishap were not consistent with those to be expected from an appropriately trained team as the disruption in the crew's performance overwhelmed their capability to manage these events.

4.4.10 Irish Sailing confirmed that MOB procedures are ubiquitous in their training courses and modules. Students, children and adults, are expected to show competence, in a practical on the water examination, in preventing and if necessary, retrieving a person overboard. This element is in all the following course syllabi and licences:

National Cruising Scheme

- Day Skipper
- Yachtmaster Coastal
- Yachtmaster Offshore

Small Boat Sailing Scheme (includes Keelboats)

- Basic Skills
- Improving Skills
- Advanced Boat Handling

Adventure Skills

- National Powerboat Training Scheme (qualifications held by safetyboat crew)
- National Powerboat Certificate

Safetyboat Certificate

- Intermediate Powerboat Certificate
- Advanced Powerboat Certificate

Licences

- International Certificate of Competence

4.4.11 It is reported that the Skipper had a Yachtmaster Offshore certificate from 1993. The Irish Sailing training modules for Day Skipper, Yachtmaster Coastal and Yachtmaster Offshore provide training only for a skipper and do not include any training on MOB for general crewmembers. There is also no provision for refresher learning and/or certification. In contrast the training of MOB by the Royal Yachting Association includes an MOB module at basic competent crew training.

4.4.12 The absence of crew team training to manage the train of mishaps as they occurred was a causative factor in this incident.

4.5 Man Overboard and Wearing of Tethers

4.5.1 The bowman is a pivotal member on any racing crew. S/he is the person most at risk of going overboard as they carry out functions forward of the mast. On the day the Skipper did not discuss the wearing of tethers with the crew and did not direct them to be worn either by the Bowman or any of the other crew.

4.5.2 The Skipper recalled that events were moving very fast but that his main priority at this time was to recover the Bowman and he directed the crew to this task, and also to try to recover the gennaker. The absence of a tether on the Bowman lent this decision a greater urgency. The Bowman had managed to hold onto the side of the yacht, akin to being tethered, however the yacht was going at full speed and heeling over, and he was at real risk of drowning at the side of a fast moving vessel. Had there been an MOB (tethered) procedure the Skipper may have been able to reduce the risk level and this might have resulted in more thought being given to stopping the yacht by releasing or dropping the sails.

4.5.3 The wearing or not, of tethers is a recognised issue in yacht racing as a tether does have a tendency to reduce flexibility and speed of movement. It is however worn on many racing yachts and in conditions similar to that which prevailed on the day in question.

4.5.4 Irish Sailing provided the following by way of explaining their policy (unpublished) on the wearing of tethers:

"The use of tethers, whilst a crew and skipper choice, are rare and not normally encouraged during inshore racing as (a) the risk of a man overboard is limited, (b) manoeuvrability is required for the immediate turns and tasks during an inshore race and (c) there is support from other boats should a sailor need assistance.

At events for small boats the legal requirement to wear a personal flotation

device (PFD) is reinforced by a specific sailing instruction. At events for larger boats the race committee may inform competitors, before or during the event, the wearing of a PFD is obligatory. It is standard practice to apply the same rules to support persons and all race officials.

In offshore racing, where manoeuvres may occur in intervals of hours or longer and there is less support from other vessels, it is common for the Notice of Race or Sailing Instructions to outline the use of harnesses and tethers in certain conditions of light, at night, a certain wind strength, low visibility, crew number, over and above what is set out in RRS 1.2."

4.5.5 The absence of a tether on the Bowman was a contributory factor in this incident.

4. 6 The Club's Position on Crew Training

4.6.1 The RCYC's Racing Declaration and Entry Form for 2021 requires the yacht's person in charge to declare that they have paid attention to and agree to be bound by the World Sailing's OSR's (while noting that OSR did not directly apply to this Category 4 inshore race).

- World Sailing's OSR Section 1 – Fundamental and Definitions, paragraph 1.02.1 states *"…..the safety of a boat and her crew is the sole and inescapable responsibility of the Person in Charge who shall do his best to ensure that the boat is fully found, thoroughly seaworthy and manned by an experienced and appropriately trained crew who are physically fit to face bad weather."*

- Further on at Section 6 – Training, the regulations lays down a regime of training for every member of a crew including the person in charge and a range of training topics.

- Paragraph 6.04 of the OSR advocates routine training onboard and specifies that, at least annually the crews shall practice the drills for crew-overboard recovery and abandonment of vessel.

4.6.2 In the RCYC incident report, provided to the MCIB, the RCYC stated that:

"Whilst the incident could potentially have resulted in serious consequences, the training and experience demonstrated, in responding to the incident, by the skipper and crew of Jelly Baby, the Race Officials and race participants prevented such an outcome".

The Report goes on to state:

"Extensive training in all aspects of race management, safety and boat handling is provided to members from a very early stage which ensures there is a high level of experience available when running events".

4.6.3 The Skipper (i.e. the person in charge) recounted that the crew had all raced together onboard Jelly Baby multiple times throughout the year, all were experienced, knew the boat and were all part of the race team. In summary, the Skipper of yacht Jelly Baby and the organising body, RCYC, were satisfied that the crew were appropriately trained and experienced to participate in this race. As set out above, the Skipper and crew did not display this during the incident.

4.6.4 The RCYC report also considers that the RCYC considered the training did not contribute in any way to the incident. No recommendations are made in the RCYC report for any changes of practise. Nor is there any reference to the assessment of the weather, or the decision not to fly the Flag "Y", or, to skippers giving consideration to the wearing of tethers.

4.7 Club Oversight on Crew Training

4.7.1 In the Responsibility section of the RCYC's Racing Declaration and Entry Form for 2021 it is provided that *"yacht racing can be dangerous"*, and, in the Risk Statement section of its Notice of Race that *"sailing is by nature an unpredictable sport and therefore involves an element of risk"*. Both statements recognise the self-evident risks involved in yacht racing. Crew training is an important element in mitigating the risks and hazards associated with yacht racing and is specifically addressed in Section 6 of World Sailings OSR Section 6 – Training, an extract only provides as follows:

6.01.1 – *"Every member of a crew including the Person in Charge shall have undertaken training within the five years before the start of the race in 6.02 Training Topics"*.

6.01.2 – *"At least 30% but not fewer than two members of the crew, including the Person in Charge shall have undertaken training within the five years before the start of the race in OSR 6.02 Training Topics"*.

6.01.4 – *"Except as otherwise provided in the Notice of Race, an in-date certificate gained at a World Sailing/ISAF Approved Offshore Personal Survival Training course shall be accepted by a race organising authority as evidence of compliance with Special Regulation 6.01"*.

6.04 - *"Routine Training On-Board. At least annually the crews shall practice the drills for Crew Overboard Recovery, Abandonment of vessel"*.

4.7.2 The Declaration and Entry Form must be signed by the person in charge of the competing boat before qualifying to compete in RCYC races. This form not only highlights to the signatory the dangers and therefore risks associated with yacht racing but also references and restates ISAF OSR fundamental regulation 1.02.1 which states: *"The safety of the yacht and her crew is the sole and inescapable responsibility of the person in charge who must do his/her best to ensure that the yacht is fully found, thoroughly seaworthy and manned by an experienced*

crew who have undergone appropriate training …..".

The RCYC also re-iterates this fundamental regulation in its Racing Declaration and Entry Form for 2021 in the section headed "Responsibility".

4.7.3 According to OSR fundamental regulation 1.02.1 and the RCYC's Racing Declaration and Entry Form for 2021, appropriate crew training is the responsibility of the person in charge of the yacht. There is no express or implied reference to the OSR training requirements in RCYC's Racing Declaration and Entry Form for 2021.

4.7.4 Anticipation, foresight and training provide the means of responding and overcoming emergency situations. There appears to be no RCYC rules or regulations directly addressing crew training requirements. Nor is there any reference in any document specifically directed to, and highlighting, the crew training regulations in Section 6 (Training) of World Sailing OSR. This elevated level of capability training is not mentioned in the World Sailing OSR except for the reference to "appropriate training" contained in the Responsibility section headed "Responsibility" of the declaration and entry form signed by the person in charge (set out in part 2 above). Irrespective of the fact that OSR did not directly apply to this Category 4 inshore race save through the Skippers Declaration, some regard must be had to the nature of the training in Section 6.

4.7.5 The skipper or person in charge of a competition yacht may consider the training responsibility is addressed by exercising his/her crew onboard the yacht in coping with isolated mishaps (like snagged halyards, sails in the water, loss of steering, man-overboard emergencies etc..) and building on their capability for managing mishaps as they arise and mitigating the element of risk by regularly racing with the crew onboard the yacht.

4.7.6 The management of a crisis situation whereby mishaps occur in quick succession is a step-up from routine racing capabilities and requires a significantly higher level of training with expert trainers to ensure these types of crises are firstly avoided and secondly, overcome.

4.7.7 Separately, there appears to be no mechanism or process for oversight or checks by the RCYC, as the Race Organisers, to ensure yacht crews (including skippers) have adequate training and capability to compete safely in a race even in respect of their own club members.

4.7.8 The responsibility for ensuring the yachts' crew are appropriately trained is placed solely on the person in charge of the yacht. It is left to the skipper or person in charge to ensure the crew have a capability to manage a crisis similar to the crisis that enveloped the crew of yacht Jelly Baby on the 24 October 2021. In summary, the RCYC recognises yacht racing is dangerous and involves risk yet places full responsibility for the crew's safety, training, and capability on the person in charge of a yacht even though the yacht is competing in a RCYC organised yacht race.

4.7.9 This is also the position adopted by Irish Sailing although not a published policy, other than they acknowledge the principle is the foundation, based upon the World Sailing Racing Rules and OSR upon how crews, boats, clubs and sailing organisations function generally for all sailing events and in Category 4 events, such as the one considered in this report, at home and internationally. With regard to the oversight or auditing of crew qualifications, Sailing Ireland submitted the following:

"In long distance offshore events, for which specific qualifications, both certified training and experience, are required by the rules, crews may be required to present documentary evidence at registration to the Club/Organising Authority. This is the case, for instance, with the Round Ireland Race or RORC races where the one-off nature of events makes administration of this requirement possible.

Category 4 events or local club racing events, have no requirement for certificates, only the following training requirements: 6.04 for crew: annual crew overboard and abandonment training and 6.05.3 two crew being familiar with First Aid3. While more can be done to promote and manage this training, they are not certified training schemes and therefore, difficult to apply to crew-wide or boat tracking.

Responsibility for the safety, training and experience required for racing, sits with the person in charge and not with the Club, both in the rules, governing the sport, and for multiple practical reasons:

- *At local events, crews change regularly. No sailing club at home or internationally would have the data, technology, evaluation criteria, CRM systems or resources to undertake such tracking on an ongoing, weekly basis, especially with clubs run largely by volunteers.*
- *There are recognised training levels for general seamanship, however, there are no National or international training schemes certifying the role-based competence required for yacht racing. These skills and knowledge are acquired through experience, on racing Yachts throughout the world. Any system for monitoring crew training and experience at local level would be a major undertaking and in international terms, an isolated task.*
- *Any change in the fundamental responsibility of the person in charge may have unintended consequences in law, legal liability, insurance coverage and cost. Any change that contradicts the requirements of the international rules governing sailing could have a considerable negative impact on the development of the sport of sailing in Ireland.*

Irish Sailing wishes to refer to the point made in the report that that internationally accepted rules exist for safety within the structures of yacht racing and the sport."

4.7.10 It is considered that the RCYC should exercise a degree of oversight as to the suitability of racing yacht crews to participate in what is recognised as a dangerous leisure time activity. This issue also is connected with the training of those in charge of racing. Had the ROs given greater consideration to the prevailing conditions they would have required the wearing of PFDs, that might have also prompted skippers to consider that tethers should be worn (while noting that the RCYC considered that wearing of tethers was unnecessary at any time when sailing in certain locations).

4.8 The Club and Race Organisation

4.8.1 The race during which the incident occurred was part of the Autumn Series 2021 and was hosted, managed and organised by the RCYC. This series of races were organised for keelboats which is the responsibility of the appointed Rear Admiral Keelboat Racing who chairs the Keelboats Race Committee. The RCYC organises and hosts a considerable number of local, national and international racing events. A statement from the Club highlights that it organises racing at all levels from dinghies to large yachts throughout the year and takes safety on the water very seriously. The statement further states that extensive training in all aspects of race management, safety and boat handling is provided to all members from a very early age which ensures there is a high level of experience available when running events.

4.8.2 Rear Admiral Keelboat Racing for 2021 and the rostered RO described themselves as experienced yacht racing officers. Both officers stated that they had in-depth knowledge of race organisation, race planning, international rules and regulations regarding offshore racing, weather forecasting and conditions affected by the topography of Cork Harbour from a yacht racing perspective.

4.8.3 With regard to race officials qualifications and race management, Irish Sailing advised that, through its Race Official Policy Group (ROPG), it conducts a comprehensive range of training courses and assessments for the six different race officials disciplines, in order to supply the sport with the relevant skills and competencies to run fair and competitive racing in the hundreds of events held each year. Each race official is appointed for four years and the ROPG monitor standards of performance. The appointment can be renewed every four years provided certain criteria are met. One of the reasons for the requirement of re-certification is that the RRS are reviewed and changed from time to time. In particular changes are often made after the Olympics. So qualification as a RO at one point in time does not mean lifelong certification. The different courses, or skill sets, in race management are:

- RO or Principal Race Officer (PRO)
- Judge
- Umpire

- Mark Layer
- Safety Leader
- Results Manager

The three levels can be achieved, in each discipline with different escalating qualification criteria at each level. These are:

- Local
- Regional
- National
- In addition, international level may be appointed by World Sailing, the international governing body of the sport of sailing of which Irish Sailing is a member.

All Irish Sailing affiliated clubs, as the organising authority of a race, would evaluate the qualifying criteria of the event and search a published panel of race officials in the appointment of their race management team. Irish Sailing confirmed that the PRO is in charge of a sailing event and is the ultimate decision maker.

4.8.4 Neither of the officers applicable on the day are on the website of Irish Sailing on the current list as being valid race officials in any capacity. As set out above the fact that each may have had that qualification at an earlier time, without it being renewed, would result in their omission form the list of race officials on Irish Sailings website.

4.8.5 They were supported not only by a race committee but by the RCYC's organisational top-down and bottom-up reporting structure. Rear Admiral Keelboats Racing chairs the Race Committee and reports to the Executive Committee of the RCYC. Feedback on decisions made by the Race Committee is provided by the Executive Committee. Safety issues and incidents are investigated. Incident reports are made to the Executive Committee by Rear Admiral Keelboats Racing. Lessons learned are implemented by the Executive Committee through the relevant committee officer and their respective committees down to end users.

4.8.6 The RCYC investigation into this casualty concluded as follows with no recommendations made for any changes in the safety culture of the Club:

"Conclusion

Whilst the incident could potentially have resulted in serious consequences, the training and experience demonstrated, in responding to the incident, by the skipper and crew of "Jelly Baby", the Race Officials and race participants prevented such an outcome.

The RCYC organises racing at all levels from dinghies to large yachts throughout the year and takes safety on the water very seriously.

Extensive training in all aspects of race management, safety and boat handling is provided to members from a very early age which ensures that there is a high level of experience available when running events.

While such incidents are rare, they can occur for a variety of reasons but by having trained and experienced personnel available to respond when required, the risk to the safety of participants is very much reduced."

4.8.7 The race route planning was considered inadequate for the organisation of this race on the 24 October 2021. The selection of mark W2 as the outer mark and the rounding to starboard limited the options of the Skipper of Jelly Baby outlined in paragraphs 4.3.4 b) and c), to mitigate the effects of the MOB and the gennaker wrapping the keel, saildrive and rudder. The yacht was ultimately driven aground on a lee shore, a possibility which was noted by the ROs but was rejected following the morning inspection at Weavers Point, prior to the race. The choice of an outer mark and the means of rounding the mark had been subject of special consideration by the RO. Both officers were cognisant of the risks associated with a high density of yachts converging on and rounding the outer marker. The location of W2 buoy as the outer mark and its rounding requirements were guided by the criteria of minimising risk of collision and upset within the racing flotilla and prevailing weather conditions.

4.8.8 The yacht in difficulty was not blown offshore by the wind which was considered a possibility by the RO. The selection of mark W2, the direction of rounding, the absence of an appropriate assessment of the environmental conditions, and the Small Craft Warning, all combined together to exacerbate the situation after the yacht rounded mark W2 and are considered to be contributing factors in this incident.

4.9 The Club and Race Safety Arrangements

4.9.1 The RCYC Notice of Race at Section 4.1 under the headline "Classification" refers to the OSR Category 4 safety regulations governing offshore racing. A Category 4 race is set out in OSR paragraph 2. 01.3. as *"Short races, close to shore in relatively warm or protected waters normally held in daylight"*. OSR paragraph 1.01.3 contains a fundamental principle *"Use of the OSR does not guarantee total safety of the boat and her crew. Particular attention is drawn to the description of OSRs for inshore racing which includes that adequate shelter and or effective rescue is available all along the course"*.

4.9.2 RCYC organisers addressed the fundamental safety principle set out in OSR paragraph 1.01. by a) racing within the confines of Cork Harbour limits and it's approaches and b) by providing three rescue/safety RIBs; two crewed rescue/safety RIBs following the racing fleet and one RIB standing-by at the

RCYC marina. On being informed of the grounding incident, the RO immediately detailed both rescue RIBs to attend the grounded yacht while the third stand-by RIB was launched from the RCYC marina in Crosshaven to assist. The RO also contacted the Coast Guard and advised them of the grounded yacht's situation.

4.9.3 This race involved 35 to 40 keelboats. The choice of an outer mark and the means of rounding the mark had been subjects of special consideration by the RO. Both officers were cognisant of the risks associated with a high density of yachts converging on and rounding the outer marker. The location of W2 buoy as the outer mark and its rounding requirements were guided by the criteria of minimising risk of collision and upset within the racing flotilla and prevailing weather conditions inside Cork Harbour.

4.9.4 It is considered that an appropriate additional safety measure would have been provided by a rescue/support RIB stationed at that mark. However, it is likely that the rapidity of the sequential mishaps onboard the casualty yacht Jelly Baby would have given a rescue/safety RIB stationed at W2 buoy little or no time to provide effective assistance to the yacht and the crew and prevent its grounding at Weavers Point.

4.9.5 The capacity for two support/safety RIBs alone to adequately provide effective rescue cover during the course of the regatta for 35 to 40 boats would be insufficient were it not for one of the fundamental rules of sailing to provide help to someone in danger. As this incident unfolded it was reported that other competing yachts stopped racing on their own volition and stood-by to help and assist. In so doing if a boat, while racing, provides aid to another boat in distress it will be awarded "redress" so that it does not suffer loss of competitive position as result of giving aid. The two crew in the water were picked up by two other vessels. Therefore, while it is considered that the capacity of two RIBs alone would have been limited in providing effective rescue, the support provided by the other yachts filled the gap in effective rescue capability on this occasion.

4.9.6 The number and efficacy of the rescue/safety RIBs and the available aid from the accompanying racing fleet provided good safety cover. The lack of adequate safety cover was not a factor in the incident resulting in the loss of yacht Jelly Baby.

4.9.7 The Club decision not to require PFDs is considered to reflect a lack of safety awareness and the absence of appropriate assessment of the prevailing conditions. As the Skipper did mandate the wearing of PFDs, the absence of direction from the Club on PFDs was not a contributory factor in this incident.

4.10 The Yacht

4.10.1 J109 yacht Jelly Baby was a Class 1 racer/cruiser designed for racing. The yacht's requirements for its classification was set out in the RCYC's Notice of

Race at Section 4.1 which stipulated that all boats shall be capable of satisfying OSR Category 4 safety regulations governing offshore racing (www.sailing.org). Yacht Jelly Baby had Class 1 classification.

4.10.2 Yacht Jelly Baby was a Category 'A' design recreational craft and complied with Recreational Craft Directive (RCD) 2013/53/EU specifications regarding design and construction.

4.10.3 The yacht had a major refit in 2020 when spars and rigging were renewed throughout the vessel and the yacht was well maintained. A number of J109 type racing cruisers compete in RCYC races and with regard to structural features and yacht equipment, all J109's complies with internationally recognised yacht designs and equipment standards and address the requirements of the RCYC's Notice of Race stipulations.

4.10.4 Yacht Jelly Baby's construction and equipment were not considered a factor in this incident.

5. CONCLUSIONS

5.1 The MCIB investigation found key causative factors leading to the putting at risk the Bowman and crew and the grounding and loss of yacht Jelly Baby:

a) The crew's response to sailing mishaps were not consistent with those to be expected from an appropriately trained yacht crew. The disruption initiated by a snagged halyard started the chain of events. This was followed by the Bowman going over the side and hanging on ("Tethered MOB") while he was trying to retrieve the sail in the water.

b) Irrespective of the policy of Irish Sailing (set out above) that reflects the issues around whether tethers should be worn or not and in what circumstances, it remain a fact that the Bowman was not wearing a tether which led to the risk situation being far greater and contributed to the decisions that were made.

c) The crew were overwhelmed by these events and failed to react correctly in a prompt and efficient manner as was required in the situation. The absence of crew training to keep control of, or stopping, the yacht while appropriately coping with the mishaps as they occurred.

d) While the different interpretation and application of Tethered Man Overboard/MOB urged on the MCIB is noted, the absence of the initiation of a MOB procedure or crisis management outstretched the capability of the crew to effectively manage a succession of escalating mishaps.

e) The absence of appropriate actions by the crew and their lack of training for these sort of events.

5.2 The responsibility for the crew's safety and training is primarily with the person in charge/skipper of a yacht competing in a race. However, where the race or event is being run by a club under its rules and directions it has an influence (possibly a very great influence) on safety aspects. RCYC's report on its own investigation states that: *"Extensive training in all aspects of race management, safety and boat handling is provided to members from a very early stage which ensures there is a high level of experience available when running events"*. Yacht racing is competitive and there is always a danger that competitiveness and lack of training can contribute to an underestimation of risk. The RCYC did not evidence an appropriate balance of risk versus competitiveness required in the prevailing conditions. Consideration should have been given to mandating the wearing of PFDs. Also, regard should have been given to the fact that the Club exercises no oversight in respect of crew training and that the unwritten regime on the wearing of tethers might lead to an absence of better or more sensible risk assessments.

5.3 The policy position of Irish Sailing and the RCYC set out in paragraph 4.7 which lays all responsibility for all aspects of safety on the skipper and none on any club

is not the approach to safety adopted by other national organisations and clubs that engage in other water based sports. The policy is stated to be predicated on international yacht racing rules with little regard to recreational sailing or to the sort of safety recommendations that are throughout the CoP. It does not appear to allow for the possibility of a discussion around increased safety sources or oversight in circumstances where the policy position is determined to fix the skipper with all responsibility for safety. The RCYC do carry out training per their own report into the incident.

5.4 As pointed out in this MCIB report, where the sport is being conducted in a competitive environment there is an added risk that safety will be sacrificed to winning. The purpose of MCIB investigations is to consider recommendations that are aimed at improving safety. The MCIB is mindful that while neither the Bowman nor the other crew that jumped from the yacht suffered injury, the situation that unfolded could easily have had a very serious outcome. Notwithstanding the position of the RCYC and Irish Sailing, the recommendations that follow are designed to give those organisations (and others) in the sport an opportunity to consider whether a more balanced view of safety and risk would improve safety. It follows that training content would need assessment (Irish Sailing conducts extensive training as set out on its website, as does RCYC).

6. SAFETY RECOMMENDATIONS

6.1 The Royal Cork Yacht Club should make recommendations to the skippers and persons in charge of its racing yacht fleet to review their crew training obligations in the context of Irish Sailing rules, regulations and procedures.

6.2 The Royal Cork Yacht Club should facilitate and promote a programme of crew training to enable crew to cope effectively with onboard crisis events and their management.

6.3 The Royal Cork Yacht Club should consider having an audit from time to time to verify that the crew on participating yachts (in particular those who are members of the club itself) have suitable and verifiable training and experience.

6.4 The Royal Cork Yacht Club should review the qualification of its panel of Race Officers in line with Irish Sailing grading, and should review its training of the assessment of, and procedures applicable to, weather conditions.

6.5 Irish Sailing should consider the content of this report and the scope of sailing training in respect of Man Overboard to extend to general crew and should also consider the introduction of refresher course/certification for skippers/yacht masters. Irish Sailing should continue to facilitate and promote a programme of crew training to enable crew to cope effectively with onboard crisis events and their management.

6.6 The Minister for Transport should consider revision of the Man Overboard section in the Code of Practice: The Safe Operation of Recreational Craft to include “Tethered Man Overboard” guidance.

It should be noted that Irish Sailing assisted the Marine Casualty Investigation Board in the preparation of aspects of this report for which we are grateful. It should also be noted that Irish Sailing has advised the Marine Casualty Investigation Board that it intends to use this report as a learning opportunity, by establishing a cross functional team, across their relevant policy groups - Racing Rules Committee and Appeals Board, Race Officer Policy Group, Training Policy Group and their executive teams in Racing, Training and Operations – in order to consider what learning opportunities exist across the full range of sailing activities, the national implications and the practical implementations which may arise, taking into account international standards in safety, rules and training structures.

Irish Sailing have also expressed the view that while the recommendations at 6.1, 6.2, 6.3, and 6.4 directed to the Club contain local considerations, they have general wider application and contain potential lessons for other clubs, training centres, national and regional racing organisations throughout the

country. As a result, Irish Sailing would aim to include these recommendations in their review. The Marine Casualty Investigation Board wishes to acknowledge its appreciation of this as one of the effective means of disseminating possible lessons for improved safety.

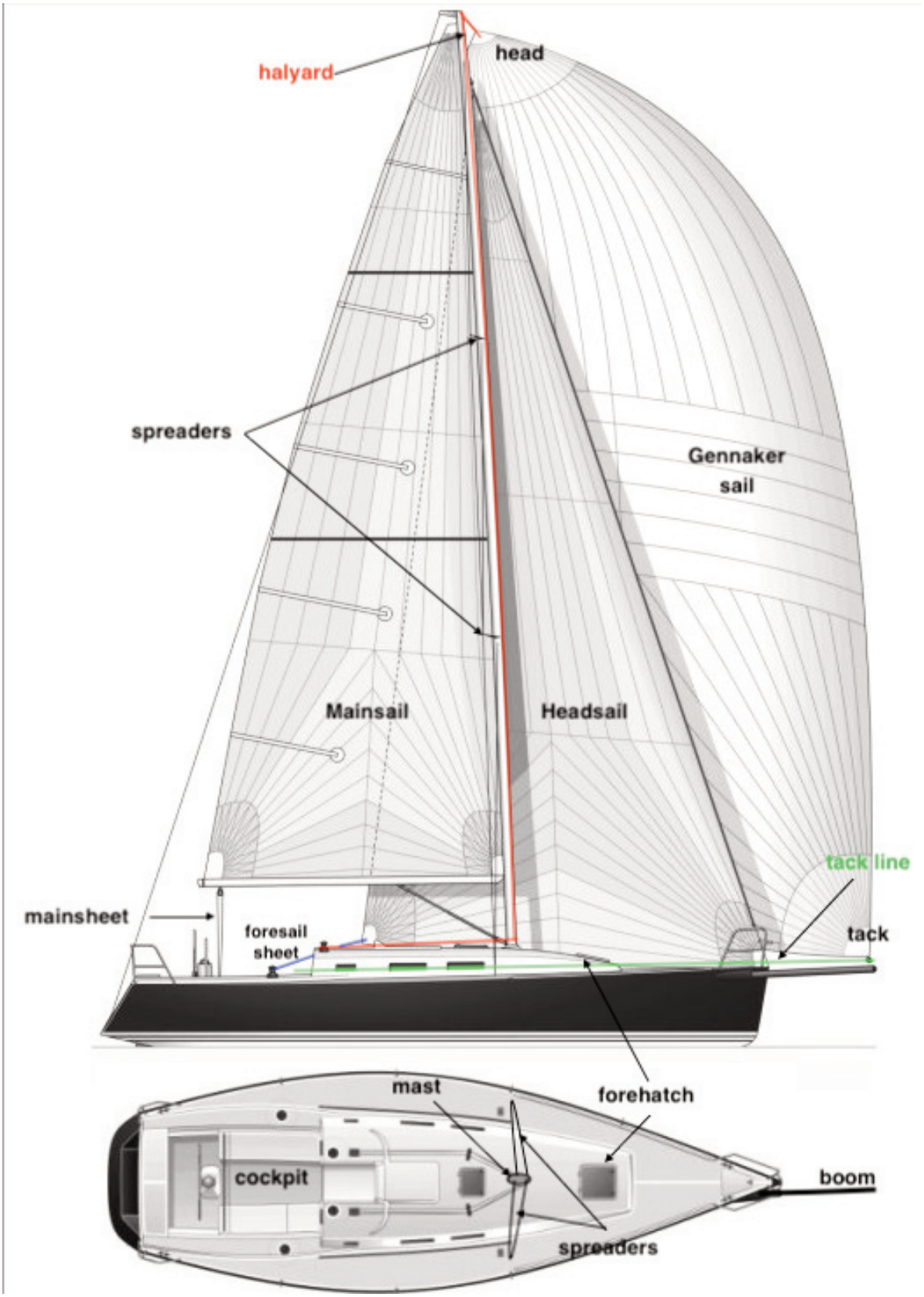
7. APPENDICES

Appendix 7.1 Yacht Jelly Baby

Courtesy Robert Bateman

Appendix 7.2 Yacht Jelly Baby Aground on Bull Rock, Weavers Point

Appendix 7.3 Typical Sail Plan - J109 Yacht



Appendix 7.4 Royal Cork Yacht Club Notice of Race

NOTICE OF RACE

Royal Cork Yacht Club

Sunday Sept 26th -Oct 24th

AIB Autumn Series 2021

Appendix 7.4 Royal Cork Yacht Club Notice of Race

The Autumn Series will be hosted by the Royal Cork Yacht Club and will be sailed in the waters of Cork Harbour and its approaches.

Coronavirus
COVID-19

This event is subject to the Covid 19 guidelines as laid out by the Irish Government.All people associated with this event must comply with these conditions.These conditions are changing as the event approaches and will influence the running/organisation/cancellation of this event.

1 RULES

1.1 The Regatta will be sailed under the current Racing Rules of Sailing (RRS), the IS prescriptions thereto, the IRC Rules, part 1, 2 and 3, the Club ECHO handicapping System, class rules where applicable, by this Notice of Race and by the Sailing Instructions for the Regatta.

1.2 IRC Crew limitation: No Crew limit shall apply

2 ADVERTISING

2.1 Boats may be required to display advertising chosen and supplied by the organizing authority.

3 ELIGIBILITY AND ENTRY

3.1 This Regatta is an open event and is open to all boats that hold a current 2021 IRC or ECHO handicap certificate. Unendorsed certificates are acceptable in all Classes. Sports boats/dayboats and other one design classes shall comply with their class rules.

3.2 The Race Committee reserve the right to place yachts in different Classes at their discretion and with reference to the speed of the boats and to the number of entries in any Class.

3.3 Classes may be combined, if, in the opinion if the Race Committee, the number of entries does not warrant a Class.

3.4 Entry Forms must be received before **Friday September 24th 2021 which is cut off for the event**. Entry Forms per link below:

ONLINE ENTRY CLICK HERE

3.5 The number of classes will be finalised after the closing date of entries on Friday September 24th 2021.

3.6 The fleets will be spilt into the following groupings: The OA may combine groups depending on fleet sizes

1. Class 0, Class 1 & Class 2 — Group A
2. 1720's / Sports boats / Dayboats — Group B
3. White Sail 1 and 2 — Group C

Appendix 7.4 Royal Cork Yacht Club Notice of Race

CLASIFICATION

4.1 All boats in Class 0, Class 1, Class 2, and White Sail 1 & 2 shall be capable of satisfying, without the necessity for modifications, OSR Category 4 safety regulations governing Offshore Racing. Sports boats/Dayboats and other one design classes shall comply with their Class rules.

5 FEES

5.1 The entry fee for this Regatta shall be €100. All payments via royalcork.com Royal Cork Yacht Club. A late entry fee of €130 will be applied.

6 SCHEDULE

6.1 Races will be sailed in the the waters of Cork Harbour and its approaches.

6.2 The courses to be sailed will be as follows:

Group A & B	A mixture of Coastal (group A), Winward/Leeward or Round the Cans	FG 11.25	**Sundays** September: 26th October: 3rd, 10th, 17th & 24th
Group C	A mixture of Coastal, Winward/Leeward or Round the Cans	FG 11.55	

6.3 **Number of Races:**
We will aim for 2 races per day (one race per day for coastal race) for the regatta but may need to change this depending on weather conditions during the Regatta. Course type on each day is at the discretion of the Race Officer.

7 RATING CERTIFICATES

Valid 2021 IRC and/or ECHO rating certificates are required. Sports boats/Dayboats and other one design classes shall comply with their Class rules.

8 SAILING INSTRUCTIONS

The Sailing Instructions will be posted to www.royalcork.com/noticeboard before Friday 24th September 2021.

9 SCORING

9.1 The Low Point System will apply.

9.2 3 races are required to be completed to constitute a series.

9.3 (a) When fewer than 4 races have been completed, a boat's series score will be the total of her race scores.

Appendix 7.4 Royal Cork Yacht Club Notice of Race

(b) When 4 or more but less than 12 races have been completed, a boat's series score will be the total of her race scores excluding her worst score.

(c) When 12 or more races have been completed, a boat's series score will be the total of her race scores excluding her worst two scores.

(d) Fleet B will be provided with one extra discard. The reason for this is given the 1720 Europeans are being sailed in Dunmore on the first weekend of the Autumn League and a number of boats will be racing AIB Autumn league from week 2.

9.4 A boat's combined score each day will be used as the basis for daily prizes throughout the Regatta.

9.5 All races of the Regatta will be scored as part of the SCORA league.

10 BERTHING

Subject to availability, complimentary berths or swinging moorings will be provided to visiting boats to Crosshaven from Friday September 24th 2021 to Monday October 25th 2021. For berthing arrangements please contact our Marina Manager [redacted] at the RCYC office [redacted]

11 PRIZES

11.1 Overall prizes will be awarded as follows: 1st, 2nd and 3rd in each Class.

11.2 Final prize giving for the Regatta will be held on the evening of the 24th October. Further information will be posted on www.royalcork.com/noticeboard

11.3 Daily prizes will be awarded as soon as possible after racing each day. Daily prizes will be given on a one boat - one prize per boats basis, for 1st, 2nd & 3rd in each class.

12 DISCLAIMERS OF LIABILITY

The Safety of a boat and her entire management including insurance shall be the sole responsibility of the owner/competitor racing the boat. He/She must ensure that the boat and her crew are adequate to face the conditions that may arise in the course of the Regatta. Neither the establishment of the required safety regulations nor the inspection of any boat in any way limits or reduces the absolute responsibility of the owner/competitor for their crew, boat and the management thereof.

13 INSURANCE

It is the duty of each boat owner to have his boat adequately insured against any risk, including civil responsibility to third parties and to ensure that such insurance remains valid for the entirety of the Regatta.

14 FURTHER INFORMATION

14.1 For further information please contact

E-mail: keelboats@royalcork.com

Appendix 7.4 Royal Cork Yacht Club Notice of Race

15 COVID – Statement

15.1 By taking part in any of the events covered by this notice of race, each competitor agrees and acknowledges that they are responsible for complying with any regulations in force from time to time in respect of COVID19 and for complying with the OA's COVID-19 procedures. Competitors and support persons shall comply with any reasonable request from an event official. Failure to comply may be misconduct. Reasonable actions by event officials to implement COVID-19 guidance, protocols, or legislation, even if they later prove to have been unnecessary, are not improper actions or omissions. A breach of this rule shall not be grounds for protest by another boat. This amends rule 60.1(a)

16 Risk Statement

16.1 Rule 4 of the Racing Rules of Sailing states: "The responsibility for a boat's decision to participate in a race or to continue racing is hers alone."

Sailing is by its nature an unpredictable sport and therefore involves an element of risk. By taking part In the event, each competitor agrees and acknowledges that:

(a) They are aware of the inherent element of risk involved in the sport and accept responsibility for the exposure of themselves, their crew and their boat to such inherent risk whilst taking part in the event.

(b) They are responsible for the safety of themselves, their crew, their boat, and their other property whether afloat or ashore.

(c) They accept responsibility for any injury, damage or loss to the extent caused by their own actions.
(d) Their boat is in good order, equipped to sail in the event and they are fit to participate.

(e) The provision of a race management team, patrol boats, and other officials and volunteers by the event organiser does not relieve them of their own responsibilities.

(f) The provision of patrol boat cover is limited to such assistance, particularly in extreme weather conditions, as can be practically provided in the circumstances.

(g) It is their responsibility to familiarise themselves with any risks specific to this venue or this event drawn to their attention in any rules and information produced for the venue or event and to attend any safety briefing held for the event

(h) They are responsible for ensuring that their boat is equipped and seaworthy so as to be able to face extremes of weather; that there is a crew sufficient in number, experience, and fitness to withstand such weather; and that the safety equipment is properly maintained, stowed and in date and is familiar to the crew.

Safe sailing and we are really looking forward to seeing you all this Autumn.

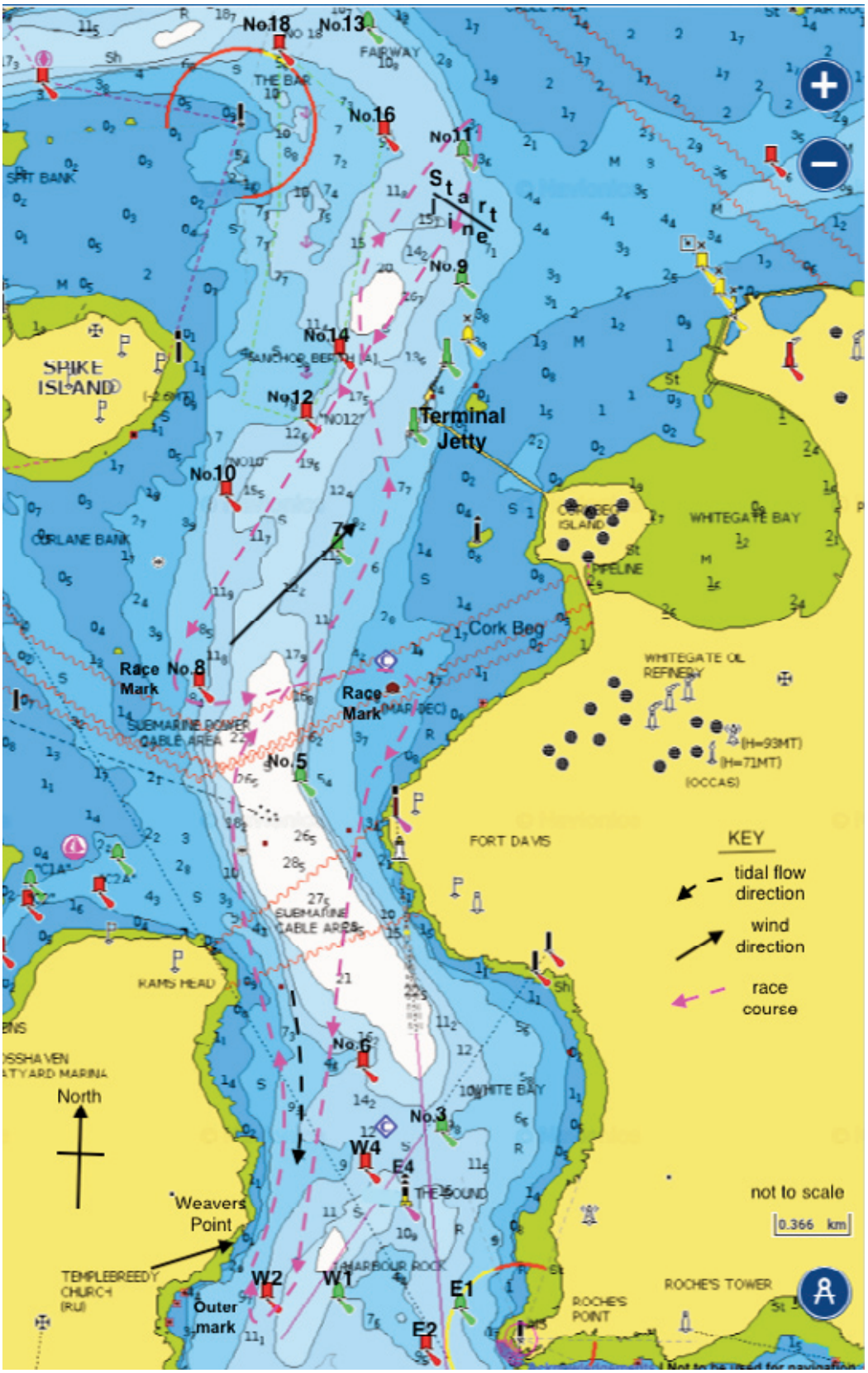
Kind Regards

[redacted]

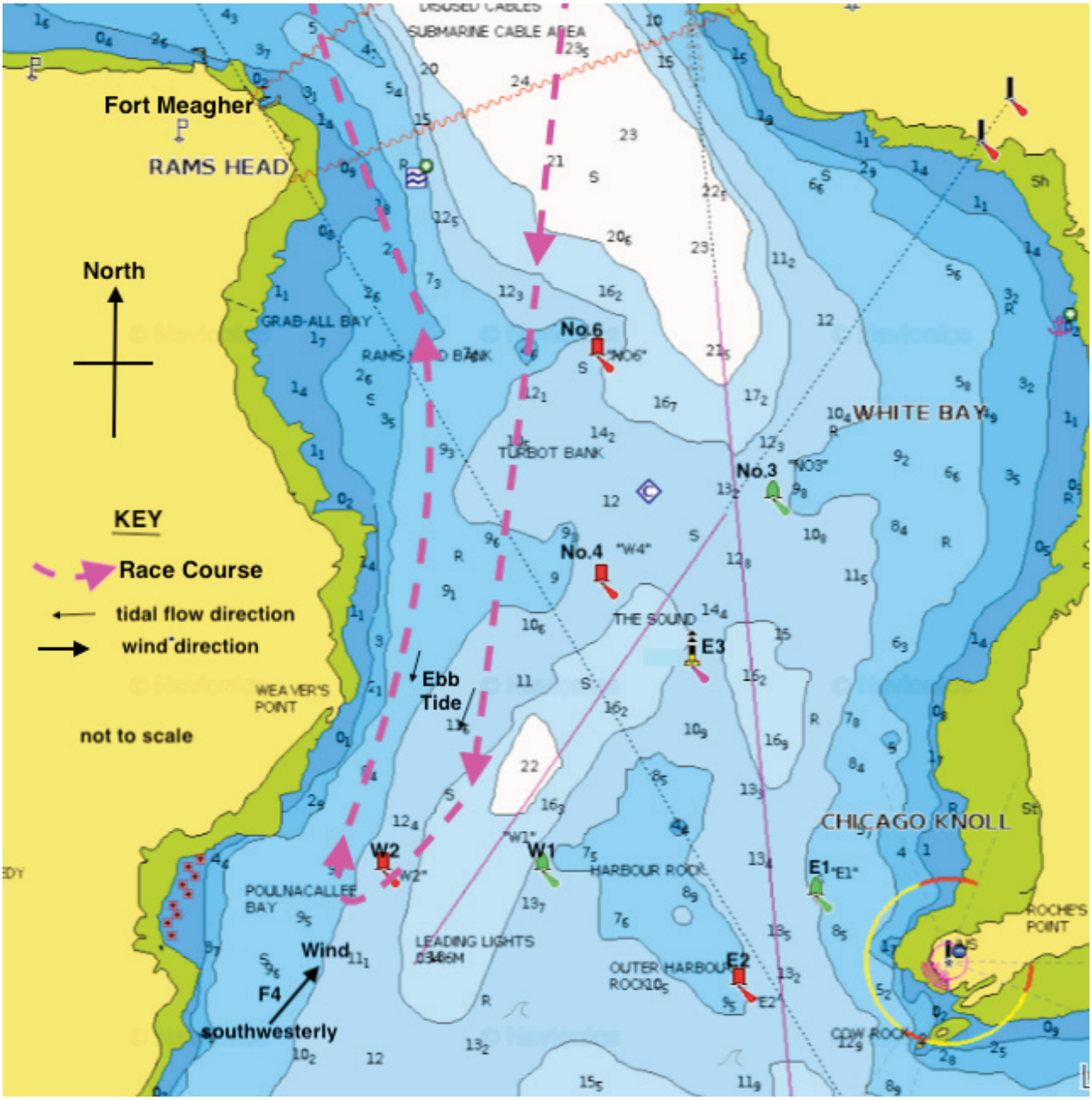
Rear Admiral Keelboats Royal Cork Yacht Club

APPENDIX 7.5

Appendix 7.5 Chart - Cork Harbour Autumn Regatta Race Course 24 October 2021



Appendix 7.6 Chart - Race Course to W2 Buoy at Weavers Point



Appendix 7.7 Royal Cork Yacht Club Race Report on an Incident Involving J109 Yacht Jelly Baby Grounding at Cork Harbour 24 October 2021

Report on an incident involving J109 yacht, "Jellybaby", grounding at Cork Harbour, 24th October 2021.

1. Introduction

The above incident occurred during a yacht race organised by the Royal Cork Yacht Club (RCYC). The race is one of a series which takes place on each Sunday in October.

The Rear Admiral Racing has overall responsibility for the organisation of yacht racing within the RCYC. Each race is run by an experienced Officer of the Day (OD) assisted by the Marina Manager.

The Rear Admiral Racing and OD met at Weaver's Point, which affords a view of the Harbour entrance, early on the morning of the 24th October to review both inside and outside potential racing area, made the decision to race inside the harbour on the day and discussed the proposed course (Fig 1.), taking into account the forecast weather, wind direction and tidal conditions.

Fig 1.

Visual of the first leg of the course 24/10/2021

Appendix 7.7 Royal Cork Yacht Club Race Report on an Incident Involving J109 Yacht Jelly Baby Grounding at Cork Harbour 24 October 2021

The Race officer also contacted the Port Vessel Traffic Services to confirm that the expected ship movements were in accordance with the published schedule.

He then advised the Marina Manager of the plan for the Race.

The race started at 1200 hrs in the vicinity of navigation buoy No 9. The wind at the time was South West 12 to 14 Knots.

Appendix 7.7 Royal Cork Yacht Club Race Report on an Incident Involving J109 Yacht Jelly Baby Grounding at Cork Harbour 24 October 2021

2. The Incident

The following account was provided by the Skipper/Owner of the yacht "Jellybaby"

Yacht 'Jellybaby' – 35' Bermudian Sloop

Crew – in addition to Skipper, there were Eight able bodied experienced yachtsmen on-board, all familiar with racing 'Jellybaby' – All crew wearing personal life vests.

Oct 24th 2021 – Weather 14 to 22 knots

On rounding W2 (third mark of the race course on the day) 'Jellybaby' left W2 to starboard, bore away on port gybe with eased sheets.

- Call was made to hoist the gennaker
- Bowman advised that the gennaker halyard was caught behind a spreader
- Call was made to ease halyard to allow slack for bowman to free the halyard
- After freeing the halyard as the bowman was making his way back to the bow, it was noticed that the gennaker had started to run out of the bow hatch.
- As the bowman made effort to contain the gennaker, due to the wave pattern the boat was pitching and rolling on the surf and unfortunately, he was pulled from the boat by the trailing gennaker ending up with him and the gennaker in the water
- Two crew went to his aid and successfully retrieved him from the water
- Efforts were also made at the time to retrieve the gennaker.
- The boat had now lost flow over the keel and the rudder as the gennaker in combination with the eased halyard and slack tack line had wrapped itself around the keel and rudder. This prevented the engine being started. The Tack line and sheets were cut away from the boat but unfortunately the gennaker was too entangled to free itself from the yacht's foils.
- With circa 2 knots of tide and being on a lee shore the boat kept bearing away on to the shoreline
- As the boat had now moved in under the lee of the land, the tide fully took over causing the boat to drift ashore landing on Bull Rock
- All the crew exited the boat – two were taken on to boats that had stood down from racing (including a local tourist RIB) and were standing off to help – the balance of seven made ashore at landing point
- The yacht was refloated two hours into the next high water and brought to Crosshaven Boat Yard and lifted out.

Appendix 7.7 Royal Cork Yacht Club Race Report on an Incident Involving J109 Yacht Jelly Baby Grounding at Cork Harbour 24 October 2021

3. Response to the incident

1. A Mayday relay was broadcast immediately by the skippers of the two yachts. "Don't Dilly Dally" and "Heroes and Villains" via VHF Ch 16 at approximately 1225.
2. The Rear Admiral Racing summoned assistance on VHF Ch 71 to all available RIBs/Motor boats in the vicinity of Weaver Point to and to make their way to the area at speed.
3. Yacht "Coracle" (race participant) called the OD via VHF 71 to alert the OD that an incident had occurred.
4. The Rear Admiral Racing contacted the OD to advise him that an incident had occurred and that a yacht had grounded.
5. The Yacht "Bad Company "(race participant) was in close proximity to "Jellybaby" and was able to turn on her engine, immediately abandon her race, and moved very quickly to recover one of the crew members who had entered the water. (The sea state was choppy at the time)
6. A commercial passenger RIB, which was in the area providing a tour, was able to assist immediately having heard the call on VHF radio and recovered the second person from the water.
7. "The yacht "Bad Company" and Rib returned to the RCYC Clubhouse with the recovered persons.
8. On being informed of the incident, the OD sent the two RCYC Rescue/Safety ribs, who were supporting the race to the area. He also contacted the Coast Guard via 999 and was advised that they were alerted to the incident and that assistance was underway from the RNLI and IRCG.
9. The OD abandoned racing for the day in advance of competing yachts returning to the area.
10. The RNLI and IRCG was tasked by Valentia Coastguard.
11. A third Rib was launched from the RCYC to assist
12. While medical assistance was not required, a paramedic on "Heroes and Villain" was available to provide it.

4. Conclusion

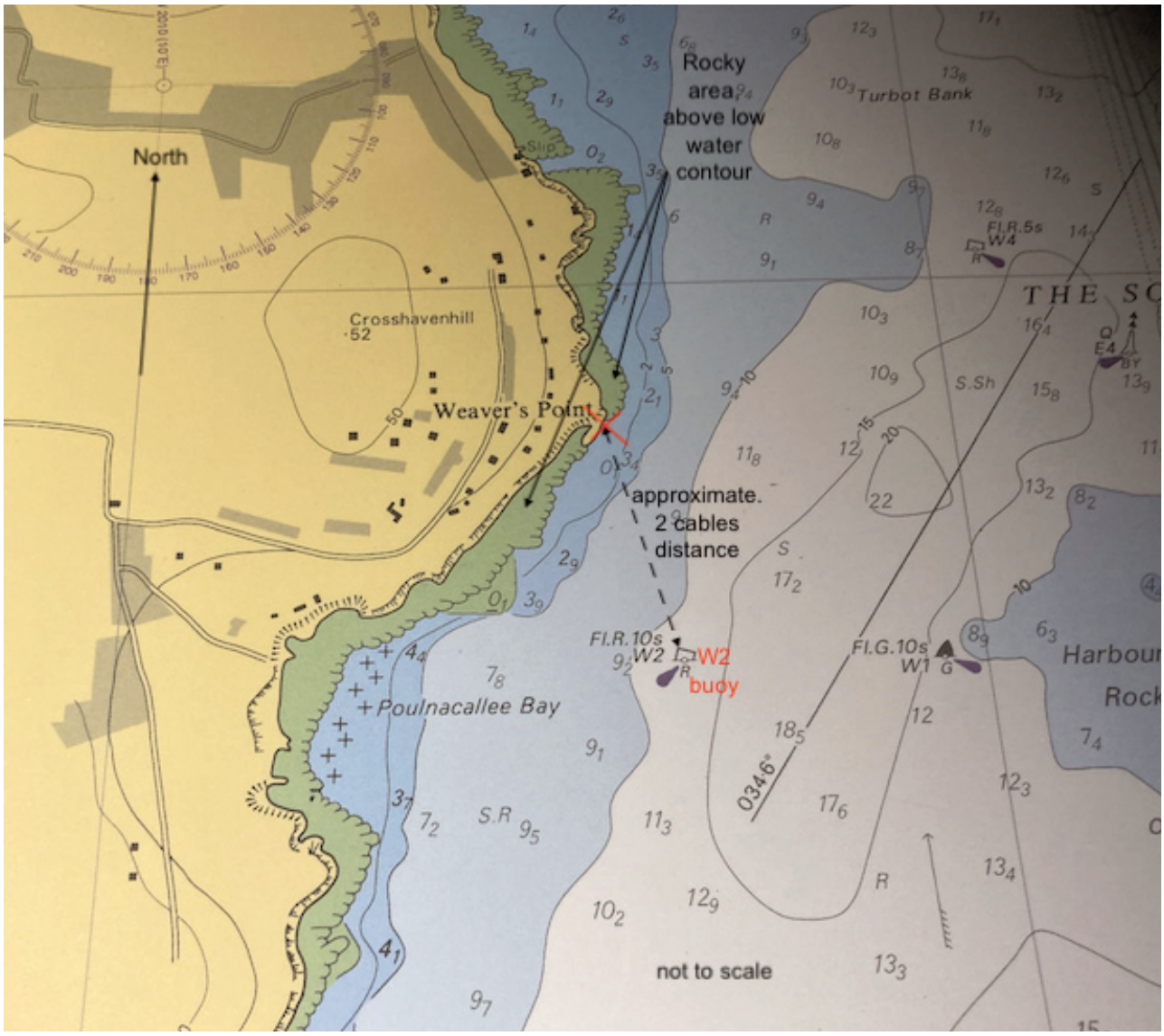
Whilst the incident could potentially have resulted in serious consequences, the training and experience demonstrated, in responding to the incident, by the skipper and crew of "Jelly Baby ", the Race Officials and race participants prevented such an outcome.

The RCYC organizes racing at all levels from dinghies to large yachts throughout the year and takes safety on the water very seriously

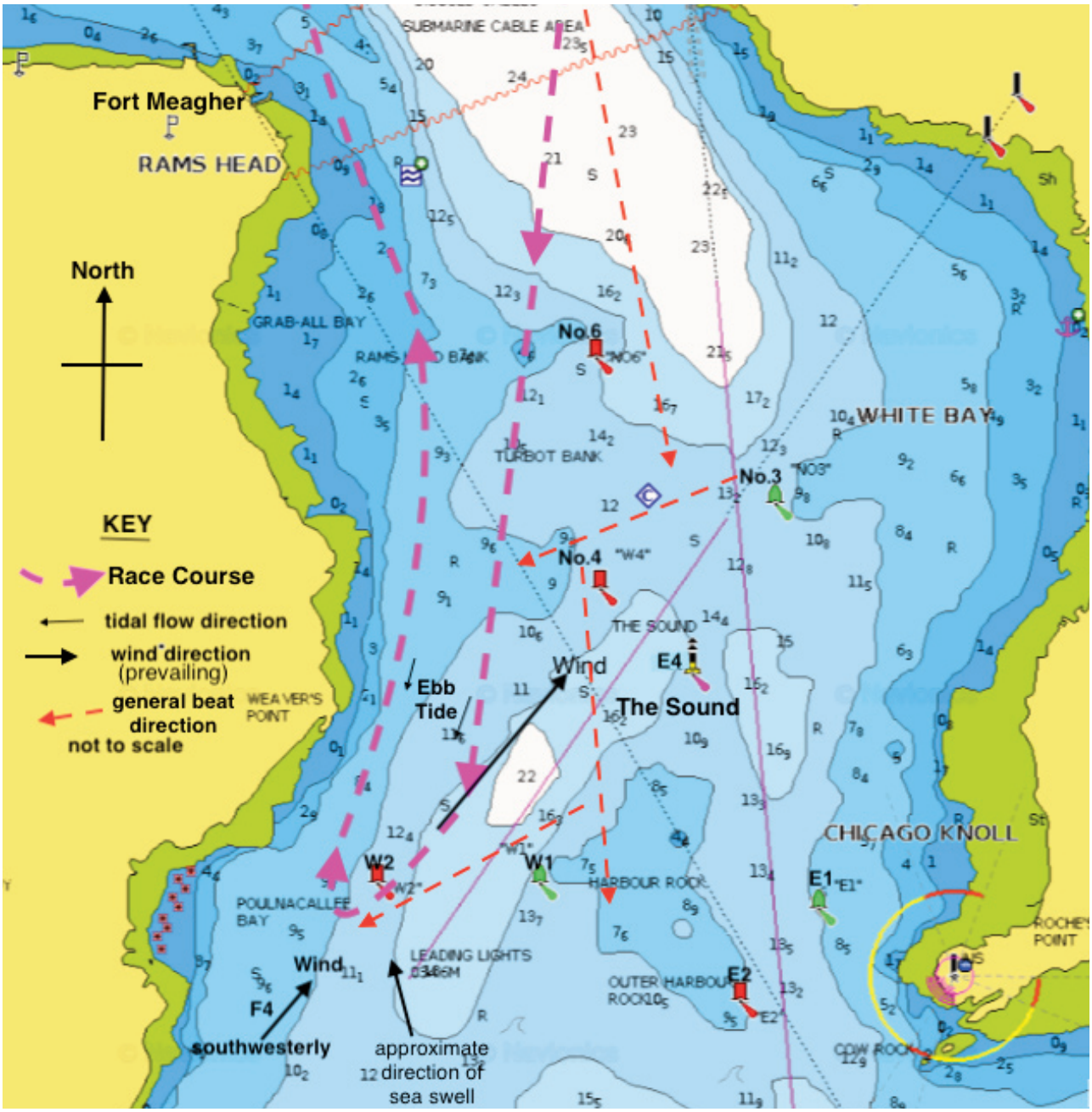
Extensive training in all aspects of race management, safety and boat handling is provided to members from a very early age which ensures that there is a high level of experience available when running events.

While such incidents are rare, they can occur for a variety of reasons but by having trained and experienced personnel available to respond when required, the risk to the safety of participants is very much reduced.

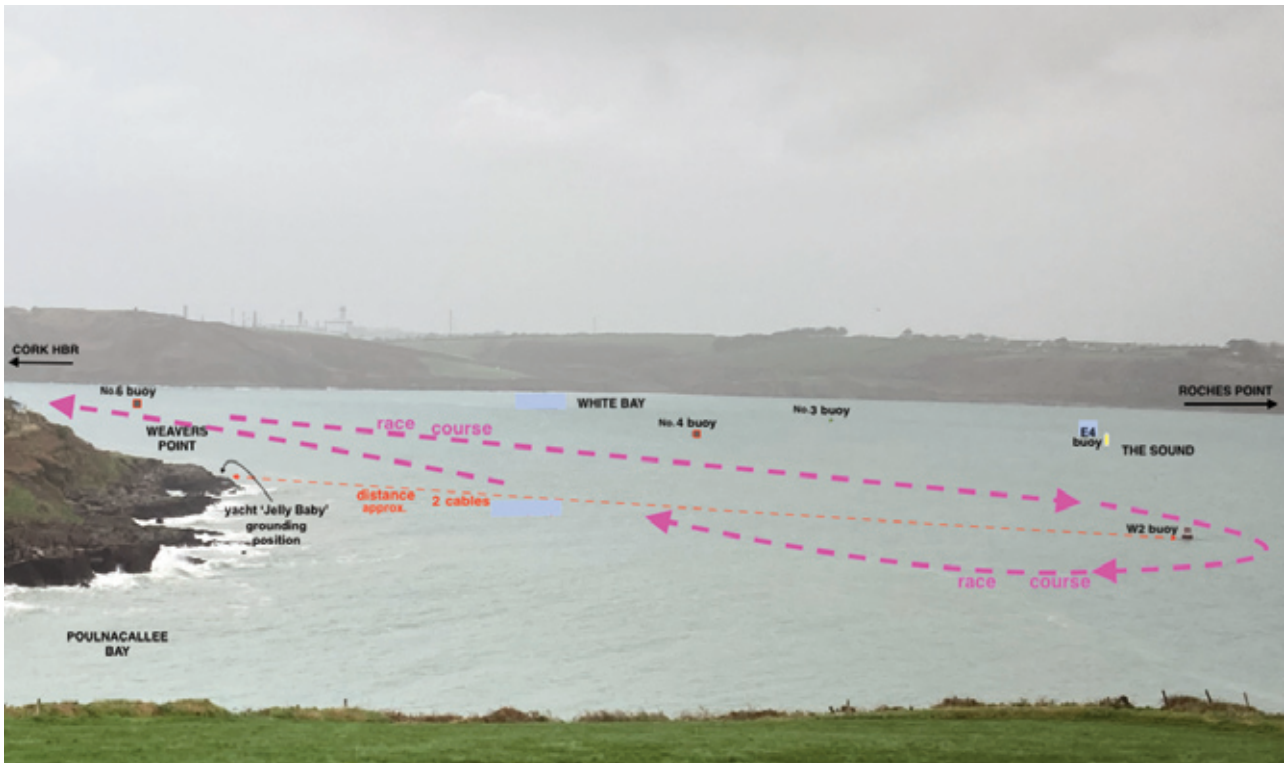
Appendix 7.8 Chart - Poulnacallee Bay to Weavers Point



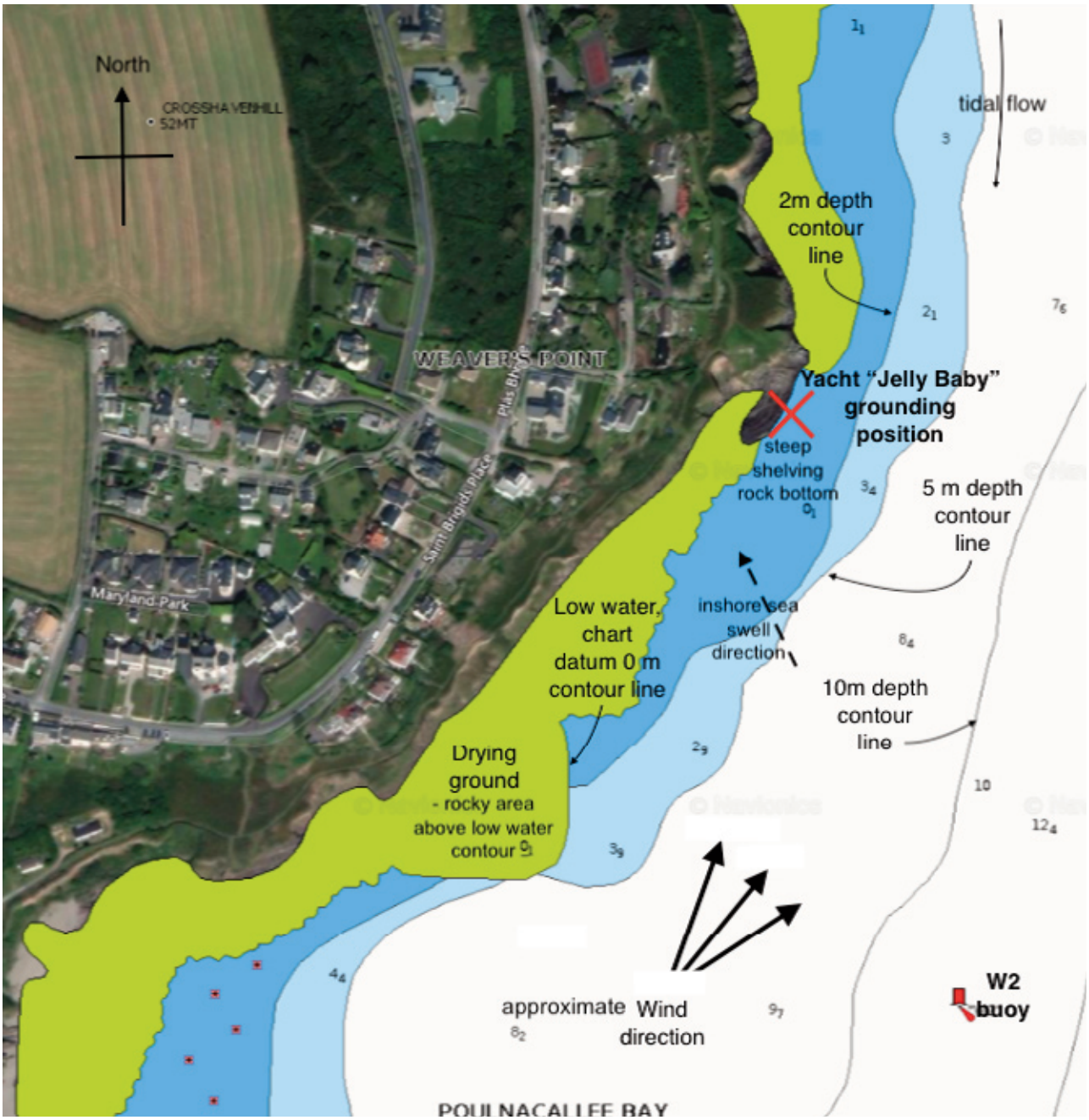
Appendix 7.9 Chart - Race Flotilla Approach to W2 Buoy



Appendix 7.10 W2 Buoy to Weavers Point

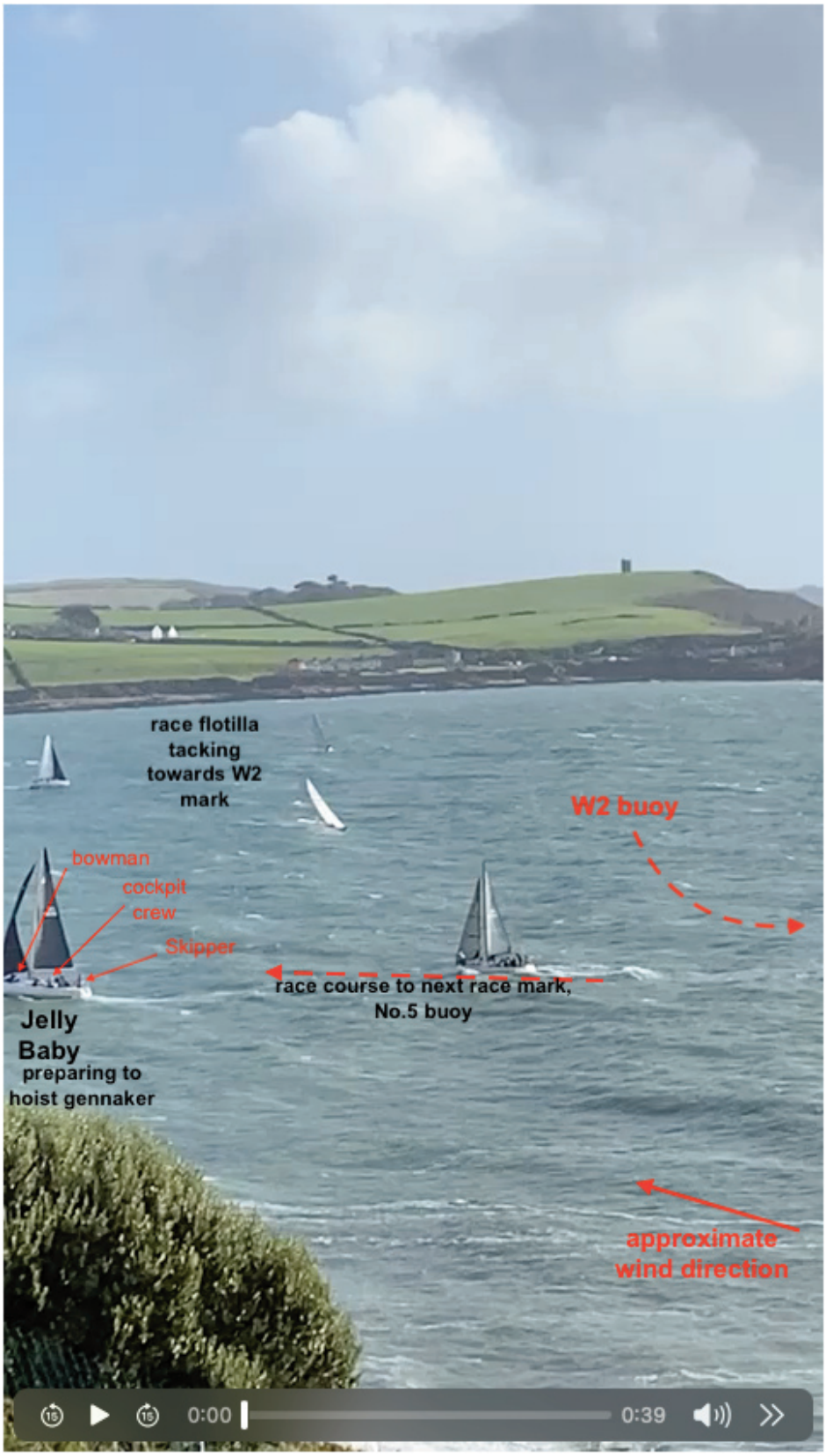


Appendix 7.11 Satellite Image - Yacht Jelly Baby Grounding Position



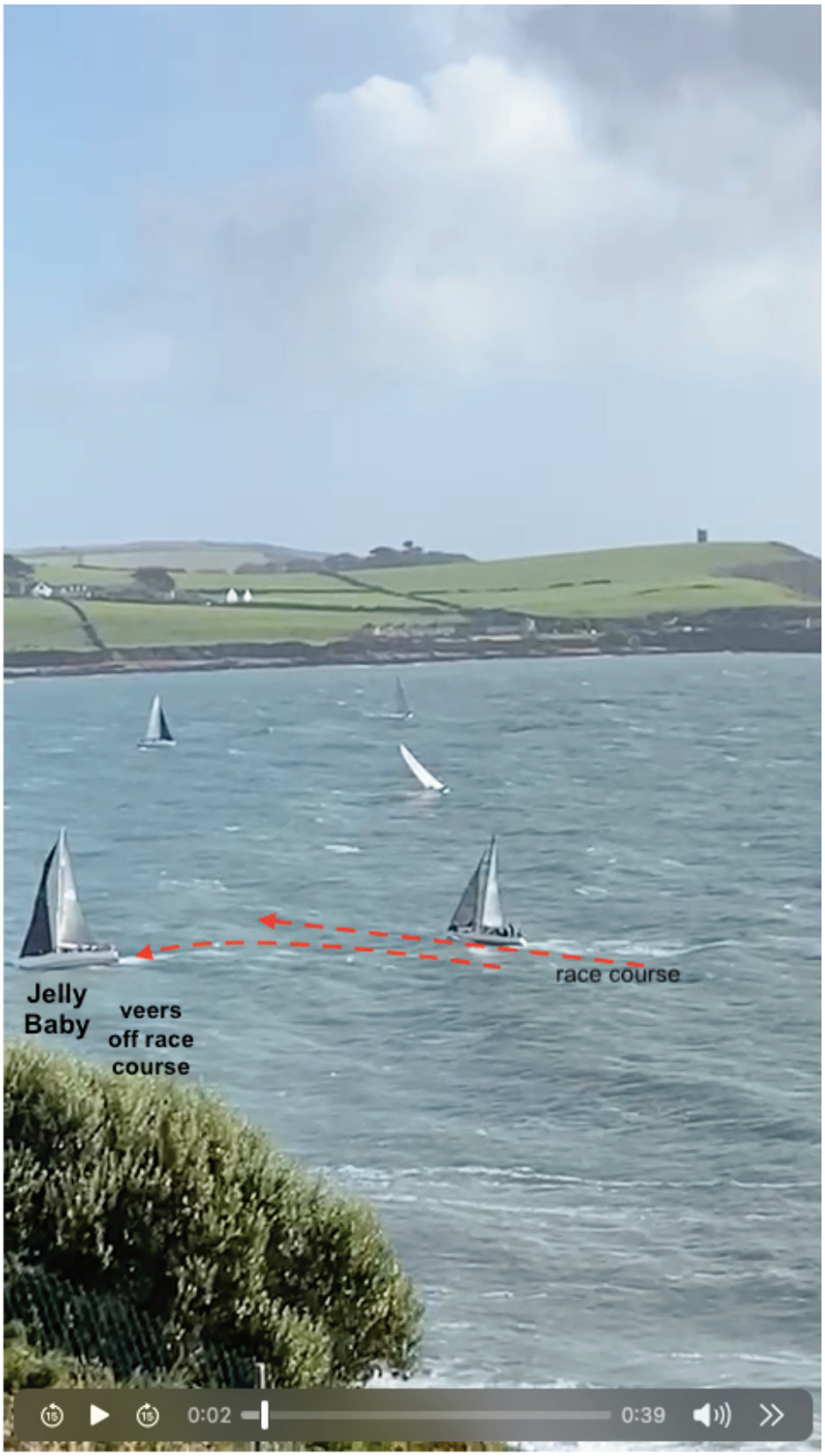
Appendix 7.12 Lead Yachts after Rounding W2 Buoy

Appendix 7.13 Video Stills of Incident



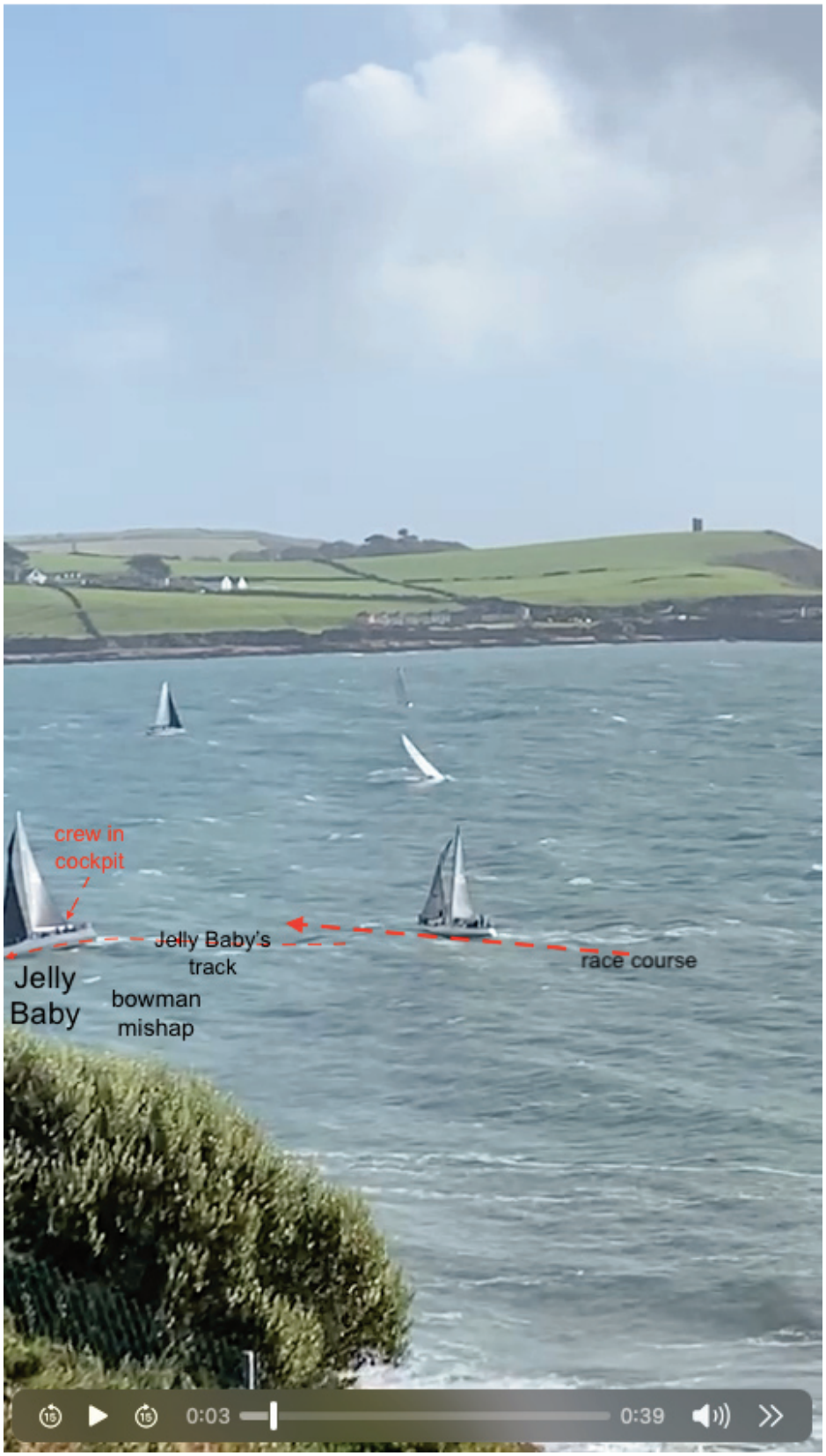
Video Still 00/39 Crew preparing to hoist gennaker.

Appendix 7.13 Video Stills of Incident



Video Still 02/39 Yacht steers off course to port.

Appendix 7.13 Video Stills of Incident

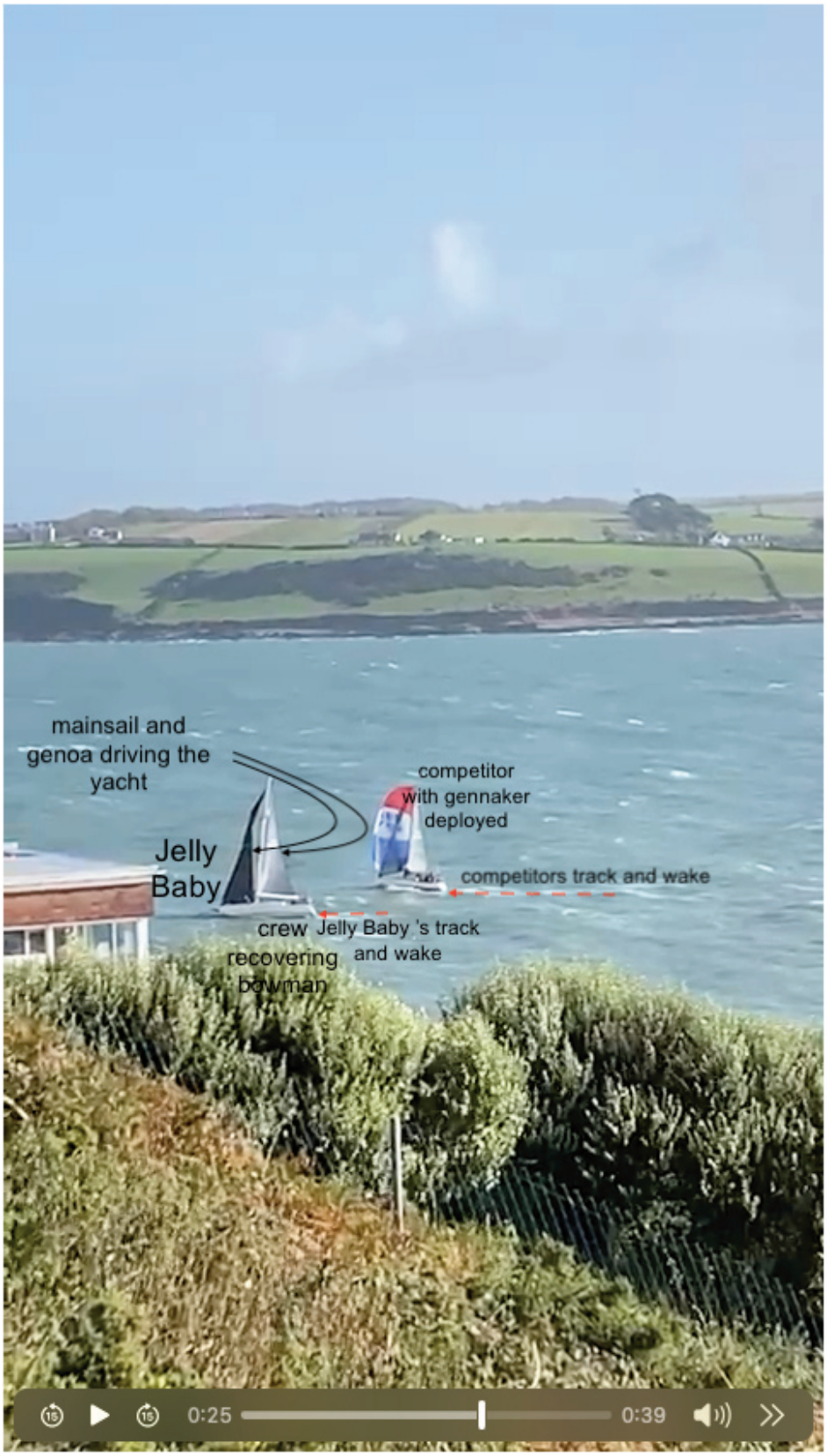


Video Still 03/39 Bowman slips over the side.

Appendix 7.13 Video Stills of Incident

Video Still 13/39 Crew moves forward.

Appendix 7.13 Video Stills of Incident



Video Still 25/39 Gennaker over the side.

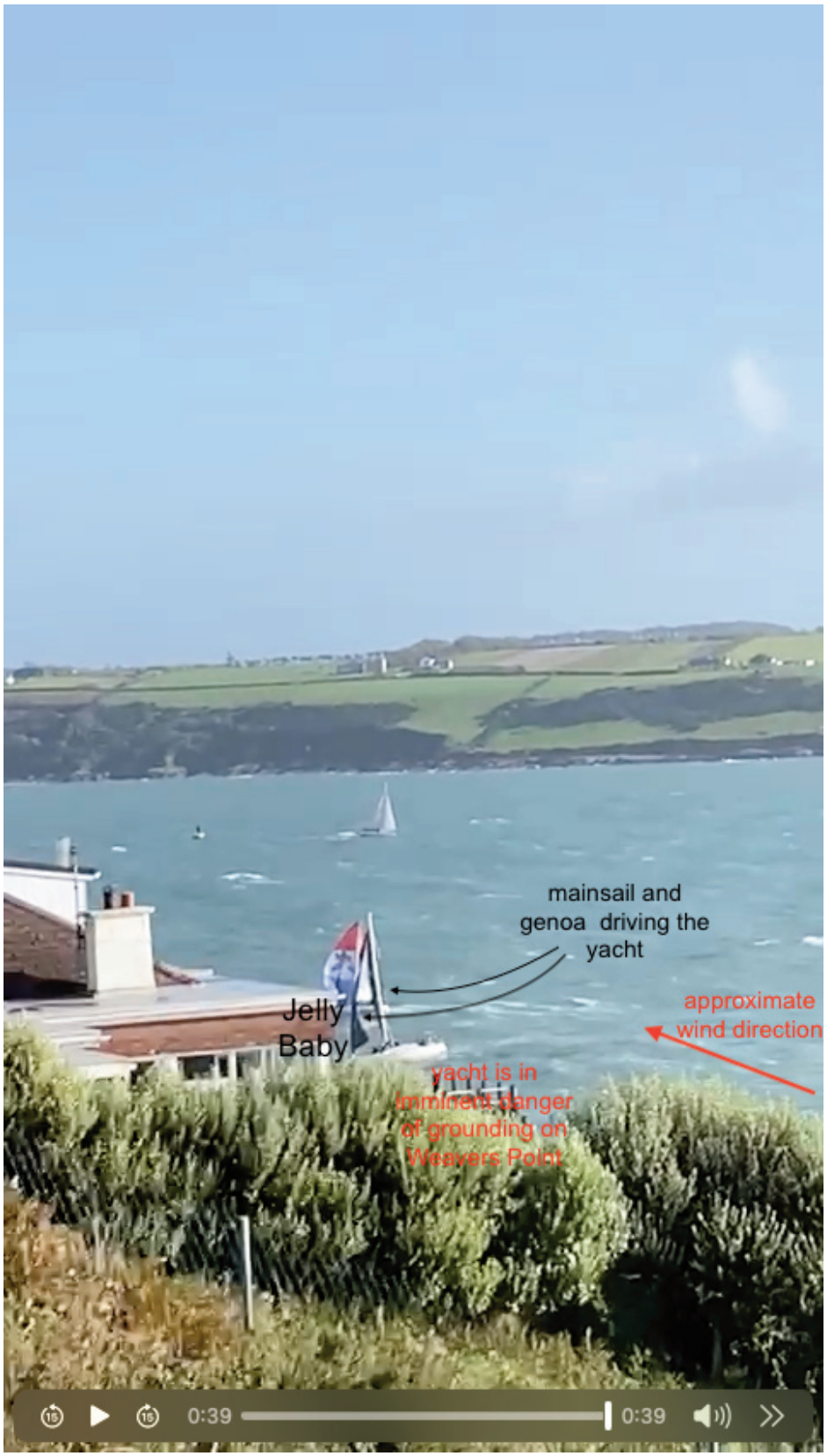
Appendix 7.13 Video Stills of Incident

Video Still 29/39 Yacht - standing into danger.

Appendix 7.13 Video Stills of Incident

Video Still 31/39 Yacht - not under control.

Appendix 7.13 Video Stills of Incident



Video Still 39/39 Yacht - imminent grounding.

Appendix 7.14 Irish Coast Guard SITREP

ROUTINE
24 1149Z OCT 21
FROM MRSC VALENTIA
TO MRSC VALENTIA SITREP GROUP

BT
SAIL LV ON ROCKS,WEAVERS PT CORK HBR
UIIN2606/21
SAR SITREP ONE

A - IDENTITY OF CASUALTY:
30FT WHITE YACHT

B - POSITION
51°48.95'N 008°14.39'W

C - SITUATION
VESSEL AGROUND ,WEAVERS PT,CK HBR

D - NUMBER OF PERSONS
10

E - ASSISTANCE REQUIRED
SAR

F - COORDINATING RCC
MRSC VALENTIA

G - DESCRIPTION OF CASUALTY
30FT YACHT

H - WEATHER ON SCENE
WIND: 4, SW / SEA: MODERATE / SWELL: LOW WAVE / AIR TEMP: 14.7°C / WATER TEMP: 14°C / VIS: MODERATE / CLOUD COV: BROKEN / PRECIP: MODERATE / SITREP WEATHER-TIME: 24 1115Z OCT 21

J - INITIAL ACTIONS TAKEN
TASK X HVN RNLI,CGU R117,DSC MAYDAY RELAY

K - SEARCH AREA
WEAVERS PT

L - COORDINATING INSTRUCTIONS
SAR

M - FUTURE PLANS
N/A

N - ADDITIONAL INFORMATION
1109,MOP ADV YT AGROUND WEAVERS PT
X4,CO TO VL IN AREA,NIL COMMS
1111,X HVN RNLI,CGU TASKED,MAYDAY B/C
R117 TASKED
1115,PORT OPS ADVISED
1119,VESSEL OWNER ADV ALL POB ASHORE SAFE AND WELL,NO MED REQ.
1123,R117 ST DOWN,CAN MDAY RELAY
1126-29,CGU,RNLI LAUNCHED,CHK VL
1145,L/B ON SCENE,WAIT FOR H/W,RTB
1152,CGU RTB,NO POLLUTION,WAIT H/W

REGARDS

[redacted]

MRSC VALENTIA
BT

Appendix 7.15 Met Éireann Estimated Weather Conditions 24 October 2021

Met Éireann
The Irish Meteorological Service
Climate Services
Glasnevin Hill
Dublin 9

Seirbhísí Aeráide
Cnoc Ghlas Naíon
Baile Átha Cliath 9

Tel: +353-1-8064260
Email: enq@met.ie
Email: legal@met.ie

Our Ref: WS1730/2203_24
Your Ref: MCIB/12/314

Estimated weather conditions for Cork Harbour / Roches Point area on Sunday 24 October 2021 between 11am and 1pm Local Time (=UTC+1).

Meteorological Synopsis:	A complex area of low pressure (983 hPa) in the north Atlantic directed a fresh to strong unstable southwest airflow over Ireland with showery troughs in the flow.
Wind:	Winds in the Roches Point area were fresh to strong Beaufort Force 5 or 6 southwesterly (mean wind speed 18 to 22 knots) with occasional gusts of 31 knots.
Visibility:	Visibility was generally good (greater than 5 nautical miles); visibility was moderate (2 – 5 nautical miles) in showers.
Weather:	The Roches Point area remained mostly dry with only occasional light passing showers, variable cloud and sunny spells during the period in question. Although a band of blustery heavy showers affected the Cork City area, these heavy showers did not reach the Roches Point area where overall rainfall totals was not more than a trace.
Temperature:	Air temperature of 14 or 15 degrees Celsius.

Estimated Sea State Conditions (offshore): I estimate that the sea state conditions in the offshore area south of Roches Point was moderate, occasionally rough (significant wave height of 1.5 – 2.5m occasionally 3m); the swell direction was southwesterly.

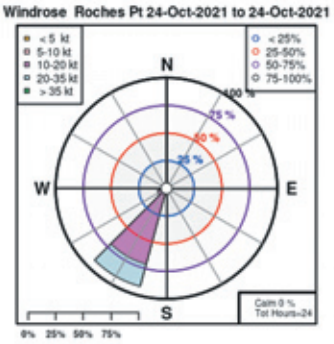
Sea temperature: *14 degrees Celsius.*

This report was issued on: 22 March 2022

Appendix 7.15 Met Éireann Estimated Weather Conditions 24 October 2021

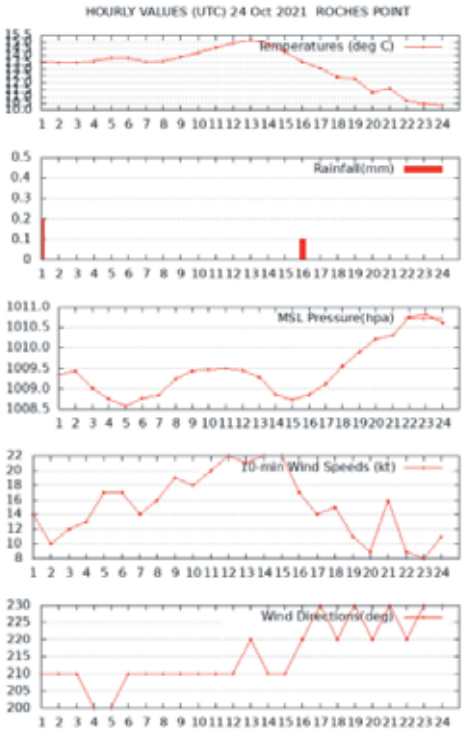
Met Éireann
The Irish Meteorological Service
Climate Services | Seirbhísí Aeráide | Tel: +353-1-8064260
Glasnevin Hill | Cnoc Ghlas Naíon | Email: enq@met.ie
Dublin 9 | Baile Átha Cliath 9 | Email: legal@met.ie

Appendix 1a Meteorological (coastal) Station Report Roches Point 24-October-2021



WEATHER STATION REPORTS FROM ROCHES POINT

Date	Rainfall (mm)	Max Temp (°C)	Min Temp (°C)	Grass Min Temp (°C)	Mean Wind Speed (knots)	Max Gust (>= 34 knots)
24/10/2021	0.3	15.2	10.3	7.9	15.5	

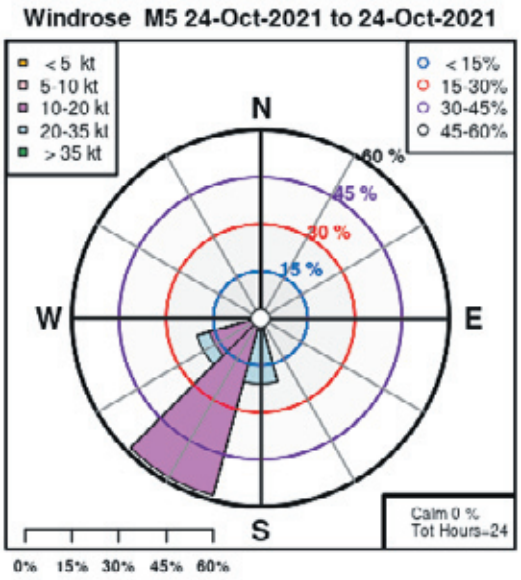


Appendix 7.15 Met Éireann Estimated Weather Conditions 24 October 2021

Met Éireann
The Irish Meteorological Service
Climate Services | Seirbhísí Aeráide | Tel: +353-1-8064260
Glasnevin Hill | Cnoc Ghlas Naíon | Email: enq@met.ie
Dublin 9 | Baile Átha Cliath 9 | Email: legal@met.ie

Appendix 1b Observations Buoy

Buoy M5 (station number (stno) = 62094) located south of Hook Head.



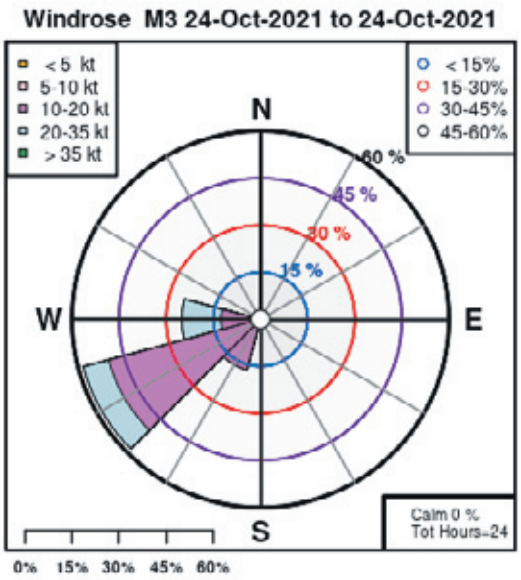
stno	date_time	wind_dir	mean_wind_speed_knots	max_wind_gust_knots	sig_wave_height	max_wave_height	wav_dir	sig_wave_period
62094	24-Oct-2021 00:00:00	179	22	31	4	6	210	7
62094	24-Oct-2021 01:00:00	176	22	34	4	7	212	7
62094	24-Oct-2021 02:00:00	181	22	37	4	5	204	7
62094	24-Oct-2021 03:00:00	174	20	32	3	5	211	7
62094	24-Oct-2021 04:00:00	185	18	28	4	6	212	7
62094	24-Oct-2021 05:00:00	211	14	21	5	6	217	7
62094	24-Oct-2021 06:00:00	205	14	21	4	5	214	7
62094	24-Oct-2021 07:00:00	207	14	21	3	6	212	7
62094	24-Oct-2021 08:00:00	198	14	20	3	5	207	6
62094	24-Oct-2021 09:00:00	211	14	20	3	5	211	7
62094	24-Oct-2021 10:00:00	219	13	21	3	4	210	6
62094	24-Oct-2021 11:00:00	220	15	22	3	4	205	6
62094	24-Oct-2021 12:00:00	219	16	23	3	4	218	7
62094	24-Oct-2021 13:00:00	208	14	22	2	4	212	6
62094	24-Oct-2021 14:00:00	215	15	23	2	4	205	6
62094	24-Oct-2021 15:00:00	218	16	23	2	3	217	6
62094	24-Oct-2021 16:00:00	229	16	24	2	4	221	6
62094	24-Oct-2021 17:00:00	223	18	25	2	4	224	6
62094	24-Oct-2021 18:00:00	224	16	24	2	4	219	6
62094	24-Oct-2021 19:00:00	227	17	24	2	4	228	6
62094	24-Oct-2021 20:00:00	225	17	25	2	4	232	6
62094	24-Oct-2021 21:00:00	228	21	28	2	4	228	6
62094	24-Oct-2021 22:00:00	236	15	23	2	4	228	6
62094	24-Oct-2021 23:00:00	245	16	24	3	4	232	6
62094	25-Oct-2021 00:00:00	238	15	21	2	3	235	6

Appendix 7.15 Met Éireann Estimated Weather Conditions 24 October 2021

Met Éireann
The Irish Meteorological Service
Climate Services | Seirbhísí Aeráide | Tel: +353-1-8064260
Glasnevin Hill | Cnoc Ghlas Naíon | Email: enq@met.ie
Dublin 9 | Baile Átha Cliath 9 | Email: legal@met.ie

Appendix 1b Observations Buoy (continued)

Buoy M3 (station number (stno) = 62092) located southwest of Mizen Head.

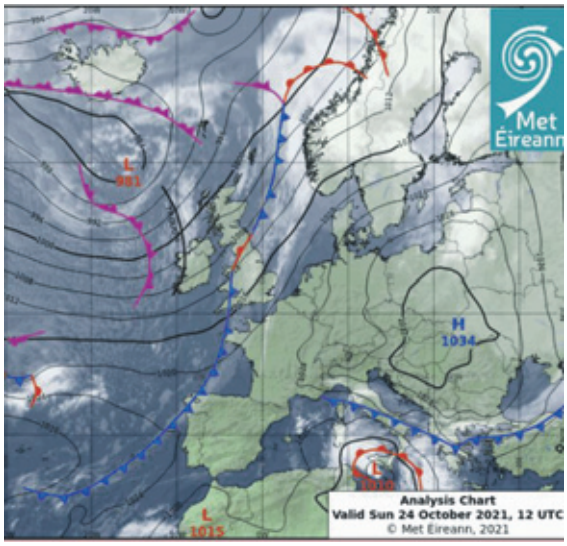


stno	date_time	wind_dir	mean_wind_speed_knots	max_wind_gust_knots	sig_wave_height	max_wave_height	wav_dir	sig_wave_period
62092	24-Oct-2021 00:00:00	215	17	22	3	4	214	7
62092	24-Oct-2021 01:00:00	217	19	24	3	4	210	7
62092	24-Oct-2021 02:00:00	221	18	23	3	5	214	6
62092	24-Oct-2021 03:00:00	220	19	22	3	5	215	7
62092	24-Oct-2021 04:00:00	229	17	22	3	4	221	6
62092	24-Oct-2021 05:00:00	232	20	24	3	4	222	6
62092	24-Oct-2021 06:00:00	239	20	25	3	4	218	6
62092	24-Oct-2021 07:00:00	234	18	22	3	4	222	6
62092	24-Oct-2021 08:00:00	232	18	23	3	4	231	6
62092	24-Oct-2021 09:00:00	226	19	25	3	4	229	6
62092	24-Oct-2021 10:00:00	234	20	25	3	4	239	7
62092	24-Oct-2021 11:00:00	227	18	29	3	4	240	7
62092	24-Oct-2021 12:00:00	235	19	25	3	4	252	7
62092	24-Oct-2021 13:00:00	232	19	25	4	5	255	7
62092	24-Oct-2021 14:00:00	246	21	30	3	5	257	7
62092	24-Oct-2021 15:00:00	243	21	29	4	5	262	7
62092	24-Oct-2021 16:00:00	253	20	30	4	8	276	8
62092	24-Oct-2021 17:00:00	265	22	28	4	7	280	8
62092	24-Oct-2021 18:00:00	240	19	24	5	6	276	9
62092	24-Oct-2021 19:00:00	256	18	23	5	7	280	9
62092	24-Oct-2021 20:00:00	263	21	26	5	7	280	9
62092	24-Oct-2021 21:00:00	269	20	27	5	8	280	9
62092	24-Oct-2021 22:00:00	260	20	32	5	7	276	9
62092	24-Oct-2021 23:00:00	265	19	23	5	6	274	8
62092	25-Oct-2021 00:00:00	253	17	26	5	6	276	9

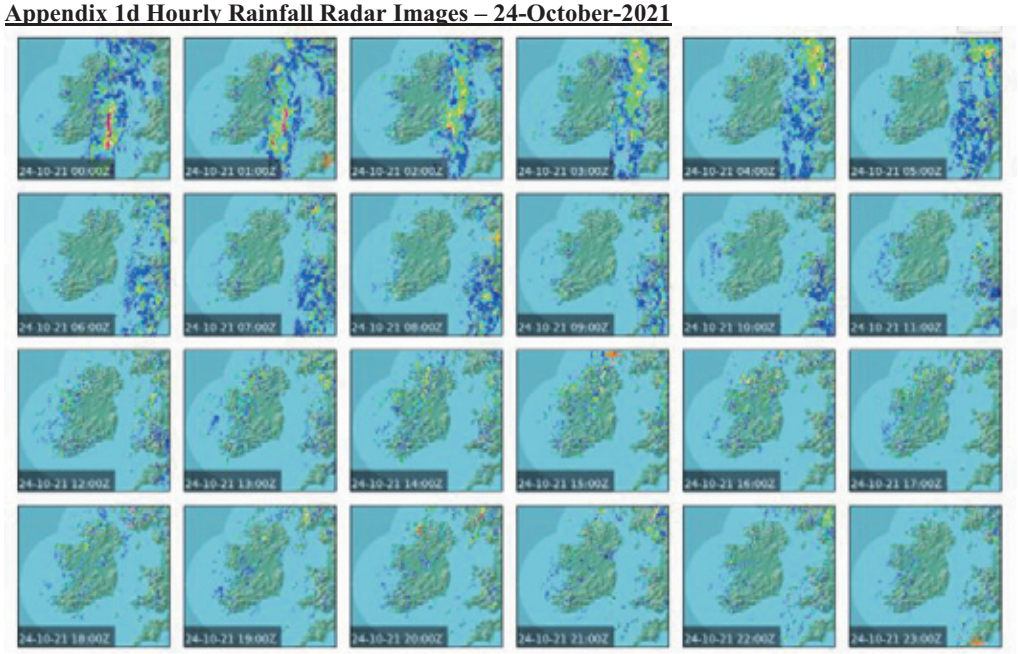
Appendix 7.15 Met Éireann Estimated Weather Conditions 24 October 2021

Met Éireann
The Irish Meteorological Service
Climate Services | Seirbhísí Aeráide | Tel: +353-1-8064260
Glasnevin Hill | Cnoc Ghlas Naíon | Email: enq@met.ie
Dublin 9 | Baile Átha Cliath 9 | Email: legal@met.ie

Appendix 1c Analysis Chart 24-October-2021 12 UTC



Appendix 1d Hourly Rainfall Radar Images – 24-October-2021



Appendix 7.15 Met Éireann Estimated Weather Conditions 24 October 2021

Met Éireann

Weather Forecast From Met Eireann

24-hour Sea Area Forecast

Updated at 0000 / 0600 / 1200 / 1800

Sea Area Forecast until 0000 Monday, 25 October 2021
Issued at 0000 Sunday, 24 October 2021

1. **Gale warning:** In operation
Small craft warning: In operation

2. **Meteorological situation at 2100:** A broad area of low pressure in the north Atlantic is generating a strong to gale force southwest airflow over Ireland. A cold front will track eastwards over Ireland tonight followed by an unstable southwest airflow.

3. **Forecast for Irish coastal waters from Belfast Lough to Howth Head to Carnsore Point and for the Irish Sea**

Wind: South southwest force 7 to gale force 8, soon decreasing southwest force 5 to 6.

Weather: Outbreaks of heavy rain clearing eastwards tonight. Showers developing tomorrow.

Visibility: Moderate or poor in precipitation, otherwise good.

Forecast for Irish coastal waters from Carnsore Point to Erris Head to Belfast Lough.

Wind: Southwest force 5 to 6 and gusty, touching force 7 at times.

Weather: Scattered showers, some heavy with a chance of isolated thunderstorms.

Visibility: Moderate or poor in precipitation, otherwise good.

Warning of Heavy Swell: Increasing on west and southwest coasts Sunday evening.

4. **Outlook for a further 24 hours until 0000 Tuesday, 26-Oct-2021:** Fresh to strong southwesterly winds continuing Sunday night, slowly veering westerly and moderating through Monday. Weather: Scattered showers.

Met Éireann

Weather Forecast From Met Eireann

Text of Gale Warning

South to southwest winds will continue to reach gale force 8 at times overnight on Irish Coastal Waters from Carlingford Lough to Howth Head to Carnsore Point and on the Irish Sea.

Text of Small Craft Warning

South to southwest winds will reach force 6 or 7 and gusty on all Irish coasts tonight and during Sunday.

Coastal Reports	11 PM Saturday, 23 October 2021
Malin Head Automatic	South, 22 Knots, Gust 35 Knots, Rain shower, 10 Miles, 1005, Falling slowly
Dublin Airport	South, 14 Knots, Gust 26 Knots, Light rain, 4 Miles, 1010, Falling slowly
Buoy M5 51° 41'N 6° 42'W	South, 21 Knots, Gust 38 Knots, Wave ht. 3.9 m, 1013, Falling slowly
Roches Point Automatic	South, 33 Knots, Gust 41 Knots, Light rain, 2 Miles, 1009, Falling slowly
Sherkin Island Automatic	Southwest, 10 Knots, Gust 22 Knots, Mist, 2 Miles, 1009, Steady
Valentia Automatic	South, 8 Knots, Cloudy, 9 Miles, 1008, Steady
Mace Head Automatic	South-Southwest, 17 Knots, Cloudy, 5 Miles, 1006, Steady
Belmullet Automatic	South-Southwest, 11 Knots, Fair, 6 Miles, 1004, Falling slowly
Buoy M1 53° 8'N, 11° 12'W	Report not available
Buoy M2 53° 29'N, 8° 26'W	South, 30 Knots, Gust 41 Knots, Wave ht. 3.1 m, 1010, Falling
Buoy M3 51° 13'N, 10° 33'W	South-Southwest, 16 Knots, Wave ht. 3.2 m, 1008, Steady
Buoy M4 55° 0'N 10° 0'W	South-Southwest, 15 Knots, Wave ht. 3 m, 1003, Falling slowly
Buoy M6 53° 4'N 16° 56'W	Southwest, 26 Knots, Wave ht. 3.5 m, 999, Falling slowly

Disclaimer: buoy locations are approximate and are not for navigational purposes

Sea Crossings	State of sea until 0000 Tuesday, 26-Oct-2021
Dublin - Hollyhead	Mainly rough, decreasing moderate Sunday afternoon. Further decreasing slight Monday afternoon.
Rosslare - South Wales	Mainly rough, decreasing moderate, occasionally rough, Sunday afternoon.
Cork - South Wales	Mainly rough, decreasing moderate, occasionally rough, Sunday afternoon
Rosslare - France	Mostly rough.
Cork - France	Mostly rough, occasionally increasing very rough Sunday night.

Next update before 0700 Sunday, 24 October 2021
A detailed forecast may be obtained by dialing *1Weathertal* on 1550 123 855.

Appendix 7.15 Met Éireann Estimated Weather Conditions 24 October 2021

24-hour Sea Area Forecast

Updated at 0000 / 0600 / 1200 / 1800

Sea Area Forecast until 0600 Monday, 25 October 2021
Issued at 0600 Sunday, 24 October 2021

1. Gale warning: Nil
Small craft warning: In operation

2. Meteorological situation at 0300: A broad area of low pressure in the north Atlantic is generating a strong to near gale force southwesterly airflow over Ireland. A cold front has tracked eastwards into the Irish Sea overnight followed by an unstable southwesterly airflow.

3. Forecast for all Irish coastal waters and the Irish Sea

Wind: Southwest force 6, occasionally reaching force 7 in the Irish Sea this morning. Later veering west force 6 and occasionally reaching force 7 in the northwest Sunday night.

Weather: Showers, heavy at times.

Visibility: Mostly good, but decreasing moderate or poor in showers.

Warning of Heavy Swell: Increasing on west and southwest coasts Sunday evening.

4. Outlook for a further 24 hours until 0600 Tuesday 26 October 2021: Fresh westerly winds, strong for a time in the north on Monday, backing southwesterly on Monday night and increasing near gale in the west. Weather: Scattered showers on Monday, with rain and drizzle spreading from the west Monday night.

Text of Gale Warning
Nil

Text of Small Craft Warning
Southwesterly winds will reach force 6 or higher at times on all Irish coasts today (Sunday) and tonight.

Coastal Reports	5 AM Sunday, 24 October 2021
Malin Head Automatic	South, 19 Knots, Cloudy, 7 Miles, 1003, Falling slowly
Dublin Airport	South, 10 Knots, Recent rain, 10 Miles, 1008, Falling slowly
Buoy M5 51° 41'N 6° 42'W	South, 18 Knots, Gust 28 Knots, Wave ht: 4.1 m, 1010, Falling slowly
Roches Point Automatic	South, 13 Knots, Mist, 3 Miles, 1008, Falling slowly
Sherkin Island Automatic	South-Southwest, 12 Knots, Mist, 2 Miles, 1008, Falling slowly
Valentia Automatic	South-Southwest, 11 Knots, Cloudy, 7 Miles, 1007, Falling slowly
Mace Head Automatic	Southwest, 21 Knots, Fair, 5 Miles, 1004, Falling slowly
Belmullet Automatic	Southwest, 20 Knots, Cloudy, 6 Miles, 1002, Falling slowly
Buoy M1 53° 8'N, 11° 12'W	Report not available
Buoy M2 53° 29'N, 5° 26'W	South-Southwest, 25 Knots, Gust 34 Knots, Wave ht: 3.1 m, 1008, Falling slowly
Buoy M3 51° 13'N, 10° 33'W	Southwest, 17 Knots, Wave ht: 3 m, 1007, Falling slowly
Buoy M4 55° 0'N 10° 0'W	South-Southwest, 20 Knots, Wave ht: 2.8 m, 1000, Falling slowly
Buoy M6 63° 4'N 16° 86'W	Southwest, 22 Knots, Wave ht: 4.4 m, 999, Steady

Disclaimer: buoy locations are approximate and are not for navigational purposes

Sea Crossings	State of Sea until 0600 Tuesday 26 October 2021
Dublin - Holyhead	Rough, decreasing moderate Sunday afternoon. Further decreasing slight Monday afternoon.
Rosslare - South Wales	Rough, decreasing moderate, occasionally rough, Sunday afternoon.
Cork - South Wales	Rough, decreasing moderate to rough Sunday afternoon.
Rosslare - France	Rough.
Cork - France	Rough, occasionally increasing very rough Sunday night.

Next update before 1300 Sunday, 24 October 2021

Appendix 7.15 Met Éireann Estimated Weather Conditions 24 October 2021

MET éireann

WeatherDial Fax Product Code 0021
General Forecasting Division
Fax : 1570 131 838
Sea Area Forecast

WEATHERDIAL

Sea Area Forecast until 1200 Monday 25 October 2021
Issued at 1200 Sunday 24 October 2021

1. Gale warning: NIL
Small craft warning: In operation

2. Meteorological situation at 0000: A complex area of low pressure in the north Atlantic maintains a fresh to strong unstable southwest airflow over Ireland with showery troughs in the flow

3. Forecast for coasts from Mizen Head to Slyne Head to Malin Head:

Wind: South to southwest force 6 or 7, becoming southwesterly imminent, soon becoming west to southwest, decreasing force 4 to 6 towards the end of the period.

Weather: Occasional showers, some heavy

Visibility: Good, decreasing moderate or poor in showers.

Forecast for coasts from Malin Head to Wicklow Head to Mizen Head and for the Irish Sea:

Wind: South to southwest force 5 or 6, soon becoming southwesterly, later becoming west to southwest and decreasing force 4 or 5 towards the end of the period

Weather: Occasional showers, some heavy

Visibility: Good, decreasing moderate or poor in showers.

3a. Warning of heavy swell: Developing on Atlantic coasts in the late evening and early tonight

4. Outlook for a further 24 hours until 1200 Tuesday 26 October 2021: Mostly fresh westerly winds, backing southwesterly on Monday night and increasing strong to near gale force on west and north coasts, increasing strong on eastern coasts early on Tuesday. Scattered showers on Monday. Rain and drizzle spreading eastwards on Monday night.

Warning of heavy Atlantic swell: Developing on Atlantic coasts in the late evening and early tonight

Text of Gale Warning
NIL

Text of Small Craft Warning
Southwesterly winds, later veering westerly, will reach force 6 or higher at times on all Irish coasts for the rest of today (Sunday) and overnight.

Coastal Reports	At 11 Am Sunday 24 October 2021
Malin Head Automatic	South, 19 Knots, Fair, 13 Miles, 1003, Steady
Buoy M5	Southwest, 13 Knots, The Visibility At Tuskar Lighthouse is Greater Than 10 Miles, 1011, Rising Slowly
Roche's Pt Automatic	South-Southwest, 18 Knots, Mist, 4 Miles, 1009, Rising Slowly
Valentia Automatic	South-Southwest, 10 Knots, Fair, 12 Miles, 1008, Rising Slowly
Belmullet Automatic	South-Southwest, 18 Knots, Fair, 6 Miles, 1002, Steady
Dublin Airport	South-Southwest, 09 Knots, Fine, 13 Miles, 1008, Rising Slowly
Buoy M1 53° 8'N, 11° 12'W	Report Not Available
Buoy M2 53° 29'N, 5° 26'W	South-Southwest, 20 Knots, Wave Ht 2.3 M, 1008, Steady
Buoy M3 51° 13'N, 10° 33'W	Southwest, 20 Knots, Wave Ht 2.8 M, 1009, Rising Slowly
Buoy M4 55° 0'N 10° 0'W	South-Southwest, 23 Knots, Wave Ht 2.7 M, 1000, Steady
Buoy M5 51° 41'N 6° 42'W	Southwest, 13 Knots, Wave Ht 3 M, Greater Than 10 Miles, 1011, Rising Slowly
Buoy M6 53° 4'N 15° 56'W	West, 23 Knots, Wave Ht 5.2 M, 1001, Rising Slowly

Disclaimer: buoy locations are approximate and are not for navigational purposes

Sea Crossings	State of sea until 1200 Tuesday 26 October 2021
Dublin - Holyhead	Moderate, decreasing slight for a time on Monday evening and night
Rosslare - South Wales	Moderate to rough, decreasing moderate on Monday morning
Cork - South Wales	Moderate to rough, decreasing moderate on Monday morning
Rosslare - France	Rough
Cork - France	Rough, occasionally very rough tonight

Next update before 1900 Sunday, 24 October 2021
A detailed forecast may be obtained by dialling *Weathertal* on 1550 123 855.
Calls cost € 0.97 per minute (Incl. VAT).

Appendix 7.15 Met Éireann Estimated Weather Conditions 24 October 2021

Met Éireann

Weather Forecast From Met Éireann

24-hour Sea Area Forecast

Updated at 0000 / 0600 / 1200 / 1800

Sea Area Forecast until 1800 Monday, 25 October 2021
Issued at 1800 Sunday, 24 October 2021

1. **Gale warning:** Nil
Small craft warning: In operation

2. **Meteorological situation at 1500:** A complex area of low pressure [983hpa] in the north Atlantic maintains a fresh to strong unstable west to southwest airflow over Ireland with showery troughs in the flow.

3. **Forecast for Irish coastal waters from Mizen Head to Slyne Head to Malin Head**

Wind: West to southwest force 6 or 7. Soon gradually decreasing westerly force 5 or 6.

Weather: Occasional showers, some heavy with the risk of isolated thunderstorms.

Visibility: Good, decreasing moderate or poor in showers.

Forecast for Irish coastal waters from Malin Head to Wicklow Head to Mizen Head and for the Irish Sea

Wind: Southwest to west force 5 or 6 and gusty. Later, decreasing westerly force 4 or 5 towards the end of the period.

Weather: Scattered showers, some heavy. Soon becoming mostly fair with isolated showers

Visibility: Good, decreasing moderate or poor in showers.

Warning of Heavy Swell: Developing on western Atlantic coasts this evening (Sunday) and overnight.

4. **Outlook for a further 24 hours until 1800 Tuesday 26 October 2021:** Backing southwesterly on Monday evening and increasing strong to near gale force on all coasts overnight. Further increasing near gale to gale force along western coasts by the end of the period. Weather: Rain and drizzle extending from the west on Monday night, cloudy with patchy rain and drizzle on Tuesday with rain heavy at times in the west by the end of the period.

Met Éireann

Weather Forecast From Met Éireann

Text of Gale Warning
Nil

Text of Small Craft Warning
1). Southwest to west winds will reach force 6 or higher at times on all Irish coasts this evening (Sunday) and tonight. 2). Westerly winds will continue to reach force 6 at times tomorrow morning and afternoon (Monday).

Coastal Reports	5 PM Sunday, 24 October 2021
Malin Head Automatic	South-Southwest, 16 Knots, Gust 27 Knots, Rain shower, 3 Miles, 1002, Falling slowly
Dublin Airport	South-Southwest, 13 Knots, Gust 23 Knots, Fair, 13 Miles, 1006, Falling slowly
Buoy M5 51° 41'N 6° 42'W	Southwest, 16 Knots, Wave ht: 2.5 m, The Visibility at Tuskar is greater than 10 Miles, 1010, Falling slowly
Roches Point Automatic	Southwest, 17 Knots, Gust 30 Knots, Recent drizzle, 7 Miles, 1009, Steady
Sherkin Island Automatic	Southwest, 17 Knots, Fair, 5 Miles, 1009, Steady
Valentia Automatic	Southwest, 10 Knots, Gust 26 Knots, Recent rain, 7 Miles, 1008, Steady
Mace Head Automatic	West-Southwest, 25 Knots, Gust 34 Knots, Fair, 7 Miles, 1004, Falling slowly
Belmullet Automatic	Southwest, 15 Knots, Gust 32 Knots, Recent rain, 6 Miles, 1002, Steady
Buoy M1 53° 8'N, 11° 12'W	Report not available
Buoy M2 53° 29'N, 8° 26'W	South-Southwest, 17 Knots, Wave ht: 1.6 m, 1007, Falling slowly
Buoy M3 51° 13'N, 10° 33'W	West-Southwest, 20 Knots, Gust 30 Knots, Wave ht: 4.4 m, 1009, Steady
Buoy M4 55° 0'N 10° 0'W	Southwest, 17 Knots, Wave ht: 4.5 m, 1000, Steady
Buoy M6 53° 4'N 15° 56'W	West, 27 Knots, Wave ht: 5.5 m, 1003, Rising slowly

Disclaimer: buoy locations are approximate and are not for navigational purposes

Sea Crossings	State of sea until 1800 Tuesday 26 October 2021
Dublin - Holyhead	Moderate, decreasing slight for a time on Monday evening and night
Rosslare - South Wales	Moderate to rough, decreasing moderate on Monday afternoon.
Cork - South Wales	Moderate to rough, decreasing moderate on Monday afternoon.
Rosslare - France	Rough.
Cork - France	Rough, occasionally very rough tonight.

Next update before 0100 Monday, 25 October 2021
A detailed forecast may be obtained by dialing *Weatherdial* on 1550 123 855.

Appendix 7.15 Met Éireann Estimated Weather Conditions 24 October 2021

Met Éireann

24-hour Sea Area Forecast

Updated at 0000 / 0600 / 1200 / 1800

Sea Area Forecast until 0000 Tuesday, 26 October 2021
Issued at 0000 Monday, 25 October 2021

1. Gale warning: Nil
Small craft warning: In operation

2. Meteorological situation at 2100: A complex area of low pressure of 980hPa in the north Atlantic maintains a fresh to strong unstable west to southwest airflow over Ireland with showery troughs embedded in the flow. A warm front will approach from the west Monday night.

3. Forecast for Irish coastal waters from Mizen Head to Erris Head to Fair Head

Wind: West to southwest force 5 or 6 and gusty, occasionally reaching force 7 north of Slyne Head. Soon decreasing westerly force 4 or 5 and gusty, reaching force 6 at times north of Slyne Head. Later backing southwesterly and increasing force 5 or 6 and gusty by the end of the period.
Weather: Mostly fair with scattered blustery showers. Rain and drizzle later.
Visibility: Good, decreasing moderate or poor in precipitation.

Forecast for Irish coastal waters from Fair Head to Wicklow Head to Mizen Head and for the Irish Sea

Wind: Southwest to west force 5 or 6 and gusty. Soon decreasing westerly force 4 or 5 and gusty. Later backing southwesterly.
Weather: Mostly fair with scattered showers, some heavy.
Visibility: Good, decreasing moderate or poor in precipitation.
Warning of Heavy Swell: Nil

4. Outlook for a further 24 hours until 0000 Wednesday 27 October 2021: Strong to near gale and gusty south to southwest winds developing in all sea areas Monday night with gale force winds developing on western and northwestern sea areas through Tuesday. Decreasing strong to near gale southwesterly Tuesday night. Weather: Cloudy with outbreaks of rain and drizzle extending to all sea areas Tuesday night, heaviest and most persistent on western and northern sea areas. A spell of heavy and persistent rain will move into western sea areas Tuesday evening, extending eastwards overnight.

Met Éireann

Text of Gale Warning
Nil

Text of Small Craft Warning
Southwest to west winds will reach force 6 at times or higher on all Irish coasts tonight (Sunday), becoming confined tomorrow morning (Monday) to Irish coasts from Slyne Head to Rossan Point to Fair Head.

Coastal Reports	11 PM Sunday, 24 October 2021
Malin Head Automatic	Southwest, 19 Knots, Rain shower, 7 Miles, 1002, Rising slowly
Dublin Airport	Southwest, 9 Knots, Fair, 16 Miles, 1008, Rising slowly
Buoy M5 51° 41'N 6° 42'W	Southwest, 15 Knots, Wave ht: 2.4 m, The Visibility at Tuskar is greater than 10 Miles, 1011, Steady
Roches Point Automatic	Southwest, 9 Knots, Fair, 16 Miles, 1010, Rising slowly
Sherkin Island Automatic	West-Southwest, 11 Knots, Light drizzle, 6 Miles, 1010, Rising slowly
Valentia Automatic	West, 10 Knots, Gust 22 Knots, Recent drizzle, 8 Miles, 1010, Rising slowly
Mace Head Automatic	West-Southwest, 24 Knots, Recent rain, 6 Miles, 1006, Rising slowly
Belmullet Automatic	West-Southwest, 16 Knots, Gust 27 Knots, Recent rain, 8 Miles, 1004, Rising slowly
Buoy M1 53° 8'N, 11° 12'W	Report not available
Buoy M2 53° 29'N, 5° 26'W	Southwest, 20 Knots, Wave ht: 1.9 m, 1007, Steady
Buoy M3 51° 13'N, 16° 38'W	West, 20 Knots, Gust 32 Knots, Wave ht: 4.8 m, 1011, Rising slowly
Buoy M4 55° 0'N 10° 0'W	Southwest, 22 Knots, Wave ht: 4.5 m, 1001, Rising slowly
Buoy M6 53° 4'N 18° 56'W	West, 20 Knots, Wave ht: 6 m, 1005, Rising slowly

Disclaimer. buoy locations are approximate and are not for navigational purposes

Sea Crossings	State of sea until 0000 Wednesday 27 October 2021
Dublin - Holyhead	Mostly moderate, increasing rough Tuesday afternoon
Rosslare - South Wales	Moderate to rough, decreasing moderate Monday afternoon. Increasing rough Tuesday afternoon
Cork - South Wales	Moderate to rough, decreasing moderate Monday afternoon. Increasing rough Tuesday afternoon
Rosslare - France	Mostly rough
Cork - France	Mostly rough, occasionally very rough Sunday night and Monday morning.

Next update before 0700 Monday, 25 October 2021

Appendix 7.15 Met Éireann Estimated Weather Conditions 24 October 2021

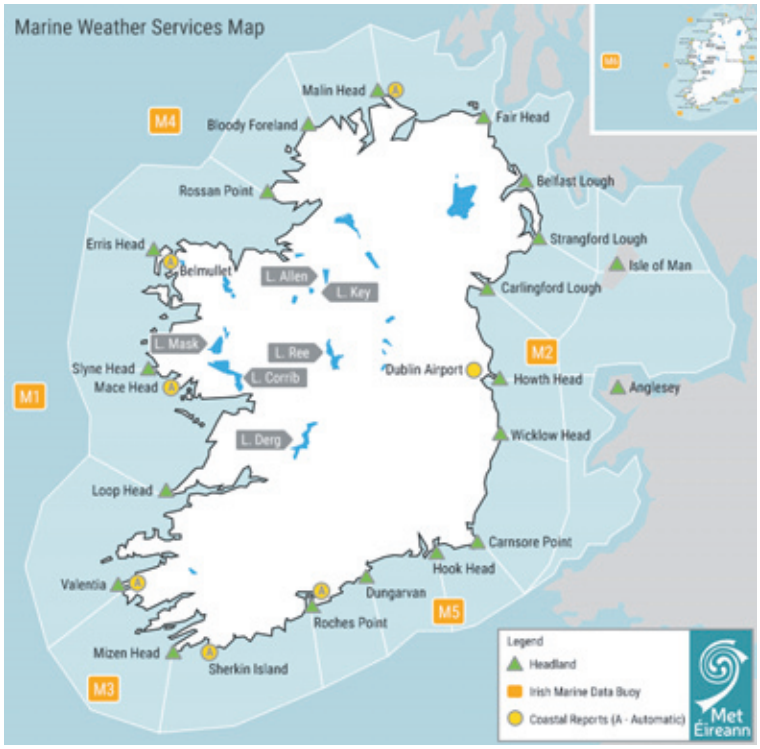
Met Éireann
The Irish Meteorological Service

Climate Services
Glasnevin Hill
Dublin 9

Seirbhísí Aeráide
Cnoc Ghlas Naíon
Baile Átha Cliath 9

Tel: +353-1-8064260
Email: legal@met.ie

Appendix 3a Terminology Sea Area Map & Beaufort Scale of Wind



Beaufort Scale of Wind

Force	Description	Speed* knots	Speed* km/hr	Specification -sea	Wave height** (metres)
0	Calm	<1	<1	Sea like mirror	
1	Light air	1-3	1-5	Ripples	0.1 (0.1)
2	Light breeze	4-6	6-11	Small wavelets	0.2 (0.3)
3	Gentle breeze	7-10	12-19	Large wavelets, crests begin to break	0.6 (1)
4	Moderate breeze	11-16	20-28	Small waves becoming longer, frequent white horses	1 (1.5)
5	Fresh breeze	17-21	29-38	Moderate waves, many white horses, chance of spray	2 (2.5)
6	Strong breeze	22-27	39-49	Large waves, white foam crests, probably some spray	3 (4)
7	Near gale	28-33	50-61	Sea heaps up, streaks of white foam	4 (5.5)
8	Gale	34-40	62-74	Moderately high waves of greater length	5.5 (7.5)
9	Strong gale	41-47	75-88	High waves, dense streaks of foam, spray may reduce visibility	7 (10)
10	Storm	48-55	89-102	Very high waves, long overhanging crests, visibility affected	9 (12.5)
11	Violent storm	56-63	103-117	Exceptionally high waves, long white foam patches cover sea	11.5 (16)
12	Hurricane	64+	117 & over	Air filled with foam and spray, sea completely white	14 (-)

*Speed = mean speed at a standard height of 10 metres.
**Wave height is only intended as a guide to what may be expected in the open sea.
Bracketed figures indicate the probable maximum wave height.

Appendix 7.15 Met Éireann Estimated Weather Conditions 24 October 2021

Met Éireann
The Irish Meteorological Service
Climate Services
Glasnevin Hill
Dublin 9

Seirbhísí Aeráide
Cnoc Ghlas Naíon
Baile Átha Cliath 9

Tel: +353-1-8064260
Email: enq@met.ie
Email: legal@met.ie

Appendix 3b Terminology Sea State & Visibility

Wave Heights / State of Sea:
The wave height is the vertical distance between the crest and the preceding or following trough. The table below gives a description of the wave system associated with a range of significant wave heights.

The Significant wave height is defined as the average height of the highest one-third of the waves. (It is very close to the value of wave height given when making visual observations of wave height.)

Sea State (Descriptive)	Significant Wave height in meters
Calm	0 – 0.1
Smooth(Wavelets)	0.1 – 0.5
Slight	0.5 – 1.25
Moderate	1.25 – 2.5
Rough	2.5 – 4
Very rough	4 – 6
High	6 – 9
Very high	9 – 14
Phenomenal	Over 14

Individual waves in the wave train will have heights in excess of the significant height. **The highest wave of all will have a height about twice the significant height**.

Visibility Descriptions:

Visibility (Descriptive)	Visibility in nautical miles (kilometres)
Good	More than 5 nm (> 9 km)
Moderate	2 – 5 nm (4 – 9 km)
Poor	0.5 – 2 nm (1 – 4 km)
Fog	Less than 0.5 nm (< 1km)

Please Note:

If there are no measurements or observations available for an exact location, then the estimated conditions in this report are based on all available meteorological measurements and observations which have been correlated on the routine charts prepared by Met Éireann.

Appendix 7.16 Tidal Times for Cobh, Cork Harbour 24 October 2021

Cobh Tidal Predictions

Here are the predicted tides for Cobh.

Tide Times BST:

Hi/Lo	Time	Height
Low	02:09	0.82m
High	08:06	3.89m
Low	14:28	0.90m
High	20:21	3.87m

NOT TO BE USED FOR NAVIGATION

Approximate time of incident 12:09 hrs
High water + 4 hours

October 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Appendix 7.17 Royal Cork Yacht Club Autumn Series 2021 Sailing Instructions

Autumn Series 2021

September 26th, October 3rd, 10th, 17th & 24th

Sailing Instructions

1 RULES

The Series will be governed by the rules as defined in *The Racing Rules of Sailing* (RRS), the prescriptions of the Irish Sailing Association, 2021 IRC rules, relevant Class rules where applicable, the RCYC Club ECHO, the Notice of Race, these Sailing Instructions and any changes thereto. In the event of a conflict, the Sailing Instructions shall prevail. This changes RRS 63.7.

2 NOTICES TO COMPETITORS

Notices to competitors will be posted on the official notice board located on window opposite main flag staff of RCYC Club House, the AIB Autumn Series WhatsApp group

WhatsApp Group Invite

and the AIB Autumn Series website

AIB Autumn Series 2021 - Royal Cork Yacht Club

3 CHANGES TO SAILING INSTRUCTIONS

Any change to the Sailing Instructions will be posted before 09:30 on the day it will take effect.

4 SIGNALS MADE ASHORE

4.1 Signals made ashore will be displayed at main RCYC flag staff.

4.2 When Flag AP is displayed ashore, '1 minute' is replaced with 'not less than 60 minutes' in the race signal AP.

5 SCHEDULE OF RACES

5.1 Racing is scheduled for, Sunday September 26th, October 3rd, 10th, 17th, 24th.

5.2 Classes will be divided into 3 Groups. (A, B & C)

5.3 The Warning Signal for first race of each day is scheduled for Group A &B 11.25. Group C 11.55

5.3.2 We intend running a combination of coastal courses, windward/Leeward courses, harbour laid courses with a maximum of 2 races per day. The course to be sailed each day is at the complete discretion of the RO and races may differ during the series.

5.3.3 The fleets will be spilt into the following groupings: The OA may combine groups depending on group sizes

- Class 0, Class 1 & Class 2 Group A
- 1720's / Sports boats / Dayboats Group B
- White Sail 1 and 2 Group C

5.5 On the last day of the Regatta no warning signal will be made after 15.30

6 CLASSES

6.1 All classes must clearly display their designated Class flag from their stern at all times. Any boat not doing so may be scored DNF without a hearing. This changes RRS A5

6.2 The anticipated Class Divisions are as follows:

Class		Class Flag
0	IRC/TCF 1.020 and above	Numeral Pennant 0
1	IRC/TCF 0.930 to 1.019	Numeral Pennant 1
2	IRC/TCF 0.929 and below	Numeral Pennant 2
1720/Sportsboat/Dayboat		ICF "R"
White Sail 1	IRC/TCF 0.950 and above	Green
White Sail 2	IRC/TCF 0.949 and below	White

6.3 The Race Committee reserves the right to place yachts in different Classes at their discretion and with reference to the speed of the boats and to the number of entries in any Class.

6.4 Classes and courses may be combined, if, in the opinion of the Race Committee, the number of entries does not warrant a Class or course of their own.

Appendix 7.17 Royal Cork Yacht Club Autumn Series 2021 Sailing Instructions

6.5 If Code Flag "Y" is displayed on the CV before the start of Group B race this indicates that all competitors must wear life jackets.

7 RACING AREAS

7.1 Appendix A shows the approximate locations of some potential Start Areas. Please be aware we may use Grassy or Weavers point land starting areas.

7.2 The location of the Committee Vessel (CV) and the course for this Start Area will be announced on appropriate VHF Channel for each fleet. It can vary from the expected area shown in appendix A dependent on weather.

8 THE COURSES

8.1 The course for each fleet will be announced on VHF before the start. It may also be displayed on blackboard.

8.2 At the complete discretion of the RO the courses may be:

A laid course from Appendix B

OR

A harbour course from Appendix A with additional laid marks

OR

A Coastal course using coastal navigation marks and marks from Appendix A and additional laid marks.

OR

A Coastal course using "natural features" such as using "Sovereigns" as a mark.

8.3 When a coastal course is being used it will be announced on the VHF and only one race will be sailed that day.

8.4 For laid courses, no later than the warning signal, the CV may display the approximate compass bearing of the first leg and the designated course. This may be displayed on a blackboard on the stern of the CV.

8.5 Additional courses may be added during the Regatta at the discretion of the race committee. Additional courses will be announced on the VHF channel for that course or displayed on the official notice board prior to racing on that day.

8.6 The Race Officer at his/her discretion may alter existing courses. These changes will be announced on the VHF channel for that course prior to the warning signal and may also be displayed on the official notice board prior to racing on that day.

9 MARKS

9.1 For all Groups on laid courses, marks may be orange inflatable cylindrical marks.

9.2 A chartlet of Cork Harbour is provided for information purposes as Appendix A. This should not be relied on for navigation, and the position of any mark shown is approximate and for illustration purposes only.

10 AREAS THAT ARE OBSTRUCTIONS

The following areas are designated as exclusion zones:

Within 50 metres of the oil refinery jetty.

Within 150 metres of any commercial shipping

10.1 A yacht that has, in the opinion of the OA, been in breach of point 10 of these sailing instructions may be disqualified from the race that she is competing in during the incident or from her next race if she is not racing at the time of the incident or for the remainder of the regatta.

10.2 All competitors should be aware of Junior sailing going on in the harbour and are advised to avoid sailing into their racing areas at all times.

11 THE START

11.1 Races will be started by using RRS 26 with the warning signal made 5 minutes before the starting signal.

11.2 For all courses the start line will be between a red and white pole on the CV or land based start (Weavers or Grassy) and a mark at the pin end of the line. The pin end mark may be a laid mark or a harbour mark.

11.3 Boats whose warning signal has not been made shall avoid the starting area during the starting sequence for other races.

11.4 The order and grouping of starts will be at the Race Officers' discretion and will be announced on the VHF channel for that course.

12 THE FINISH

12.1 The finishing line for the all groups Group will be between the red and white pole on the designated CV or land based finish (Weavers or Grassy) and an orange finishing mark or an adjacent harbour mark. The location of the finish line will be advised to the relevant fleet and may vary for each race depending on the course chosen. (NOTE: The Start line for the next race may be in position during the finish of a race, boats are to finish between the finish mark and CV and **NOT** the start Mark and CV).

Please note that the finish for the second scheduled race of each day for the Outside Course may be within Cork Harbour. The location of the finish line will be advised to the relevant fleet and may vary each race depending on the course chosen.

12.2 If a race is to be shortened at the start/finish line, the signal shall be the display of Flag "F" with repetitive sound signals at a mark on the course. Having rounded that mark, boats shall proceed directly to the finishing line and finish by crossing the line from the direction of the last mark. This is in addition to RRS 32.2

13 TIME LIMITS AND TARGET TIMES

13.1 When a COASTAL race has been indicated the time limit is 4 hours or 1 hour after the first boat in that class finishes, whichever is later.

13.1.1 Boats failing to finish COASTAL within 1 hour after the first boat in that class sails the course and finishes, will be scored Did Not Finish without a hearing. This changes rules 35, A4 and A5.

13.2 All other races have a time limit of 2 hours.

Appendix 7.17 Royal Cork Yacht Club Autumn Series 2021 Sailing Instructions

13.2.1 Boats failing to finish within 45 minutes after the first boat in that start sails the course and finishes will be scored Did Not Finish without a hearing. This changes rules 35, A4 and A5.

13.3 At the complete discretion of the RO these time limits may be extended and if so the new time limit will be announced over the VHF.

14 PROTESTS AND REQUESTS FOR REDRESS

14.1 Protest forms are available online via the Race Office and available via QR code on the official notice board. protests and requests for redress or reopening shall be delivered there within the appropriate time limit.

Protest Hearings will be held in the Royal Cork Yacht Club. Every effort will be made to have the hearing as soon as possible on the evening of sailing. We will comply with Covid-19 guidelines at the time. Protesting boats will be contacted by the Organising Committee once the protest form has been submitted online.

14.2 In addition to the requirements of RRS 61, boats who intend to protest another boat are required to inform the CV of their intention to protest, and the boat name or sail number of the intended protestee, as soon as possible after finishing and in any event not before leaving the vicinity of the finish line.

14.3 For each Class, the protest time limit is 90 minutes after the last boat in that class has finished the last race of the day.

14.4 Notices will be posted no later than 30 minutes after the protest time limit to inform competitors of hearings in which they are parties or named as witnesses. Hearings will be held in the protest room, located at the RCYC Club House, beginning at the time posted.

14.5 Notices of protests by the race committee or protest committee will be posted to inform boats under rule 61.1(b).

14.6 On the last scheduled day of racing a request for reopening a hearing shall be delivered

(a) within the protest time limit if the requesting party was informed of the decision on the previous day;

(b) no later than 30 minutes after the requesting party was informed of the decision on that day.

14.7 On the last scheduled day of racing a request for redress based on a protest committee decision shall be delivered no later than 30 minutes after the decision was posted. This changes RRS 62.2.

14.8 Breaches of SI section 6 will not be grounds for protest by a boat or entrant. This changes RRS 60.1 (a). Penalties for these breaches may be less than disqualification if the protest committee so decides.

15 MEDIATION

As an alternative to a full Protest hearing a Mediation System may be used. When all Parties to an incident(s) agree the Protest(s) may be decided by a Protest Mediator and his/her decision shall be final. This replaces the requirements of RRS 63. Having decided that the Protest(s) is valid the Mediator shall have total discretion on the question of witnesses etc., but shall give all the parties an opportunity to state their case. The Mediator has the right to terminate the Mediation process at any time and refer the matter to a full Protest hearing. Otherwise he/she shall reach a decision.

The advantage of this process is that any rule infringement will result in a 25% place penalty rather than a disqualification in the event of a full Protest hearing. The place penalty shall be subject to a minimum of 3 places but it shall not exceed the score of a disqualification. Any penalty shall not affect the score of other competitors. Competitors rights under RRS 66 shall not be affected.

16 SCORING

16.1 The Low Point System of RRS will apply.

16.2 3 races are required to be completed to constitute a series.

16.3 (a) When fewer than 4 races have been completed, a boat's series score will be the total of her race scores.

(b) When 4 or more but less than 12 races have been completed, a boat's series score will be the total of her race scores excluding her worst score.

(c) When 12 or more races have been completed, a boat's series score will be the total of her race scores excluding her worst two score.

(d) A boat's combined score each day will be used as the basis for daily prizes throughout the Regatta.

(e) Fleet B will be provided with one extra discard. The reason for this is given the 1720 Europeans are being sailed in Dunmore on the first weekend of the AIB Autumn Series and a number of boats will be racing from week 2.

16.5 For all classes, races will be scored as part of the SCORA league.

17 SAFETY REGULATIONS

A boat that retires from a race shall notify the race committee as soon as possible.

18 EQUIPMENT AND MEASUREMENT CHECKS

18.1 A boat or equipment may be inspected at any time for compliance with the Class rules and sailing instructions. On the water, a boat can be instructed by a race committee equipment inspector or measurer to proceed immediately to a designated area for inspection.

18.2 For White Sail Classes: Sail identification number required on mainsail. Gennakers, bloopers, spinnakers, code zero or similar sails are prohibited.

18.3 No boat shall carry its anchor protruding from bow whilst racing.

19 RADIO COMMUNICATION

19.1 Except in an emergency, a boat shall neither make radio transmissions while racing nor receive radio communications not available to all competing boats. This restriction also applies to mobile telephones.

19.2 Race Area VHF Channels

(a) VHF Channel 71 will be used for race management for the Group A & B

Appendix 7.17 Royal Cork Yacht Club Autumn Series 2021 Sailing Instructions

(c) VHF Channel 69 will be used for race management for the Group C

20 PRIZES

20.1 Overall prizes will be awarded as follows: 1st, 2nd and 3rd in each Class in IRC and progressive Club ECHO of the AIB Autumn Series.

20.2 Daily prize giving will take place as soon as possible after sailing and expected to be no later than 18.00 hrs in the RCYC Club house. Prizes will be awarded to the 1st and 2nd boat in each class but distributed on a one boat, one prize basis.

We ask that skippers/owners only or a sole representative of the Boat present for daily prizegiving.

20.3 Final prize giving for the AIB Autumn Series will be presented after the final day of sailing. Further details will be provided closer to the date.

21 DISCLAIMER OF LIABILITY

Competitors participate in the Regatta entirely at their own risk. See RRS 4, Decision to Race. The organizing authority will not accept any liability for material damage or personal injury or death sustained in conjunction with or prior to, during, or after the Regatta.

22 INSURANCE

It is the duty of each boat owner to have his/her boat adequately insured against any risk, including civil responsibility to third parties and to ensure that such insurance remains valid for the entirety of the AIB Autumn Series 2021.

Appendix 7.17 Royal Cork Yacht Club Autumn Series 2021 Sailing Instructions

APPENDIX A – Possible Start Locations

This should not be relied on for navigation, and the position of any mark shown is approximate and for illustration purposes only.

Appendix 7.17 Royal Cork Yacht Club Autumn Series 2021 Sailing Instructions

APPENDIX B

Race Area: South East of Roches Point

No later than the warning signal the CV may display the approximate compass bearing of the first leg.

The number of rounds to be sailed by each Class will be shown on a blackboard on the CV and may be broadcast on the designated VHF Channel.

The location of the finish line will be advised to the fleet and may vary each race depending on the course chosen. Please note that the finish for the 2nd scheduled race of each day may be within Cork Harbour.

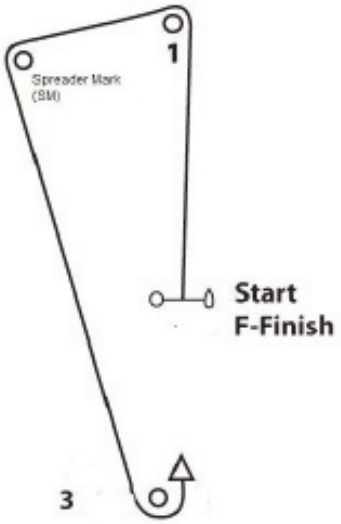
Laid Course A		**Laid Course B**	
One Round :	1, SM, 3 – Finish	One Round :	1, 2, 3 – Finish
Two Rounds:	1, SM, 3, 1, SM, 3 – Finish	Two Rounds:	1, 2, 3, 1, 3 – Finish
Three Rounds:	1, SM, 3, 1, SM, 3, 1, SM, 3 – Finish	Three Rounds:	1, 2, 3, 1, 3, 1, 2, 3 – Finish

If the race is to be shortened at the start/finish line, the signal shall be the display of Flag "F" with repetitive sound signals at a mark on the course. Having rounded that mark, boats shall proceed directly to the finishing line and finish by crossing the line from the direction of the last mark. This is in addition to RRS 32.2

LAID COURSE A

Windward-Leeward Course

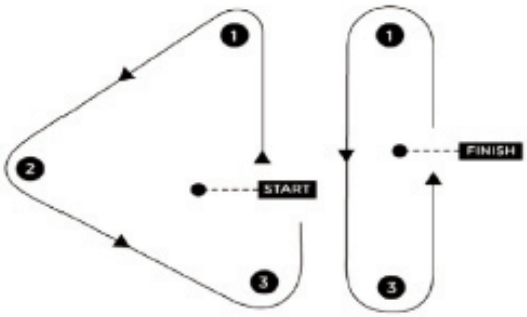
All marks to be rounded to port.



LAID COURSE B

Olympic Course

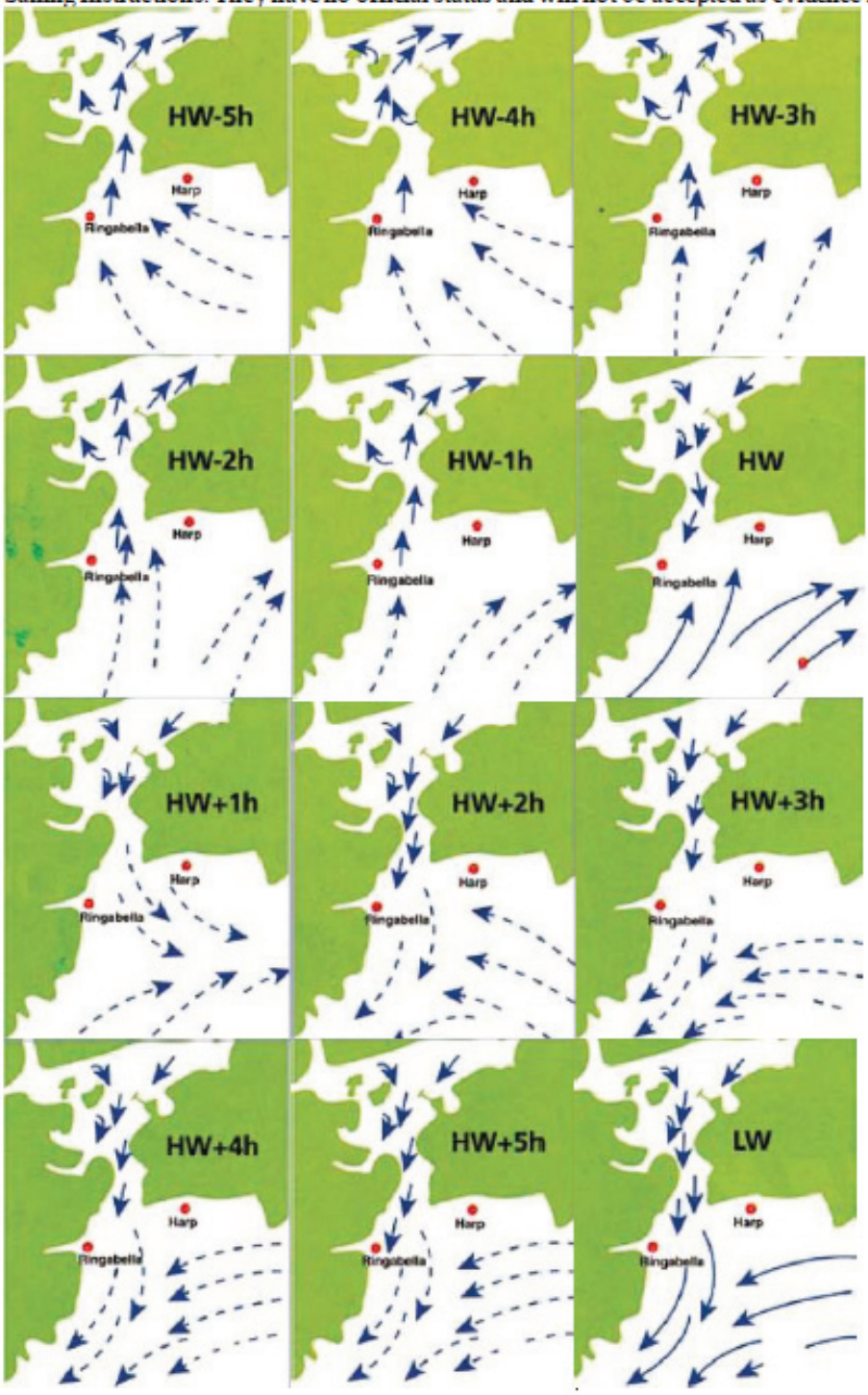
All marks to be rounded to port.



Appendix 7.17 Royal Cork Yacht Club Autumn Series 2021 Sailing Instructions

APPENDIX C

These diagrams are provided for information purposes only and merely as an explanatory supplement to the Sailing Instructions. They have no official status and will not be accepted as evidence in a Protest Hearing.



Appendix 7.18 Royal Cork Yacht Club General Sailing Instructions for Cruiser Racing 2021

GENERAL SAILING INSTRUCTIONS FOR CRUISER RACING 2021

1 RULES

All races shall be governed by the Racing Rules of Sailing (RRS), Irish Sailing Association (ISA) Prescriptions, the Notice of Race (NOR) and the Sailing Instructions (SIs) for any particular race or series, these Sailing Instructions (General SI's), and any amendments thereto. Competitors in races for One Design classes shall comply with their relevant Class Rules. In the event of a conflict these General SIs shall prevail. Competitors in IRC and club handicap classes shall in addition comply with the rules of these handicapping systems. IRC Rule 22.4.2 shall not apply unless specified in the SI's or NOR for a specific event. There will be no limitations on crew number or weight except as required for boats rated as One Designs which shall comply with IRC Rule 22.4.1.

2 ENTRY AND ELIGABILITY

2.1 With the exception of open events, only members who have completed a Racing Declaration and Entry Form for 2021 and comply with all requirements on that declaration/form may race in RCYC leagues or events and be eligible to receive RCYC Trophies.

2.2 A valid IRC certificate is required to have a valid entry for IRC results.
A valid ECHO certificate is required to have a valid entry for ECHO results.
A valid ECHO certificate is required to have a valid entry for Club ECHO results.
No IRC certificate or ECHO certificate is required for IHS results.

3 NOTICES TO COMPETITORS

Notices to competitors will be posted on the Official Notice Boar located on the window of the Sailing Coordinator's office and/or the RCYC website https://www.royalcork.com/notice-board/

Appendix 7.18 Royal Cork Yacht Club General Sailing Instructions for Cruiser Racing 2021

4 CHANGES TO SAILING INSTRUCTIONS

Any change(s) to theses General SIs or SIs will be posted on the Official Notice Board not later than two hours before the scheduled start of the first race so affected.

5 SIGNALS MADE ASHORE

5.1 Signals made ashore will be displayed on the Club flag staff.

5.2 When flag AP is displayed ashore, '1 minute' is replaced with 'not less than 60 minutes' in the race signal AP.

6 CLASS FLAGS

6.1 Boats shall fly the appropriate class flag at all times while racing. Any boat not flying the correct pennant(s) may not be scored.

6.2 Boats shall show their correct sail number. Permission to race using any other sail number must be sought from the Race Committee prior to going afloat. Any boat not showing its correct sail number may not be scored.

6.3 The Race Committee reserves the right to place any boat in any class it deems appropriate.

7 LOCAL HARBOUR REGULATIONS

7.1 Competitors are reminded that all commercial shipping has absolute right of way within the harbour area. Port of Cork notice to mariners no.14 of 2018 refers:

All boats shall keep at least 150 meters away from commercial vessels that are manoeuvring at all times, but shall in any event maintain a safe distance from all commercial shipping, which may exceed 150 meters in certain circumstances.

7.2

Appendix 7.18 Royal Cork Yacht Club General Sailing Instructions for Cruiser Racing 2021

7.3 All boats shall keep at least 50 metres away from the refinery jetty or vessels moored alongside.

7.4 If found to have been in breach of 7.1 or 7.2 a boat may be disqualified from the race or league or event in which they are competing in at the time of the incident.

Protests for infingement of 7.1 or 7.2 can be initiated by any club member who witness the infringement or by the Race Committee if informed of an infringement by the Port authorities - the time limit in 12.3 does not apply to infrigements of 7.1 or 7.2.

8 RACE OFFICER ROSTER

The Race Committee will draw up a rota for Race Officer (RO) duty.

9 TIME LIMITS

9.1 For midweek races, Monday - Friday, the time limit is 9.30. This amends RRS 35.

9.2 For weekend races the default Time Limit is 3 hours and the Time Limit for all other boats will be 90 minutes after the first finisher. This amends RRS 35. Individual races may prescribe different limits which will be in notice of race and override this time limit.

10 MARKS/COURSES

10.1 Courses may be either:
a) Round the Cans or
b) Windward - Leeward
c) At the discretion of the Race Officer (RO).

10.2 Round the Cans courses may be selected from the current Cork Harbour Course Card. Each boat should have a copy of the current Cork Harbour Course Card

Appendix 7.18 Royal Cork Yacht Club General Sailing Instructions for Cruiser Racing 2021

10.3 For laid courses marks will be black, orange or yellow inflatable buoys. For Round the Cans, the marks used may be a combination of navigation marks, Port of Cork Laid Race Marks, RCYC racing marks and inflatable buoys.

10.4 Port of Cork Laid Race Marks are yellow cones permanently laid and may be in these approximate locations

Harp	N 51 47.192	W 008 14.214
Ringabella	N 51 46.235	W 008 17.517
EF4	N 51 50.720	W008 14.740

11 STARTING/FINISHING

11.1 Races will be started by using RRS 26 with the warning signal made 5 minutes before the starting signal.

11.2 Boats whose warning signal has not been made shall avoid the starting area during the starting sequence for other races.

11.3 The order of starts will be at the RO's discretion and may be announced on the designated VHF channel.

11.4 A number of Start/ Finish lines may be used. These include:

(a) Weavers Point Line (ICF 'W')
The line is formed by a transit of a white pole and a red and white pole next to the hut at Weavers Point on the western side of the channel near the harbour entrance with Navigation buoy E4 (North Cardinal) or Navigation Buoy W1 (Green Conical) as the Outer Distance Mark (ODM). A board will be displayed to indicate the ODM in use. The finish line will be between the rearmost pole and the ODM.

Appendix 7.18 Royal Cork Yacht Club General Sailing Instructions for Cruiser Racing 2021

(b) Grassy Walk Line (ICF 'G')
The line is formed by a transit of 2 white poles in front of the hut at the Grassy Walk (on Camden shore). Buoy C1 (Cage) Green Conical is the ODM. The finish line will be between the rearmost pole and the ODM.

(c) Committee Vessel (CV)
The Start and Finish line will be formed between a Red and White staff on the CV and an Inflatable Buoy or Navigation Buoy as indicated by the CV.

(d) Club Line
The Start and Finish line will be formed between a Red and White pole on the club marina and a designated ODM.

For midweek racing a CV or the Grassy Walk Line may be used. ICF 'G' will be flown from the Club flagstaff before 1800 hours on the race day to indicate the use of the Grassy Walk Line.

For weekend racing, Lines (a), (b), or (c) above may be used. ICF 'W' or ICF 'G' flown from the Club flagstaff at least 2 hours before the scheduled first gun indicates either Start Line (a) or (b).

12 PROTESTS AND REQUESTS FOR REDRESS

12.1 In addition to RRS 61, persons intending to protest shall inform the RO immediately upon finishing or retiring of their intention to protest.

12.2 Protest forms are available from the Club results office. Protests and requests for redress or reopening shall be delivered there within the appropriate time limit.

12.3 For each class, the protest time limit is 60 minutes after the last boat in that class has finished the last race of the day.

12.4 Notices of protests by the Race Committee or protest committee will be posted to inform boats under rule 61.1(b).

Appendix 7.18 Royal Cork Yacht Club General Sailing Instructions for Cruiser Racing 2021

13 MEDIATION

13.1 As an alternative to a full Protest hearing, a Mediation System will be preferred and used, particularly for rules of Part 2. When all parties to an incident who are present agree, a Protest may be decided by the Protest Mediator or his designated substitute. Such Mediation shall replace the protest hearing required under RRS 63. This system may only be used if before the hearing all the parties PRESENT agree to accept the Mediation Decision as final. The Mediator shall decide if the protest is valid. All the parties shall have the opportunity of stating their case. The Mediator shall have total discretion as to whether any witness be called. At any time during the hearing he may terminate the Mediation and refer the incident to a full protest committee hearing; otherwise, at the conclusion of the Mediation hearing he will reach a decision.

13.2 Any party he finds to have infringed a rule will not be disqualified but shall incur a 25% place penalty with a minimum penalty of 3 places. No penalty shall result in a score which would exceed that of a Disqualification. Application of a penalty will not affect the place or score of other boats. Any decision will be final, however a request for a reopening may be made under RRS 66. Disqualification will result if any rule infringement is found at a full Protest Hearing when any party declines to accept Mediation at the time it is offered and insists on a full Protest Hearing.

14 SCORING

The scoring system used for cruiser leagues shall be the RRS Appendix A Low Point System with the following penalties:

	DISCRIPTION	PENALTY
DNC	Did Not Compete	Series Entry Plus One Place
DNS	Did Not Start	Series Entry Plus One Place
OCS	On Course Side	Race Entry Plus One Place
RET	Retired	Race Entry Plus One Place
DNF	Did Not Finish	Race Entry Plus One Place
RAF	Retired After Finishing	Race Entry Plus One Place
OOT	Out Of Time	Race Entry Plus One Place
DSQ	Disqualified	Series Entry Plus One Place

Appendix 7.18 Royal Cork Yacht Club General Sailing Instructions for Cruiser Racing 2021

15 SAFETY REGULATIONS

15.1 A boat that retires from a race shall notify the RO as soon as possible.

15.2 All competitors must wear life jackets if the CV/OOD/RO displays Code Flag "Y".

16 EQUIPMENT AND MEASUREMENT CHECKS

16.1 A boat or equipment may be inspected at any time for compliance with the class rules and sailing instructions. On the water, a boat can be instructed by a race committee equipment inspector or measurer to proceed immediately to a designated area for inspection. A boat may be disqualified from the series if found in breach of this.

16.2 For white sail classes: only one headsail and one mainsail may be used at any one point in time. Sail identification number is required on mainsail. Gennakers, bloopers, spinnakers, code zero or similar sails are prohibited. A spinnaker pole or any other such device may be used to hold headsail at any stage.

16.3 No boat shall carry its anchor protruding from bow whilst racing.

17 RADIO COMMUNICATION

17.1 Except in an emergency, a boat shall neither make radio transmissions while racing nor receive radio communications not available to all competing boats. This restriction also applies to mobile telephones.

17.2 Courses may be announced on the designated VHF channels prior to starting sequence of that class. Typically this will be channel 71 if not specified in the notice of race, and if different will be posted on the blackboard before the start.

Appendix 7.18 Royal Cork Yacht Club General Sailing Instructions for Cruiser Racing 2021

18 PRIZES

18.1 With the exception of Open Events, the following shall apply:

18.1.1 Only members who have completed a Racing Declaration and Entry Form for 2021 and comply with all requirements on that Declaration may race in RCYC leagues or events and be eligible to receive RCYC Trophies.

19 In addition to RRS 34 add.

If a finishing mark is missing but another one remains in place, the finishing line is a line through the remaining mark at a 90 degree angle to the last leg and of the shortest practicable length. If the race officer is absent when a boat finishes, she should report to the race committee her finishing time and her position in relation to nearby boats at the first reasonable opportunity.

20 DISCLAIMER OF LIABILITY

Competitors participate in an event entirely at their own risk. See rule 4, Decision to Race. The organizing authority will not accept any liability for material damage or personal injury or death sustained in conjunction with or prior to, during, or after the event.

21 INSURANCE

It is the duty of each boat owner to have his/her/their boat adequately insured against any risk, including civil responsibility to third parties and to ensure that such insurance remains valid for the entirety of the events sailed in.

22 Contract Tracing & Health Declaration –

It is the duty of each boat owner to have a list of all sailors names & contact details on his/her/their boat to have this list available at all times should it be required.

Appendix 7.18 Royal Cork Yacht Club General Sailing Instructions for Cruiser Racing 2021

Each individual sailor is also to complete the Online Health Declaration Form. This is a once off requirement per member/sailor unless responses change. Forms are available on the clubs website (https://www.royalcork.com/).

Appendix 7.19 Racing Declaration and Entry Form for 2021

RACING DECLARATION AND ENTRY FORM FOR 2021

Please read the following Race Declaration and ensure that you understand the Terms & Conditions you are agreeing to when racing with the Royal Cork Yacht Club (RCYC).

Name of Boat _____

Person in Charge _____

Sail Number _____

RCYC Membership No _____

Contact Number _____

E- Mail Address _____

The RCYC/SCORA Registration form must be completed online and copies of valid 2021 IRC/ECHO certificates submitted to the RCYC race office before racing, for a boat to be eligible for a result in 2021. The online form can be located at www.royalcork.com/notice-board

DECLARATION

To the best of my knowledge the information I have given is accurate. I have paid particular attention to and agree to be bound by the Racing Rules of Sailing (RRS), the ISA prescriptions thereto, the ISAF Offshore Special Regulations, and any class rules which may govern the type of boat that I am sailing. See www.sailing.ie/Racing/Rules.aspx

I have also read and understand, and where appropriate agree to be bound by, the RCYC General Sailing Instructions 2021. The RCYC General Sailing Instruction 2020 can be located at www.royalcork.com/notice-board

I understand and agree that the information given in this form will be maintained in RCYC records to be used for all aspects of race/club organisation.

I confirm that my boat is insured with valid third-party liability and agree that it is the duty of each boat owner to have his boat adequately insured against any risk, including civil responsibility to third parties and to ensure that such insurance remains valid for the entirety of all events and leagues sailed in the Royal Cork Yacht Club.

The boat will be available for inspection. If any alteration likely to affect the handicap or rating is made, e.g. to sails, rig, mast, ballast, trim, engine, or propeller, I will notify the appropriate Rating Authority and the Race Committee, and the Sailing Committee of the RCYC as soon as possible. I will ensure that no crew member races on my boat contrary to the terms of any ban imposed by ISAF, or any National Authority, or the RCYC.

Appendix 7.19 Racing Declaration and Entry Form for 2021

RESPONSIBILITY

Before racing I will ensure that my crew and I are aware that:

a. Yacht racing can be dangerous. The attention of Persons in Charge is drawn to RRS Fundamental Rule 4: "The responsibility for a boat's decision to participate in a race or to continue racing is hers alone".

b. Crew members' attention is drawn to RRS 1.2 (life-saving equipment): "A boat shall carry adequate life-saving equipment for all persons on board, including one item ready for immediate use, unless her class rules make some other provision. Each competitor is individually responsible for wearing a personal flotation device adequate for the conditions".

c. The Person in Charge and crew will be held jointly responsible for the conduct of the yacht's crew before, during, and after a race. Misconduct may result in both the Person in Charge and crew being excluded from future races and renders a yacht liable to disqualification.

d. No yacht will be accepted as an entry unless the Person in Charge has, before the start of the race, or at some time previously in that season, signed a Declaration in the terms set out herein.

e. My crew and I are aware of the ISAF Offshore Special Regulations, especially 1.02 (printed below).

ISAF Offshore Special Regulations 1.02 (Responsibility of Person in Charge)

1.02.1 The safety of a yacht and her crew is the sole and inescapable responsibility of the person in charge who must do his/her best to ensure that the yacht is fully found, thoroughly seaworthy and manned by an experienced crew who have undergone appropriate training and are physically fit to face bad weather. He/she must be satisfied as to the soundness of hull, spars, rigging, sails and all gear. He/she must ensure that all safety equipment is pr operly maintained and stowed and that the crew know where it is kept and how it is to be used.

1.02.2 Neither the establishment of these Special Regulations, their use by race organizers, nor the inspection of a yacht under these Special Regulations in any way limits or reduces the complete and unlimited responsibility of the person in charge.

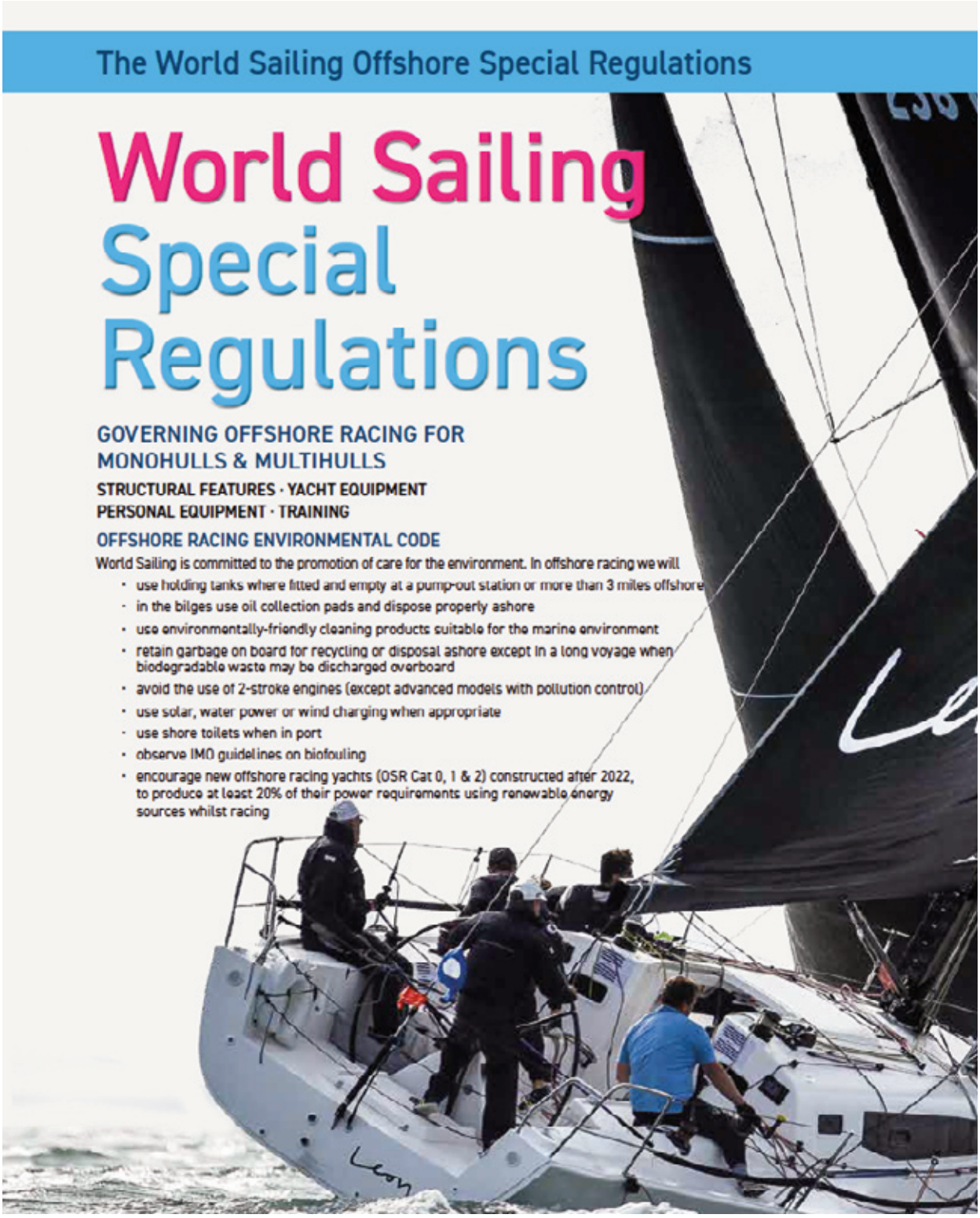
1.02.3 Decision to race -The responsibility for a yacht's decision to participate in a race or to continue racing is hers alone - RRS Fundamental Rule 4.

I have read and agreed to the terms of this Declaration. I understand that when I enter a race, I accept the responsibility as the Person in Charge as defined in RRS 46 unless I have informed the RCYC that there will be a different Person in Charge.

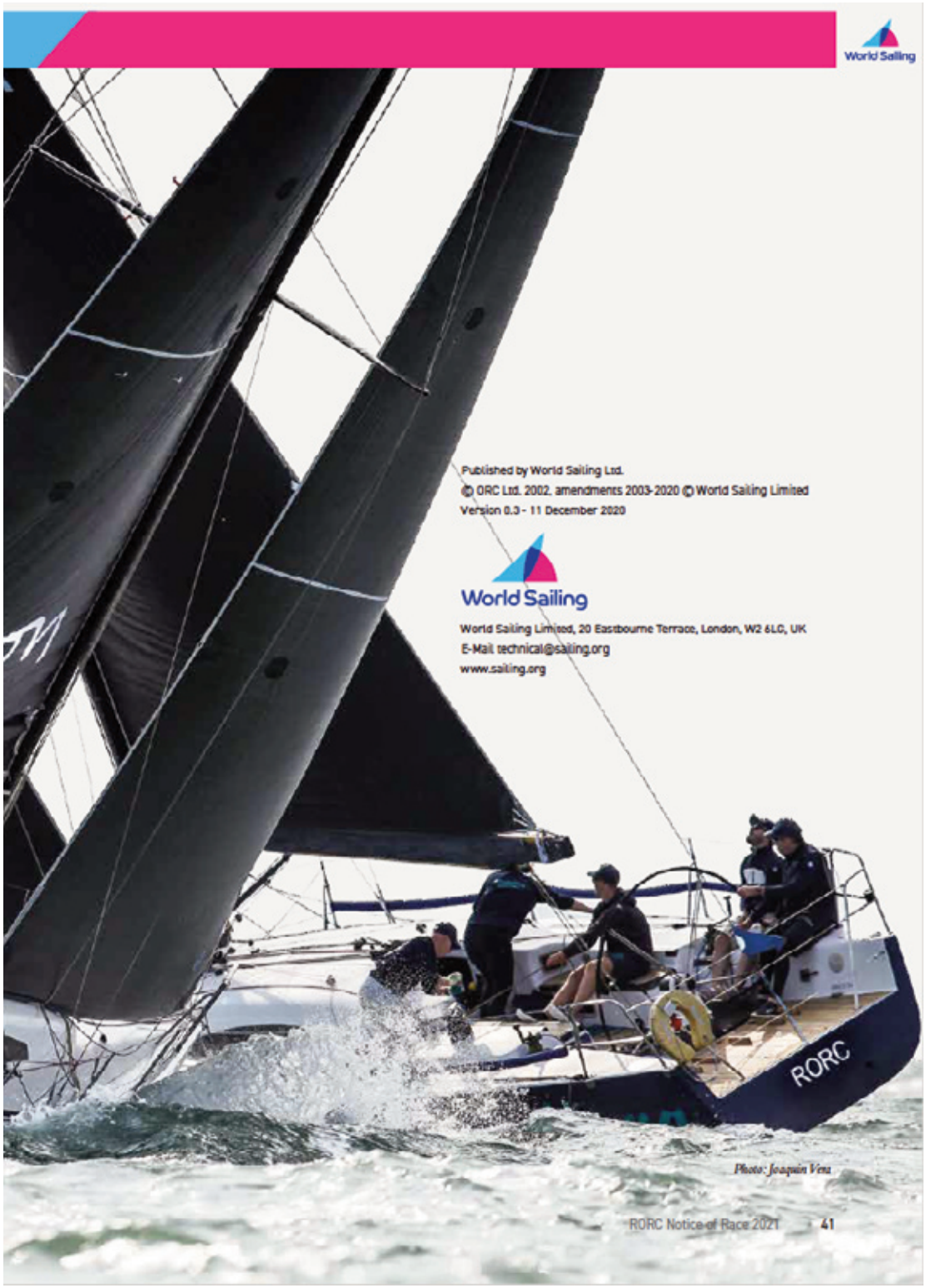
Signed:_____Date:_____

Completed Forms must be singed and returned to the office: Royal Cork Yacht Club, Crosshaven, Co. Cork.

Appendix 7.20 World Sailing Offshore Special Regulations



Appendix 7.20 World Sailing Offshore Special Regulations



Appendix 7.20 World Sailing Offshore Special Regulations

The World Sailing Offshore Special Regulations

APPENDIX 1 WORLD SAILING OFFSHORE SPECIAL REGULATIONS AND RORC PRESCRIPTIONS

January 2020 – December 2021

Version 0.3 - 11 December 2020

Official interpretations shall take precedence over these Special Regulations and will be indexed, numbered, dated and displayed on the World Sailing web site www.sailing.org/specialregs

Language & Abbreviations Used
Mo - Monohull
Mu - Multihull
** - means the item applies to all types of boat in all Categories except 5 for which see Appendix D or 6 for which see Appendix C.

RED TYPE indicates significant changes in 2020
BLUE TYPE indicates RORC Prescriptions
Guidance notes and recommendations have been removed from the Regulations and are available on www.sailing.org/documents/offshorespecialregs/index.php

The use of the masculine gender shall be taken to mean either gender.

SECTION 1 - FUNDAMENTAL AND DEFINITIONS

	1.01	**Purpose and Use**
**	1.01.1	The purpose of the Offshore Special Regulations (OSR) is to establish uniform minimum equipment, accommodation and training standards for monohull and multihull (excluding proa) boats racing offshore.
**	1.01.2	The OSR do not replace, but rather supplement, the requirements of governmental authority, Classification Society certification, the Racing Rules of Sailing (RRS), Equipment Rules of Sailing (ERS), class rules and Rating Systems.
**	1.01.3	Use of the OSR does not guarantee total safety of the boat and her crew. Particular attention is drawn to the description of OSRs for inshore racing which includes that adequate shelter and or effective rescue is available all along the course. This is not included in more onerous OSR categories.
	1.02	**Responsibility of Person in Charge**
**	1.02.1	**Under RRS 3 the responsibility for a boat's decision to participate in a race or continue racing is hers alone. The safety of a boat and her crew is the sole and inescapable responsibility of the Person in Charge who shall do his best to ensure that the boat is fully found, thoroughly seaworthy and manned by an experienced and appropriately trained crew who are physically fit to face bad weather. The person in charge shall also assign a person to take over his responsibilities in the event of his incapacitation.**
**	1.02.2	Neither the establishment of the OSR, nor their use by Organizing Authorities, nor the inspection of a boat under the OSR in any way limits or reduces the complete and unlimited responsibility of the Person in Charge.
**	1.02.3	By participating in a race conducted under the OSR, the person in charge, each competitor and boat owner agrees to reasonably cooperate with the organizing authority and World Sailing in the development of an independent incident report as specified in 2.02
	1.03	**Definitions, Abbreviations, Word Usage**
**	1.03.1	Definitions of Terms used in this document
	Abbreviation	**Description**
	#	Pound force (lbf)
	ABS	American Bureau of Shipping
	Age Date	Month/year of first launch
	AIS	Automatic Identification Systems
	CEN	Comité Européen de Normalisation

Appendix 7.20 World Sailing Offshore Special Regulations

Coaming	The part of the cockpit, including the transverse after limit, over which water would run when the boat is floating level and the cockpit is filled to overflowing
COLREGS	International Regulations for Preventing Collisions at Sea
Contained Cockpit	A cockpit where the combined area open aft to the sea is less than 50% maximum cockpit depth x maximum cockpit width
CPR	Cardio-Pulmonary Resuscitation
Crewmember	Every person on board
DSC	Digital Selective Calling
EN	European Norm
EPIRB	Emergency Position-Indicating Radio Beacon
ERS	World Sailing - Equipment Rules of Sailing
FA Station	The transverse station at which the upper corner of the transom meets the sheerline
First Launch	Month & year of first launch of the individual boat
Foul-Weather Suit	Clothing designed to keep the wearer dry and may consist of one piece or several
GMDSS	Global Maritime Distress & Safety System
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
Hatch	The term hatch includes the entire hatch assembly including the lid or cover as part of that assembly
HMPE	High Modulus Polyethylene (Dyneema®/Spectra® or equivalent)
IMO	International Maritime Organisation
IMSO	The International Mobile Satellite Organisation, the independent, intergovernmental organisation that oversees Inmarsat's performance of its Public Service Obligations for the GMDSS and reports on these to IMO
INMARSAT	Inmarsat Global Limited is the private company that provides GMDSS satellite distress and safety communications, plus general communications via voice, fax and data
ISAF	International Sailing Federation- (now World Sailing)
ISO	International Standard Organization or International Organization for Standardization
ITU	International Telecommunications Union
Jackstay	A securely fastened webbing or rope which permits a crewmember to move from one part of the boat to another without having to unclip a safety harness tether
LH	Hull Length as defined by the ERS
Lifeline	Rope or wire line rigged as guardrail / guardline around the deck
LSA	IMO International Life-Saving Appliance Code
LWL	(Length of) loaded waterline
Monohull	A boat with one hull
Moveable Ballast	Material carried for the sole purpose of increasing weight and/or influencing stability and/or trim and which may be moved transversely but not varied in weight while a boat is racing
Multihull	A boat with more than one hull
Open Cockpit	A cockpit that is not a Contained Cockpit
ORC	Offshore Racing Congress (formerly Offshore Racing Council)
OSR	Offshore Special Regulation(s)
Permanently Installed	The item is effectively built-in by e.g. bolting, welding, glassing etc. and may not be removed for or during racing
PLB	Personal Locator Beacon
Primary Launch	Month & Year of first launch of the first boat of the production series or first launch of a non-series boat
Proa	Asymmetric Catamaran
Rode	Rope, chain, or a combination of both, which is used to connect an anchor to the boat

Appendix 7.20 World Sailing Offshore Special Regulations

The World Sailing Offshore Special Regulations

	RRS	World Sailing - Racing Rules of Sailing
	Safety Line	A tether used to connect a safety harness to a strong point
	SAR	Search and Rescue
	SART	Search and Rescue Transponder
	Securely Fastened	Held strongly in place by a method (e.g. rope lashings, wing-nuts) which will safely retain the fastened object in severe conditions including a 180° capsize and allows for the item to be removed and replaced during racing
	SOLAS	Safety of Life at Sea Convention
	SSS	The Safety and Stability Screening numeral
	Static Ballast	Material carried for the sole purpose of increasing weight and/or to influencing stability and/or trim and which is not moved or varied in weight while a boat is racing
	Static Safety Line	A safety line (usually shorter than a safety line carried with a harness) kept clipped on at a work-station
	STIX	ISO 12217-2 Stability Index
	Variable Ballast	Water carried for the sole purpose of influencing stability and/or trim and which may be varied in weight and/or moved while a boat is racing
	Waterline	The water surface when the boat is floating in measurement trim
	World Sailing	Formerly the International Sailing Federation or ISAF
**	1.03.2	The words "shall" and "must" are mandatory, and "should" and "may" are permissive
**	1.03.3	The word "yacht" shall be taken as fully interchangeable with the word "boat"

SECTION 2 - APPLICATION & GENERAL REQUIREMENTS

	2.01	**Categories of Events**
**		Organizing Authorities shall select from one of the following categories and may modify the OSR to suit local conditions.
	2.01.1	**Category 0**
MoMu0		Trans-oceanic races, including races which pass through areas in which air or sea temperatures are likely to be less than 5°C (41°F) other than temporarily, where boats must be completely self-sufficient for very extended periods of time, capable of withstanding heavy storms and prepared to meet serious emergencies without the expectation of outside assistance.
	2.01.2	**Category 1**
MoMu1		Races of long distance and well offshore, where boats must be completely self-sufficient for extended periods of time, capable of withstanding heavy storms and prepared to meet serious emergencies without the expectation of outside assistance.
	2.01.3	**Category 2**
MoMu2		Races of extended duration along or not far removed from shorelines or in large unprotected bays or lakes, where a high degree of self-sufficiency is required of the boats.
	2.01.4	**Category 3**
MoMu3		Races across open water, most of which is relatively protected or close to shorelines.
	2.01.5	**Category 4**
MoMu4		Short races, close to shore in relatively warm or protected waters normally held in daylight.
	2.01.6	**Special Regulations - for Inshore Racing**
		Short races, close to shore in relatively warm and protected waters where adequate shelter and/or effective rescue is available all along the course, held in daylight only (refer to Appendix B).
	2.01.7	**Special Regulations - for Inshore Dinghy Racing**
		Short races in boats that may not be self-sufficient, with rescue boats available all along the course, held in daylight only (refer to Appendix C).
	2.02	**Incident Reporting**
		The Organizing Authority of a race will establish whether any incidents occurred, which if reported would be likely to be relevant to evolving the Offshore Special Regulations, the plan review process, or in increasing safety. The Organizing Authority will follow any guidelines issued by World Sailing concerning incident reporting.

Appendix 7.20 World Sailing Offshore Special Regulations

	2.03		**Inspection**
**			A boat may be inspected at any time. If she fails to comply with the OSR her entry may be rejected or she will be subject to protest
	2.04		**General Requirements**
**	2.04.1		All equipment required by OSR shall:
**		a)	function properly
**		b)	be regularly checked, cleaned and serviced
**		c)	if it has an expiry date, it will not have exceeded its expiry date whilst racing
**		d)	when not in use be stowed in conditions in which deterioration is minimised
**		e)	be readily accessible
**		f)	be of a type, size and capacity suitable and adequate for the intended use and size of the boat.
**	2.04.2		Heavy items shall be permanently installed or securely fastened.

SECTION 3 - STRUCTURAL FEATURES, STABILITY, FIXED EQUIPMENT

**			A boat shall be/have:
	3.01		**Strength of Build and Rig**
**	3.01.1		Properly rigged, fully seaworthy and shall meet the OSR.
**	3.01.2		Equipped with shrouds and at least one forestay that shall remain connected to the mast and the boat while racing.
	3.02		**Watertight and Structural Integrity of a Boat**
**	3.02.1		Essentially watertight and all openings shall be capable of being immediately secured. Centreboard, daggerboard trunks and the like shall not open into the interior of a hull except via a watertight maintenance hatch with the opening entirely above the Waterline.
Mo0,1,2,3	3.02.2		Effective 1 January 2022: Structural Inspection - Consult the owner's manual for any instructions for keel bolt checking and re-tightening. The following inspection to be conducted by a qualified person externally with the boat out of the water. Check that there are no visible stress cracks particularly around the keel, hull/keel attachment, hull appendages and other stress points, inside the hull, backing plates, bolting arrangements and keel floors. (See Appendix L - Model Keel and Rudder Inspection Procedure).
Mo0,1,2,3	3.02.3		Effective 1 January 2022: Evidence of a structural inspection in accordance with 3.02.2 within 24 months before the start of the race or after a grounding whichever is the later.
Mo0,1,2,3	3.02.4		Effective 1 January 2022: Inspection after Grounding – an appropriately qualified person shall conduct an internal and external inspection after each unintentional grounding.
	3.03		**Hull Construction Standards (Scantlings)**
Mo0,1,2	3.03.1		If a monohull with a Primary Launch after 2009
Mo0,1,2		a)	less than 24 m (78'-9") LH shall: i) be designed, built and maintained in accordance with the requirements of ISO 12215 Category A
	3.03.1	a)	ii) have a World Sailing/ISAF building plan review certificate issued from a notified body recognized by World Sailing, unless higher classification has been obtained from a Classification Society recognised by World Sailing. World Sailing will publish a list of waived plan review certificates.
Mo0,1,2		b)	24 m (78'-9") LH and greater shall: be designed, built and maintained in accordance with the requirements of a Classification Society recognized by World Sailing
Mo0,1,2		c)	have a Builder's Declaration signed and dated by the builder to confirm the boat is built in accordance with the reviewed plans. In cases when a builder no longer exists, a race organizer or class rules may accept a signed statement by a naval architect or other person familiar with the requirements of above in lieu of the Builder's Declaration, and
Mo0,1,2		d)	have an additional World Sailing/ISAF certificate of building plan review in accordance with a) or b) and c) above for any significant repair of modification to the hull, deck, coachroof, keel or appendages.
MoMu0,1,2	3.03.2		A monohull with Primary Launch between 1987 and 2010, and all multihulls, shall have been designed, built, maintained, modified or repaired in accordance with the requirements of:

Appendix 7.20 World Sailing Offshore Special Regulations

The World Sailing Offshore Special Regulations

Mo0,1,2		a)	OSR 3.03.1, or
Mo0,1,2		b)	the ABS Guide for Building and Classing Offshore Yachts and have on board either an ABS certificate of plan approval, or written statements signed by the designer and builder confirming that they have respectively designed and built the boat in accordance with the ABS Guide, or
MoMu0,1,2		c)	the EC Recreational Craft Directive for Category A having obtained the CE mark, or
MoMu0,1,2		d)	ISO 12215 Category A, with written statements signed by the designer and builder confirming that they have respectively designed and built the boat in accordance with the ISO standard, and
MoMu0,1,2		e)	have written statements or approvals in accordance with a), or b) or c) and d) above for all significant repairs or modifications to the hull, deck, coach roof, keel or appendages, on board, except
MoMu0,1,2		f)	that a race organizer or class rules may accept, when that described in a), b), c), d) or e) above is not available, the signed statement by a naval architect or other person familiar with the standards listed above that the boat fulfils these requirements
	3.04		**Stability - Monohulls**
Mo0,1,2	3.04.1		Able to demonstrate compliance with ISO 12217-2* design category A or higher, either by EC Recreational Craft Directive certification having obtained the CE mark or the designer's declaration
Mo3	3.04.1		Able to demonstrate compliance with ISO 12217-2* design category B or higher, either by EC Recreational Craft Directive certification having obtained the CE mark or the designer's declaration. *The latest effective version of ISO 12217-2 should be used unless the boat was already designed to a previous version
Mo0,1,2,3	3.04.2		Where compliance in accordance with 3.04.1 cannot be demonstrated, able to demonstrate either
Mo0,1,2		a)	i) a STIX value not less than 32; and
Mo0,1,2			ii) AVS not less than 130 - 0.002*m, but always >= 100°, (where "m" is the mass of the boat in the minimum operating condition as defined by ISO 12217-2); and
Mo0,1,2			iii) a minimum righting energy m*AGZ>172000 (where AGZ is the positive area under the righting lever curve in the minimum operating condition, expressed in kg metre degrees from upright to AVS); or
Mo3		a)	i) a STIX value not less than 23; and
Mo3			ii) AVS not less than 130 - 0.005*m, but always >= 95°, (where "m" is the mass of the boat in the minimum operating condition as defined by ISO 12217-2); and
Mo3			iii) a minimum righting energy not less than m*AGZ>57000 (where AGZ is the positive area under the righting lever curve in the minimum operating condition, expressed in kg metre degrees from upright to AVS); or
Mo0		b)	Stability Index in ORC Rating System of not less than 120; or
Mo1		b)	Stability Index in ORC Rating System of not less than 115; or
Mo2		b)	Stability Index in ORC Rating System of not less than 110; or
Mo3		b)	Stability Index in ORC Rating System of not less than 103; or
Mo0,1		c)	IRC SSS Base value of not less than 35
Mo2		c)	IRC SSS Base value of not less than 20
Mo3		c)	IRC SSS Base value of not less than 15
Mo0	3.04.3		Capable of self-righting from an inverted position with or without reasonable intervention from the crew and independent of the condition of the rig.
	3.05		**Stability and Flotation - Multihulls**
Mu0,1,2,3,4	3.05.1		Watertight bulkheads and compartments (which may include permanently installed flotation material) in each hull, to ensure that the boat is effectively unsinkable and capable of floating in a stable position with at least half the length of one hull flooded (see OSR 3.13.2)
Mu0,1,2,3,4	3.05.2		Transverse watertight bulkheads at intervals of not more than 4 m (13'-3") in every hull without accommodation if with a First Launch after 1998
Mu0,1,2,3,4	3.05.3		Designed and built to resist capsize.
	3.06		**Exits - Monohulls**

Appendix 7.20 World Sailing Offshore Special Regulations

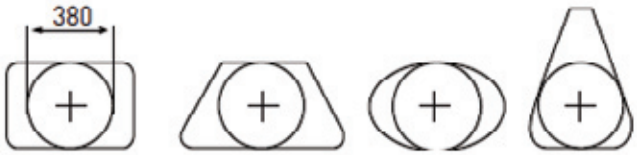


Figure 1 - Measurements of Minimum Clear Opening

Mo0,1,2,3,4	3.06.1		At least two exits if 8.5 m (28') LH and greater and with a Primary Launch after 1994. One exit shall be located forward of the foremost mast except where structural features prevent its installation
Mo0,1,2,3,4	3.06.2		The following minimum clear hatch openings if First Launch after 2013.
Mo0,1,2,3,4		a)	a circular hatch with diameter 450 mm (18"); or
Mo0,1,2,3,4		b)	any other shape with minimum dimension of 380 mm (15") and minimum area of 0.18 m² (1.9 ft²) (see figure 1)
Mo0,1,2,3,4			
	3.07		**Exits and Escape Hatches - Multihulls**
	3.07.1		**Exits**
Mu0,1,2,3	3.07.1		At least two exits in each hull which contains accommodations
Mu4	3.07.1		At least two exits in each hull which contains accommodations if 9 m (26'-3") LH and greater
	3.07.2		Escape Hatches, Underside Clipping Points & Handholds
Mu0,1,2,3,4		a)	If 12 m (39'-4") LH and greater each hull which contains accommodation:
Mu0,1,2,3,4			i) an escape hatch for access to and from the hull in the event of an inversion;
Mu0,1,2,3,4			ii) a minimum clearance diameter through each escape hatch of 450 mm (18") or when an escape hatch is not circular, sufficient clearance to allow a crewmember to pass through fully clothed on boats if First Launch after 2002
Mu0,1,2,3,4			iii) each escape hatch above the waterline when the boat is inverted,
Mu0,1,2,3,4			iv) each escape hatch at or near the midships station if First Launch after 2000
Mu0,1,2,3,4			v) each escape hatch on the side nearest the vessel's central axis for a catamaran if First Launch after 2002
Mu0,1,2,3,4	3.07.2	b)	if a trimaran at least two escape hatches in compliance with the dimensions in OSR 3.07.2 a) ii if 12 m (39'-4") LH and greater if First Launch after 2002
Mu0,1	3.07.2	c)	if a trimaran at least one escape hatch in compliance with the dimensions in OSR 3.07.2 a) ii if less than 12 m (39'-4") LH if First Launch after 2002
Mu0,1,2,3,4		c)	each escape hatch shall have been opened both from inside and outside within 6 months prior to the race
Mu0,1,2,3,4	3.07.2	d)	appropriate handholds/clipping points on the underside sufficient for all crew (on a trimaran these shall be around the central hull)
Mu0,1,2,3,4		e)	a catamaran with a central nacelle first launched after 2002 shall have on the underside around the central nacelle, handholds of sufficient capacity to enable all persons on board to hold on and/or clip on securely
Mu2,3,4	3.07.3		This is replaced by a RORC Prescription: Multihulls shall have escape hatch(es) as detailed in OSR 3.07.2
	3.08		**Hatches & Companionways**
**	3.08.1		Hatch covers forward of the maximum beam station shall not open toward the interior of the boat, except hatches in the side of a coachroof or ports having an area of less than 0.071 m² (110 in²)
**	3.08.2		A hatch, including a hatch over a locker shall be:
**		a)	permanently attached and capable of being firmly shut immediately and remaining firmly shut in a 180° capsize
Mo0,1,2,3,4		b)	above the water when the boat is heeled 90°

Appendix 7.20 World Sailing Offshore Special Regulations

The World Sailing Offshore Special Regulations

Mo0,1,2,3,4			A boat may have a maximum of two hatches on each side of centerline that do not conform to the requirement in b), provided that the opening of each is less than 0.071* m (110 in²)
**	3.08.3		Hatches not conforming with 3.08.1 and 3.082 shall be clearly labelled and used in accordance with the following instruction "NOT TO BE OPENED AT SEA"
**	3.08.4		Companionway hatches:
**		a)	fitted with a strong securing arrangement which shall be operable from the exterior and interior even when the boat is inverted
**		b)	blocking devices:
**			i) capable of being retained in position with the hatch open or shut
Mo0,1,2,3,4	3.08.5		If a monohull with Open Cockpit(s):
Mo0,1,2,3,4	3.08.5	a)	a companionway sill that does not extend below the local sheerline; or
Mo0,1,2,3,4		b)	a companionway in full compliance with ISO 11812 category A
Mo0,1,2,3,4	3.08.6		if a monohull with Contained Cockpit(s) where the companionway extends below the local sheerline, panels capable of blocking the companionway up to the level of the local sheerline whilst giving access to the interior.
Mu0,1,2,3,4	3.08.7		if a multihull with a companionway hatch extending below the local sheerline either:
Mu0.1.2.3.4		a)	have a minimum sill height of 300 mm (12") and be capable of being blocked off up to the level of the local sheerline whilst giving access to the interior with the blocking device(s) in place; or
Mu0,1,2,3		b)	be in compliance with ISO 11812 to design category A
Mu4			be in compliance with ISO 11812 to design category B
	3.09		**Cockpits**
**	3.09.1		Cockpits that self-drain quickly by gravity at all angles of heel and are permanently incorporated as an integral part of the boat
**	3.09.2		A cockpit sole at least 2% LWL above the waterline (or in IMS boats with First Launch before 2003, at least 2% L above the waterline)
**	3.09.3		A bow, lateral, central or stern well is a cockpit for the purposes of OSR 3.09.
**	3.09.4		**Cockpit Volume**
**			The maximum combined volume below lowest coamings of all contained cockpits shall be:
Extract MoMu0,1		a)	primary launch before April 1992: 6% (LWL x maximum beam x freeboard abreast the cockpit)
Extract MoMu2,3,4			primary launch before April 1992: 9% (LWL x maximum beam x freeboard abreast the cockpit)
**		b)	primary launch after March 1992 as above for the appropriate category except that "lowest coamings" shall not include any aft of the FA station and no extension of a cockpit aft of the working deck shall be included in calculation of cockpit volume
	3.09.5		**Cockpit Drains**
**			Cockpit drain cross section area of unobstructed openings (after allowance for screens if fitted) shall be at least that of:
**		a)	2 x 25 mm (1") diameter or equivalent for a boat less than 8.5 m (28') LH
**		b)	4 x 20 mm (3/4") diameter or equivalent for a boat 8.5 m (28') LH or greater
	3.10		**Sea Cocks or Valves**
**	3.10.1		Permanently installed sea cocks or valves on all through-hull openings below the waterline except for integral deck scuppers and instrument through hulls
	3.11		**Sheet Winches**
**			Sheet winches mounted in such a way that an operator is not required to be substantially below deck
	3.12		**Mast Step**
**	3.12.1		The heel of a keel stepped mast securely fastened to the mast step or adjoining structure
	3.13		**Watertight Bulkheads**

Appendix 7.20 World Sailing Offshore Special Regulations

MoOMuO,1,2,3,4	3.13.1		Either a watertight "crash" bulkhead within 15% of LH from the bow and abaft the forward end of LWL, or permanently installed closed-cell foam buoyancy effectively filling the forward 30% LH of the hull
MoOMuO,1,2,3,4	3.13.2		Any required watertight bulkhead to be strongly built to take a full head of water pressure without allowing any leakage into the adjacent compartment
MoO	3.13.3		At least two watertight transverse main bulkheads in addition to any bulkheads positioned within the forward and aft 15% of LH
MoO	3.13.4		Outside deck access for inspection and pumping shall be provided to every watertight compartment terminated by a hull section bulkhead, except that deck access to extreme end "crash" compartments is not required
MoO	3.13.5		An access hatch in every required watertight bulkhead (except a "crash" bulkhead). The access hatch shall have means of watertight closure permanently attached to the main panel, or lid, or cover of the hatch. The closure shall not require tools to operate.
	3.14		**Pulpits, Stanchions, Lifelines**
**	3.14.1		The perimeter of the deck surrounded by system of lifelines and pulpits as follows:
**		a)	Continuous lifelines fixed only at (or near) the bow and stern. However a gate on each side of a boat is permitted. Except at its end fittings and at gates, the movement of a lifeline in a fore-and-aft direction shall not be constrained. Temporary sleeving shall not modify tension in the lifeline
**		b)	Minimum heights of lifelines and pulpit rails above the working deck and vertical openings:
**			i) upper: 600 mm (24")
**			ii) intermediate: 230 mm (9")
**			iii) vertical opening: no greater than 380 mm (15") except that on a boat with a Primary Launch before 1993 where it shall be no greater than 560 mm (22")
MoMu3,4			iv) a boat less than 8.5 m (28') LH may use a single lifeline system with a height between 450 mm (18") and 560 mm (22")
**		c)	Lifelines permanently supported at intervals of not more than 2.2 m (7' 2 1/2") and shall not pass outboard of supporting stanchions
**		d)	Pulpit and stanchion bases permanently installed with pulpits and stanchions mechanically retained in their bases
**		e)	The outside of pulpit and stanchion base tubes no further inboard from the edge of the working deck than 5% of maximum beam or 150 mm (6"), whichever is greater, nor further outboard than the edge of the working deck
**		f)	Stanchions straight and vertical except that:
**			i) within the first 50 mm (2") from the deck, stanchions shall not be displaced horizontally from the point at which they emerge from the deck or stanchion base by more than 10 mm (3/8")
**			ii) stanchions may be angled to not more than 10° from vertical at any point above 50 mm (2") from the deck
**		g)	A bow pulpit may be open provided the opening between the pulpit and any part of the boat does not exceed 360 mm (14")
**			

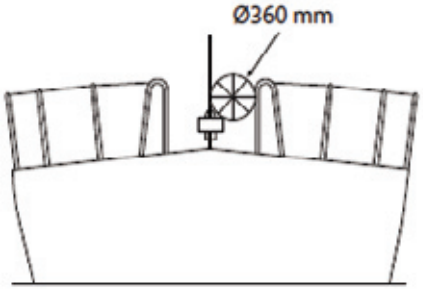


Figure 2 - Diagram Showing Pulpit Opening

Appendix 7.20 World Sailing Offshore Special Regulations

The World Sailing Offshore Special Regulations

**		h)	Lifelines may terminate at or pass through adequately braced stanchions set inside and overlapping the bow pulpit
**		i)	When a deflecting force of 4 kg (8.8 #) is applied to a lifeline at the mid-point of the longest span between supports that are aft of the mast, the deflection shall not exceed:
**			i) 50 mm (2") for an upper or single lifeline
**			ii) 120 mm (4.7") for an intermediate lifeline
Mu0,1,2,3,4	3.14.2		**Special Requirements for Pulpits, Stanchions, Lifelines on Multihulls**
Mu0,1,2,3,4			When on a boat it is impractical to precisely follow OSR regarding pulpits, stanchions, lifelines, the regulations for monohulls shall be followed as closely as possible
	3.14.3		Spare number
	3.14.4		Spare number
	3.14.5		Spare number
	3.14.6		**Lifeline Specifications**
Mo0,1,2,3	3.14.6	a)	Lifelines of stranded stainless steel wire
Mo4,Mu**	3.14.6	a)	Lifelines of either:
Mo4,Mu**	3.14.6	a)	i) stranded stainless steel wire
	3.14.6	a)	ii) HMPE
**	3.14.6	b)	The minimum diameter is specified in table 8 below
**	3.14.6	c)	Stainless steel lifelines shall be uncoated and used without close-fitting sleeving, however, temporary sleeving may be fitted provided it is regularly removed for inspection
**	3.14.6	d)	A lanyard of synthetic rope may be used to secure lifelines provided the gap it closes does not exceed 100 mm (4"). This lanyard shall be replaced annually
**	3.14.6	e)	All components of the lifeline enclosure system shall have a breaking strength no less than the lifeline
Mo4,Mu**	3.14.6	f)	When HMPE is used, it shall be protected from chafe and spliced in accordance with the manufacturer's recommended procedures

LH	wire	HMPE rope (Single braid)	HMPE Core (Braid on braid)
under 8.5m (28ft)	3mm (1/8 in)	4mm (5/32 in)	4mm (5/32 in)
8.5m - 13m	4mm (5/32 in)	5mm (3/16 in)	5mm (3/16 in)
over 13m (42 ft 8 in)	5mm (3/16 in)	5mm (3/16 in)	5mm (3/16 in)

	3.15		**Multihull Nets or Trampolines**
Mu0,1,2,3,4	3.15.1		The words "net" and "trampoline" are interchangeable. A net shall be:
Mu0,1,2,3,4	3.15.1	a)	essentially horizontal
Mu0,1,2,3,4	3.15.1	b)	made from durable woven webbing, water permeable fabric, or mesh with openings not larger than 5 cm (2") in any dimension. Attachment points shall be planned to avoid chafe. The junction between a net and a boat shall present no risk of foot trapping
Mu0,1,2,3,4	3.15.1	c)	solidly fixed at regular intervals on transverse and longitudinal support lines and shall be fine-stitched to a bolt rope
Mu0,1,2,3,4	3.15.1	d)	able to carry the full weight of the crew either in normal working conditions at sea or in case of capsize when the boat is inverted
	3.15.2		**Trimarans with Double Crossbeams**
	3.15.2		A trimaran with double crossbeams shall have nets on each side covering:
Mu0,1,2,3,4	3.15.2	a)	the area formed by the crossbeams, central hull and outriggers
	3.15.2	b)	the triangles formed by the aft end of the central pulpit, the mid-point of each forward crossbeam, and the intersection of the crossbeam and the central hull
	3.15.2	c)	the triangles formed by the aftermost part of the cockpit or steering position (whichever is furthest aft), the mid-point of each after crossbeam, and the intersection of the crossbeam and the central hull; except that:-

Appendix 7.20 World Sailing Offshore Special Regulations

	3.15.2	d)	OSR 3.15.2(c) is not a requirement when cockpit coamings and/or lifelines are present which comply with the minimum height requirements in OSR 3.14
	3.15.3		**Trimarans with Single Crossbeams**
Mu0,1,2,3,4			A trimaran with a single crossbeam shall have nets between the central hull and each outrigger on each side between two straight lines from the intersection of the crossbeam and the outrigger, respectively to the aft end of the pulpit on the central hull, and to the aftermost point of the cockpit or steering position on the central hull (whichever is furthest aft)
	3.16		**Catamarans**
Mu0,1,2,3,4	3.16		A catamaran shall have nets covering the area defined:
Mu0,1,2,3,4	3.16	a)	laterally by the hulls; and
Mu0,1,2,3,4	3.16	b)	longitudinally by transverse stations through the forestay base, and the aftermost point of the boom lying fore and aft. However, a catamaran with a central nacelle (non-immersed) may satisfy the regulations for a trimaran
	3.17		**Toe Rail or Foot - Stop**
Mo0,1,2,3	3.17.1		Permanently installed toe rail of minimum height 25 mm (1"), located as close as practicable to the stanchion bases, around the foredeck from abreast the mast
Mo0,1,2,3	3.17.2		An additional lifeline of between 25-50 mm (1-2") high is permitted in lieu of a toe rail on a boat with Primary Launch before 1984
	3.18		**Toilet**
MoMu0,1,2	3.18.1		Permanently installed toilet
MoMu3,4	3.18.2		Permanently installed toilet or fitted bucket
	3.19		**Bunks**
MoMu0	3.19.1		Permanently installed bunk for each crewmember
MoMu1,2,3,4	3.19.2		Permanently installed bunks
	3.20		**Cooking Facilities**
MoMu0,1,2,3	3.20.1		Permanently installed cooking stove, capable of being operated safely at sea, with fuel shutoff control
	3.21		**Drinking Water Tanks & Drinking Water**
	3.21.1		**Drinking Water Tanks**
MoMu0	3.21.1		Permanently installed delivery pump and water tanks dividing the water supply into at least three compartments
MoMu1	3.21.1		Permanently installed delivery pump and water tanks dividing the water supply into at least two compartments
MoMu2,3	3.21.1		Permanently installed delivery pump and water tank(s)
	3.21.2		**Drinking Water**
MoMu0	3.21.2		Equipment (which may include watermakers and tanks containing water) permanently installed to provide at least 3 l (0.8 US Gal) of drinking water per person per day for the likely duration of the voyage
	3.21.3		**Emergency Drinking Water**
MoMu1,2,3	3.21.3		At least 9 l (2.4 US Gal) of drinking water for emergency use in a dedicated and sealed container or container(s)
MoMu0	3.21.3	a)	in the absence of a power driven watermaker, at least 1 l (0.26 US Gal) per person per day in at least two separate containers shall be provided for the expected duration of the voyage
MoMu0	3.21.3	b)	when a power-driven watermaker is on board, at least 500 ml (0.13 US Gal) per person per day in at least two separate containers shall be provided for the expected duration of the voyage
MoMu0	3.21.3	c)	facilities shall be provided to collect rainwater for drinking purposes including when dismasted
	3.22		**Hand Holds**
**	3.22.1		Adequate hand holds fitted below deck
	3.23		**Bilge Pumps and Buckets**
**	3.23.1	a)	two strong buckets, each with a lanyard and of at least 9 l (2.4 US Gal) capacity
Mo0,1,2	3.23.1	b)	two permanently installed manual bilge pumps, one operable from above, the other from below deck

Appendix 7.20 World Sailing Offshore Special Regulations

The World Sailing Offshore Special Regulations

Mo3Mu0,1,2	3.23.1	b)	one permanently installed manual bilge pump
Mo4	3.23.1	b)	one manual bilge pump
Mu0,1,2,3,4	3.23.1	c)	provision to pump out all watertight compartments (except those filled with impermeable buoyancy)
**	3.23.2		All required permanently installed bilge pumps shall be operable with all cockpit seats, hatches and companionways shut and with permanently installed discharge pipe(s) of sufficient capacity
**	3.23.3		Bilge pumps shall not be connected to cockpit drains and shall not discharge into a Closed Cockpit
**	3.23.4		Bilge pumps shall be readily accessible for maintenance and for clearing out debris
**	3.23.5		All removable bilge pump handles retained by a lanyard
	3.24		**Compass**
MoMu0,1,2,3	3.24		Marine magnetic compass capable of being used as a steering compass:
MoMu0,1,2,3,4	3.24	a)	Permanently installed marine magnetic steering compass, independent of any power supply, correctly adjusted with deviation card
MoMu0,1,2,3	3.24	b)	a second compass which may be hand held and/or electronic
	3.25		**Halyards**
**	3.25	a)	A minimum of two halyards, each capable of hoisting a sail, on each mast
MoMu0,1,2,3	3.25	b)	No halyard shall be locked, lashed or otherwise secured to the mast in a way that requires a person to go aloft in order to lower a sail in a controlled manner, except for a headsail in use with a furling device
	3.26		**Bow Fairlead**
Mo0	3.26		Bow fairlead, closed or closable and a cleat or securing arrangement, suitable for towing, permanently installed
	3.27		**Navigation Lights**
	3.27.1		that conform to the International Regulations for Preventing Collisions at Sea (Part C and Technical Annex I) and shall be exhibited as required by those regulations.
**	3.27.2		mounted above sheerline and so that they will not be masked by sails or the heeling of the boat
MoMu0,1,2,3	3.27.3		reserve lights having the same specifications as above, and that can be powered independently
**	3.27.4		spare bulbs (not required for LED)
	3.28		**Engines, Generators, Fuel**
	3.28.1		**Propulsion Engines**
**	3.28.1	a)	engines and associated systems installed in accordance with their manufacturers' guidelines and suitable for the size and intended use of the boat
MoMu0,1,2,3	3.28.1	b)	an engine which provides a minimum speed in knots of (1.8 x WLWL in metres) or (W LWL in feet)
Mo0,1,2Mu0	3.28.1	c)	inboard engine
Mu1,2,3	3.28.1	c)	inboard engine, however if less than 12.0 m (39'-4") LH either an inboard engine, or an outboard engine together with permanently installed power supply systems
Mo3	3.28.1	c)	either an inboard or outboard engine, with associated power supply systems, all securely fastened
**	3.28.1	d)	an inboard combustion engine shall have a permanently installed exhaust, cooling system, fuel supply, fuel tank(s) and shall have adequate heavy weather protection
**	3.28.1	e)	an inboard electrical engine, when fitted, shall be provided with a permanently installed power supply, adequate heavy weather protection and have an engine control system.
	3.28.2		**Generator**
**	3.28.2		If an optional generator separate from the propulsion engine is carried, it shall be installed in accordance with the manufacturer's guidelines
	3.28.3		**Liquid Fuel Systems**
MoMu0,1,2,3	3.28.3	a)	All fuel tanks for storage of liquid fuels shall be rigid (but may have permanently installed flexible linings) and shall have a shutoff valve

Appendix 7.20 World Sailing Offshore Special Regulations

MoMu0,1,2,3	3.28.3	b)	At the start a boat with a combustion engine shall carry sufficient fuel to meet charging requirements for the duration of the race and to motor at the above minimum speed for at least 5 hours
	3.28.4		**Battery Systems**
MoMu0,1,2,3	3.28.4	a)	a dedicated engine/generator starting battery when an electric starter is the only method for starting the engine and/or separate generator
**	3.28.4	b)	batteries installed after 2011 shall be of the sealed type from which liquid electrolyte cannot escape
**	3.28.4	c)	At the start a boat with an electric engine shall carry sufficient capacity to meet electrical requirements for the duration of the race and to motor at the above minimum speed for at least 5 hours
	3.29		**Communications Equipment, GPS, Radar, AIS**
MoMu0,1,2,3	3.29.01		a marine radio transceiver with an emergency antenna when the regular antenna depends upon the mast
MoMu0,1,2,3	3.29.02		If the marine radio transceiver is a VHF:
MoMu0,1,2,3	3.29.02	a)	a minimum rated output power of 25 W
MoMu0,1,2	3.29.02	b)	a masthead antenna not less than 38 cm (15") in length and co-axial feeder cable with not more than 40% power loss
MoMu3	3.29.02	b)	a masthead antenna and co-axial feeder cable with not more than 40% power loss
MoMu1,2,3	3.29.02	c)	be DSC capable if installed after 2015
MoMu1,2,3	3.29.02	d)	(unique to the boat), be connected to a GPS receiver and be capable of making distress alert calls as well as sending and receiving a DSC position report with another DSC equipped station
MoMu0	3.29.02	e)	a marine VHF DSC radio covering all international and US marine channels and meeting ITU class D
MoMu0	3.29.03	a)	at least two hand-held satellite telephones, watertight or with waterproof covers and internal batteries. When not in use each to be stowed in a grab bag (see OSR 4.21)
MoMu1	3.29.03	b)	One hand-held satellite telephone, watertight or with waterproof cover and internal battery
MoMu0	3.29.04		at least two hand-held marine VHF transceivers each with min 5 W output power, watertight or with waterproof covers. When not in use to be stowed in a grab bag (see OSR 4.21)
MoMu1,2,3,4	3.29.05		a hand-held marine VHF transceiver, watertight or with a waterproof cover. When not in use to be stowed in a grab bag or emergency container (see OSR 4.21)
**	3.29.06		a second radio receiver, which may be the handheld VHF in 3.29.5 above, capable of receiving weather bulletins
MoMu0	3.29.07		a direction finding radio receiver operating on 121.5 MHz to take a bearing on a PLB or EPIRB, or an alternative device for crew overboard location when each crew member has an appropriate personal unit (see OSR 5.07);
MoMu3	3.29.08		a GPS
MoMu0	3.29.09		a Standard C satellite terminal (GMDSS) shall be permanently installed and permanently powered up for the duration of the race and for which the race committee shall have polling authority
MoMu0	3.29.10		an MF/HF marine SSB transceiver (GMDSS/DSC) with at least 125 W transmitter power and frequency range from at least 1.6 to 29.9 MHz with permanently installed antenna and earth
MoMu0	3.29.11		an active radar set permanently installed either:
MoMu0	3.29.11	a)	a pulse (magnetron) unit with not less than 4 kW PEP and an antenna unit with a maximum dimension not less than 533 mm; or
MoMu0	3.29.11	b)	a frequency modulated continuous wave (FMCW) Broadband Radar™ unit. The radar antenna unit shall remain essentially horizontal when the boat is heeled and at least 7 m (23') above the water. Installations in place before January 2006 shall comply as closely as possible with OSR 3.29.11 a)
Mu0	3.29.12		a class A AIS Transponder which either:
Mo0,1,2,3 Mu1,2,3	3.29.13		an AIS Transponder which either:
MoMu0,1,2,3	3.29.13	a)	shares the masthead VHF antenna via a low loss AIS antenna splitter; or

Appendix 7.20 World Sailing Offshore Special Regulations

The World Sailing Offshore Special Regulations

MoMu0,1,2,3	3.29.13	b)	has a dedicated AIS antenna not less than 38 cm (15") in length mounted with its base not less than 3 m (10') above the Waterline and co-axial feeder cable with not more than 40% power loss

SECTION 4 - PORTABLE EQUIPMENT

A boat shall have:

	4.01		**Sail Letters & Numbers**
**	4.01.1		Identification on sails which complies with RRS 77 and RRS Appendix G
MoMu0,1,2,3	4.01.2		RORC Prescription: OSR 4.01.2 is amended to read: After the start when sail numbers are not displayed elsewhere (sails down) they shall be displayed on the port quarter. It is particularly important that all vessels can be easily identified so that they can be excluded from any search and rescue operation.
	4.02		**Search and Rescue Visibility**
MoMu0	4.02.1		A 4 m² (43 ft²) area of highly-visible pink, orange or yellow on the coachroof and/or deck
Mo1,Mu1,2	4.02.1		A 1 m² (11 ft²) solid area of highly visible pink, orange or yellow capable of being displayed on the coachroof and/or deck
Mu0,1,2,3,4	4.02.2		A 1 m² (11 ft²) area of highly visible pink, orange or yellow showing when the boat is inverted
	4.04		**Soft Wood Plugs**
**	4.03.1		A tapered soft wood plug stowed adjacent to every through-hull opening
	4.04		**Jackstays and Clipping Points**
MoMu0,1,2,3	4.04		Permanently installed fittings for jackstay ends and clipping points
MoMu0,1,2,3	4.04.1		Jackstays which shall:
MoMu0,1,2,3	4.04.1	a)	be independent on each side of the deck
MoMu0,1,2,3	4.04.1	b)	enable a crewmember to move readily between the working areas on deck and the cockpit(s) with the minimum of clipping and unclipping operations
MoMu0,1,2,3	4.04.1	c)	have a breaking strength of 2040 kg (4500#) and be uncoated and nonsleeved stainless steel 1 x 19 wire of minimum diameter 5 mm (3/16"), webbing or HMPE rope
MoMu0,1,2,3	4.04.2		Clipping points which shall:
MoMu0,1,2,3	4.04.2	a)	be adjacent to stations such as the helm, sheet winches and masts, where crewmembers work
MoMu0,1,2,3	4.04.2	b)	enable a crewmember to clip on before coming on deck and unclip after going below
MoMu0,1,2,3	4.04.2	c)	enable two-thirds of the crew to be simultaneously clipped on without depending on jackstays
Mu0,1,2,3	4.04.2	d)	on a trimaran with a rudder on the outrigger, permit a crewmember to repair the steering mechanism whilst attached to a clipping point
	4.05		**Fire Fighting Equipment**
**	4.05.1		A fire blanket adjacent to every cooking device with an open flame
MoMu0	4.05.2		3 fire extinguishers, each with 2 kg of dry powder or equivalent, in different parts of the boat, one system of which is to deal with fire in a machinery space
MoMu1,2,3	4.05.2		2 fire extinguishers, each with 2 kg each of dry powder or equivalent, in different parts of the boat
MoMu4	4.05.2		2 fire extinguishers in different parts of the boat
	4.06		**Anchors**
MoMu0	4.06		Anchors, chain and rope which comply with relevant class rules or the rules of a recognised Classification Society (e.g. Lloyd's, DNV, etc.)
MoMu1,2,3	4.06		2 unmodified anchors that meet the anchor manufacturer's recommendation based on the boat's dimensions with suitable combination of chain and rope, ready for immediate assembly, and ready for deployment within 5 minutes except that for a boat less than 8.5 m (28') LH there shall be 1 anchor meeting the same criteria
MoMu4	4.06		1 unmodified anchor that meets the anchor manufacturer's recommendation based on the boat's dimensions with suitable combination of chain and rope, ready for immediate assembly, and ready for deployment within 5 minutes.

Appendix 7.20 World Sailing Offshore Special Regulations

	4.07		**Flashlights and Searchlights**
**	4.07		Watertight lights with spare batteries and bulbs as follows:
MoMu0,1,2,3	4.07	a)	a searchlight, suitable for searching for a person overboard at night and for collision avoidance
MoMu0,1,2,3	4.07	b)	a flashlight in addition to 4.07 a)
Mu3,4	4.07	c)	the watertight flashlight in OSR 4.07 b) shall be stowed in the grab bag or emergency container
MoMu0	4.07	d)	a high-intensity heavy duty searchlight powered by the boat's batteries, instantly available for use on deck and in the cockpit
MoMu0,1,2,3	4.07	e)	RORC Prescription: a floating waterproof torch for use in the event of man overboard at night, which can be thrown into the sea as a marker.
	4.08		**First Aid Manual and First Aid Kit**
**	4.08.1		A First Aid Manual and First Aid Kit. The contents and storage of the First Aid Kit shall reflect the likely conditions and duration of the passage, and the number of crew
	4.09		**Foghorn**
**	4.09.1		A foghorn
	4.10		**Radar Reflector**
**	4.10.1		A passive radar reflector with:
**	4.10.1	a)	octahedral circular plates of minimum diameter 30 cm (12"), or
**	4.10.1	b)	octahedral rectangular plates of minimum diagonal dimension 40 cm (16"), or
**	4.10.1	c)	a non-octahedral reflector with a documented Root Mean Square minimum Radar Cross Section (RCS) area of 2 m² (22 ft²) from 0-360° of azimuth and ±20° of heel
MoMu0	4.10.2		A Radar Target Enhancer (RTE) which complies with ISO 8729-2:2009 or equivalent
	4.11		**Navigation Equipment**
**	4.11.1		Navigational charts (not solely electronic), light list and chart plotting equipment
	4.12		**Safety Equipment Location Chart**
**	4.12.1		A safety equipment location diagram in durable waterproof material, clearly displayed in the main accommodation, marked with the location of principal items of safety equipment
	4.13		**Depth, Speed and Distance Instruments**
MoMu0,1,2,3	4.13.1		A knotmeter or distance measuring instrument (log)
MoMu,1,2,3,4	4.13.2		A depth sounder
MoMu0	4.13.2		Two independent depth sounders
	4.14		**Spare Number**
	4.15		**Emergency Steering**
MoMu0,1,2,3	4.15.1		An emergency tiller capable of being fitted to the rudder stock except when
MoMu0,1,2,3	4.15.1	a)	the principal method of steering is by means of an unbreakable metal tiller
MoMu0,1,2,3	4.15.	b)	there are two methods (e.g. tillers, wheels) of controlling a rudder, neither of which shares components with the other except for the rudder stock
MoMu0,1,2,3	4.15.2		A proven method of emergency steering with the rudder disabled
	4.16		**Tools and Spare Parts**
**	4.16.1		Tools and spare parts, suitable for the duration and nature of the passage
**	4.16.2		An effective means to quickly disconnect or sever the standing rigging from the boat
	4.17		**Boat's name**
**	4.17.1		The boat's name on miscellaneous buoyant equipment, such as lifejackets, cushions, lifebuoys, recovery slings, grab bags etc.
	4.18		**Retro-reflective material**
**	4.18		Marine grade retro-reflective material on lifebuoys, recovery slings, liferafts and lifejackets

Appendix 7.20 World Sailing Offshore Special Regulations

The World Sailing Offshore Special Regulations

	Equipment	Pack 1 > 24h	Pack 2 < 24h	In liferaft	In liferaft or in grab bag
	Portable buoyant baler easily operable by hand	1	1	X	
	Sponge	2	2	X	
	Pair of buoyant paddles with handles (not mitts) tied into raft adjacent to an entrance	1	1	X	
	First-Aid Kit including at least 2 tubes of sunscreen. All dressings must be capable of being effectively used in wet conditions. The first aid kit shall be clearly marked and shall be re-sealable.	1	0		X
	Whistle	1	1	X	
	Waterproof torch with 6 h duration and separate battery and bulb or complementary torch	2	1	X	
	Signalling mirror	1	1	X	
	Anti-seasickness pills, per person	6	6		X
	Seasickness bag with simple effective closure system, per person	1	1		X
	Red hand flares in accordance with SOLAS LSA Code Chapter III, 3.2	6	3	3 min	X
	Red parachute flares in accordance with SOLAS LSA Code Chapter III, 3.1	2	2	1 min	X
	Thermal protective aids in accordance with SOLAS LSA Code Chapter III, 2.5	2	0		X
	Repair outfit to enable survivors to repair leaks in any or all of the inflatable compartments. Repair systems must work when wet and be capable of being applied during violent motion.	1	1	X	
	Air pump or bellows which shall be simple, robust and complete, with all necessary connections (loose parts shall be captive to the main apparatus) ready for instant use to enable air to be pumped into any or all of the inflatable compartments. The air pump or bellows shall be designed and built specifically for easy operation by hand	1	1	X	
	Drinking water per person, in containers of each not more than 500mL	1.5L	0	1.5L	Xa
	Food per person	10,000 kj	0		X

	4.19		**EPIRBs**
MoMu0	4.19.1		Two water and manually activated 406 MHz EPIRBs
MuMu1,2	4.19.1		A water and manually activated 406 MHz EPIRB
MoMu0,1,2	4.19.2		A 406 MHz EPIRB registered after 2015 shall include an internal GPS
MoMu0,1,2	4.19.3		All EPIRBs registered with the appropriate authority associated with the country code in the hexadecimal identification (15 Hex ID) of the beacon. A beacon can be registered online with the Cospas-Sarsat IBRD if the country does not provide a registration facility and the country has allowed direct registration in the IBRD
	4.20		**Liferafts**
	4.20.1		**Liferaft Construction**
MoMu1,2	4.20.1	a)	One or more inflatable liferafts with a total capacity to accommodate at least the total number of people on board which complies with:
MoMu1,2	4.20.1	a)	i) SOLAS LSA Code 1997 Chapter IV or later version; or
MoMu1,2	4.20.1	a)	ii) ISO 9650-1:2005, Type 1, Group A - Small Craft - Inflatable; or
MoMu1,2	4.20.1	a)	iii) ISAF liferafts manufactured before 2016 until replacement is due at end of service life; or
MoMu1,2	4.20.1	a)	iv) ORC liferafts manufactured before 2003 until replacement is due at end of service life

Appendix 7.20 World Sailing Offshore Special Regulations

MoMu0	4.20.1	b)	A sufficient number of liferafts so that in the event of any one liferaft being lost or rendered unserviceable, sufficient aggregate capacity remains for all crewmembers
MoMu0	4.20.1	c)	Liferafts shall comply with SOLAS LSA code 1997 Chapter IV or later version
	4.20.2		**Minimum Liferaft Equipment**
MoMu0,1,2	4.20.2	a)	A SOLAS liferaft shall contain as a minimum a SOLAS A pack:
MuMo1	4.20.2	b)	An ISO 9650 liferaft shall contain as a minimum Pack 1 (greater than 24 hour pack);
MuMo2	4.20.2	c)	An ISO 9650 liferaft shall contain as a minimum Pack 2 (less than 24 hour pack);
MoMu1,2	4.20.2	d)	The minimum contents of the ISO liferaft equipment packs are listed below. Not all items are necessarily packed within the liferaft. Some items are permitted to be carried within an accompanying waterproof grab bag which shall be in a readily accessible location:
	*Drinking water in the grab bag (if any) may be replaced with a desalinator device		
	4.20.3		**Liferaft Packing and Stowage**
MoMu0,1,2	4.20.3	a)	Each liferaft shall be packed either in:-
MoMu0,1,2	4.20.3	a)	i) a rigid container securely stowed on the working deck, in the cockpit or in an open space; or:-
MoMu0,1,2	4.20.3	a)	ii) a rigid container or valise securely stowed in a dedicated weather tight locker containing liferaft and abandon ship equipment only which is readily accessible and opens onto the cockpit or working deck, or transom
MoMu1,2	4.20.3	b)	In a boat with primary launch before June 2001, a liferaft may be packed in a valise not exceeding 40 kg securely stowed below deck adjacent to a companionway
MoMu0,1,2	4.20.3	c)	On a multihull or on a monohull with moveable ballast the liferaft shall be readily deployable whether or not the boat is inverted
MoMu0,1,2	4.20.3	d)	The end of each liferaft painter should be securely fastened to the boat
MoMu0,1,2	4.20.3	e)	Each raft shall be capable of being got to the lifelines or launched within 15 seconds
	4.20.4		Spare Number
MoMu0,1,2	4.20.5		**Liferaft Servicing**
MoMu0,1,2	4.20.5	a)	A liferaft shall be serviced at a manufacturer authorized service station at the following maximum intervals:
MoMu0,1,2	4.20.5	a)	i) SOLAS liferafts annually
MoMu0,1,2	4.20.5	a)	ii) ISO 9650 canister packed liferafts every 3 years
MoMu0,1,2	4.20.5	a)	iii) ISO 9650 valise packed liferafts every 3 years except that hired liferafts shall be serviced annually
MoMu0,1,2	4.20.5	a)	iv) ISAF liferafts annually
MoMu0,1,2	4.20.5	a)	v) ORC liferafts annually
MoMu0,1,2	4.20.5	b)	Servicing certificates (original or a copy) on board
	4.21		**Grab Bags**
Mo3Mu3,4	4.21		Either a watertight compartment or a grab bag, readily accessible whether or not the boat is inverted, with the following minimum contents.
Mo3Mu3,4	4.21	a)	a watertight hand-held marine VHF transceiver with spare batteries
Mo3Mu3,4	4.21	b)	a watertight flashlight with spare batteries and bulb
Mo3Mu3,4	4.21	c)	3 red hand flares
Mo3Mu3,4	4.21	d)	a watertight strobe light with spare batteries
Mo3Mu3,4	4.21	e)	a knife
**	4.21	f)	If a grab bag is provided it shall have inherent flotation, at least 0.1 m³ (1 ft³) area of fluorescent orange colour on the outside, shall be marked with the name of the boat, and shall have a lanyard and clip
	4.22		**Crew Overboard Identification and Recovery**
	4.22.1		**Locator Beacons**
MoMu0	4.22.1	a)	A PLB (Personal Locator Beacon) equipped with 406Mhz and 121.5Mhz for each crew member
MoMu0,1,2	4.22.1	b)	An AIS personal crew overboard beacon for each crew member

Appendix 7.20 World Sailing Offshore Special Regulations

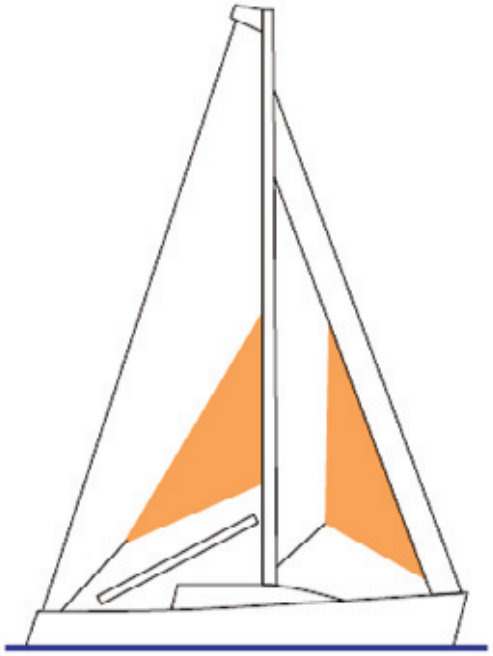
The World Sailing Offshore Special Regulations

MoMu0	4.22.1	c)	A personal unit in addition to the PLB in OSR 4.22.1 b) if the location device carried by the boat in accordance with OSR 3.29.07 requires it;
MoMu0,1,2	4.22.1	d)	Where possible every PLB shall be registered with the appropriate authority associated with the country code in the hexadecimal identification (15 Hex ID) of the beacon. A beacon can be registered online with the Cospas-Sarsat IRRD if the country does not provide a registration facility and the country has allowed direct registration in the IDRD
	4.22.2		GPS Crew Overboard Position
MoMu0	4.22.2	a)	A GPS capable of recording a crew overboard position, within 10 seconds, and monitoring that position, and
MoMu0	4.22.2	b)	connected to an emergency button immediately accessible to a helmsman which will sound an audible alarm in the accommodation and simultaneously send an appropriate signal to the GPS
MoMu1,2	4.22.2	c)	A GPS capable of recording a crew overboard position, within 10 seconds, and monitoring that position
MoMu3,4	4.22.3		a lifebuoy with a self-igniting light, a whistle and a drogue within reach of the helmsman and ready for immediate use
MoMu0,1,2	4.22.3		a lifebuoy with a self-igniting light, a whistle and a drogue
MoMu0,1,2	4.22.4		In addition to 4.22.3 above, within reach of the helmsman and ready for immediate use, a second lifebuoy equipped with:
MoMu0,1,2	4.22.4	a)	a whistle, a drogue, a self-igniting light and
MoMu0,1,2	4.22.4	b)	a pole and flag. The pole shall be either permanently extended or be capable of being fully automatically extended
MoMu0	4.22.4	c)	Each lifebuoy shall be equipped with a sachet of fluorescein dye
MoMu0,1,2	4.22.5		At least one lifebuoy shall depend entirely on permanent buoyancy (e.g. foam)
**	4.22.6		Each inflatable lifebuoy and any automatic device shall be tested and serviced at intervals in accordance with its manufacturer's instructions
**	4.22.7		A heaving line, no less than 6 mm (1/4")diameter, 15 - 25 m (50 - 75') long, readily accessible to cockpit
MoMu0,1,2,3	4.22.8		A recovery sling which includes a:
MoMu0,1,2,3	4.22.8	a)	buoyant line of length no less than the shorter of 4 times LH or 36m (120')
MoMu0,1,2,3	4.22.8	b)	buoyancy section (horseshoe) with no less than 90 N (20#) buoyancy
MoMu0,1,2,3	4.22.8	c)	minimum strength capable to hoist a crewmember aboard
	4.23		**Pyrotechnic and Light Signals**
**	4.23.1		Pyrotechnic signals shall be provided conforming to SOLAS LSA Code Chapter III Visual Signals and not older than the stamped expiry date (if any) or if no expiry date stamped , not older than 4 years.

Race Category	Red Hand Flares LSA III 3.2	Orange Smoke LSA III 3.3
MoMu0,1,2,3	4	2
MoMu4		2

	4.24		Spare Number
	4.25		**Cockpit Knife**
**	4.25.1		strong, sharp knife, sheathed and securely restrained shall be provided readily accessible from the deck or a cockpit
	4.26		**Storm & Heavy Weather Sails**
	4.26.1		**Design**
MoMu1,2			
**	4.26.1	a)	The material of the body of a storm sail purchased after 2013 shall have a highly-visible colour (e.g. dayglo pink, orange or yellow)
**	4.26.1	b)	Aromatic polyamides, carbon and similar fibres shall not be used in a trysail or storm jib but HMPE and similar materials are permitted

Appendix 7.20 World Sailing Offshore Special Regulations



**	4.26.1	c)	Sheeting positions on deck for each storm and heavy weather sail
**	4.26.1	d)	Sheeting positions for the trysail independent of the boom
	4.26.2		**Sail Areas**
**	4.26.2		The maximum area of storm and heavy weather sails shall be lesser of the areas below or as specified by the boat designer or sailmaker.
MoMu0,1,2,3	4.26.2	a)	**A heavy-weather jib (or heavy-weather sail in a boat with no forestay) with:**
**	4.26.2	a)	i) area of 13.5% height of the foretriangle squared
**	4.26.2	a)	ii) readily available means, independent of a luff groove, to attach to the stay
MoMu0,1,2	4.26.2	b)	**A storm jib with:**
MoMu0,1,2	4.26.2	b)	i) area of 5% height of the foretriangle squared
MoMu0,1,2	4.26.2	b)	i) area of 13.5% height of the foretriangle squared
MoMu0,1,2	4.26.2	b)	ii) permanently attached means, independent of a luff groove, to attach to the stay
**	4.26.2	c)	For sails made after 2011: Storm and heavy weather jib areas calculated as: (0.255 x luff length x (luff perpendicular + 2 x half width))
MoMu0,1,2	4.26.2	d)	A storm trysail with:
MoMu0,1,2	4.26.2	d)	i) area of 17.5% mainsail hoist (P) x mainsail foot length (E)
MoMu0,1,2	4.26.2	d)	ii) For sails made after 2011:The storm trysail are calculated as (0.5 x leech length x shortest distance between tack point and leech)
MoMu0,1,2	4.26.2	d)	iii) no headboard
MoMu0,1,2	4.26.2	d)	iv) no battens
MoMu0,1,2	4.26.2	d)	v) sail number and letters on both sides, as large as practicable

Appendix 7.20 World Sailing Offshore Special Regulations

The World Sailing Offshore Special Regulations

MoMu0,1,2	4.26.2	d)	vi) in the case of a boat with an in mast furling mainsail, the storm trysail shall be capable of being set while the mainsail is furled
	4.26.3		**Sail Inventory**
MoMu1,2	4.26.3	e)	i) either a storm trysail as defined in OSR 4.26.2 d), or mainsail reefing to reduce the luff by at least 50% (or rotating wing mast if suitable)
MoMu3	4.26.3	e)	ii) either a storm trysail as defined in OSR 4.26.2 d), or mainsail reefing to reduce the luff by at least 40% (or rotating wing mast if suitable)
MoMu4	4.26.3	e)	iii) either mainsail reefing to reduce the luff by 12.5% or a heavy weather jib as defined in 4.26.2 a) (or heavy-weather sail in a boat with no forestay)
	4.27		**Drogue, Sea Anchor**
MoMu0	4.27.1		A drogue for deployment over the stern, or a sea anchor or parachute anchor for deployment at the bow, complete with all necessary gear (see Appendix K)
	4.28		**Spare Number**
	4.29		**Deck Bags**
Mo0	4.29.1		If permitted by the Notice of Race, Sailing Instructions or Class Rules, bags for storing sails on deck shall be:
Mo0	4.29.1	a)	so constructed to ensure rapid draining of water
Mo0	4.29.1	b)	securely fastened in such a way that the integrity of deck fittings e.g. stanchions and lifelines, is not compromised
	4.30		**Emergency Pumps**
Mo0,1,2	4.30.1		either fixed or portable pump to remove ingress water from any compartment.
Mo0,1,2	4.30.1	a)	This pump shall:
Mo0,1,2	4.30.1	b)	have a minimum rated capacity of 200 l/min
Mo0,1,2	4.30.1	c)	be operated by battery, main engine powered or a separate engine
Mo0,1,2	4.30.1	d)	if portable electric-powered, power cables to be terminated with alligator clips
Mo0,1,2	4.30.1	e)	have sufficient hose to discharge directly overboard or into the cockpit.
Mo0,1,2	4.30.1	f)	A combination of permanently installed and portable pumps may be combined to meet the above requirement.

SECTION 5 - PERSONAL EQUIPMENT

**			Each crew member shall have:
	5.01		**Lifejacket**
**	5.01.1		A lifejacket which shall:
**	5.01.1	a)	i) if manufactured before 2012 comply with ISO 12402 - 3 (Level 150) or equivalent, including EN 396 or UL 1180 and:
**	5.01.1	a)	i) if inflatable have a gas inflation system
**	5.01.1	a)	i) have crotch/thigh straps (ride up prevention system (RUPS))
MoMu0,1,2	5.01.1	a)	i) have an integral safety harness in compliance with OSR 5.02
**	5.01.1	a)	ii) if manufactured after 2011 comply with ISO 12402-3 (Level 150) and be fitted with a whistle, lifting loop, reflective material automatic/manual gas inflation system
**	5.01.1	a)	ii) crotch/thigh straps (ride up prevention system (RUPS))
MoMu0,1,2	5.01.1	a)	ii) an integral safety harness in compliance with OSR 5.02
MoMu0,1,2,3	5.01.1	b)	have an emergency position indicating light in accordance with either ISO 12402-8 or SOLAS LSA code 2.2.3
**	5.01.1	c)	be clearly marked with the boat's or wearer's name
MoMu0,1,2,3	5.01.1	d)	have a sprayhood in accordance with ISO 12402-8
MoMu0	5.01.1	e)	have a PLB unit (as with other types of EPIRB, should be properly registered with the appropriate authority)

Appendix 7.20 World Sailing Offshore Special Regulations

MoMu0,1,2,3	5.01.2		A boat shall carry at least one gas inflatable lifejacket spare cylinder and, if appropriate, spare activation head for each type of lifejacket on board.
MoMu0,1,2	5.01.3		A boat shall carry at least one spare lifejacket as required in OSR 5.01.1, except a PLB described in 5.01.1
**	5.01.4		The person in charge shall personally check each lifejacket at least once annually.
	5.01.5		RORC Prescription: A combined harness and lifejacket shall be worn when on deck:
MoMu0,1,2,3	5.01.5	a)	between the hours of sunset and sunrise
MoMu0,1,2,3	5.01.5	b)	when alone on deck
MoMu0,1,2,3	5.01.5	c)	when reefed
MoMu0,1,2,3	5.01.5	d)	when the true wind speed is 25 knots or above
MoMu0,1,2,3	5.01.5	e)	when the visibility is less than 1 nautical mile
	5.02		**Safety Harness and Tethers**
MoMu0,1,2,3	5.02.1		A harness that complies with ISO 12401 or equivalent
	5.02.2		A tether that shall:
MoMu0,1,2,3	5.02.2	a)	comply with ISO 12401 or equivalent
MoMu0,1,2,3	5.02.2	b)	not exceed 2 m (6'-6") including the length of the hooks
	5.02.2	c)	have self-closing hooks
MoMu0,1,2,3	5.02.2	d)	have overload indicator flag embedded in the stitching
MoMu0,1,2,3	5.02.2	e)	be manufactured after 2000
MoMu0,1,2,3	5.02.3		All of the crew shall have either:
MoMu0,1,2,3	5.02.3	a)	a tether not exceeding 1m(3'3") including the length of the hooks, or
MoMu0,1,2,3	5.02.3	b)	an intermediate self-closing hook on a 2 m (6'-6") tether
MoMu0	5.02.3	c)	a boat shall carry spare harnesses and tethers as required in OSR 5.02 above sufficient for at least 10% of the crewmembers (minimum one unit)
MoMu0,1,2,3	5.02.4		A tether which has been overloaded shall be replaced
	5.03		**Personal Location Lights**
MoMu0	5.03.1		Two packs of miniflares or two personal location lights (either SOLAS or strobe), one to be attached to, or carried on, the person when on deck at night
	5.04		**Foul Weather Suits**
MoMu0	5.04	a)	A foul weather suit with hood
	5.05		**Knife**
MoMu0	5.05.1		A knife, to be worn on the person at all times
	5.06		**Flashlight**
MoMu0	5.06.1		A buoyant watertight flashlight
MoMu0,1,2,3	5.06.2		RORC Prescription: at night, each crew member shall carry a waterproof torch/light
	5.07		**Survival Equipment**
MoMu0	5.07.1		an immersion suit (attention is drawn to EN ISO 15027-1 constant wear suits, and EN ISO 15027-2 abandonment suits and the LSA Code Chapter II, 2.3);
	5.08		**Diving Equipment**
MoMu0	5.08.1		The boat shall have at least two diving suits each to cover the entire body and including gloves, fins and portable air supplies
	SECTION 6 - TRAINING		
MoMu0	6.01.1		Every member of a crew including the Person in Charge shall have undertaken training within the five years before the start of the race in OSR 6.02 Training Topics
MoMu0,1,2	6.01.2		At least 30% but not fewer than two members of a crew, including the Person in Charge shall have undertaken training within the five years before the start of the race in OSR 6.02 Training Topics
MoMu3	6.01.3		When there are only two crewmembers, at least one shall have undertaken training within the five years before the start of the race in OSR 6.02 Training Topics

Appendix 7.20 World Sailing Offshore Special Regulations

The World Sailing Offshore Special Regulations

MoMu0,1,2	6.01.4		Except as otherwise provided in the Notice of Race, an in-date certificate gained at a World Sailing/ISAF Approved Offshore Personal Survival Training course shall be accepted by a race organizing authority as evidence of compliance with Special Regulation 6.01. See Appendix G - Model Training Course, for further details.
	6.02		**Training Topics**
	6.02.1		Giving Assistance to Other Craft
	6.02.2		Personal Safety Gear, theory and practice
	6.02.3		Care and Maintenance of Safety Gear
	6.02.4		Fire Precautions and Firefighting, theory and practical
	6.02.5		Crew Overboard Identification and Recovery
	6.02.6		Hypothermia, Cold Shock and Drowning
	6.02.7		Crew Health
	6.02.8		Marine Weather
	6.02.9		Heavy Weather
	6.02.10		Storm Sails
	6.02.11		Damage Control
	6.02.12		Damage Control
	6.02.13		Pyrotechnics and Signalling Gear, theory and practical
	6.02.14		Emergency Communications, theory and practical
	6.02.15		Liferafts and Abandon Ship, theory and practical
	6.03		**Spare Number**
	6.04		**Routine Training On-Board**
**	6.04		At least annually the crews shall practice the drills for:
**	6.04		Crew-Overboard Recovery
**	6.04		Abandonment of vessel
	6.05		**Medical Training**
MoMu0	6.05.1		At least one crewmember shall have a valid STCW A-VI/4-2 (Proficiency in Medical Care) certificate or equivalent
MoMu0	6.05.2		In addition to 6.05.1 another crewmember shall have a valid first aid certificate completed within the last five years meeting:
MoMu1	6.05.2		At least two crewmembers shall have a valid first aid certificate completed within the last five years meeting:
MoMu2	6.05.2		At least one crewmember shall have a valid first aid certificate completed within the last five years meeting:
MoMu0,1,2	6.05.2	a)	A certificate listed on the World Sailing website www.sailing.org/specialregs of MNA recognised courses
MoMu0,1,2	6.05.2	b)	STCW First Aid Training complying with A-VI/1-3 Elementary First Aid or higher STCW level
MoMu3,4	6.05.3		At least one member of the crew shall be familiar with First Aid procedures, hypothermia, drowning, cardio pulmonary resuscitation and relevant communications systems
	6.06		**Diving Training**
MoMu0	6.06.1		At least 30% of the crew shall have received appropriate diving training to enable them to carry out basic repairs underwater and to provide assistance if necessary in recovery of a crew overboard.

Appendix 7.20 World Sailing Offshore Special Regulations

APPENDICES TO SPECIAL REGULATIONS

Appendix A - Moveable and Variable Ballast
Appendix B - For Inshore Racing
Appendix C - For Inshore Dinghy Racing
Appendix D - A guide to ISO and other Standards
Appendix E - World Sailing Code for the organisation of Oceanic Races
Appendix F - Standard Inspection Card
Appendix G - Model Training Course
Appendix H - Model First Aid Training Course
Appendix J - Hypothermia
Appendix K - Droques and Sea Anchors
Appendix L - Model Keel and Rudder Inspection Procedure

RORC PRESCRIPTIONS TO THE WORLD SAILING OFFSHORE SPECIAL REGULATIONS

Mu2,3,4	3.07.3		Replace OSR 3.07.3 with:
			Multihulls shall have escape hatch(es) as detailed in OSR 3.07.2
**	4.01.2		Amend to read: After the start when sail numbers are not displayed elsewhere (sails down) they shall be displayed on the port quarter. It is particularly important that all vessels can be easily identified so that they can be excluded from any search and rescue operation.
**	4.07		Add to 4.07
	4.07	e)	a floating waterproof torch for use in the event of man overboard at night, which can be thrown into the sea as a marker.
MoMu0,1,2,3	5.01.5		A combined harness and lifejacket shall be worn when on deck:
MoMu0,1,2,3	5.01.5	a)	between the hours of sunset and sunrise
MoMu0,1,2,3	5.01.5	b)	when alone on deck
MoMu0,1,2,3	5.01.5	c)	when reefed
MoMu0,1,2,3	5.01.5	d)	when the true wind speed is 25 knots or above
MoMu0,1,2,3	5.01.5	e)	when the visibility is less than 1 nautical mile
MoMu0,1,2,3	5.06.2		at night, each crew member shall carry a waterproof torch/light.

Appendix 7.20 World Sailing Offshore Special Regulations

World Sailing

APPENDICES TO SPECIAL REGULATIONS

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MoMu0,1,2,3	5.01.5	e)	when the visibility is less than 1 nautical mile
MoMu0,1,2,3	5.06.2		at night, each crew member shall carry a waterproof torch/light.

SECTION 36 PROCESS

Section 36 of the Merchant Shipping (Investigation of Marine Casualties) Act, 2000

It is a requirement under Section 36 that:

(1) Before publishing a report, the Board shall send a draft of the report or sections of the draft report to any person who, in its opinion, is likely to be adversely affected by the publishing of the report or sections or, if that person be deceased, then such person as appears to the Board best to represent that person's interest.

(2) A person to whom the Board sends a draft in accordance with subsection (1) may, within a period of 28 days commencing on the date on which the draft is sent to the person, or such further period not exceeding 28 days, as the Board in its absolute discretion thinks fit, submit to the Board in writing his or her observations on the draft.

(3) A person to whom a draft has been sent in accordance with subsection (1) may apply to the Board for an extension, in accordance with subsection (2), of the period in which to submit his or her observations on the draft.

(4) Observations submitted to the Board in accordance with subsection (2) shall be included in an appendix to the published report, unless the person submitting the observations requests in writing that the observations be not published.

(5) Where observations are submitted to the Board in accordance with subsection (2), the Board may, at its discretion -

(a) alter the draft before publication or decide not to do so, or

(b) include in the published report such comments on the observations as it thinks fit.

The Board reviews and considers all observations received whether published or not published in the final report. When the Board considers an observation requires amendments to the report, those amendments are made. When the Board is satisfied that the report has adequately addressed the issue in the observation, then no amendment is made to the report. The Board may also make comments on observations in the report.

Response(s) received following circulation of the draft report (excluding those where the Board has agreed to a request not to publish) are included in the following section.

The Board has noted the contents of all observations, and amendments have been made to the report where required.

8. MSA 2000 – SECTION 36 OBSERVATIONS RECEIVED

Note: The names and contact details of the individual respondents have been obscured for privacy reasons.

8.1 Correspondence from Race Officer, RCYC and MCIB response

From: [redacted]
Sent: Monday, March 18, 2024 5:58 PM
To: Marine Casualty Investigation Board <MarineCasualtyInvestigationBoard@mcib.ie>
Subject: Yacht Jelly Baby Section 36 Response

Dear [redacted]

Thank you for providing a copy of the draft MCIB report into the incident involving the grounding of yacht Jelly Baby (ref # MCIB /12/314) which occurred on 24/Oct/2021 . I have carried out an initial review of the draft report.I have noted several inaccuracies in sections 2 and 3 of the draft report which appear to have contributed to incorrect statements and the absence of key statements in sections 4 and 5 of the draft report, thus leading to several inappropriate safety recommendations in section 6 . Some of the main inaccuracies are summarised below .

“

(A) Weather Forecasting

4.2.7 / 2.6.1 / 2.6.2
Numerous regular Weather forecast services were monitored for the days running in to the event on 24/10/2021 including Met Eireann and many others like Wind Guru etc who all give detailed reliable forecasts on hourly changes to be expected in specific locations like Cork Harbour .All these were thoroughly researched and considered on the morning of the race prior to the 08.30 assessment before decisions were made for the period racing would take place approx 11.30 / 13.30 . Also appendix 7.14 item H Valentia radio records weather for the area where incident occurred as force 4 with low swell . It’s also notable as part of 2.6.2 the stronger weather was forecast for the Irish Sea area . It’s also worth noting in 4.2.8 statement “ the forecasted weather may not be the actual weather “ . I would also point out as further evidence of the sailable weather that from your pictures and those you include taken from the video it’s clearly visible that all Skippers and boats were flying full mainsails (not reeefed) and were setting full spinnakers indicating their comfort to do so in the conditions at the time of the incident .

B)
Course Decisions
4.9.3 / 3.1.13 / 3.1.14 / 3.1.15

Above sections explain the process and common sense logic for choosing a bear away set option by rounding W 2 to Starboard in the prevailing conditions both wind and tide on the day. The bear away set manoueuvre is the simplest most basic safest sail handling option in sailing requiring the least amount of crew , it is clearly the safest rounding option.

8.1 Correspondence from Race Officer, RCYC and MCIB response

It's also important to correct 4,2.11 which states tide reaches 2 to 5 knots in the area . The facts are tide in the area does not reach more than 1.5 knots .

C) The Course was set up based on the actual prevailing wind direction which was SW and tidal state which was ebbing
4.2.10 / 4.8.7

The planning meeting at 08.30 at Weavers determined that the prevailing wind was SW and taking that fact in to account together with an ebbing tide and observations in the area it was clear the area between Weavers Point and Rams Head was not a leeshore.

D) Reason for propulsion of the craft involved and direction of same are clearly outlined in the sections below which confirm again there was no leeshore effect on either the propulsion or final direction of craft
Your findings in 3.4.4 / 3.4.5 / 3.4.6 / 3.4.7 / 3.4.8 / 3.4.9 / 3.4.10 and 4.2.12 anin corresponding photos in the appendices I ndicate the reasons for that propulsion and direction taken . Cutting the sheets to depower the craft was also an option .

E) Y Flag
4.1.1 / 4.9.10
The fact that the flag Y flag was not flown in the conditions experienced at the time approx 14 knots at 8.30 and up to 18 knots at start when It is not an obligation to do so does not in any way undermine or dis courage the skippers responsibility to decide that his crew wear PFD ' s based on his information to hand and taking in to account his crew and boat factors . It is encouraged and the experience is that skippers make responsible appropriate decisions in these circumstances for their boat as happened in this case .
This issue is referred to in 2.9.4 / 4.1.1 / where a reference is made to bowman wearing a PFd 4. 9.10 and it states clearly " the absence of direction from the the Club on PFD's was not a contributory factor in the incident ". This reflects further the shared responsibilty taken by skippers does work .

F) Tethers
4.5.4
There are also many mentions of tethers and that they were not recommended

Above section quotes irish Sailing reference to tethers
" the use of tethers whilst a crew and skippers choice , are rare and not normally encouraged during inshore racing as a) the risk of a man overboard is limited b) manoeuvre ability is required for immediate turns and tasks during an inshore race and c) there is support from other boats should a sailor need assistance "

Tethers are generally more used in offshore races not in harbour races and decisions on their use are the sole responsibility of Skippers and crews to decide .
G) Race Officer and team

8.1 Correspondence from Race Officer, RCYC and MCIB response

4.8.4 / 3.1 .4
The RO qualified in 2008 as a Race officer with Irish Sailing after many years experience both supporting racing on the water as RO and assisting . The Race officer also has vast experience of both competing in sailing Nationally and internationally and sailing Administration at the highest level being Past President of irish Sailing , Past Admiral of the Royal Cork Yacht Club and Past Commodore of the Irish Cruiser Racing Association . In these roles I was involved in both establishing and running highly successful 130 boat National Championships safely and without incident for 15 years. The RO also had a current Irish sailing accredited Regional Race officer on his team aboard the Committee boat for this race on 24/10/2021
The references to the Irish Sailing website in both sections above is mis leading given that no Race Office qualification is required for local sailing races such as this race .
H) 5.2 Conclusions

The RCYC took great care to balance risk versus competitiveness both in the run up to the day , in thorough preparations across the team and from early on Race day and throughout the actual race as acknowledged in 4.9.2 / 4.9.3 / 4.9.4 / 4.9.6 / 4.9.10 . We also wish to re I force the point that the race was a cat 4 race under World Sailing Regulations - inshore waters see OSR 2.01.5 Therefore OSR rules that apply to cat 1,2 or 3 events do not apply

i) Safety Recommendations ; In general the proposed safety recommendations undermines the fundamental principal (as defined by World Sailing RRS)upon which all cruiser racing both Nationally and Internationally is based that it is the sole responsibility of the skippers / owners to participate in any race in the conditions of the day . Also 2.8.4 is a critical extension of this basis of participation namely " RRS1.2 Life saving equipment and personal flotation devices : A boat shall carry adequate life saving equipment for all on board, including one item ready for immediate use, unless her class rules make some other provision . Each competitor is individually responsible for wearing a personal flotation device adequate for the conditions " These are the rules upon Which all National in Ireland and international sailing events are governed. I suggest you re consider the recommendations contained in the draft report with our National Governing Body (Irish Sailing) as I they would in effect make the implications of managing sail boat racing practically impossible.

From analysis of all the sections mentioned in this response and above in your report the RCYC has fulfilled its functions comprehensively regarding risk versus competitiveness and this needs to be acknowledged in the conclusions .

Given the quantity and nature of these inaccuracies and conflicting statements I consider that I will require additional time to review the draft report in order to deliver a more comprehensive response and suggestions for improvements .I suggest that an additional 3 months be allowed in order to facilitate the time to contribute to improving the accuracy of the report.I would also please request a copy of the video referred to that the still photos were exracted from so that I can complete my analysis of the incident . I am committed to working with the MCIB to finalise the report as accurately as possible so it can contribute positively to the safety of the sport of sailing .I note the cover letter that accompanied the draft report said to put [redacted] section 36 response"in the subject line of e mail response . I presume this should have read " yacht Jelly Baby section 36 response " instead . [redacted]

8.1 Correspondence from Race Officer, RCYC and MCIB response

[redacted]

Kind Regards,

[redacted]

MCIB RESPONSE: The MCIB notes the contents of this observation.

8.1 Correspondence from Race Officer, RCYC and MCIB response

From: [redacted]
Sent: Sunday, March 24, 2024 6:21 PM
To: Marine Casualty Investigation Board <MarineCasualtyInvestigationBoard@mcib.ie>
Subject: Fwd: Yacht Jelly Baby Section 36 Response

>
> Reference MCIB / 12 / 314
>>>>
>>>> Dear [redacted]
>>>> Thank you for your e mail and letter contained therein of 19/3/2024 in reply to my submission to the Board on 18/3/2024 as I was invited to do in covering letter accompanying the draft report by [redacted] on 22 February 2024. Thank you also for copy of the video which confirms wind and sea conditions as we had outlined in our previous response communication . It also confirms that Jelly Baby was not travelling at anywhere near 8 knots at the time .

>>>> I am amazed at your reference to a misunderstanding regarding my providing my observations when in the third paragraph of the letter of 22/2/2024 that accompanied the draft report it states

>>>> " A person to whom the board sends a draft May , within a period of 28 days commencing on the date on which the draft is sent to the person , (being the date of this letter) or such further period , not exceeding 28 days , as the board in its absolute discretion sees fit , submit to the board in writing his or her observations on the draft "

>>>> This seems contradictory to the statement in your letter and is exactly what I did .

>>>> I appreciate the board allowing me a further 7 days extension to Thursday 28/3/2024 [redacted]

>>>> In reply to your last sentence in e mail letter of 19/3/2024
>>>> " Can we also ask you to clarify in the Observations where you refer to events whether you were present or not. For example you refer to weather checks but do not state who carried them out or when"

>>>> I confirm that I not only attended all events , pre planning meetings but sourced all local weather forecasts ,in addition to the Rear Admiral Sailing and my team doing likewise ,in preparation for subsequent review meetings so we all came fully informed.

>>>> My communications below are with my colleague , best friend ,and main sheet trimmer of 40 years , experienced sailor , and lots of experience doing Race team duties on board committee boats [redacted] and who accompanied me as one of the key team members on the day. I include these communications below to give as further evidence of the thoroughness of our approach on preparation in the days running in to the event which also verifies my previous observations and the due consideration given to all the factors relevant to the particular area of racing in Cork Harbour on the day . [redacted]

>>>> I trust when combined with my mail observations of 18/3/ 2024 this communication and the additional attachments demonstrates clearly the thorough assessments that were undertaken for the event management.

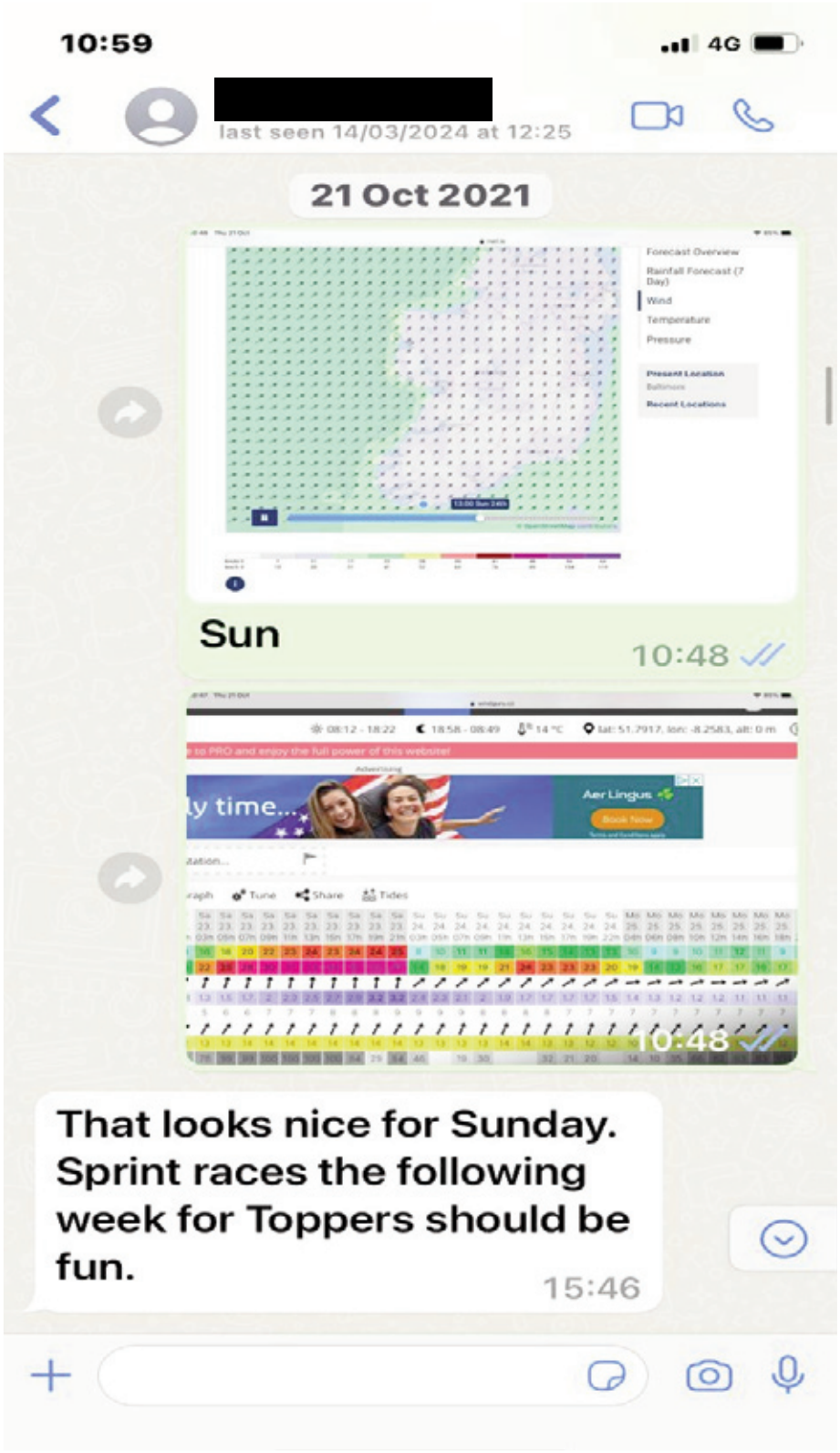
>>>> Thank you for your consideration of the points made which hopefully can lead to the facts being

8.1 Correspondence from Race Officer, RCYC and MCIB response

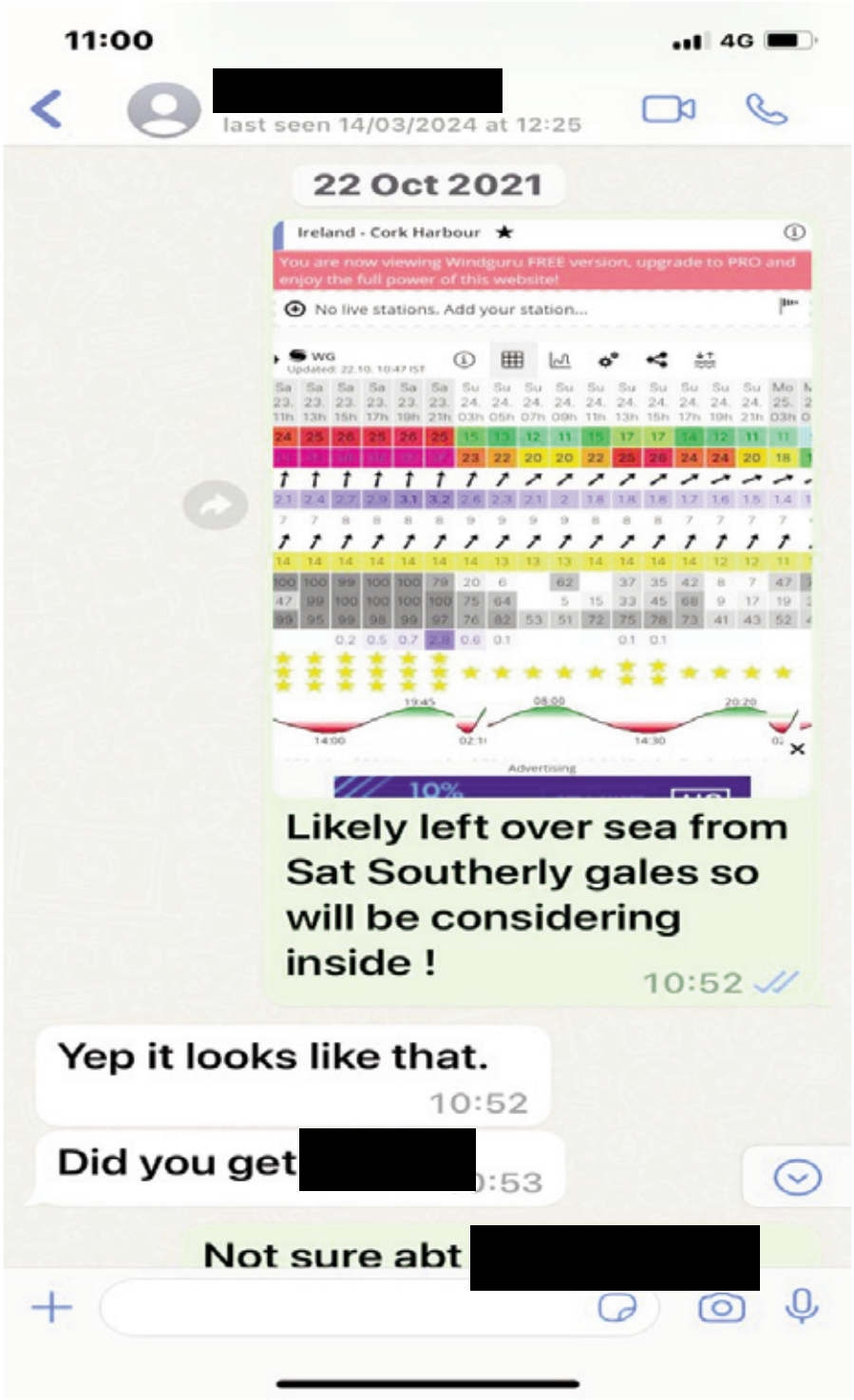
reflected more accurately and fairly and in a non contradictory manner in the final report . I hope this also applies to the conclusions reached ,and recommendations following from same ,so that the document contributes accurately and constructively to the area of safety which we all take very seriously going forward.

>>> Kind Regards,
>>> [redacted]
>>>
>>>
>>>
>>

8.1 Correspondence from Race Officer, RCYC and MCIB response



8.1 Correspondence from Race Officer, RCYC and MCIB response



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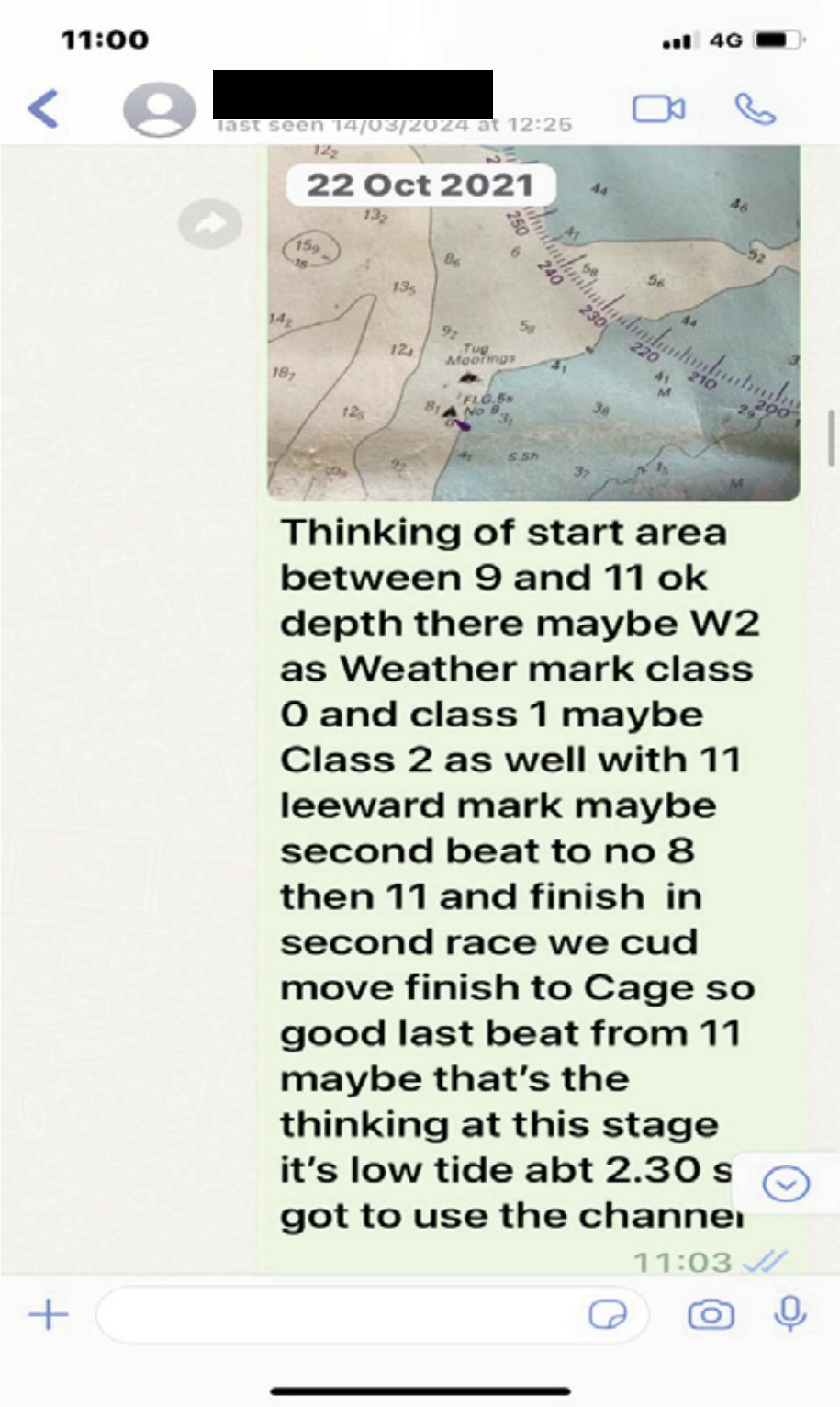

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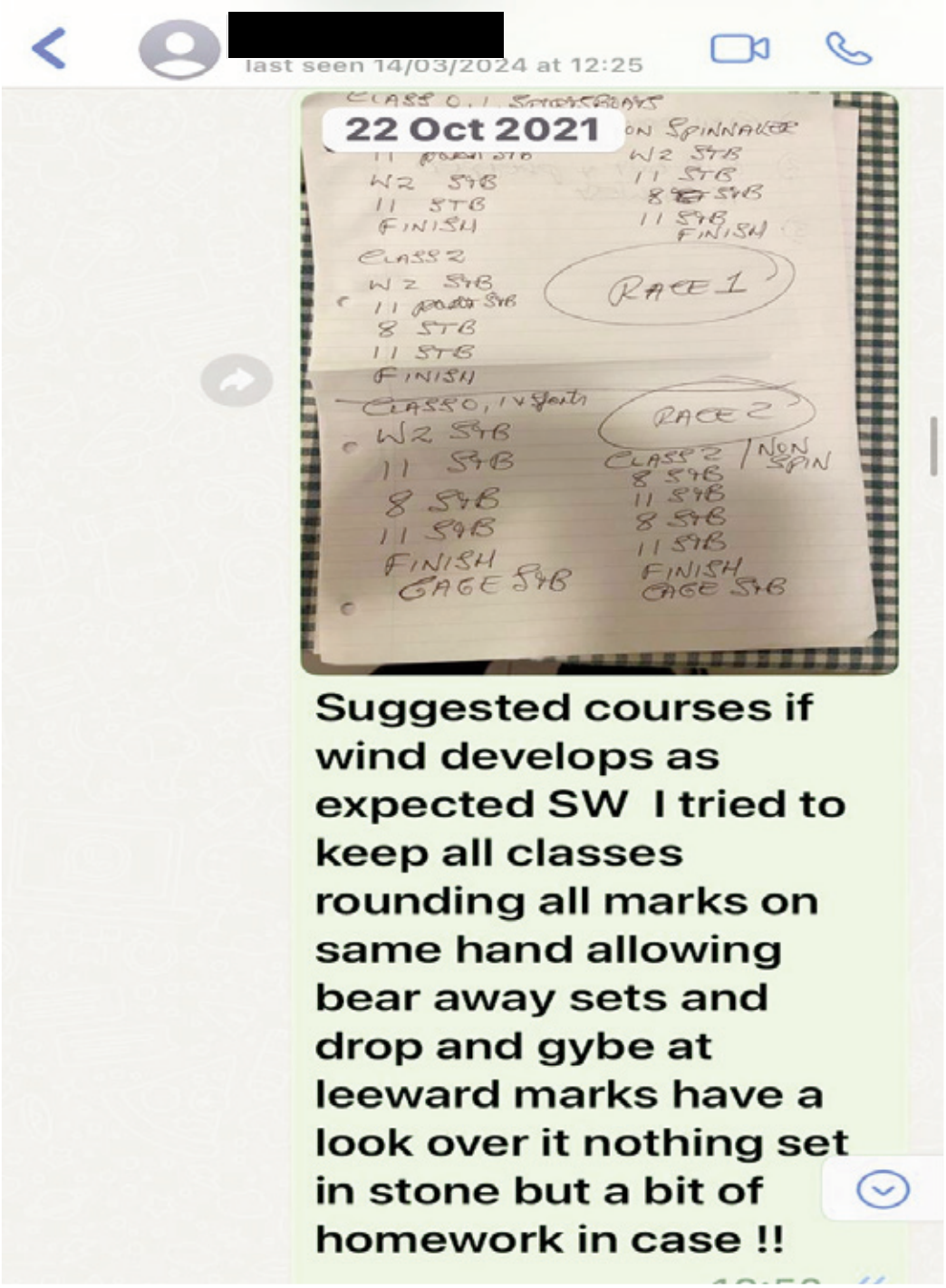

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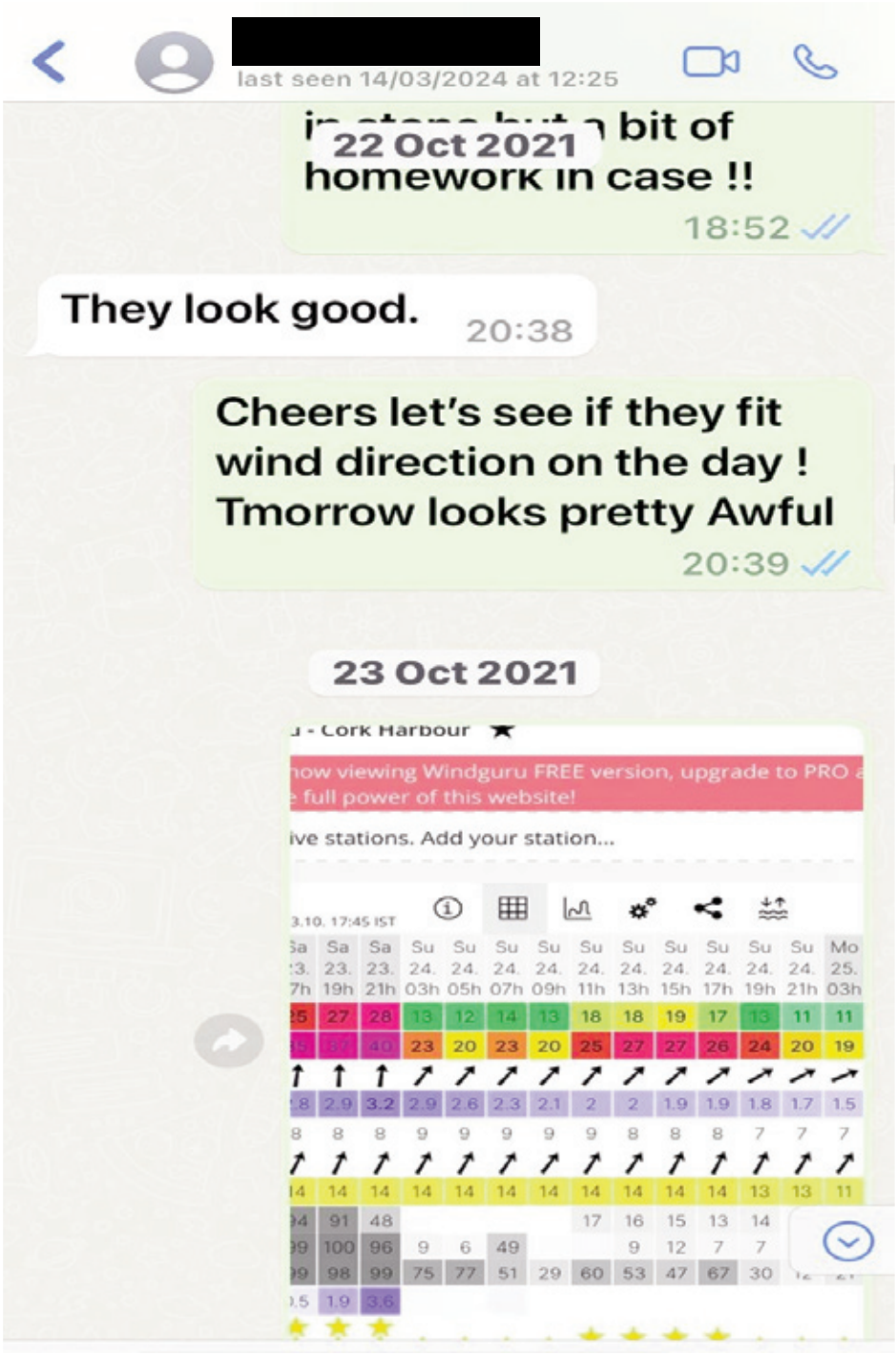

8.1 Correspondence from Race Officer, RCYC and MCIB response

>

MCIB RESPONSE: The MCIB notes the contents of this observation.

NOTES

Leeson Lane, Dublin 2.
Telephone: 01-678 3485/86.
email: info@mcib.ie
www.mcib.ie