

MCIB

Marine Casualty Investigation Board
Bord Imscrúú Taismí Muirí



**REPORT INTO THE
FATAL INCIDENT ON BOARD
'MFV ENDURANCE'
APPROXIMATELY
200 NAUTICAL MILES OFF
SOUTH WEST COAST
ON
8th NOVEMBER 2016.**

**REPORT NO. MCIB/267
(No.2 OF 2018)**

The Marine Casualty Investigation Board (MCIB) examines and investigates all types of marine casualties to, or on board, 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 for the avoidance of similar marine casualties in the future, thereby improving the safety of life at sea.

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.



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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.

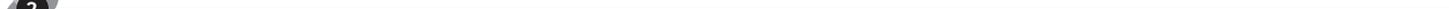
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1. SUMMARY

On the 8th November 2016 the 'MFV *Endurance*' was fishing for prawns (Nephrops) approximately 200 nautical miles South West of the Irish coast in the Porcupine Bank area. At approximately 18.30 hrs the nets were being hauled. The starboard side net was extremely heavy. In the course of retrieving the net one Crewmember became trapped between the net and the starboard side stern quarter. The net slewed to starboard taking the Crewmember with it. The Crewmember was physically inverted, crushed against the starboard rail and was then carried over the rail by the force of the net.

The Crewmember landed on the ledge outboard of the rail and was pinned there by the net. The Skipper and crew managed to haul the Crewmember back over the rail and onto the after upper deck of the vessel. The Crewmember was fatally injured.

Note all times are local time = UTC + 1

2. FACTUAL INFORMATION

2.1. The vessel

Name:	MFV Endurance.
Type of Vessel:	Fishing Trawler (see Appendix 7.1 Photograph Nos. 1 & 2).
Flag:	Irish.
Port of Registry:	Drogheda.
Port Letters & Number:	DA 31.
IMO No:	9210672.
MMSI:	250350000.
Call Sign:	EI 8285.
LOA:	27.64 metres (m).
Length:	23.87 m.
Beam:	8.85 m.
Depth Upper Deck:	7.05 m.
Gross Tonnage:	346.
Year:	2000.
Registered Owner:	Kedge Fishing Ltd Baltimore.
Main Engine:	Caterpillar 3512 749 kW.
Deck Machinery:	The vessel is designed for the towing of twin rig trawl nets and is fitted with three single drum towing winches: <ul style="list-style-type: none"> - one winch on the port side upper deck forward of the wheelhouse. - one winch on the starboard upper deck forward of the wheelhouse. - one winch on the centre of the upper main deck aft of the wheelhouse. - The two net drums are on the upper main deck aft. Each drum is capable of holding 50 fathom on net.
Fuel capacity:	70 mtr ³ .

2.2. Voyage Particulars

The vessel departed Castletownbere at about 19.00 hrs on Sunday the 6th November 2016 to fish for prawns with a Skipper and seven crewmembers on board. The voyage was uneventful and the weather was good. Fishing commenced on Monday the 7th November 2016.

2.3. Marine Casualty Information

Type:	Very Serious Marine Casualty.
Date:	8th November 2016.
Time:	19.00 hrs approximately.
Position:	200 NM West of South Coast of Ireland. 51° 48.00N 014° 09.00W.
Ship Operation:	Fishing Vessel.
Location:	Ireland, South West Coast.
Human factors:	Entry to danger area beside trawl net.
Physical factors:	Range of movement of trawl net.
Consequences:	Death of one Crewmember. Post mortem results stated the cause of death as haemorrhage and shock due to blunt force trauma.
Wind:	West to northwest (300 degrees) mean 22 to 25 knots. Beaufort Force 6 but gusted to 32 to 36 knots. Beaufort gale Force 8 Winds backed west 270 degrees after 21.00 hrs mean 21 to 25 knots Beaufort Force 6.
Weather:	Infrequent passing rain showers. Showers more frequent after 21.00 hrs.
Temperature:	The air temperature was 9 to 10 degrees Celsius: Sea temperature 13 degrees.
Visibility:	Moderate locally in showers (6 to 9 km), but generally good (greater than 10km).
Waves:	The significant wave height (combined wind generated sea + swell) was 3.8 to 4.0 m at beginning of period. The height (SWH) gradually increased to 4.5 m by end of period. The period of the waves was 7 to 8 seconds. Maximum wave height was 7.5 m. Average wave direction was from the southwest (225 degrees) (See Appendix 7.2 Estimate of Weather Conditions).

3. NARRATIVE

- 3.1. The vessel departed Castletownbere at approximately 19.00 hrs on Sunday the 6th November 2016 to fish for prawns. The voyage was uneventful and the weather was good. Fishing commenced on Monday the 7th November 2016.
- 3.2. The nets were shot at approximately 13.00 hrs and trawled for a number of hours. At approximately 18.30 hrs it was decided to haul the nets.
- 3.3. The weather conditions had deteriorated during the day (see Appendix 7.2 Estimate of Weather Conditions).
- 3.4. The port side net was hauled without incident. The starboard side net was particularly heavy, possibly caused by picking up stones and debris with the catch. The net drum stalled under the load and could not haul in the net. The starboard side net was partially unfurled and allowed back into the water.
- 3.5. The crew set about attaching a bag rope that is fixed to the bag end of the net to the gilson winch located on the gantry. This would allow them to use both the net drum and the gilson winch together to haul up the net.
- 3.6. At this time the crew were deployed on the vessel as follows:

Skipper: In the wheel house at the controls looking aft.

Crewmember No.1: In the wheel house assisting the skipper standing on the starboard side looking aft through the after window of the wheel house.

Crewmember No. 2: In the fish room below deck packing fish.

Crewmember No. 3: In the fish room below deck packing fish.

Crewmember No. 4: On the gantry above the deck attending to a problem with the gilson winch.

Crewmember No. 5: Forward of the gantry on the ladder.

Crewmember No. 6: Working with the starboard net on the upper deck aft on the starboard side adjacent to Crewmember 7 (see Appendix 7.1 Photograph No. 3).

Crewmember No. 7: Working with the starboard net on the upper deck aft on (The Casualty) the starboard side adjacent to Crewmember 6.(see Appendix 7.1 Photograph No. 3).

- 3.7. All rotating equipment, net drums and winches were stationary at the time of the incident.
- 3.8. Crewmember No. 6 and Crewmember No. 7 were working beside each other at the starboard net (see Appendix 7.1 Photograph No. 3 at positions indicated by 6 and 7). They were working to un-clip the bag rope in readiness for attaching it to the gilson winch. This can be a heavy job and requires two people.
- 3.9. The attention of Crewmember No. 6 was diverted momentarily. When his attention was re-focussed, Crewmember No. 7 had gone underneath the net through the gap between the net drum and the deck. Crewmember No. 7 was in approximately position 7a indicated in Appendix 7.1 Photograph No. 3 at this time.
- 3.10. Co-incident with this, the net was swept sideways by the motion of the sea and the vessel towards the starboard quarter which pushed Crewmember No. 7 with it (see Appendix 7.1 Photograph No. 3 motion of net indicated by the blue lines).
- 3.11. As the net slewed to starboard, Crewmember No. 7 was seen to be carried by the force of the net towards the starboard rail. Crewmember No. 7 was physically inverted, crushed against the starboard rail and was then pushed over the rail by the force of the net. Crewmember No. 7 landed on the platform outside the rail and was pinned there by the net (see Appendix 7.1 Photograph No.3 position outside the rail indicated by 7b). The rail height is approximately 1,100 mm at the point he was pushed over.
- 3.12. The Skipper and crew immediately went to his rescue and managed to get a rope attached to Crewmember No.7 to prevent him from falling into the water. They then cleared the net off him and pulled him back over the rail onto the deck and into the wheelhouse.
- 3.13. During the retrieval operation Crewmember No. 7 was un-responsive. Cardiopulmonary Resuscitation (CPR) was administered but it was to no avail.
- 3.14. The vessel was in communication with the Coast Guard and Medico Cork via radio link and via that communication at 20.00 hrs the Medico Doctor was advised that Crewmember No. 7 had passed away.
- 3.15. The vessel hauled the nets and proceeded to port at Castletownbere where it was met by an Garda Síochána. The deceased was removed to Cork University Hospital.
- 3.16. Post mortem results stated the cause of death was haemorrhage and shock with laceration of aorta and inferior vena cava due to blunt force trauma to the thorax and abdomen. Toxicology results show that ethanol was not detected but that THC-COOH, a major metabolite of delta-THC, the most psychoactive of the principal constituents of marijuana was detected in the urine.

4. ANALYSIS

- 4.1. The weather conditions had deteriorated but were not bad enough to halt the hauling of the nets.
- 4.2. The Merchant Shipping (Safety of Fishing Vessels) (15-24 Metres) regulations, 2007, Statutory Instrument S.I. No. 640 of 2007 Part 6 sets out the requirements for the protection of the crew. Specifically this requires:

102 (1) Owners shall ensure that their vessels are operated without endangering the safety and health of the crew.

(2) The crew shall be given training and instructions on health and safety matters on board fishing vessels and in particular on accident prevention.

- 4.3. The net was extremely heavy, possibly due to stones and debris from the seabed picked up during the trawl. This is not an unusual circumstance. The problem had been identified and the crew were dealing with it as set out in 3.5.

- 4.4. The safety documentation for the vessel dated 4th November 2016 states on page 7:

Possible Hazard: Excessive loads (nets full of stones or mud).

Possible Consequences: Severe injuries, vessel damage.

Risk Level with Controls: Medium control this hazard immediately.

Control Measures: When stones or heavy objects are caught in the net stand clear at all times until a safe means of dealing with the object is available.

Responsibility: All crew.

- 4.5. The net drums and winches were stopped at the time of the incident. Crewmember Nos. 4 and 5 were attending to a rope on the gilson winch, which had snagged in a sheave. The snagged rope meant that the gilson winch had not been used to lift the bag end of the starboard net by connection to the bag rope. No known equipment involvement or failure contributed to the incident.

- 4.6. It is not possible to determine how Crewmember No. 7 came to be in the position underneath the net through the gap between the net drum and the deck, as indicated at 7a in Appendix 7.1 Photograph No. 3. The position puts Crewmember No. 7 in a danger zone between the net and the starboard rail. The only available shelter being forward between the starboard base for the gantry and the starboard rail.

- 4.7. The safety documentation for the vessel dated the 4th November 2016 states on page 7.
- Possible Hazard: Crewmembers in exposed positions.
- Possible Consequences: Falling overboard.
- Risk Level with Controls: Medium control this hazard immediately.
- Control Measures: Always keep yourself in a safe position on board.
- Responsibility: All crew.
- 4.8. The speed and force with which the incident took place did not give Crewmember No. 7 an opportunity to call out or to take action to prevent being pushed over the rail by the net.
- 4.9. The speed and force with which the incident took place did not give any of the crew an opportunity to take action and/or intervene to prevent Crewmember No. 7 being carried over the rail by the net.
- 4.10. The area of the upper deck aft is not covered by the Closed Circuit TV (CCTV) cameras thus it was not possible to see exactly what happened. If the Skipper had a CCTV view of the port and starboard areas of the upper deck aft the response may have been quicker but in this instance any response would have been too late.
- 4.11. Remedial works have been carried out to prevent a recurrence of such an incident. Protection bars were fitted to the stern of the vessel, stone traps to fishing nets and a new camera console with more camera angles for hauling and shooting nets (see Appendix 7.1 Photograph Nos.4 & 5).

5. CONCLUSIONS

- 5.1. Problems such as nets picking up stones or inverting in the water are an integral part of trawl fishing. In this case the crew had identified that the net was particularly heavy and were dealing with it by setting up the equipment to use the net drum and gilson winch together to haul the net aboard.
- 5.2. The speed of the events in the incident did not afford Crewmember No. 7 or any of the crew the opportunity to react and or intervene to prevent his death.
- 5.3. It is not possible to determine whether in the course of this task, Crewmember No. 7 moved to this position in error or was pulled into the position by the net.
- 5.4. Remedial works have been carried out by the owner to prevent a recurrence of such an incident.

6. SAFETY RECOMMENDATIONS

- 6.1. The design and layout of the stern of the vessel should be evaluated by the owner with a view to improving the lateral restraint of the nets and their associated ropes and chains whilst they are deployed over the stern. The object of any such evaluation should be to improve the size of the refuge areas available to the crew in the event of rapid shifts in the lie of nets, chains and/or ropes as the vessel rolls and pitches in the water under the influence of the wind conditions and the sea state.

7. APPENDICES

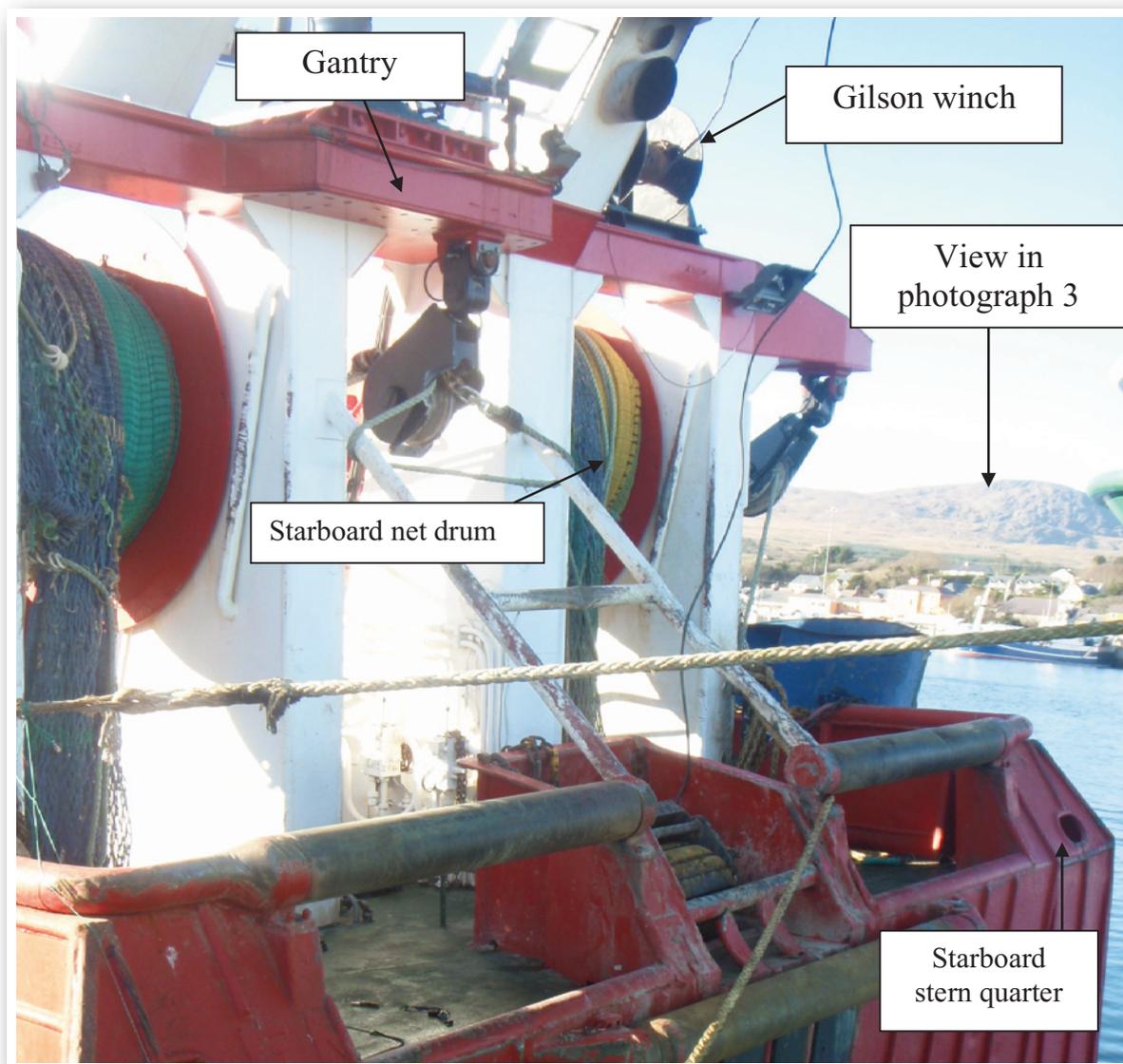
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Appendix 7.1 Photographs.



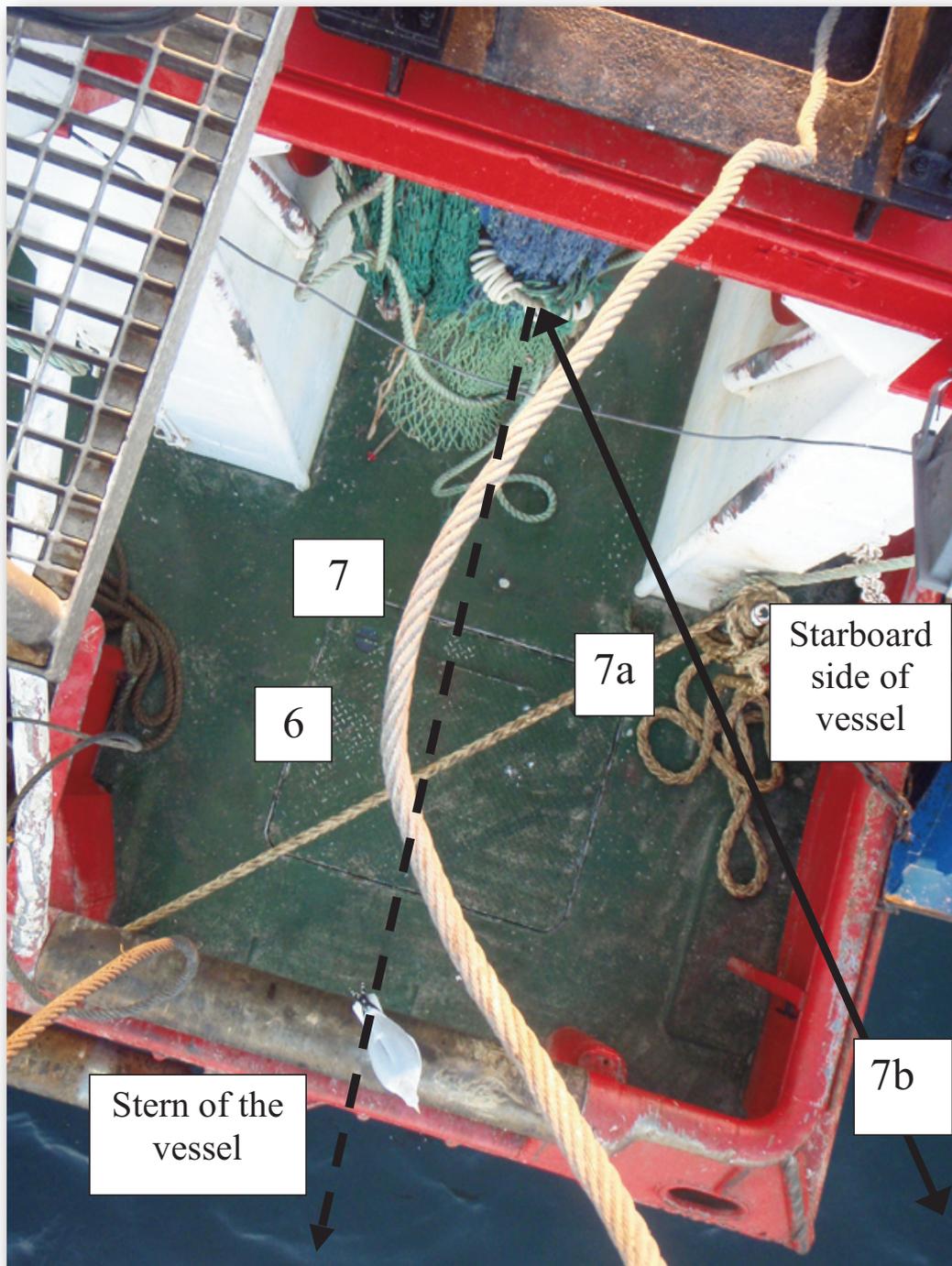
Photograph No.1: Bow of vessel.

Appendix 7.1 Photographs.



Photograph No.2: Stern of the vessel.

Appendix 7.1 Photographs.



Photograph No. 3: View from gantry/gilson winch looking down on the upper deck starboard aft quarter.

Appendix 7.1 Photographs.



Photograph No. 4: Protection bars fitted.



Photograph No. 5: Camera console.

Appendix 7.2 Estimate of Weather Conditions.



MET ÉIREANN
The Irish Meteorological Service

23-November-2016

Our Ref. WS3018/2_16486
Your Ref. MCIB/12/267

Re: Estimate of weather conditions in 51° 48 N 14° 9' W between 12:00 hours and 24:00 hours on the 8th of November 2016.

General Meteorological Situation: *A post frontal fresh northwest airflow covered the particular area during the period in question.*

Forecast from 12:00 hours to 24:00 hours on the 8th November 2016.

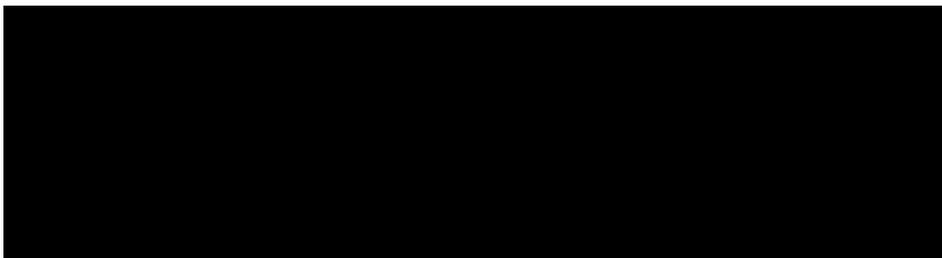
Wind: West to northwest (300 degrees) mean 22 to 25 knots – Beaufort Force 6, but gusted 32 to 36 knots – Beaufort gale Force 8; Winds backed west (270 degrees after 21:00 hours mean 21 to 25 knots –Beaufort Force 6.

Weather: Infrequent passing rain showers. Showers more frequent after 21:00 hours.

Temperatures: Air temperature was 9 to 10 degrees Celsius. Sea temperature 13 degrees.

Visibility: Moderate locally in showers (6 to 9 km), but generally good (Greater than 10 km).

Sea States The Significant Wave Height (Combined Wind generated Sea + Swell) was 3.8 to 4.0 meters at beginning of period. The height (SWII) gradually increased to 4.5 meters by end of period. The period of the waves was 7 to 8 seconds. Maximum wave height was 7.5 meters. Average wave direction was from southwest (225 degrees).



Appendix 7.2 Estimate of Weather Conditions.

Appended Beaufort wind Scale.

Beaufort Scale of Wind					
Force	Description	Speed*		Specification -sea	Wave height** (metres)
		knots	km/hr		
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 7.2 Estimate of Weather Conditions.

Sea States.

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 of visibility mean the following:

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)

Note:

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

Appendix 7.2 Estimate of Weather Conditions.



Appendix 7.2 Estimate of Weather Conditions.



MET
Éireann

Weather Forecast From Met Éireann

24-hour Sea Area Forecast

Updated at 0000 / 0600 / 1200 / 1800

Sea Area Forecast until 0000 Wednesday, 9 November 2016
Issued at 0000 Tuesday, 8 November 2016

- 1. Gale warning:** Nil
Small craft warning: In operation
- 2. Meteorological situation at 2100:** A cold front from the Atlantic will track across the country on Tuesday in a strengthening southerly flow, followed by a strong unstable northwesterly airflow behind the front.
- 3. Forecast for Irish coastal waters from Fair Head to Howth Head to Hook Head and the Irish Sea:**

Wind: Northerly force 2 or 3, gradually backing southerly overnight and increasing force 4 to 6 during the morning. Further increasing south to southeast force 6 to 7 in the afternoon and then quickly veering northwest in the evening force 5 to 7 or possibly cyclonic variable.

Weather: Isolated showers at first. Rain during Tuesday.

Visibility: Moderate to poor in rain.

Forecast for Irish coastal waters from Hook Head to Loop to Fair Head:

Wind: Southerly force 4 or 5, increasing force 5 or 6 overnight and force 6 to 7 early in the morning. Winds will quickly veer northwesterly by early afternoon force 6 or 7 and gusty.

Weather: Rain extending eastwards overnight. Clearing to blustery showers during the afternoon.

Visibility: Good at first, but becoming moderate to poor in precipitation.

Warning of Heavy Swell: Nil
- 4. Outlook for a further 24 hours until 0000 Thursday 10 November 2016:** Fresh to strong and gusty northwesterly winds with showers.

Forecasts provided by Met Éireann (Department of Environment, Community and Local Government). Met Éireann Copyright.
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Appendix 7.2 Estimate of Weather Conditions.



Weather Forecast From Met Éireann

Text of Gale Warning	
Nil	
Text of Small Craft Warning	
Winds will reach force 6 or 7 on Tuesday on all coasts; southerly veering northwesterly.	
Coastal Reports	11 PM Monday, 07 November 2016
Malin Head Automatic	South, 7 Knots, Cloudy, 12 Miles, 1016, Falling slowly
Dublin Airport	West-Northwest, 5 Knots, Cloudy, 16 Miles, 1017, Falling slowly
Buoy M5 51° 41'N 6° 42'W	North-Northwest, 12 Knots, Wave ht: 1.1 m, The visibility at Tuskar is greater than 10 Miles, 1018, Falling slowly
Roches Point Automatic	North-Northwest, 3 Knots, Cloudy, 14 Miles, 1019, Falling slowly
Sherkin Island Automatic	East-Northeast, 2 Knots, Cloudy, 15 Miles, 1019, Falling slowly
Valentia Automatic	Northeast, 3 Knots, Cloudy, 18 Miles, 1018, Falling slowly
Mace Head Automatic	Southwest, 9 Knots, Cloudy, 26 Miles, 1017, Falling
Belmullet Automatic	South-Southeast, 10 Knots, Cloudy, 24 Miles, 1016, Falling
Buoy M1 53° 8'N, 11° 12'W	Report not available
Buoy M2 53° 29'N, 5° 26'W	North-Northeast, 11 Knots, Wave height not available, Pressure not available, Pressure tendency not available
Buoy M3 51° 13'N, 10° 33'W	West-Southwest, 6 Knots, Wave ht: 1.1 m, 1019, Falling slowly
Buoy M4 55° 0'N 10° 0'W	South-Southwest, 14 Knots, Wave ht: 1.2 m, 1015, Falling
Buoy M6 53° 4'N 15° 56'W	South-Southwest, 20 Knots, Wave ht: 2.6 m, 1011, Falling

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

Sea Crossings	State of sea until 0000 Thursday 10 November 2016
Dublin - Holyhead	Mostly moderate. Becoming locally rough in Irish Sea later.
Rosslare - South Wales	Mostly moderate. Becoming locally rough in Irish Sea later.
Cork - South Wales	Moderate becoming moderate to rough later.
Rosslare - France	Moderate to rough, increasing rough or very rough.
Cork - France	Moderate to rough, increasing rough or very rough.

Next update before 0700 Tuesday, 08 November 2016
 A detailed forecast may be obtained by dialing *Weatherdial* on 1550 123 855.

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Appendix 7.2 Estimate of Weather Conditions.



Weather Forecast From Met Éireann

24-hour Sea Area Forecast

Updated at 0000 / 0600 / 1200 / 1800

**Sea Area Forecast until 1200 Wednesday, 9 November 2016
Issued at 1200 Tuesday, 8 November 2016**

- 1. Gale warning:** In operation
Small craft warning: In operation
- 2. Meteorological situation at 0900:** An occluding front is crossing Ireland in a fresh southerly airflow. A small depression will develop on the point of occlusion over the south Irish Sea this evening producing a local gale gradient. An unstable northwesterly will follow tonight.
- 3. Forecast for Irish coastal waters from Carlingford Lough to Howth Head to Carnsore Point and the Irish Sea**

Wind: South to southeast force 4 increasing to force 5 or 6 this afternoon and force 6 or 7 this evening. Veering northwesterly force 6 to gale force 8 this evening in eastern coastal waters and the Irish Sea south of Anglesey. Decreasing here west to northwest overnight force 4 or 5. Staying southeasterly force 6 or 7 in the north Irish Sea tonight decreasing to force 3 tomorrow morning.

Weather: Heavy rain clearing eastwards this evening and tonight.

Visibility: Moderate to poor becoming good.

Forecast for Irish coastal waters from Carnsore Point to Roche's Point to Valentia

Wind: South to southwest force 5 or 6 veering northwesterly and increasing offshore force 6 or 7. Decreasing overnight force 5 or 6. Backing west to northwest tomorrow force 5 or 6.

Weather: Heavy rain clearing eastwards this evening to fair weather. scattered showers tomorrow.

Visibility: Moderate to poor becoming good.

Forecast for Irish coastal waters from from Valentia to Erris Head to Carlingford Lough

Wind: Northwesterly in west, elsewhere southerly veering northwesterly, force 6 squalling to force 7. Backing westerly overnight.

Weather: Rain clearing eastwards this afternoon and evening to scattered heavy showers.

Visibility: Moderate to poor becoming good.

Warning of Heavy Swell: Nil
- 4. Outlook for a further 24 hours until 1200 Thursday 10 November 2016:** Fresh and gusty west to northwest winds. Fair weather with scattered rain/hail showers.

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Appendix 7.2 Estimate of Weather Conditions.



Weather Forecast From Met Éireann

Text of Gale Warning

Northwesterly winds will reach gale force this evening and for a time tonight on coasts from Howth head to Carnsore Point and the Irish Sea south of Anglesey.

Text of Small Craft Warning

Winds of force 6 or higher this afternoon, this evening and tonight on all Irish Coastal Waters; southerly veering northwesterly.

Coastal Reports	12 Noon Tuesday, 08 November 2016
Malin Head Automatic	South-Southeast, 19 Knots, Light rain, 5 Miles, 1001, Falling rapidly
Dublin Airport	East-Southeast, 7 Knots, Light rain, 7 Miles, 1006, Falling
Buoy M5 51° 41'N 6° 42'W	South-Southwest, 17 Knots, Wave ht:0.9 m, The visibility at Tuskar is greater than 10 Miles, 1007, Falling rapidly
Roches Point Automatic	South-Southwest, 23 Knots, Light rain, 3 Miles, 1005, Falling rapidly
Sherkin Island Automatic	South-Southwest, 20 Knots, Rain shower, 2 Miles, 1004, Falling rapidly
Valentia Automatic	South-Southwest, 12 Knots, Mod rain, 1.8 Miles, 1003, Falling rapidly
Mace Head Automatic	Southwest, 22 Knots, Light rain, 1.8 Miles, 1000, Falling rapidly
Belmullet Automatic	North-Northwest, 16 Knots, Gust 32 Knots, Recent rain, 8 Miles, 1000, Falling
Buoy M1 53° 8'N, 11° 12'W	Report not available
Buoy M2 53° 29'N, 5° 26'W	South-Southwest, 16 Knots, Wave height not available, Pressure not available, Pressure tendency not available
Buoy M3 51° 13'N, 10° 33'W	South-Southwest, 19 Knots, Wave ht: 2.3 m, 1003, Falling rapidly
Buoy M4 55° 0'N 10° 0'W	Northwest, 20 Knots, Wave ht: 2.3 m, 999, Falling
Buoy M6 53° 4'N 15° 56'W	Northwest, 23 Knots, Wave ht: 3.8 m, 1008, Steady

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

Sea Crossings	State of sea until 1200 Thursday 10 November 2016
Dublin - Holyhead	Moderate becoming rough this evening. Decreasing moderate again tomorrow.
Rosslare - South Wales	Moderate becoming rough this evening. Decreasing moderate again tomorrow.
Cork - South Wales	Rough decreasing moderate tomorrow.
Rosslare - France	Rough decreasing moderate tomorrow.
Cork - France	Rough decreasing moderate tomorrow.

Next update before 1900 Tuesday, 08 November 2016

A detailed forecast may be obtained by dialing *Weatherdial* on 1550 123 855.

NATURAL JUSTICE - CORRESPONDENCE RECEIVED

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

- “36 (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 that is stated beside the relevant observation. When the Board is satisfied that the report has adequately addressed the issue in the observation, then the observation is ‘Noted’ without comment or amendment. The Board may make further amendments or observations in light of the responses from the Natural Justice process.

‘Noted’ does not mean that the Board either agrees or disagrees with the observation.

8. NATURAL JUSTICE - CORRESPONDENCE RECEIVED

There was no correspondence received in the Natural Justice process for this investigation.



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