

REPORT OF THE INVESTIGATION INTO A FATAL INCIDENT INVOLVING *'FV SHANIE BOY'*, WEST OF PERCH ROCK, SKERRIES, CO. DUBLIN ON 26th MAY 2017

> REPORT NO. MCIB/271 (No.4 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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Glossary of Abbreviations and Acronyms

| CGU | Coast Guard Unit | | |
|-------|--|--|--|
| EPIRB | Emergency Position-Indicating Radio Beacon | | |
| GRP | Glass Reinforced Plastic | | |
| ILB | Inshore Life Boat | | |
| ALB | All Weather Life Boat | | |
| LOM | Lifeboat Operations Manager | | |
| MRCC | Marine Rescue Coordination Centre | | |
| MSO | Marine Survey Office | | |
| NMOC | National Maritime Operations Centre | | |
| PFD | Personal Flotation Device | | |
| RCD | Recreational Craft Directive | | |
| R116 | Dublin Based Coast Guard Rescue Helicopter | | |
| SAR | Search And Rescue | | |
| VHF | Very High Frequency | | |

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1. SUMMARY

On the morning of Friday the 26th May 2017, the razor/clam fishing vessel '*FV* Shanie Boy' departed Skerries Harbour for a planned 14 hour fishing trip. On board were the Skipper and one other Crewmember. The vessel fished 500 metres offshore for a short period before moving to shallower waters inshore to continue dredging for razors and clams.

After a number of successful dredges the dredge partially filled with rocks and stones. It was hoisted to the top of the gantry but slipped off one of the two supports and fell to starboard. It became entangled in a cleat and caused the boat to heel to starboard. The Skipper attempted to correct the heel by turning the vessel, however, the boat continued to list and capsized very quickly.

Neither fisher was wearing a Personal Flotation Device (PFD) when the vessel capsized, although these were carried on board. Both the Skipper and Crewmember attempted to swim away from the up turned hull. However, as the vessel sank both men disappeared below the surface due to the effects of the sinking. The Skipper rose to the surface and shortly after he was taken from the water by the Skerries Inshore Lifeboat.

The other Crewmember did not surface. A search commenced involving the Skerries, Howth and Clogherhead Lifeboats, Skerries and Clogherhead Coast Guard Units, R116 Coastguard Helicopter, Air Corps Casa, L.E Orla, L.E Niamh, R.V Keary, local fishing and pleasure boats and Garda Divers. The body of the deceased Crewmember was recovered from the sea floor the following day, Saturday the 27th May 2017.

Some pollution, in the form of a slight oil slick, resulted from the incident.

Note all times are local time = UTC + 1.

2. FACTUAL INFORMATION

2.1 Vessel Description

| Vessel Name: | 'FV SHANIE BOY' (see Appendix 7.1 Photograph No. 1). |
|-----------------------|---|
| Type of Vessel: | Dredger (razors, clams). |
| Type of Gear: | DRB - Dredges. |
| Port of Registration: | Drogheda, Ireland. |
| Registration Number: | DA 101. |
| LOA: | 8.68 m. |
| Gross Tonnage: | 4.96. |
| Engine Capacity: | 20 kilowatts (kW). |
| Current Ownership: | Approximately two years. |
| Last Survey: | 2015. |
| Licence: | Most recent Sea Fishing Boat licence issued 22/06/17. |

2.2 Conditions at time of Incident

| Weather: | Wind: East to southeast, force 3 to 4 before noon, southeast to south force 4 to 5 after noon. |
|-------------|--|
| | Weather: Warm, dry and sunny with some cloud. |
| Visibility: | Very good to good (see Appendix 7.2 Met Éireann Weather Report). |

Air Temperature: 17 to 22°C.

Sea Temperature: 13°C.

Sea State: Near calm to smooth.

2.3 Persons Involved & Experience

Two men - the Skipper and a Crewmember.

Skipper - fisher with approximately 30 years' experience.

Crewmember - not a fisher but had some previous experience with the Skipper.

Both were wearing oilskins and boots.

2.4 Safety Equipment on Board

Two PFDs in the wheelhouse.

Emergency-Position Indicating Radio Beacon (EPIRB) in a bracket on the outside of the wheelhouse.

Two lifebelts stowed on the wheelhouse roof.

2.5 Marine Casualty Information

| Date & Time: | 26th May 2017, approximately 12.45 hrs. |
|-----------------------|---|
| Type of Casualty: | Very Serious Marine Casualty. |
| Location of Incident: | West of Perch Rock, Skerries, Co. Dublin. |
| Fatalities: | One fatality. The coroner's autopsy report states that death was due to drowning with evidence of recent ingestion of cocaine and cannabis. The conclusions of the coroner's autopsy report are provisional at the time of publication of this report. Determination of death causation is a matter for the coroner's inquest. |
| | |

Environmental Impact: Slight oil slick following sinking.

3. NARRATIVE

- 3.1 At approximately 08.00 hrs on the morning of Friday the 26th May 2017, the Owner/Skipper of the razor and clam fishing vessel '*FV Shanie Boy*' considered that the weather was suitable for a 14 hour fishing trip. Although the Skipper usually fished alone he had previously promised some work to the Crewmember if it became available. The Crewmember had done some fishing with the Skipper and had some fishing experience but he was not a fisher by trade.
- 3.2 The Skipper called the Crewmember at 09.00 hrs and met him on the boat at approximately 09.30 hrs. Prior to the Crewmember's arrival with supplies for the trip, the Skipper checked the vessel and gear. It appears that he concluded that everything was in good order. At approximately 09.45 hrs, the 'FV Shanie Boy' departed Skerries harbour with the Owner/Skipper and one Crewmember on board for a 14 hour fishing trip.
- 3.3 The vessel proceeded to approximately 500 m offshore, past an area known locally as 'The Hole'. They were catching nothing and the water was getting deeper. It appears that the decision was made to move closer inshore.
- 3.4 The first and second shots of the dredge in shallower water produced two baskets each. A basket is a barrel of water that holds approximately 18 kg of shellfish. The vessel was then taken closer inshore to within approximately 100 m of the shore and the dredge shot again. The dredge was towed for approximately 25 minutes at a speed of less than 0.5 knots, as was usual practice.
- 3.5 About ten minutes into this tow, the Skipper noticed that the boat speed had dropped from 0.4 knots to 0.1 knots and he realised that there was a lot of weight in the dredge. The dredge was hauled. The men noticed that it was three quarters filled with stones and small rocks. They allowed it to tow beneath the surface to clean the mud from it and then lifted it onto the gantry on the stern of the boat (see Appendix 7.1 Photograph No. 2). This raised the dredge to a significant height above the vessel. The added weight caused the dredge to slip off the port gantry arm and it swung to starboard where it became fouled on a cleat on the starboard quarter of the boat. Despite their efforts the men were unable to release the dredge from the cleat.
- 3.6 The vessel was listing heavily to starboard. The Skipper ran to the wheelhouse in an attempt to turn the boat to straighten it up. However, the additional weight high up on the starboard side, added to the listing of the vessel and caused it to lose stability and capsize to starboard.
- 3.7 The wheelhouse door jammed shut as the vessel inverted trapping the Skipper inside. Flying equipment struck him on the head. After three attempts, the

Skipper managed to force the door open and despite snagging his clothing on a handrail, he managed to escape from the wheelhouse and swim to the surface. Although PFDs were available neither man was wearing one at the time of the incident.

- 3.8 Once on the surface the Skipper called for the Crewmember who was on the far side of the boat holding on. Both men moved around to the shore facing side of the inverted hull. They noticed that the vessel was beginning to sink. Both men tried to strip off their oilskins and boots, believing that they would be able to float and move more freely without them.
- 3.9 As the boat began to sink both men decided to try to swim toward the nearest moored yacht which was approximately 100 m away in the direction of the shore. The tide was ebbing and pulling them back out to sea towards the upturned hull of their boat.
- 3.10 As the fishing vessel sank rapidly below the surface the effect was that both men were drawn under water with it. The Skipper managed to fight his way back to the surface, however, the Crewmember did not.
- 3.11 As this incident occurred within 100 m of the shore it was witnessed by several members of the public, many of whom called the emergency services on 112 or 999. These calls were diverted to the Marine Rescue Coordination Centre (MRCC) at 13.25 hrs. At 13.26 hrs the MRCC tasked rescue helicopter R116 and Skerries Inshore Lifeboat (ILB) to the scene. By 13.30 hrs the Skerries ILB had launched and was proceeding to the scene. As they approached the debris field, they spotted a man rising to the surface of the water. At 13.35 hrs they pulled the Skipper of the sunken vessel aboard the ILB. He was barely conscious but managed to inform the ILB crew that there was another casualty in the water and gave them details of what he was wearing.
- 3.12 The ILB carried out a quick search of the area and finding nothing returned to the jetty where the Skipper was landed ashore. He was subsequently taken by ambulance to hospital. The ILB returned to the scene and commenced a grid search of the area. The search was joined by LE Orla which was designated on scene command, LE Niamh, Skerries Coast Guard Unit (CGU), Howth All Weather Lifeboat (ALB) and numerous local fishing and pleasure boats. The Air Corps casa aircraft, which was carrying out an exercise in the area, also joined the search. Each was given a specific area to search. However, there was no sign of the missing casualty and the search was stood down at 21.29 hrs on Friday the 26th May.
- 3.13 At 06.25 hrs on Saturday the 27th May the search recommenced. LE Niamh was designated as on site command. It was joined by Skerries ILB, Clogherhead ILB, Howth ALB, Skerries and Clogherhead CGU, R116 and numerous local fishing and pleasure boats. The research vessel '*RV Keary*', which is equipped with forward

looking sonar for sea bottom surveying, was also in the area and voluntarily joined the search. The Customs vessel 'Suirbheir' and the Irish Lights vessel 'Granuaile' were also en route to join in.

- 3.14 At 09.33 hrs the '*RV Keary*' located an object on the seabed close to the wreck site. The Garda Divers were brought in to investigate further. At 10.17 hrs the body of the missing Crewmember was recovered from the sea and brought ashore to the lifeboat station by the Skerries ILB. From there he was transferred to an ambulance.
- 3.15 At 10.40 hrs all units were stood down.
- 3.16 An oil slick of approximately 300 m in length extended north from the wreck site. The slick was due primarily to diesel leakage from fuel tanks on the vessel. The pollution officer for Fingal County Council was advised and the slick was monitored during the search and rescue but no further action was deemed necessary.
- 3.17 The coroner's autopsy report provided to the Marine Casualty Investigation Board (MCIB) states the cause of death was "due to drowning with recent ingestion of cannabis and cocaine." The results of toxicological analysis provided to the MCIB are provisional at the time of publication. The determination of the cause of death is a matter for the coroner's inquest.¹

1. www.coroners.ie

ANALYSIS Cont.

4. ANALYSIS

- 4.1 The 'FV Shanie Boy' had been in the ownership of the Skipper for two years. He is an experienced fisher with approximately 30 years of razor and clam fishing behind him, having owned and operated similar vessels before the 'FV Shanie Boy'. The vessel was in good condition and had last been surveyed in 2015.
- 4.2 The 'FV Shanie Boy' was an open decked vessel with a small wheelhouse at the forward end. The catch was kept in barrels stored on deck to port and starboard. A steel gantry extending up to approximately twice the height of the wheelhouse was mounted aft, near the transom from which the heavy steel dredge was suspended when not in use and when being emptied of the catch (see Appendix 7.1 Photograph No. 3). The dredge was hung from two arms, one on either side of the gantry, and hoisted into position with a winch. The added weight of rocks and stones in the dredge when hoisted to the top of the gantry would have had a negative impact on the stability of the vessel. When the dredge slipped off the gantry starboard arm, all the extra weight hanging over the side would have had a further negative effect on stability.
- 4.3 After the the vessel capsized it sank very quickly. The Skipper and Crewmember were drawn beneath the water when the *'FV Shanie Boy'* sank. The Skipper rose to the surface again but his Crewmember did not and it is possible that he became entangled in the vessel as it sank.
- 4.4 The Skerries ILB reacted very swiftly and rescued the Skipper. If his Crewmember had been on the surface at the time it is very possible that he too would have been seen by the crew of the ILB.
- 4.5 Neither the Skipper nor the Crewmember were wearing PFDs at the time. Under S.I. No. 586/2001 it is a requirement on all persons to wear a PFD while on the exposed deck of a fishing boat.
- 4.6 The Crewmember was not an experienced fisher, although he had worked with the Skipper prior to this trip. There are no records to show that he had undergone the mandatory safety training.
- 4.7 The coroner's autopsy report provided to the MCIB states there was evidence of "recent ingestion of cannabis and cocaine." The use of drugs is known to have an effect on a person's cognitive function and behaviour. The effect, if any, of the drugs on the Crewmember cannot be determined by the MCIB and is a matter for the coroner's inquest. The coroner's autopsy results provided to the MCIB are provisional at the time of publication.
- 4.8 There are a number of legislative provisions prohibiting a person from operating or controlling a vessel while under the influence of drugs or alcohol. For example. Section 28 (1) of the Maritime Safety Act, 2005 states:

"A person being in command or in charge or another member of the crew of a vessel in Irish waters or an Irish ship in waters anywhere shall not operate or control or attempt to operate or control the vessel or carry out any task or duty in relation to such operation or control while he or she or the other is under the influence of alcohol or a drug or any combination of drugs or drugs and alcohol to such an extent as to be incapable of properly controlling or operating the vessel or carrying out the task or duty."

4.9 A search and rescue mission was mobilised. It was the research equipment on board the '*RV Keary*' that eventually located the deceased.

5. CONCLUSIONS

- 5.1 The 'FV Shanie Boy' had last been surveyed in 2015 and was considered suitable for service as a razor/clam dredging boat. It had also been granted a Sea-Fishing Boat Licence by the Licensing Authority for Sea-Fishing Boats. This had been applied for prior to the incident but was issued shortly afterwards. However, when the dredge filled with stones became dislodged from the gantry, the vessel rapidly lost stability suggesting that there was little reserve of stability in the first place.
- 5.2 If the Skipper and the Crewmember had been wearing PFDs, it is likely that they would both have remained afloat as the boat sank.
- 5.3 The MCIB cannot determine the effect of the drugs on the Crewmember. The consumption and use of drugs is known to affect cognitive function and behaviour. The effect, if any, of the drugs on the Crewmember cannot be determined by the MCIB and is a matter for the coroner's inquest.
- 5.4 The proximity to the shore and the swift action of the Skerries ILB were factors in the timely rescue of the Skipper.
- 5.5 Although an extensive search and rescue program was very quickly put in place, it was the fortuitous presence of the research vessel '*RV Keary*' that was instrumental in locating the body of the deceased Crewmember. The body was located on the sea bed in the vicinity of the sunken fishing vessel on the morning following the incident.

6. SAFETY RECOMMENDATIONS

- 6.1 It is recommended that the Minister for Transport, Tourism and Sport;
 - update the standards applicable to small fishing vessels to ensure that they are in line with Maritime Safety Strategy Action No. 9.
 - consider investigating methods to prevent cabling from slipping down from the gantries of similar craft engaged in fishing using dredges.
- 6.2 It is recommended that the Minister for Transport, Tourism and Sport and the Minister for Food, Agriculture and Marine;
 - consider launching a campaign to illustrate the dangers of drug and alcohol use on operators of fishing vessels.
 - relaunch the campaign to highlight the requirement to wear PFDs on all fishing vessels at all times.

APPENDICES

7. APPENDICES

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Appendix 7.1 Photographs.



Photograph No. 1: 'FV Shanie Boy'.



Photograph No. 2: Detail showing the gantry at the stern of 'FV Shanie Boy'.

Appendix 7.1 Photographs.



Photograph No. 3: Similar vessels showing the dredge in a stowed position on the gantry.

Appendix 7.2 Met Éireann Weather Report.

| and the second se | MET ÉIREANN The Irish Meteorological Service |
|---|--|
| | The Thish Meteorological Bervice |
| i∨i ⊨ I éireann | Glasnevin Hill, Dublin 9, Ireland.Cnoc Ghlas Naíon Baile Átha Cliath 9, Éire.Tel: +353-1-806 4200 Fax: +353-1-806 4247 E-mail: met.eireann@met.ie |
| 3-July-2017 | B 4 JUL 2017 B 1 JUL 2017 B 1 JUL 2017 |
| | VS1730/1707_1 ACIB/12/271 |
| | |
| | weather conditions in 52 44.00N 006 02.00W (West of Perch Rock), ublin, from 06:00 to 12:00 and 12:00 to 18:00 hours on the 26th of May |
| | |
| C | |
| moderate south | ological Situation: An anticyclone over the North Sea maintained a east airflow over Ireland. 5:00 to 12:00 hours |
| moderate south | east airflow over Ireland. |
| moderate south Forecast from 06 <u>Wind:</u> <u>Weather:</u> | east airflow over Ireland. 5:00 to 12:00 hours Variable mainly east 6 to 10 knots (Beaufort force 3), increased southeast |
| moderate south Forecast from 06 <u>Wind:</u> <u>Weather:</u> <u>Temperatures:</u> | beast airflow over Ireland. bit 5:00 to 12:00 hours bit Variable mainly east 6 to 10 knots (Beaufort force 3), increased southeast 12 to 15 knots (Force 4) by midday. bit Fine dry and sunny. Warm. bit The air temperatures ranged 17 to 20 degrees Celsius. Sea temperature 13 |
| moderate south | east airflow over Ireland. 5:00 to 12:00 hours Variable mainly east 6 to 10 knots (Beaufort force 3), increased southeast 12 to 15 knots (Force 4) by midday. Fine dry and sunny. Warm. The air temperatures ranged 17 to 20 degrees Celsius. Sea temperature 13 degrees. |
| <i>moderate southe</i> Forecast from 06 <u>Wind:</u> <u>Weather:</u> <u>Temperatures:</u> <u>Visibility:</u> | east airflow over Ireland. 5:00 to 12:00 hours Variable mainly east 6 to 10 knots (Beaufort force 3), increased southeast 12 to 15 knots (Force 4) by midday. Fine dry and sunny. Warm. The air temperatures ranged 17 to 20 degrees Celsius. Sea temperature 13 degrees. Very good (Greater than 20 km). Near calm to smooth (0.1 meters, gradually increased to 0.3 meters); the |
| <i>moderate southe</i> Forecast from 06 <u>Wind:</u> <u>Weather:</u> <u>Temperatures:</u> <u>Visibility:</u> | east airflow over Ireland. 5:00 to 12:00 hours Variable mainly east 6 to 10 knots (Beaufort force 3), increased southeast 12 to 15 knots (Force 4) by midday. Fine dry and sunny. Warm. The air temperatures ranged 17 to 20 degrees Celsius. Sea temperature 13 degrees. Very good (Greater than 20 km). Near calm to smooth (0.1 meters, gradually increased to 0.3 meters); the |

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Appendix 7.2 Met Éireann Weather Report.

| MET | MET ÉIREAN The Irish Meter Glasnevin Hill, | NN orological Service Cnoc Ghlas Naíon | Tel: +353-1-806 4200 | |
|---|---|--|--|----------------|
| éireann | Dublin 9, Ireland. 2:00 to 18:00 hours | Baile Átha Cliath 9, Éire. www.met.ie | Fax: +353-1-806 4247 E-mail: met.eireann@met. | .ie |
| Forecast from 12 | 2:00 to 18:00 hours | | | 1.1 |
| Wind: | Southeast to south 15 knot times. | ots (Force 4), increased | to 18 knots (Force 5) a | ıt |
| <u>Weather:</u> <u>Temperatures:</u> | Some cloud early in period Air temperature was 20 to | | | |
| Visibility: | Good (Greater than 10 km |). | | |
| Sea States | Smooth (0.3 meters); wave | e period 3 seconds. | | |
| | | The Co | 0 4 JUL 2017 | |
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Appendix 7.2 Met Éireann Weather Report.

| F | R Casualty Investigation | WEATHERDIAL |
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| | ather by Fax | |
| | | ea Area Forecast |
| | | 021 Updated at 0000 / 0600 / 1200 / 1800 |
| | Sea Area Forecast until 0000 | |
| | Issued at 0000 Frid | |
| . Gale warning Small craft w | | Annual Contract Party Party Contractor Contractor |
| moderate sou | al situation at 2100: An anticyclone of 10 theasterly airflow over Ireland. A cold fr nticyclone drifts slowly away northeastwa | 025 hPa, centered in the North Sea, is generating a light ont, with a developing wave, is approaching from the rds. |
| . Forecast for | all Irish coastal waters and the Irish Se | a |
| | butheast force 3 or 4, increasing to force s cyclonic variable force 4 or less later. | 5 tomorrow morning in the north Channel and the Irish |
| Veather: Patch | es of haze/mist/fog. Thundery rain extend | ding eastwards into the northwest, west and south. |
| isibility: Mode | rate locally poor. | Republic State Make |
| Verning of Lies | and Supplie Mil | The state of the s |
| Varning of Hea | | 3 May 2017: Light to moderate cyclonic variable winds |
| ecoming fresh | westerly with strong gusts. Later becomin | ng light variable again in the south. |
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| Stouch | For personal use only. Broadcast, Publishing or Re Complementary Directory Cards and details of ho | invironment, Community and Local Government). Met Éireann Copyright. adistribution prohibited. Service provided by iTouch Ltd, part of Buongiorm Customer Services (Tel) 01-6531523. (Email) info@weatherdial.ie ow to buy Met Éireann forecasts online or by SMS visit www.weatherdial.ie duct codes dial 1570 131 838 and enter code 0000 (calls cost €1.75 p/min |
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Appendix 7.2 Met Éireann Weather Report.

| | | let É l 1e Irish | | NN orological Service | | | |
|---|---|--|---|---|---|-------------------------------|-------|
| AET ireann | | asnevin H blin 9, Ire | | Cnoc Ghlas Naíon Baile Átha Cliath 9, Éire | e. Fax: +35 | 3-1-806 4200 53-1-806 4247 | |
| | | Reau | fort S | cale of Wind | E-mail. | met.eireann@x | et.ie |
| orce Description | Spe knots | eed* km/hr | Specifi -sea | | | Wave height** (metres) | |
| Calm Light air Light breeze Gentle breeze Fresh breeze Strong breeze Strong breeze Strong gale Gale Strong gale Storm Violent storm Hurricane | <1 1-3 4-6 7-10 11-16 17-21 22-27 28-33 34-40 41-47 48-55 56-63 64+ | <1 1-5 6-11 12-19 20-28 29-38 39-49 50-61 62-74 75-88 89-102 103-117 117 & over | Ripples Small v Large v Small v Modera Large v Sea hea Modera High w spray n Very hi visibilit Excepti cover s | wavelets wavelets, crests begin to break waves becoming longer, frequer ate waves, many white horses, o waves, white foam crests, proba aps up, streaks of white foam ately high waves of greater leng raves, dense streaks of foam, nay reduce visibility igh waves, long overhanging cr ty affected ionally high waves, long white | chance of spray bly some spray gth ests, foam patches | y 2 (2.5) | |

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 Significant Wave height in meters (Descriptive) 0 - 0.1Calm Smooth(Wavelets) 0.1 - 0.50.5 - 1.25 Slight 1.25 - 2.5Moderate 2.5 - 4Rough 4 - 6Very rough High 6 - 9Very high 9 - 14Phenomenal 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

| he following: | iptions of visibility mean | | |
|-----------------------------|--|--|--|
| 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 7.3

Appendix 7.3 Location of Wreck.



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.

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8. NATURAL JUSTICE - CORRESPONDENCE RECEIVED

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

NOTES

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Leeson Lane, Dublin 2. Telephone: 01-678 3485/86. Fax: 01-678 3493. email: info@mcib.ie www.mcib.ie