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**REPORT OF INVESTIGATION
INTO CASUALTY OFF
AUGHRIS POINT,
CLADDAGHDUFF, CO. GALWAY
21st APRIL 2009**

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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**REPORT No. MCIB/166
(No. 5 of 2010)**

Report MCIB/166 published by The Marine Casualty Investigation Board
17th June 2010

	PAGE
1. SYNOPSIS	4
2. FACTUAL INFORMATION	5
3. EVENTS PRIOR TO THE INCIDENT	7
4. THE INCIDENT	8
5. EVENTS FOLLOWING TO THE INCIDENT	9
6. CONCLUSIONS	10
7. RECOMMENDATIONS	12
8. LIST OF APPENDICES	13
9. CORRESPONDENCE RECEIVED	31

SYNOPSIS

1. SYNOPSIS

- 1.1 On the morning of 21st April 2009, whilst attending to fishing pots off Aughris Point, Claddaghduff, Co. Galway, two men, Mr. Fechin Mulkerrins and Mr. Anthony Coohill got into difficulties. Their currach capsized and as a result both men drowned. Neither man was wearing a Personal Flotation Device/Approved Life Jacket.

2. FACTUAL INFORMATION

2.1 Description of vessel

The vessel was a 20ft currach of traditional design, wooden internal construction with fibre glass hull. It was built by a local boat builder and delivered just three weeks prior to the incident.



2.2 Equipment

8 Horse Power Mercury Marine outboard motor.
P.V.C. fuel tank and feed hose.
Two oars.
Foot lock.
Bilge pump.
Various lengths of rope.
Crab gauge.
Ball floats.

The vessel was not named.

2.3 Crew List

Mr. Fechin Mulkerrins, Claddaghduff, Co. Galway.

Mr. Anthony Coohill, Claddaghduff, Co. Galway.

2.4 Tidal Information

Low water - approx 09.00 hrs.
High water - approx 15.00 hrs.
Low water - approx 21.00 hrs.
Strong flood tide setting Northwesterly in direction.
Sea Temp 9°C.

2.5 Time line of incident

08.00 - 08.30 - Mr. Tony Coohill and Mr. Fechin Mulkerins left Aughris Pier to go the short distance to relocate their pots.

08.30 - 09.00 - A local fisherman sighted both men working their pots.

10.04 - Another fisherman located the upturned currach and the alarm was raised.

10.05 - A MayDay Relay message was broadcast.

10.26 - First search and rescue vessel on scene.

10.27 - Two oars found floating 200 metres Southwest of Omey Island.

10.30 - Currach located on the Southwest side of Aughris.

11.04 - Fuel tank found floating.

11.05 - Missing piece of transom found.

13.10 - The remains of Mr. Coohill found on Southwest side of Omey Island.

16.20 - The remains of Mr. Mulkerrins found in general incident area.

16.30 - All search and rescue units stood down.

3. EVENTS PRIOR TO THE INCIDENT

- 3.1 On the morning of 21st April 2009. Mr. Tony Coohill and Mr. Fechin Mulkerrins decided to check the condition of their lobster pots off Aughris Point. It is believed that they were concerned about the location of the pots in view of the weather forecast, which indicated fresh South to South West winds for later that day.
- 3.2 They left from Aughris Pier some time around 08.00 hrs that morning to make the short passage to the pots in their newly acquired fibre glass currach.
- 3.3 The vessel was not fitted with buoyancy tanks.
- 3.4 Both men wore fishermens' oilskins over their clothes and were believed to be wearing Wellington boots.
- 3.5 Neither man was wearing a life jacket/personal floatation device (PFD).
- 3.6 Weather conditions at the time were as follows -

Between 08.00 and 10.00 hrs the wind direction started Southwesterly and veered 80 degrees to a Northwesterly direction. Wind strength was Force 4 i.e. 12 to 15 kts with gust of 19 kts.

Between 10.00 and 14.00 hrs the wind direction oscillated between Northwest and West-northwest in direction. The fact that the wind direction changed more than 80 degrees between 08.00 and 10.00 hrs is likely to have contributed to a confused sea state.
- 3.7 Another fisherman, who also happened to be an uncle of Mr. Tony Coohill, sighted both men between 08.30 and 09.00 hrs in the vicinity of Aughris Point. This is consistent with the location of their lobster pots.

THE INCIDENT

4. THE INCIDENT

- 4.1 At 10.04 hrs. a local fisherman reported sighting an upturned currach between Aughris Mór Pier and Omey Island in approximate position Lat 53°32.1 N Long 010°11.4 W about 1 nautical mile west of Omey Island, Clifden, Co. Galway. After a brief search nobody was found. The fisherman then made his way ashore to raise the alarm.
- 4.2 Almost immediately Malin Head Coast Guard issued a May Day relay and a full-scale search operation was mounted. This involved:
 - Rescue Helicopter 118 from Sligo.
 - Rescue Helicopter 115 from Shannon.
 - An Air Corps Casa Fixed wing aeroplane.
 - Clifden, Achill and Costello Bay lifeboats, and a number of local boats.
- 4.3 It became apparent very soon that two local fishermen were missing. At 10.27 two oars were located approximately 200 metres offshore on the Southwesterly side of Omey Island. By 10.30 hrs the upturned currach was located on breakers on the SW of Aughris Pier. The vessel had to be freed by the lifeboat crew by cutting away a line of 10 pots, which by now had become fast to the rocks.
- 4.4 The line of pots was made fast to the currach between pots 4 and 5 indicating that during the hauling of these pots, for whatever reason, it became necessary to tie them off. Each pot when empty and dry weighs approximately 10 kg. These pots would have been manhandled, as the currach did not have a mechanical hauler.
- 4.5 The vessel was, for the most part, found intact apart from some damage to the transom at the mounting for the outboard engine. The engine was not attached to the boat. Local fishermen eventually towed the vessel into port.
- 4.6 At approximately 11.04 hrs the fuel tank was located followed almost immediately by the missing piece of transom. Some time later the currach's outboard engine was recovered.

5. EVENTS FOLLOWING THE INCIDENT

- 5.1 With a full-scale search now well under way the search area was expanded to ensure that a thorough combing of the area was carried out.
- 5.2 At 13.21 hrs a body was seen floating in the water face down in a location known as Mweemnuar, about half a mile from where the currach was found. This body was taken onboard a RIB and was immediately recognised as that of Mr. Tony Coohill, who was then brought to the Clifden lifeboat and thereafter brought to the lifeboat station at Clifden. At 15.10 hrs Mr. Tony Coohill was officially pronounced dead by Doctor Ciarán Mac Loughlin and his remains were transferred to University College Hospital, Galway, for post mortem examination.
- 5.3 The search continued until 16.10 hrs when divers located a second body approximately 4-6 metres below the surface in the general area of the incident. This body was brought onboard a local RIB and identified as that of Mr. Fechin Mulkerrins. He was later transferred to Clifden lifeboat station. At 17.50 hrs Mr. Mulkerrins was officially pronounced dead by Doctor Ciarán Mac Loughlin. His remains were transferred to University College Hospital, Galway, for post mortem examination.

CONCLUSIONS

6. CONCLUSIONS

- 6.1 The currach had been bought only three weeks before the incident and was in excellent condition.

However, it should be borne in mind that currachs made from fibre glass, as the subject vessel was, pose difficulty in being classified as “traditionally built” and which could cause them to come within the scope of the Recreational Craft Code (RCD). If the vessel is subsequently used for commercial fishing, the principles in paragraph 6.8 below apply.

- 6.2 Both men are considered to be moderate swimmers.

- 6.3 Sea conditions at the time were marginal in that there was a confused sea and heavy swell running.

- 6.4 Although both men were considered to be well experienced in fishing from larger half decked boats some local fishermen indicated that they were relatively inexperienced in fishing from currachs. Anecdotal evidence further suggests that concern for the safety of the pots was unfounded in that the pots were well sheltered in their original location and as such did not need to be relocated.

- 6.5 Neither man wore a life jacket or approved personal floatation device (PFD).

- 6.6 No records could be found to indicate that either man had attended a basic sea survival course.

- 6.7 The autopsy report concluded that both men died as a result of drowning.

- 6.8 No records could be found to show that the vessel held a commercial fishing licence although it is understood that arrangements may have been in place for the purchase of the catch locally. It was reported that it was the intention of the deceased to apply for a commercial fishing licence. The significance of this is that had a commercial licence been granted, the vessel would have been required to obtain a Certificate of Compliance under the Code of Practice for Fishing Vessels of less than 15 metres in length. This would have required that limited life saving appliances be carried onboard.

- 6.9 The most significant factor in establishing the cause of this incident is the fact that when the vessel was found, a line of pots were tied off to the thwart (seat) between pots number 4 and 5. This indicates that of the string of 10 pots, (each pot weighing approximately 10 kg when dry and empty), 4 were onboard and the remaining 6 were hanging over the side and along the seabed in an approximate depth of 8 to 10 metres. This would at best restrict the vessel's vertical motion in a seaway and at worst snag the seabed thus compromising the stability/survivability of the vessel. Eventually the rolling accelerations would result in the vessel capsizing. See simplified explanation at Appendix 8.4.

- 6.10 As the vessel capsized both men entered the water. What happened next is unclear. However, the men's chances of survival were dramatically reduced due to the type of clothing they were wearing and the fact that they were not wearing life jackets or an approved Personal Flotation Device (PFD).

RECOMMENDATIONS

7. RECOMMENDATIONS

- 7.1 Unfortunately this is another incident involving fishermen not wearing a Lifejacket/PFD which could well have saved these unfortunate men's lives. Clearly a greater awareness by all boat users is required. A proper educational/promotion advertising campaign is urgently required to highlight this issue.
- 7.2 It is recommended that where it is established that such vessels are designed to engage in fishing for profit they must comply with the appropriate Code of Practice for Fishing Vessels and all that it entails regarding manning, safety equipment, radio equipment etc.
- 7.3 It is recommended that consideration should be given to producing a Marine Notice pertaining to the dangers of potting from such vessels.
- 7.4 The MCIB notes that there are complex issues to be considered in relation to the extent of application of the RCD to such vessels when used for recreational activities and recommends that the Department of Transport as the competent authority in Ireland for the implementation of the Recreational Craft Directive should determine the applicability of the RCD to currachs used for recreational purposes.

8. LIST OF APPENDICES

	Page
8.1 Meteorological report.	14
8.2 Chartlet of area.	24
8.3 Photographs of the currach, lobster pots, engine, location etc.	25
Photo 1 - Damaged engine mounting in way of Transom.	
Photo 2 - Engine fuel tank and feed hose. Also in the picture is the foot lock.	
Photo 3 - Outboard engine recovered near scene of incident.	
Photo 4 - View from Aughris Pier with Omey Island in the background.	
Photo 5 - String of pots recovered.	
Photo 6 - Single Pot.	
8.4 Simplified explanation of effect of rolling accelerations.	28

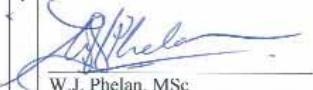
APPENDIX 8.1

Appendix 8.1 Meteorological report.


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Specialist field: Marine Meteorology
Reference: WS3018/2B/20090421m.doc

Title Report	: Weather and Sea conditions for Tuesday 21st April 2009 between 08:00 and 14:00 hours UTC for the sea area of five mile radius around Omey Islands (53.32 N 10.11W) off Aughris Point, Claddaghduff, Clifden, Co. Galway
Accident detail	: The tragic deaths of two fishermen when their motorised curragh overturned while checking lobster pots off Aughris Point, Claddaghduff, Clifden, Co. Galway
Reference	: Marine Casualty Investigation Board Reference MCIB/166
Our Reference	: WS3018/2B/20090421m.doc
Author	: W. J. Phelan, MSc Marine Meteorologist Met Éireann, Glasnevin Hill, Dublin 9 Phone: 01 8064285 Fax: 01 8064247 Email: marine@met.ie
Report Issued	: 23 September 2009
Signed	:  W.J. Phelan, MSc

Contents

1. Weather and Sea conditions for Tuesday 21st April 2009 between 08:00 and 14:00 hours UTC for the sea area of five mile radius around Omey Islands (53.32 N 10.11W) off Aughris Point, Claddaghduff, Clifden, Co. Galway 2

1.1 Meteorological summary: 2

1.2 Wind speed and direction: 2

1.3 Weather 2

1.4 Visibility 2

1.5 Sea state 3

1.6 Sea Surface Temperature: 3

2. Weather chart 4

3. Satellite Picture 6

4. Radar Picture 6

5. Sea Area Forecast Error! Bookmark not defined.

6. Chart of area 7

7. Glossary of technical terms 8

7.1 Wave Heights / State of Sea 8

7.2 Visibility 8

7.3 Beaufort scale of wind force 9

8 Map of Ireland with Headlands, coastal stations and offshore weather buoys..... 10

Appendix 8.1 Meteorological report.



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1. Weather and Sea conditions for Tuesday 21st April 2009 between 08:00 and 14:00 hours UTC for the sea area of five mile radius around Omey Islands (53.32 N 10.11W) off Aughris Point, Claddaghduff, Clifden, Co. Galway

1.1 Meteorological summary:

Ireland was covered in a moderate Southwesterly airflow with two weak cold fronts passing over the Claddaghduff area in the early morning with light rain and drizzle and changing wind direction. The first front passed over the area around 03:00 hours and the second weak front passed over around 07:00 hours. After the front cleared a weak ridge of high pressure established.

1.2 Wind:

Southwest veering Northwest Force 4

The wind strength was 12 – 15 knots with maximum gusts of 19 knots.

The wind direction started Southwesterly and changed 80 degrees to a Northwesterly between 08:00 and 10:00 hours, then oscillated between Northwest and Westnorthwest between 10:00 – 14:00 hours (see table Wind observations from nearby automatic weather station Mace Head below)

Wind observations from Automatic Weather Station Mace Head			
Time (UTC)	Wind Direction (degrees from North)	Wind Speed (knots)	Maximum wind gust (knots)
08:00	230	10	19
09:00	300	15	19
10:00	310	13	17
11:00	300	12	17
12:00	280	12	16
13:00	300	12	14
14:00	280	12	15

1.3 Weather

Light rain and drizzle for the first hour, dry and fair weather for the rest of the period

1.4 Visibility

Moderate for the first hour, good later

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1.5 Sea state

Sea state offshore was moderate to rough.

The combined wind-wave and swell height was moderate to rough with significant wave height of 2.1 – 2.7 meters in open sea. The characteristics of the waves near the shore would have been different due to reduced depth, the shape of the coastline and tidal currents. The fact that the wind direction changed more than 80 degrees between 07:00 and 10:00 hours is likely to have contributed to a confused sea state. A slight increase of wave height on both M3 and M4 buoy were recorded between 09:00 and 10:00 hours. In general individual waves in the wave train have heights in excess of the significant wave height and the highest wave of all can be twice the significant wave height. Buoy observations of M3 (Kerry) and M4 (Donegal) are displayed in the table below, please note that M3 Kerry Buoy is 140 nautical miles to the south of the area under investigation and the M4 Donegal buoy is 80 nautical miles to the north of the area. Met Éireann does not have the observations or the expertise to state in any further detail what the sea state conditions were in the Claddaghduff area.

Wave observations of Atlantic Weather Buoys Significant Wave Height in meters		
Date Time (UTC)	M3 Kerry Buoy (51.2N 10.5W)	M4 Donegal Buoy (55.0N 10W)
21-apr-2009 08:00:00	2.1	2.2
21-apr-2009 09:00:00	1.9	2.1
21-apr-2009 10:00:00	2.1	2.6
21-apr-2009 11:00:00	2.1	2.5
21-apr-2009 12:00:00	2.1	2.6
21-apr-2009 13:00:00	2.2	2.4
21-apr-2009 14:00:00	1.9	2.7

1.6 Sea Surface Temperature:

The sea surface temperature was around 10° Celsius

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Page 4 of 10

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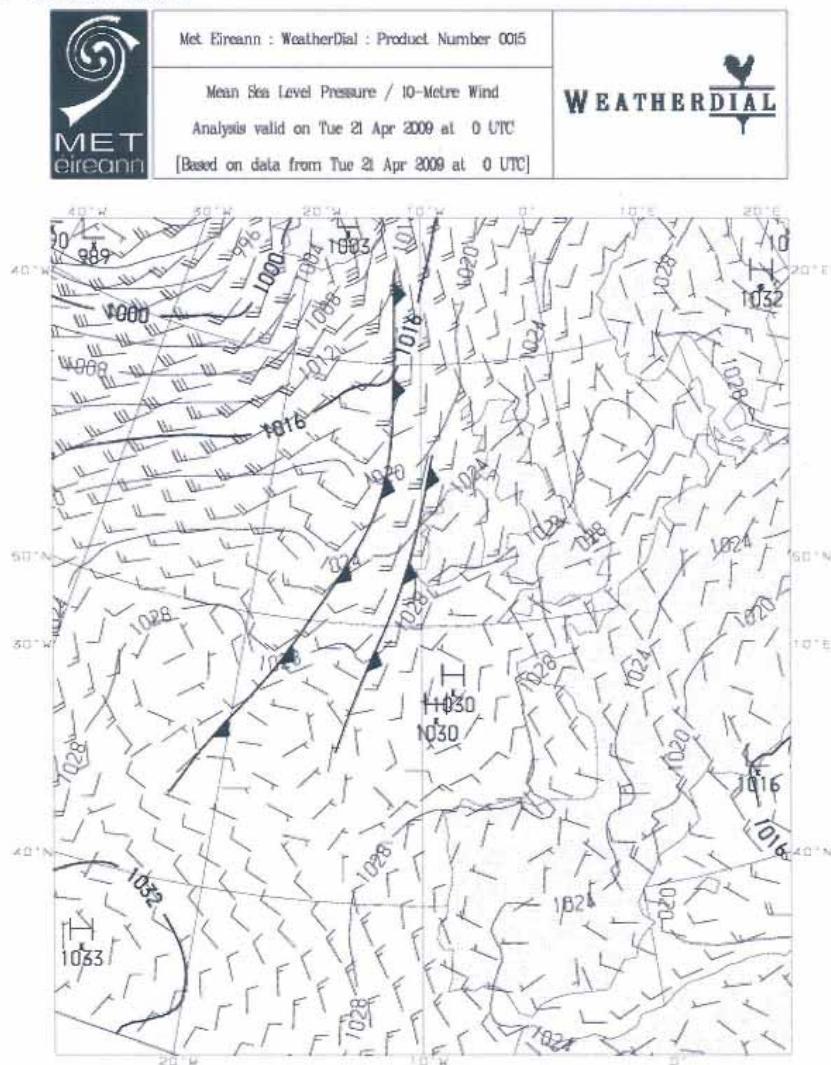
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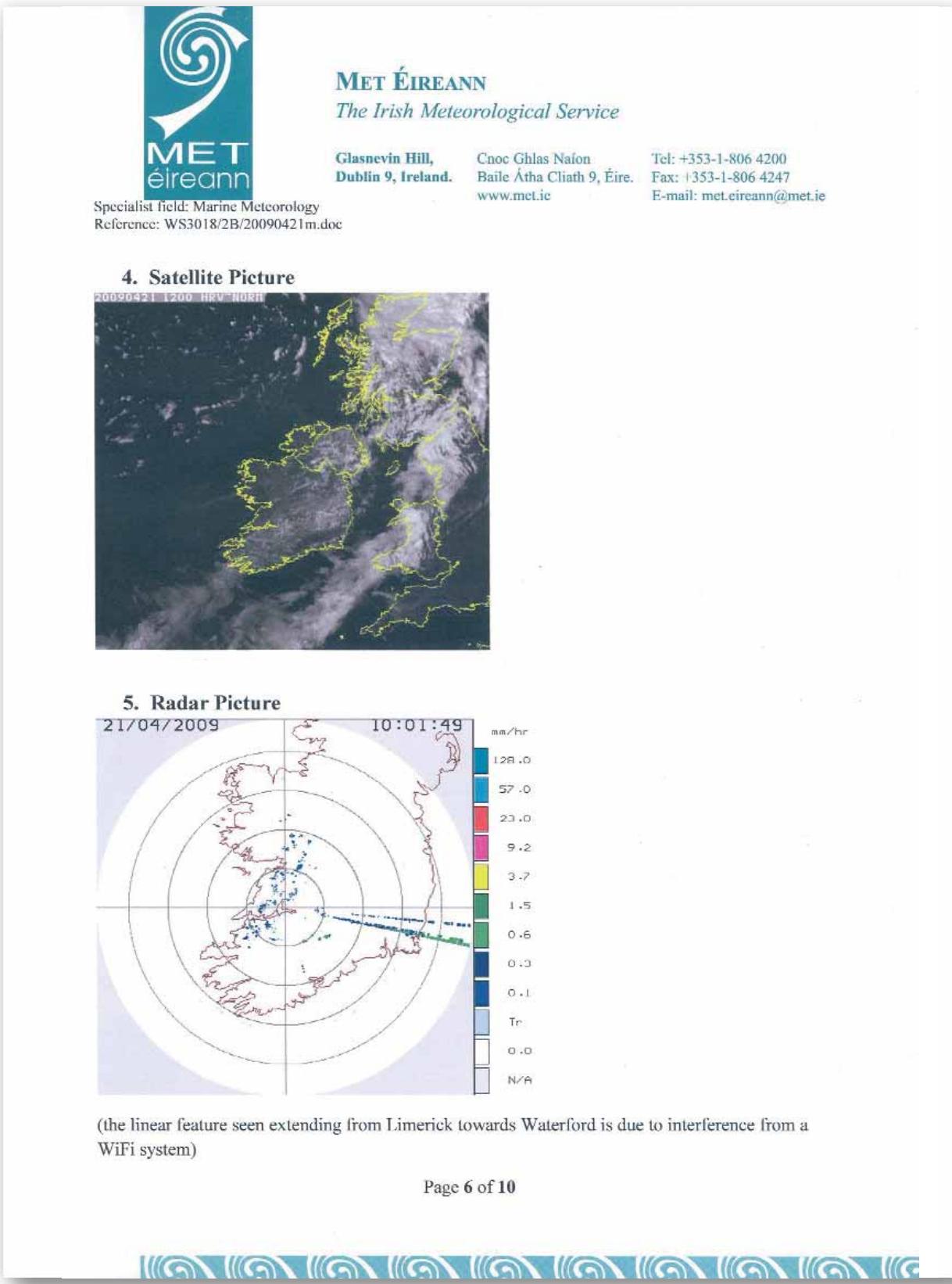
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3. Weather chart



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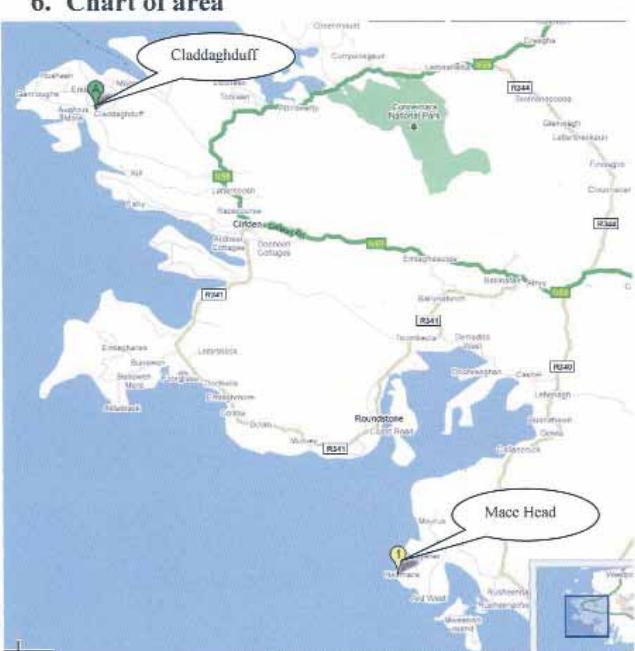
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6. Chart of area



Map showing the coastline of Connemara, Ireland. Key locations labeled include Claddaghduff, Roundstone, and Mace Head. Roads R341, R340, and R341 are shown. An inset map shows the location of the main map within the broader context of the west coast of Ireland.



Marine chart from IMRAY Chart C54. A specific area around the island of Inishbofin is circled in black. The chart includes depth contours, tidal information, and various maritime features. A legend at the bottom left indicates "From IMRAY Chart C54".

Page 7 of 10

Appendix 8.1 Meteorological report.


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7. Glossary of technical terms

The information in this Marine Weather Report is derived by extrapolation from reports of the offshore weather buoys, from Met Éireann's nearby synoptic land stations, archived weather charts, satellite and radar images and wave model data. Please note that all times in this report are given in Universal Time Coordinate (UTC)

UTC = Universal Time Coordinate = Greenwich Mean Time
Irish Summer Time = UTC + 1 hour (April – October)
Barometric pressure in hectoPascal (hPa) – millibar (mbar)
Wind direction in degrees from North
Wind speed in Beaufort Force or knots (see section 7.3)
Temperatures in degrees Celsius
Significant wave height in meters

7.1 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.

Sea State (Descriptive)	Significant Wave height in meters
Calm	0 – 0.1
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.

7.2 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)

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7.3 Beaufort scale of wind force

Force	Description	Wind Speed (km/hr)	Wind Speed (knot)	Land Signs	Sea State	Sea Height* (Metres)
0	Calm	0 - 0.9	0 - 0.9	Smoke rises vertically	Sea like mirror	0
1	Light Air	1 - 5	1 - 3	Smoke Drifts	Ripples	0.1(0.1)
2	Light Breeze	6 - 11	4 - 6	Leaves rustle, wind vane moves	Small wavelets	0.2(0.3)
3	Gentle Breeze	12 - 19	7 - 10	Light flag will wave, small twigs and leaves move constantly	Large wavelets, crests begin to break, perhaps scattered white horses	0.6(1.0)
4	Moderate Breeze	20 - 28	11- 16	All flags extended, small branches move, dust and paper blow about	Small waves, becoming longer, fairly frequent white horses	1.0(1.50)
5	Fresh Breeze	29 - 38	17 - 21	Small trees begin to sway	Moderate waves, many white horses, chance of some spray	2.0(2.5)
6	Strong Breeze	39 - 49	22 - 27	Large branches move	Large waves begin to form with foam crests. Probably some spray	3(4)
7	Near Gale	50 - 61	28 - 33	Walking into wind difficult, whole trees move	Sea heaps up and white foam from breaking waves blown in streaks	4(5.5)
8	Gale	62 - 74	34 - 40	Twigs break from trees, walking difficult	Moderately high waves of greater length; edges of crests begin to break. Foam is blown in well-marked streaks	5.5(7.5)
9	Strong Gale	75 - 88	41 - 47	Slight structural damage	High waves, dense streaks of foam, crests of waves begin to topple. Spray may affect visibility	7(10)
10	Storm	88 - 102	48 - 55	Trees uprooted, structural damage	Very high waves with long overhanging crests. Foam in great patches of dense white streaks. Tumbling sea becomes heavy and shock-like. Visibility affected	9(12.5)
11	Violent Storm	103 - 117	56 - 63	May cause widespread damage, rare inland	Exceptionally high waves, sea completely covered with long white patches of foam, wave crests are blown into froth. Visibility affected	11.5(16)
12	Hurricane	118+	64+	Causes devastation.	Air filled with foam and spray. Sea completely white with driving spray; visibility seriously affected.	14+

* The column sea height (probable maximum height in brackets) is added as a guide to show roughly what may be expected in the open sea, remote from land.

Appendix 8.1 Meteorological report.



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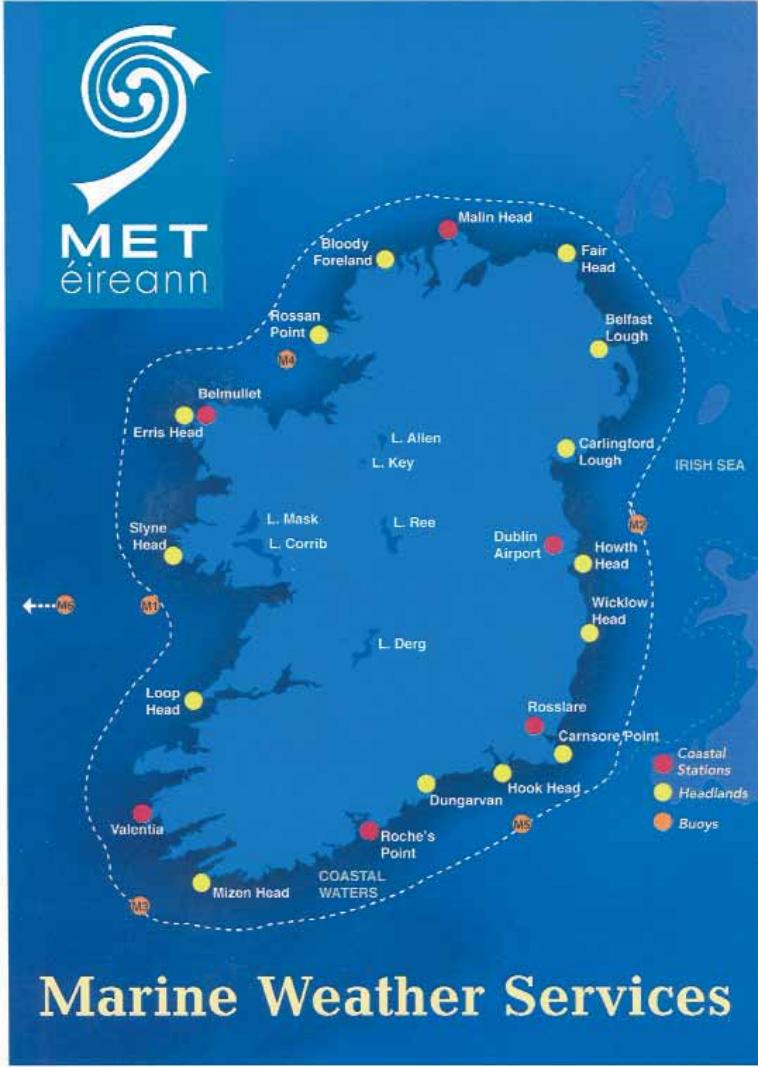
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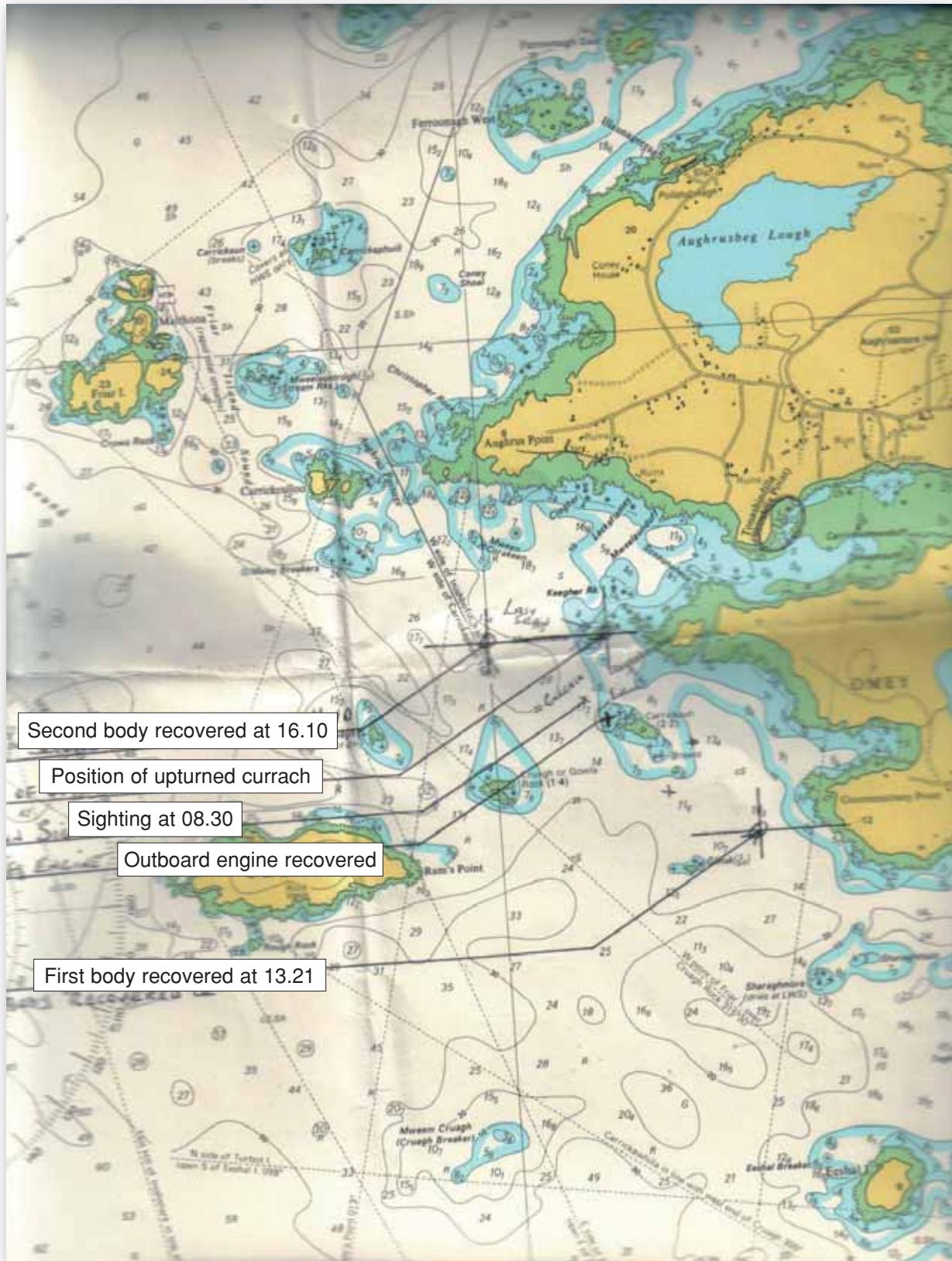
8 Map of Ireland with Headlands, coastal stations and offshore weather buoys



Marine Weather Services

APPENDIX 8.2

Appendix 8.2 Chartlet of area.



Appendix 8.3 Photographs of the currach, lobster pots, engine & location.**Photo 1:** Damaged engine mounting on transom.**Photo 2:** Engine fuel tank and feed hose. Also in the picture is the foot lock.

Photo 3: Outboard engine recovered near scene of incident.



Photo 4: View from Aughris Pier with Omey Island in the background.



Photo 5: String of pots recovered.



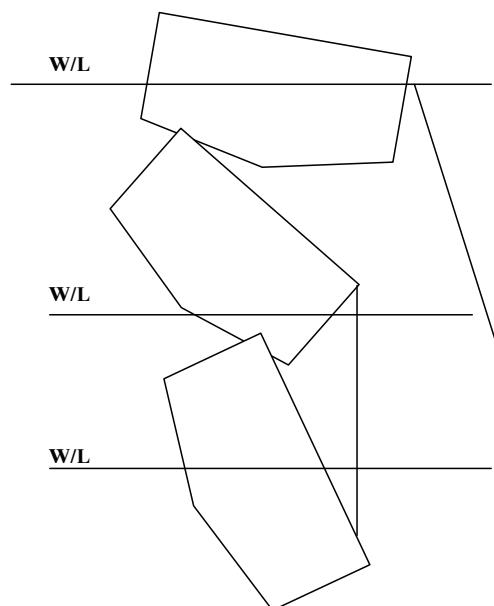
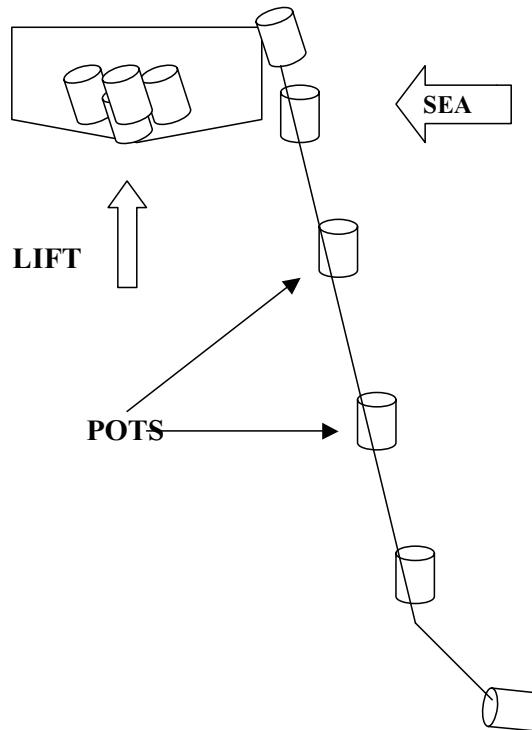
Photo 6: Single pot.



APPENDIX 8.4

Appendix 8.4 Simplified explanation of effect of rolling accelerations.

Here the vessel is in the upright position engaged in hauling. Wave action will tend to lift and lower the vessel and apply side or lateral forces, which will result in rolling accelerations.



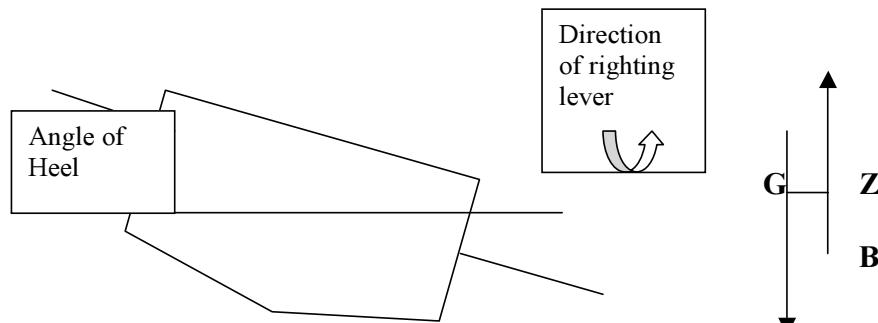
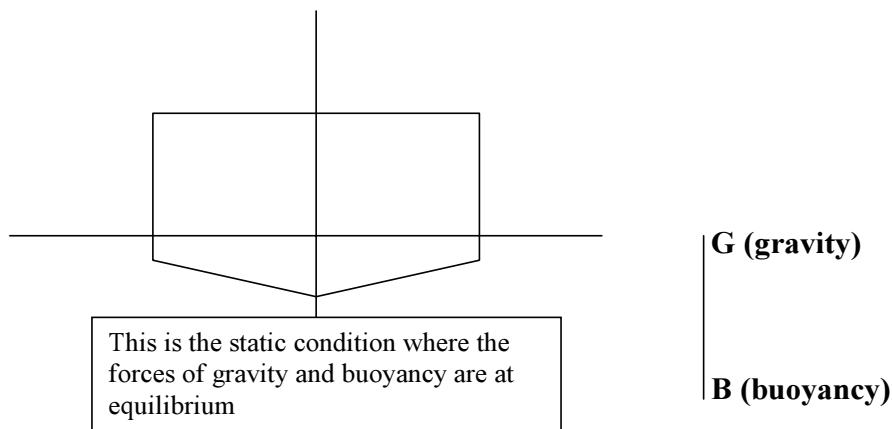
The weight of the pots now tethered to the side of the currach restricts **that** side of the vessel from rising freely as a result of wave action. The rolling period is also affected.

As the rolling increases due to energy dissipation combined with the vertical restriction, the net effect is to increase the movement of the extremities.

Eventually the accelerations become so great that the vessel finally capsizes.

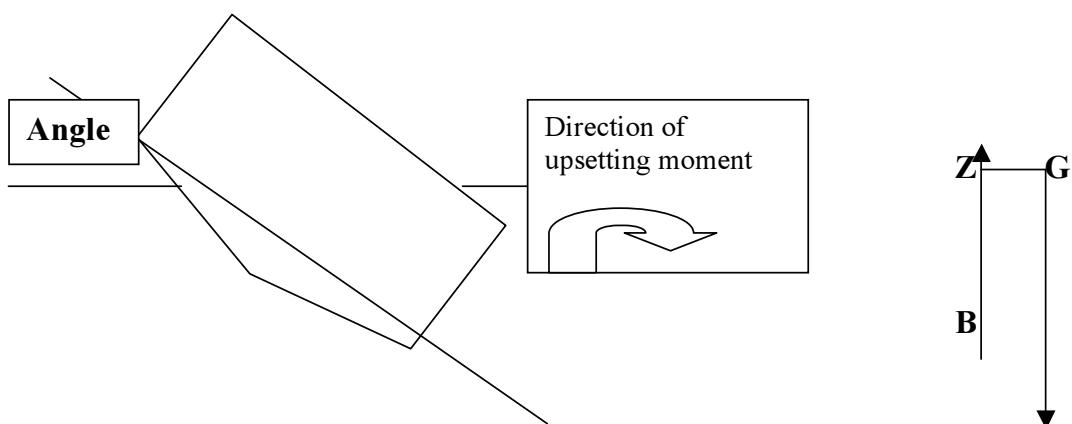
Appendix 8.4 Simplified explanation of effect of rolling accelerations.

In actual fact the centre of gravity and buoyancy moving in relation to one another eventually sets up an upsetting moment culminating in the vessel capsizing as follows:



Appendix 8.4 Simplified explanation of effect of rolling accelerations.

However: Conditions can exist where the centre of buoyancy does not move far enough in the direction in which the vessel rolls to place the buoyant force outside of the force of gravity. The net result of this is an upsetting moment, which causes the vessel to eventually capsize. It is believed that this is what occurred in the case of the currach capsized due to the pots been tied to the vessel as demonstrated.



9. LIST OF CORRESPONDENCE RECEIVED	PAGE
9.1 Royal National Lifeboat Institution	32
MCIB Response	33
9.2 An Garda Síochána	34
MCIB Response	34
9.3 Mr. William Hannon	35
MCIB Response	44

Appendix 9.1 Royal National Lifeboat Institution.

**Royal National Lifeboat Institution**

Charity registered in England, number 209603

Supported by voluntary contributions

*From:***Divisional Base Ireland**

Airside, Swords, Co. Dublin, Ireland

Telephone: (01) 8900460

Fax: (01) 8900458

email: dbwireland@rnli.org.uk

Mr. John G O'Donnell B.L.
Chairman
Marine Casualty Investigation Board
Leeson Lane
Dublin2

3 February 2010

Sir,

DRAFT REPORT INTO THE LOSS OF TWO FISHERMEN OFF AUGHRIS POINT, CLADDAGHUFF, CO GALWAY – 21ST APRIL 2009

Reference: Yr letter MCIB/166 dated 11January 2010.

Thank you for affording the RNLI the opportunity to comment on the draft report into the incident that took place off Claddaghuff last April.

Such tragic incidents and subsequent search and rescue operations always raise issues, but two resonate in this case.

Firstly, although legislation plays a significant role in raising safety standards, of equal importance is the need to educate seafarers through well targeted awareness campaigns and education. The availability of well maintained sea survival equipment and its use by well trained seafarers, both professional and amateur alike, is so critical to survival in emergency situations that all avenues of persuasion should be actively pursued.

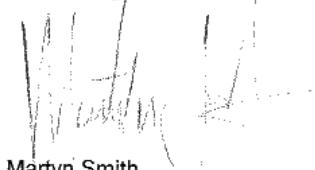
Royal National Lifeboat Institution registered charity
number CHY 2678 Supported by voluntary contributions
Chairman: Admiral Sir Jock Slater GCB EVO DL
Chief Executive: Andrew Freemantle MBE
Deputy Chairman: Terence Johnson
www.lifeboats.ie



Appendix 9.1 Royal National Lifeboat Institution.

Secondly, incidents involving crew going overboard either from capsizes or by falling are a growing concern. The length of time taken to raise the alarm often determines the likelihood of a successful search and rescue operation. Once again, awareness campaigns should promote the use of equipment designed to raise the alarm and indicate position in the shortest possible time.

Kindest regards



Martyn Smith
Divisional Inspector of Lifeboats
Ireland

MCIB RESPONSE

The MCIB notes the contents of this letter.

Appendix 9.2 An Garda Síochána.

An Garda Síochána

Oifig An Cheanfort,
An Garda Síochána,
An Clochán,
Co. Na Gaillimhe.

Tel / Teileafón: (095) 22506/7
Fax / Facs: (095) 22503/5



Superintendent's Office,
An Garda Síochána,
Clifden,
Co. Galway.

Web Site: www.garda.ie
E-Mail:

Please quote the following ref. Number: CL.SD. 5/09 & CL.SD.6/09

Date: 11.01.2010

Your Ref: - MCIB/166

Ms. Eve Reddin,
Secretariat,
Marine Casualty Investigation Board,
Leeson Lane,
Dublin 2.

**Fé: - Draft report of the Investigation into casualty off Aughris Point,
Claddaghduff, Co. Galway on 21st April 2009.**

A Cara,

The content of the draft report has been examined and we agree with the summation of the report.

Clearly the conclusion is opinion based but we see no reason to disagree with any matter therein.

Le meas.

(A. Ó Domhnaill)



Is é Misean an Gharda Síochána
An leibhéal insroiúche is áiread a bhaint amach maidir le Cosaint Phearsanta,
Tiomantas don Phobal agus Siándáil Stáit,
Mission Statement:
To achieve the highest attainable level of Personal Protection,
Community Commitment and State Security.

MCIB RESPONSE

The MCIB notes the contents of this letter.

Appendix 9.3 Mr. William Hannon.

Ms. Eve Reddin

Secretariat,

Marine Casualty Investigation Board,

Leeson Lane,

Dublin 2.

Mr. William Hannon

Claddaghduff,

Clifden,

Co. Galway.

Dear Ms. Reddin,

This letter is in reply to your correspondance on the 6th of January 2010:

DRAFT Report of the investigation into casualty off Aughris Point, Claddaghduff, Clifden, Co. Galway on the 21st April 2009. Reference No. MCIB/166.

Thank you for allowing me the opportunity to respond to the report, the first point I would like to raise is noted in point 6.1 & 7.3, "However, as the currach was built form fiber glass it is difficult to classify this vessel as a traditonally built vessel."

This vessel is a traditonally built vessel; how the investigation board has come to the conclusion that it is not, I would like to know. This vessel (Currach) is built to traditonal specifacations which allow it to work on the coast of Connemara. This style of currach has been fishing and working in this area for hundreds of years and all that has changed is the waterproof covering that covers the wooden hull.

The reason that fiberglass is used is that it safer and more durable than tar and canvas. Tar and canvas has not been used on currachs for 40 years as fiberglass is safer.



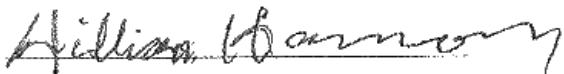
Appendix 9.3 Mr. William Hannon.

The next point I would like to make is in relation to the figure "Photo 5", "String of pots recoverd from currach". These infact are not the pots recovered from the currach, these pots belong to me, William Hannon.

Please see attached pages from draft report with added notes.

Yours Sincerely

William Hannon



13/01/10

Appendix 9.3 Mr. William Hannon.

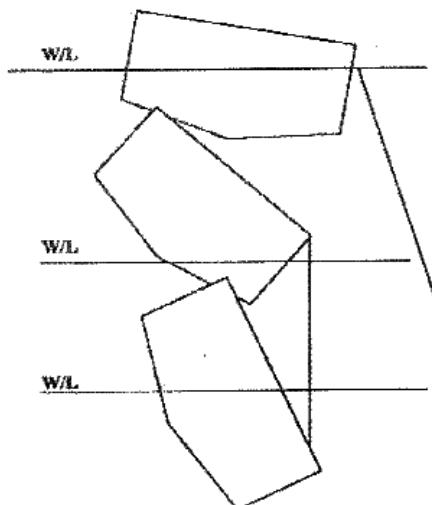
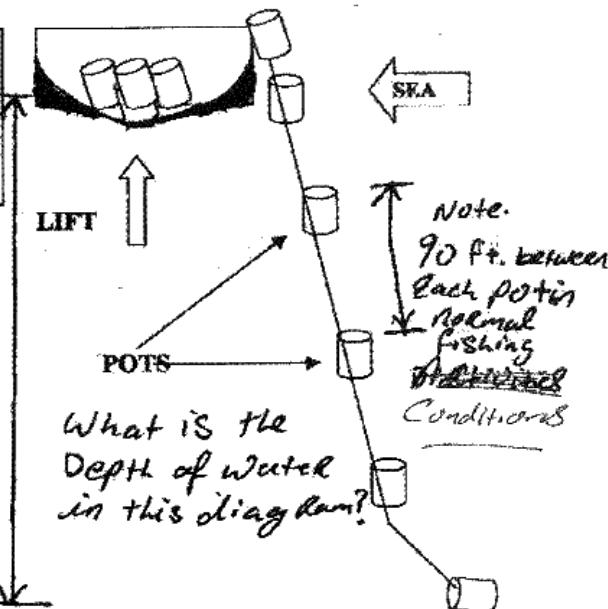
The Distance Each pot recovered from the Sea was it measured?

8.4 Simplified explanation

Between

Here the vessel is in the upright position engaged in hauling. Wave action will tend to lift and lower the vessel and apply side or lateral forces, which will result in rolling accelerations.

Note:
at any one time in the location that they were fishing there would never be any more than one pot been hauled at any one time due to the depth of water they were fishing.
Approx: 3m.
SEABED



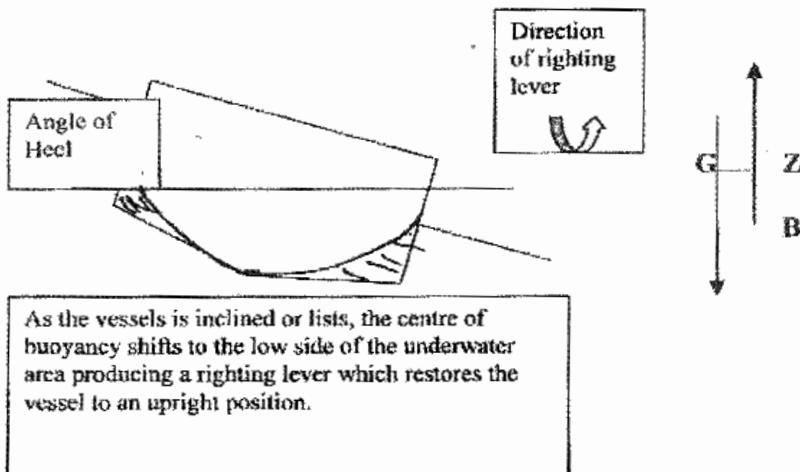
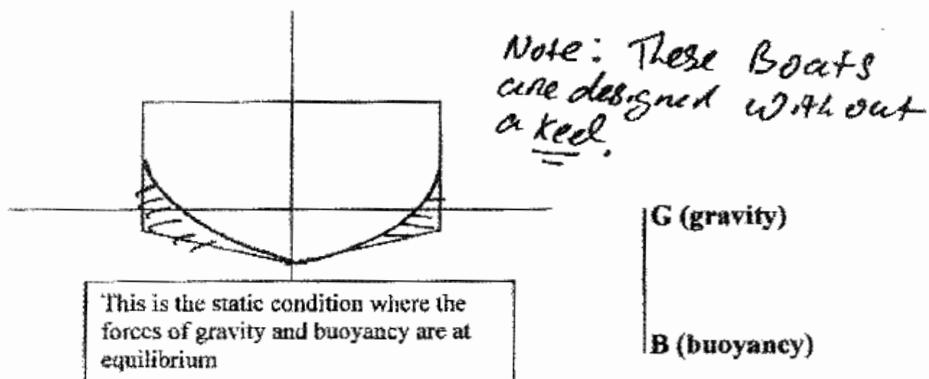
The weight of the pots now tethered to the side of the currach restricts that side of the vessel from rising freely as a result of wave action. The rolling period is also affected.

As the rolling increases due to energy dissipation combined with the vertical restriction, the net effect is to increase the movement of the extremities.

Eventually the accelerations become so great that the vessel finally capsizes.

Appendix 9.3 Mr. William Hannon.

In actual fact the centre of gravity and buoyancy moving in relation to one another eventually sets up an upsetting moment culminating in the vessel capsizing as follows:



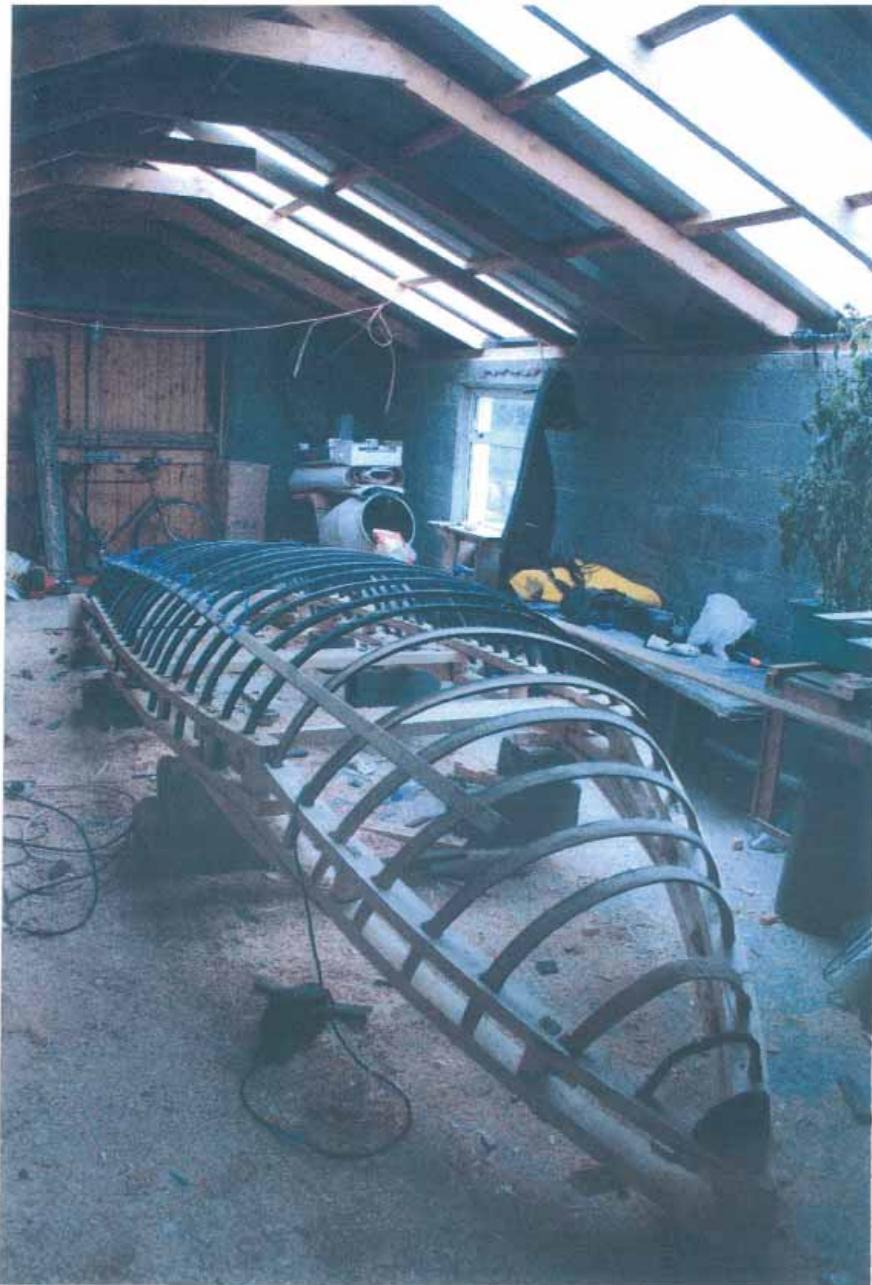
Appendix 9.3 Mr. William Hannon.

Figure 1. shows the frame and the internal structor of the hull of the currach. The internal hoops or “lats” are made of oak.

Appendix 9.3 Mr. William Hannon.

Figure 2.



Appendix 9.3 Mr. William Hannon.

Figure 3.



Figures 2 & 3 show the first plank attached and the hull partially covered with planks.

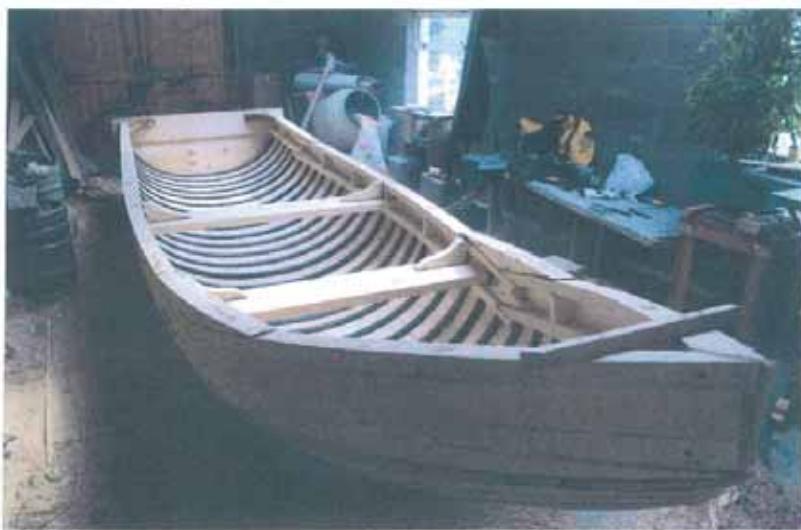


Figure 4. shows the currach completely planked and ready for its firberglass coating.

Appendix 9.3 Mr. William Hannon.

Figure 5.



Shows the hull coated with resin so to allow the timber to soak it and stick the fiberglass layer to the hull. It can also be seen from the figure that the currach has a round bottom and does not have a keel as depicted in the simplified drawings of 8.4 and onwards.



Figure 6. shows the fiberglass mat been applied resin to the hull.

Appendix 9.3 Mr. William Hannon.

Figure 7. shows the currach covered with fiberglass and resin, as of now she is completely waterproof.



Figure 8. The currach receives two coats of resin mixed with a black pigment to bring her to the finished condition.

MCIB RESPONSE TO LETTER RECEIVED FROM MR. HANNON:**Currach used for recreational fishing.**

The MCIB notes these comments and have taken them into account in our recommendations.

The Recreational Craft Directive (RCD) generally applies to a craft intended for sports and leisure purposes. Currachs have evolved over the last century, originally being a skin boat, and the skin being replaced by tarred canvas and in turn by GRP.

Originally the hull of a currach was built of timber with ribs and stringers. They are now generally made from sawn timber rather than hazel rods. As the currach evolved and became larger so the stringer spacing reduced until finally the hulls were planked and then GRP became the preferred skinning material. Therefore, it is clear that the design and building of currachs has changed from the traditional methods.

However, it is concluded that the construction method is traditional in that boats are not built of GRP in female moulds and boats are not in series production. The design was developed prior to 1950 but is evolving. The materials of construction are now different from original and are evolving. So it is possible that it could be concluded that the RCD may not apply when such currachs are used for recreational activities. However, in such cases they must be labelled accordingly. Such currachs used for commercial sea-fishing activities are covered by other legislation and must comply with the Department of Transport Code of Practice for small fishing vessels.

Stability

The diagram given in Appendix 8.4 is illustrative.

The depth of water is indicated on the chart in the report as 13m.

In the illustration on stability in the Appendix 8.4 the usual notation of "Z" is given for the keel. All vessels have such a point.