MCIB
Marine Casualty Investigation Board

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REPORT OF THE INVESTIGATION INTO THE SINKING OF *"FV NAPIER"* ON 30th JANUARY 2014

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

REPORT NO. MCIB/236
(No.4 OF 2015)

Report MCIB/236 published by The Marine Casualty Investigation Board.
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CONTENTS

1. SUMMARY

(Note: All times are in UTC +1)

1.1 On the afternoon of 30th January 2014 the fishing vessel *"FV Napier"* with the Skipper and one crewman on-board was grappling for missing lobster pot strings off the Saltee Islands, Wexford. The bilge and engine space started to flood rapidly with water. Both men abandoned the vessel in the liferaft and the vessel sank. They were picked up safely by another fishing vessel and then transferred to the Kilmore Quay Lifeboat and brought ashore safely.

2. FACTUAL INFORMATION

2.1 Personnel

Skipper:	Holds sea survival and radio training.
Crewman:	Holds sea survival and radio training.

2.2 Boat Particulars

Registration No:	C295. Port of Registry Cork.
Code of Practice Survey:	Carried out on 15/06/2013 valid until 15/06/2017.
Hull:	GRP. Decked forward wheelhouse.
Rig:	Rigged for potting, trawling, netting.
Overall Length:	9.96 metre (m).
Breadth:	4.11 m.
Depth:	1.28 m.
Gross weight:	9.13 tonnes.
Engine:	Cummins Type 6CTA. Power 88.8 kW.
Bilge Pump:	Two of Rule 1,500 gallon electric.
Fuel Oil:	There was approximately 500 litres (l) of diesel and 50 l of hydraulic oil on-board at time of the sinking.
History:	Built 1985 in Scotland. Purchased about 8 years ago in Downpatrick, Northern Ireland by current Skipper. In use since then working out of Kilmore Quay, Wexford (90% potting, 10% scallops) (see Appendix 7.1 Photographs 1 & 2 of vessel taken at Kilmore Quay during survey in 2013).
EPIRB Details:	Make McMurdo No. 52.2191. Napier EPIRB 1 9F5Bo@B1871948D1 Flag 250 Ireland. Call sign E1-7652 Cat 1 Auto Class 1. Battery replacement due 06/2014 (see Appendix 7.1 Photograph 3 of EPIRB taken by MCIB 22/08/2014).
Life Jackets:	One jacket seen by MCIB. Details as follows: Make Aqua Vel MK3 Adult No. 483560 Date 03/2004.

2.3 Voyage Particulars

2.3.1 The vessel departed the harbour at Kilmore Quay at 07.10 hrs and steamed to the sea area South/South West of the Big Saltee Island. The purpose of the voyage was to pick up and collect a number of strings of lobster pots. A number of the strings had been damaged and the flotation buoys were missing. These had to be grappled by using a set of chains with hooks attached known as a grapple or creeper. This work proceeded without incident and four strings were successfully grappled for and about five or six strings were lifted. In all, the vessel had taken on-board about 200 lobster pots.

2.3.2 At this point the Skipper contacted another fishing vessel that was working the area to enquire as to the tidal conditions further South West of his position with a view to steaming there to grapple for a scallop line that had been missing for some time. The report from the other vessel was that the tidal conditions were good. He then steamed to the area that he had last seen this particular fishing gear.

2.3.3 Weather Conditions 13.30 hrs to 20.00 hrs:

Winds: Light throughout. Force 2 to Force 3 from South East direction.

Weather: A few bright spells at first but mainly dull and cloudy with occasional mist and drizzle.

Visibility: Moderate.

Sea State: Slight, with significant wave height of approximately 1 m mainly due to swell from South West.

See Appendix 7.2 Met Éireann weather report.

2.4 Marine casualty information

2.4.1 On arrival in the area of the missing fishing gear the Skipper slowed the vessel and directed the crewman to go about setting the grapple overboard. This was done by the crewman. At this time the Skipper was in the wheelhouse and the crewman was on the after deck and using his mobile phone. The Skipper, whilst scanning the instruments in the wheelhouse saw on the camera in the bilge area that there was a rush of water flowing forward in the bilge. He alerted the crewman and told him to open the deck level access hatch to the bilge area. On removal they both saw that the water level was rising fast. The Skipper decided to abandon the vessel. He went to the wheelhouse and sent one MAYDAY call on the VHF on Channel 6 and collected two buoyancy aids. Meanwhile the crewman went to the wheelhouse roof and deployed the liferaft over the starboard side of the vessel and after a short delay it inflated properly. The crewman took the EPIRB from the roof of the wheelhouse. The Skipper and the crewman put on the lifejackets and got into the liferaft taking the EPIRB with them. They manoeuvred the liferaft along the starboard side of the vessel towards the stern and got clear of the vessel. The vessel was still high in the water but sank suddenly and evenly by the stern very shortly after that (see Appendix 7.3 Map of Wexford Coastline – Kilmore Quay and the Saltee Islands).

2.5 Shore authority involvement and emergency response

2.5.1 The EPIRB activated correctly and alerted the emergency response.

The RNLI Lifeboat at Kilmore Quay was tasked at 11.54 hrs.

The rescue helicopter based at Waterford was also called on but was not required as part of the rescue.

2.5.2 The VHF MAYDAY signal on Channel 6 was picked up by a brother of the Skipper who was fishing off Kilmore Quay; he, in turn contacted the *"FV Rony"*, a large beam trawler that was returning to Kilmore Quay requesting that it go to the assistance of the *"FV Napier"*.

2.5.3 The lookout on the *"FV Rony"*, standing on the whaleback, got sight of the *"FV Napier"* when the two vessels were about 1.5 to 2.0 nautical miles apart. The *"FV Napier"* was seen to be high in the water at this sighting. In the time that it took for the lookout on the *"FV Rony"* to go from the whaleback to the wheelhouse the *"FV Napier"* sank and was no longer visible.

2.5.4 *"FV Rony"* picked up both men from the liferaft and then circled the area for a short while to look and search for debris and to mark its location of the vessel. No debris was seen and the sunken vessel could not be located.

2.5.5 *"FV Rony"* met with the lifeboat. Both men transferred to the lifeboat and it proceeded to Kilmore Quay. The lifeboat also looked for signs of debris or pollution in the area and around the Saltee Islands but did not see any signs of same.

3. NARRATIVE

3.1 General

3.1.1 The vessel had taken on-board about 200 lobster pots and associated lines and buoys. Allowing a weight of 10kgs per lobster pot this would equate to a load of approximately 2 tonnes evenly distributed on the deck of the vessel. The vessel had steamed for some time with this load on-board and was not underway when it flooded and sank evenly by the stern.

3.1.2 At the point when the Skipper noted the water rising rapidly in the engine compartment and the crewman was directed to open the access hatch cover, both he and the crewman reported that the deck area was dry at that point.

3.1.3 The overboard discharge pipe from the electric bilge pumps terminated at the third freeing port from the stern on the port side of the vessel. As the Skipper and the crewman floated away from the vessel in the liferaft they both saw that the bilge pumps were still working because water was issuing from the discharge pipe.

3.1.4 Neither the Skipper or the crewman saw the vessel at the actual point when it went under the water.

3.1.5 The fishing vessel *"FV Rony"* that rescued both men did a search of the area for the vessel in order to put a marker buoy in place but failed to locate it.

3.1.6 The Skipper and the crewman estimated that the vessel sank at co-ordinates 52°.02.710' N, 06°.42.200' W and to be lying in about 27 to 30 fathoms of water but the currents are severe in this area and it may not be possible to locate the wreck.

3.1.7 Since the sinking, a local fisherman operating in the area has encountered an obstruction on the seabed that may be the wreck of the vessel at co-ordinates 52°.02.530' N, 06°.41.460' W in about 20 to 25 fathoms of water. The location is South/South West of the head of the Big Saltee Island.

3.1.8 The camera mounted in the bilge/engine area gave the Skipper sufficient warning that there was an inrush of water into the vessel.

3.1.9 The MCIB understands that the construction and condition of the vessel below deck in respect of the piping, fittings, engine services, strum boxes, propeller shaft and rudder gland was of a good standard. The Skipper does not recall if the bilge alarm activated.

3.1.10 When the Skipper decided to abandon the vessel both he and the crewman attended to their designated tasks getting a distress signal away, activating the EPIRB, deploying the liferaft and donning lifejackets.

3.1.11 The Skipper, faced with this emergency situation despite his training, years of experience and risk assessment exercises, sent out the distress signal on VHF Channel 6 instead of the designated VHF Channel 16.

3.1.12 The emergency services deemed that the weather and sea conditions on the day were moderate enough to effect the safe transfer of both men from the *"FV Rony"* to the lifeboat. The transfer was completed without incident and the lifeboat then returned to Kilmore Quay.

4. ANALYSIS

4.1 The five points, namely, the estimated load on the vessel, the fact that it had steamed for some time in that loaded condition, the dryness of the deck, the visibility of the bilge pumps discharge and the sinking by the stern indicate that the vessel did not sink due to instability brought about by overloading.

4.2 At the time the Skipper noted the water rising, the bilge and the grapple had been deployed overboard but there are no indications that grappling work was a factor in the sinking of the vessel.

4.3 The events leading up to the abandonment of the vessel took place rapidly and both the Skipper and the crewman did not have time to investigate where the water in the bilge was coming from.

4.4 The weather and sea conditions were good and were not a factor in the sinking.

5. CONCLUSIONS

5.1 The weather and sea conditions were good.

5.2 The vessel was in good condition with an in-date survey report.

5.3 The vessel was not overloaded.

5.4 The vessel has not been located or recovered thus it has not been possible to determine the exact cause of the water flooding into the bilge/engine area. But the rapidity of the sinking is indicative of the catastrophic failure of some part of the sea water cooling system to the engine.

5.5 At the time that both men abandoned the vessel it was still high in the water and then sank suddenly. The opening of the deck level access hatch to investigate the influx of water may have played a part in this as the Skipper cannot recall if it had been closed over fully and screwed tight. The hatch may have become displaced adding to the available routes for water to enter the vessel.

5.6 The Skipper and the crewman remained calm and did not panic when faced with the situation.

5.7 The Skipper acted promptly and in the first interests of his own and his crewman's safety.

5.8 The Channel 6 VHF MAYDAY call was picked up by a local fishing boat and the EPIRB and liferaft worked correctly.

5.9 The emergency services were alerted to the situation and responded efficiently.

6. SAFETY RECOMMENDATIONS

6.1 The Minister for Transport, Tourism and Sport should issue a Marine Notice regarding the importance of the monitoring of bilges prior, during and after voyages.

7. APPENDICES

Appendix 7.1 Photographs of Vessel and EPIRB.

Photograph No. 1 - *"FV Napier"*

Photograph No. 2 - *"FV Napier"*

Appendix 7.1 Photographs of Vessel and EPIRB.

Photograph No. 3 - EPIRB

Appendix 7.2 Met Éireann Weather Report.

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[redacted]
Marine Casualty Investigation Board
Leeson Lane
Dublin 2

3/2/2014

Our Ref. **WS3018/2_15343**
Your Ref. **MBIB/12/236**

Re: Estimate of weather conditions in the sea area 52° 03'N 6° 44'W, SSW of Kilmore Quay, on the 30th January 2014, between 13.30 and 20 hours

Dear [redacted]

Please find enclosed the above report.

Yours sincerely,

[redacted]

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3/2/2014

Our Ref. **WS3018/2_15343**
Your Ref. **MBIB/12/236**

Estimate of weather conditions in the sea area 52° 03'N 6° 44'W, SSW of Kilmore Quay, on the 30th January 2014, between 13.30 and 20 hours.

General Situation
A slack pressure area over Ireland ahead of a deep depression approaching from the Atlantic

Details
13.30 hours to 20 hours
Winds: Light throughout, Force 2 to Force 3, from a south to south-east direction.

Weather: A few bright spells at first but mainly dull and cloudy with occasional mist and drizzle.

Visibility: moderate to good

Seastate: Slight, with Significant wave height of approx 1 metre, mainly due to a swell from the south-west.

[redacted]
Met Éireann

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Nearest Observations (not yet quality controlled)

Weather Buoy M5 Observations

time	latitude	longitude	Air temperatures (°C)	Sea temperatures (°C)	Wind direction (degrees from North)	Wind gust (kts)	Wind speed (kts)
30/01/2014 13:00	51.7	-6.7	8.1	9	152	13.1	10.1
30/01/2014 14:00	51.7	-6.7	8.3	9.1	147	14.1	11
30/01/2014 15:00	51.7	-6.7	8.2	9.1	144	13.8	11
30/01/2014 16:00	51.7	-6.7	8.3	9.1	143	15.9	12.5
30/01/2014 17:00	51.7	-6.7	8.1	9.1	128	17.2	13.4
30/01/2014 18:00	51.7	-6.7	8.1	9	125	18.5	14.7
30/01/2014 19:00	51.7	-6.7	8.1	9	130	17.8	14.5
30/01/2014 20:00	51.7	-6.7	8.2	9	138	16.7	13.8

Kinsale Energy Platform

date	Wind Speed (kts)	Wind direction (degrees from North)	Gust (kts)	Air pressure (hPa)	Air temperature (°C)	Sig. Wave height (m)	Max individual wave height (m)	Wave Period (s)
30/01/2014 13:30	7	186	14	1000.6	6.6	1.6	2.5	6.5
30/01/2014 13:40	7	193	11	1000.6	6.6	1.6	2.5	6.2
30/01/2014 13:50	7	189	10	1000.6	6.6	1.5	2.5	6.1
30/01/2014 14:00	6	186	10	1000.4	6.5	1.6	2.5	6.4
30/01/2014 14:10	5	187	10	1000.6	6.4	1.6	2.6	6.4
30/01/2014 14:20	3	195	10	1000.7	6.4	1.6	2.6	6.6
30/01/2014 14:30	4	185	9	1000.6	6.3	1.6	2.6	6.5

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30/01/2014 14:40	5	172	9	1000.7	6.2	1.6	2.6	6.6
30/01/2014 14:50	6	153	9	1000.7	6.1	1.5	2.3	6.4
30/01/2014 15:00	5	124	8	1000.7	6	1.5	2.2	6.4
30/01/2014 15:10	5	133	8	1001	6	1.5	2.4	6.6
30/01/2014 15:20	4	139	8	1001	6	1.5	2.8	6.7
30/01/2014 15:30	5	147	8	1000.9	5.9	1.6	2.8	6.7
30/01/2014 15:40	7	157	8	1000.8	6	1.6	2.8	6.6
30/01/2014 15:50	7	163	9	1000.8	6	1.6	2.6	6.6
30/01/2014 16:00	7	172	9	1000.8	6	1.6	2.6	6.7
30/01/2014 16:10	6	180	9	1001.1	6	1.6	2.6	6.5
30/01/2014 16:20	6	163	9	1001.3	5.9	1.7	3.1	6.8
30/01/2014 16:30	6	145	9	1001.1	6	1.8	3.1	6.9
30/01/2014 16:40	6	144	9	1001.2	5.9	1.9	3.1	7.1
30/01/2014 16:50	6	123	8	1001.3	5.9	1.8	3.1	6.8
30/01/2014 17:00	6	125	8	1001.4	5.8	1.7	2.7	6.6
30/01/2014 17:10	6	124	8	1001.4	5.8	1.6	2.7	6.5
30/01/2014 17:20	6	121	8	1001.4	5.8	1.7	2.5	6.6
30/01/2014 17:30	6	122	8	1001.4	6	1.6	2.7	6.5
30/01/2014 17:40	6	119	8	1001.7	6.2	1.7	2.7	6.8
30/01/2014 17:50	5	121	8	1001.9	6.2	1.7	2.7	6.9
30/01/2014 18:00	4	124	8	1002	6.1	1.6	2.5	6.6
30/01/2014 18:10	4	123	8	1002.1	6.1	1.6	2.7	6.6
30/01/2014 18:20	4	135	8	1002.2	6.1	1.6	2.7	6.6
30/01/2014 18:30	4	124	8	1002.3	6.1	1.7	2.7	6.7
30/01/2014	3	133	8	1002.5	6.1	1.7	2.7	6.8

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18:40								
30/01/2014								
18:50	4	137	5	1002.5	6.2	1.6	2.6	6.6
30/01/2014 19:00	4	135	5	1002.6	6.2	1.7	2.6	6.6
30/01/2014 19:10	5	118	7	1002.6	6.2	1.5	2.4	6.2
30/01/2014 19:20	5	119	7	1002.6	6.3	1.5	2.5	6.3
30/01/2014 19:30	6	130	7	1002.6	6.3	1.6	3.1	6.7
30/01/2014 19:40	5	117	7	1002.5	6.3	1.7	3.1	6.8
30/01/2014 19:50	5	116	7	1002.6	6.3	1.8	3.1	7.1
30/01/2014 20:00	5	130	7	1002.5	6.3	1.8	3	7.2

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Appendix

Beaufort Scale of Wind

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

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

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.

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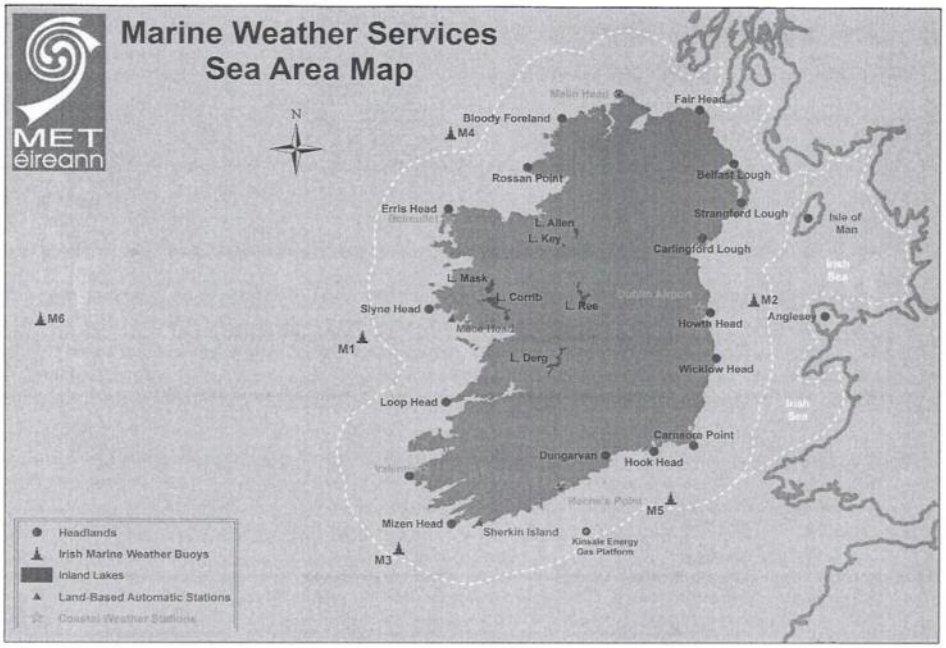

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Wave Heights / State of Sea

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Note:

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Appendix 7.3 Map of Wexford Coastline – Kilmore Quay and the Saltee Islands.

8. CORRESPONDENCE RECEIVED

Note: The name and contact details of the individual respondent have been obscured for privacy reasons.

Correspondence 8.1 Owner of vessel and MCIB response.

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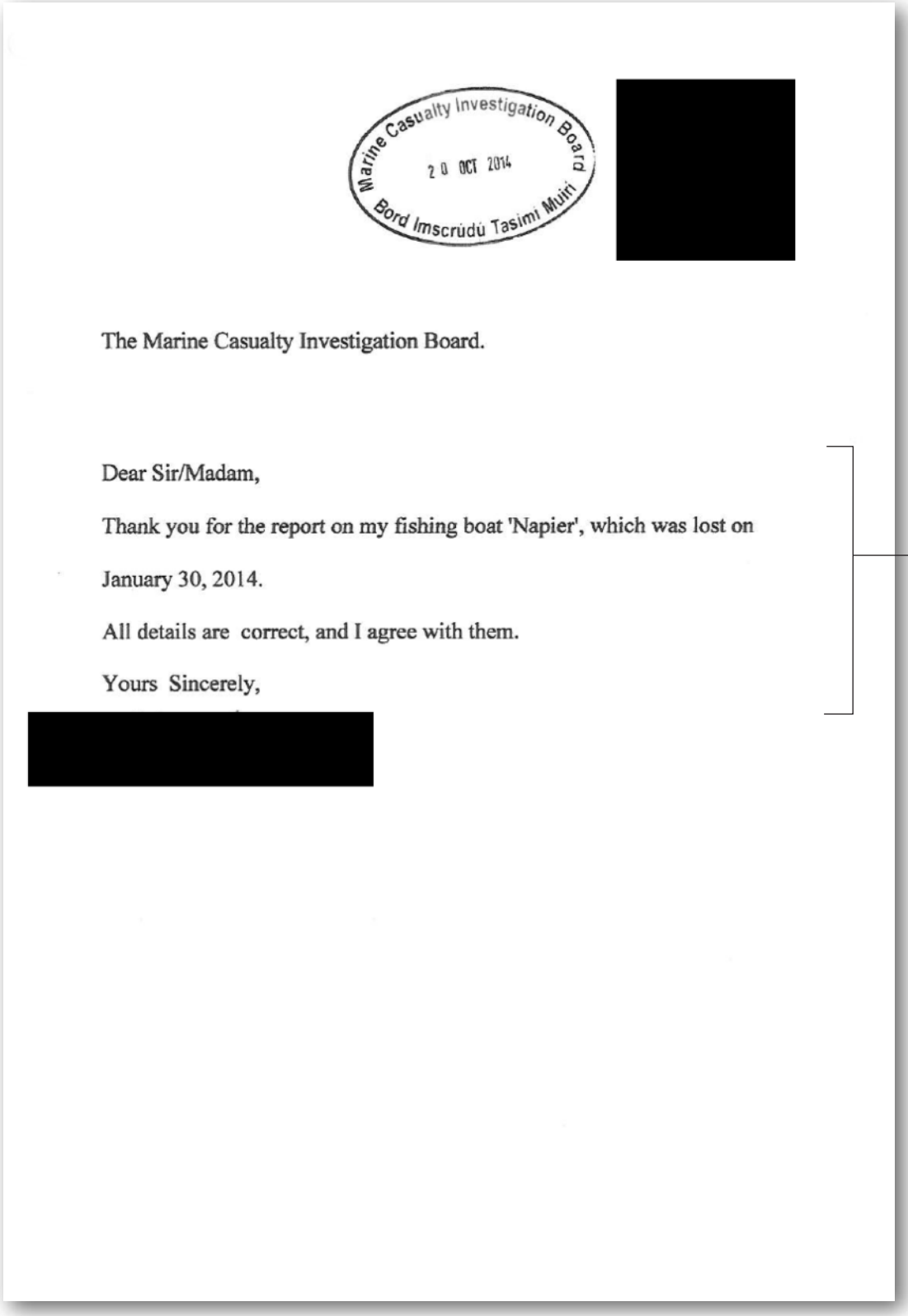

MCIB RESPONSE:
The MCIB notes the contents of this correspondence