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REPORT OF THE INVESTIGATION INTO THE GROUNDING OF *"MV ARSLAN II"* ON THE ARKLOW BANK ON 14th JANUARY 2014

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

1.1 The *"MV Arslan II"* (IMO 9030333) en-route from Nemrut, Turkey towards Belfast, Northern Ireland, grounded on the southern part of the Arklow Bank on 14th January 2014. The vessel re-floated later the same evening, but having sustained damage to her steering gear was unable to proceed under its own power. The vessel anchored at the position awaiting the arrival of a tug. The tow commenced on 15th January 2014 and the vessel was brought to Dublin, where it berthed at South Bank Quays, at approximately 13.30 hrs UTC on 16th January 2014.

2. FACTUAL INFORMATION

2.1 Principal Particulars:

"MV Arslan II" is described as a general cargo ship, fitted for the carriage of containers. The vessel has a single cargo hold. The accommodation and machinery spaces are located abaft the hold. Weather deck protection is provided by steel hydraulically operated folding hatch covers.

Name:	*"MV Arslan II"*
Port of Registry:	St. John's.
Flag:	Antigua & Barbuda.
IMO:	9030333.
Year of Build:	1991, Germany.
Length Overall:	89.37 metres (m).
Beam:	16.00 m.
Service Speed:	14.6 knots.
Summer Draft:	6.14 m.
Summer DWT:	4,450 m.t.
Gross Tonnage:	3,125 m.t.
Net Tonnage:	1,619 m.t.
Classification:	Germanischer Lloyd.
Reg. Owner:	Elif Shipping Co. Ltd., c/o Nisa Uluslararasi Deniz, Turkey.
Ship Manager:	Nisa Ulusararasi Deniz, Turkey.
ISM Manager:	Pasa International Technical, Turkey.
P & I:	The Standard Club, UK.

Equipment on the Bridge included:

2 x radars, one with ARPA capability, 2 x GPS receivers, AIS unit, Bridge control of engines and propeller pitch, VHF transceivers, Furuno Paper trace echo-sounder, Autopilot, British Admiralty nautical publications and paper charts.

2.2 Voyage particulars:

(Note the times recorded by the vessel are in Central European Time or UTC + 1 hour, but for the purposes of this report the times are shown as UTC).

2.2.1 The vessel departed from Nemrut, Turkey in a loaded condition, with 4,000 m.t. of steel products, at 12.00 hrs on 2nd January 2014. The drafts recorded on the Deck Log Book were 6.30 m (F) and 5.77 m (A). The calculated GM was 2.8 m. The vessel dropped anchor off Nemrut at 12.45 hrs and remained at anchor until 01.30 hrs on 3rd January 2014.

2.2.2 The vessel arrived at Ceuta at 15.30 hrs on 9th January 2014 and berthed to take bunkers on-board. The vessel completed bunkering operations on the same date and departed from Ceuta at approximately 21.10 hrs. The recorded drafts were 5.75 m (F) and 6.4 m (A). Passage was resumed at 21.20 hrs.

2.2.3 Between 9th and 12th January 2014, the Deck Log Book records weather of up to Beaufort Force 4. On 12th January 2014, the weather increases to winds of Beaufort Force WSW to SW'ly 7 and a sea state of 7. On 13th January 2014 the maximum wind strength recorded was Westerly Force 8 between 13.00 hrs and 15.00 hrs.

2.2.4 On 14th January 2014 winds were of Beaufort Force 5 to 4 and mainly WSW to SW'ly in direction. (See Appendix 7.1 weather report). The Master, who had been on watch from 07.00 hrs to 11.00 hrs, decided to alter course and seek shelter from forecast winds of Beaufort Force 6. At 11.00 hrs, the Second Officer took over bridge watch keeping duties, single watch with no lookout. At approximately 12.39 hrs, the vessel ran aground on the Arklow Bank.

2.3 Type of Casualty:

2.3.1 The vessel grounded on a charted and marked sand bank, approximately 6.3 miles off the east coast of Ireland. The southern end of the bank was marked by a South Cardinal mark, a lighted buoy with Racon and AIS. (See Appendix 7.2 Photograph 1 illustrates the location of the grounding).

2.3.2 Records show that the grounding occurred at approximately 12.39 hrs UTC, on 14th January 2014.

2.3.3 The position of the vessel was declared by the Master as 52° 42.8' N 005° 58.3'W. However, data received from the Irish Coastguard indicates the actual position was 52° 43.02' N 005° 58.36' W.

2.3.4 The vessel was operating in coastal waters, with a single watchkeeper on the Bridge. The autopilot was engaged. The vessel was making approximately 10 knots through the water.

2.3.5 The weather was not significant, with SSW'ly winds of Beaufort Force 6 recorded. The vessel was 6.3 miles off the east coast of Ireland. The incident occurred in daylight hours in good visibility. (See Appendix 7.2).

2.3.6 The Master alleged that he and the crew were fatigued due to the constant rolling of the vessel whilst on passage. The Master reported that he was on the fore deck at the time checking for damage before the vessel arrived in port.

2.3.7 There was no pollution caused by the incident.

2.3.8 The vessel's rudder was damaged and it suffered structural damage to the bottom of the hull.

2.3.9 The vessel was refloated at 18.30 hrs. Once the vessel was refloated it was found that it could not proceed under its own power. The vessel anchored close to the grounding location awaiting the arrival of a tug.

2.3.10 The tow commenced at 06.45 hrs on 15th January 2014. The vessel was towed towards Dublin, the nearest port capable of taking it in. (Appendix 7.3 Photographs show the vessel on arrival in to Dublin Port).

2.3.11 On arrival at Dublin, the vessel was inspected and detained under the Paris MOU (Port State Control) by the Marine Survey Office Dublin.

2.3.12 The cargo was discharged from the vessel at Dublin and transhipped to Belfast.

2.3.13 The vessel proceeded directly to dry dock in Dublin for further examination of the hull and repairs to the steering gear.

2.3.14 There was no injury to persons involved.

2.4 Shore Response:

The times shown here are UTC or local time. (See note 2.2).

2.4.1 The incident occurred at 12.39 hrs. The first notification to the Irish Coast Guard was by Dublin Port Company, who had noted the vessel was aground. AIS tracking of the vessel also recorded the incident.

2.4.2 The Irish Coast Guard was notified at 16.07 hrs and the incident was handled by Dublin MRCC. The Irish Coast Guard contacted the vessel at 16.14 hrs and were advised that the vessel had not suffered damage or caused pollution. The situation was monitored.

2.4.3 The Irish Coast Guard maintained contact with the vessel throughout the period during which it was re-floated, anchored, under tow and arrived alongside.

2.4.4 The vessel failed to notify the Irish Authorities of the incident and the response took approximately 3.5 hours.

3. NARRATIVE

3.1 General:

Set out below is a timeline of events (note, times have been adjusted to UTC whilst the vessel's Deck Log Book was maintained in CET or UTC + 1):

31.12.2013	20.55:	Vessel berths at Nemrut in anticipation of loading cargo.
02.01.2014	09.10:	Complete loading cargo.
	11.50:	Pilot on-board.
	12.00:	Depart berth.
	12.45:	Anchor off Nemrut.
	23.30:	Anchor away and commence passage.
09.01.2014	15.30:	Pilot on-board.
	16.00:	Vessel alongside Ceuta.
	17.45:	Bunkering commences.
	20.20:	Bunkering completed.
	21.10:	Pilot on-board.
	21.20:	Pilot away.
12.01.2014	09.00:	44° 28.08' N 009° 21.11' W, wind SW Force 8 sea state 7.
13.01.2014	10.00:	48° 23.8' N 007° 10.3'W, wind WSW Force 7, sea state 7.
14.01.2014	11.00:	52° 29.2' N 005° 42.47' W.
		"Given order to change course close to Ireland shelter"
	11.30:	52° 42.8' N 005° 38.3' W (later amended to 005° 58.3'W).
		"Grounding Arklow Bank details are in report"
	18.30:	Afloat of the grounding position.
15.01.2014	01.00:	Preparing the towing gear.
	06.45:	Towing commenced.
	22.40:	53° 19.0' N 006° 05.3' W, anchored at Dublin Bay.
16.01.2014	09.30:	Weigh anchor.
	10.00:	Resume tow, with pilot on-board tug.
	11.30:	First line ashore.
	11.45:	All fast, berth 44, Dublin.

3.2 The vessel was loaded with a cargo of steel products, the total weight of cargo was 4,000 m.t. The condition of the vessel on departure from Nemrut, shows that the vessel had a GM of 2.8 m. On 2nd January 2014, the recorded drafts in the Deck Log Book show the vessel was trimmed by the head on departure, at 6.30 m (F) and 5.77 m (A). When the vessel departed from Ceuta, the recorded drafts were 5.75 m (F) and 6.4 m (A). The vessel did not prepare a stability calculation to show its condition on departure from Ceuta. The vessel did not record the departure drafts or freeboard in the Official Log Book issued by the Flag State, which is required by the law of the Flag State.

3.3 The investigation was advised that the original passage plan was not available, having been altered on passage by the Master. A copy of the plan in force at the time was obtained. It was advised, that due to the "stiffness" of the vessel, they had rolled heavily throughout the voyage even in winds as light as Beaufort Force 4. For the passage from Ceuta, the wind and swell was on the port quarter, particularly as the vessel progressed up the western Iberian coast and across the Bay of Biscay. When he received a forecast indicating winds of Beaufort Force 6 for the Irish Sea, the Master made a decision to adjust the passage plan and seek some shelter from the land, so he could get some sleep. For weather forecasts, the vessel relies on telex messages (automatic reception) and the Master listened to those issued by both the Irish Coast Guard and the Maritime and Coast Guard Agency (UK), as issued over VHF by coastal radio stations. The specific description of the weather described by the Master was "Sole/Irish Sea – Beaufort 6 or 7, expected soon".

3.4 The Master stood the morning watch, from 07.00 hrs to 11.00 hrs. At 12.00 hrs ship's time or 11.00 hrs local time, the Master handed over the watch to the Second Officer. At the same time a decision was made to amend the passage plan to seek shelter from the Irish coast, with winds SSW'ly winds of Beaufort Force 6 forecast. The Master indicated that the course to be steered was 315°T, which would allow the vessel to pass approximately 1 mile south of the Arklow Light Buoy. The required course was not inserted on the chart.

3.5 The Second Officer was on watch at the time of the grounding. The Second Officer acknowledged that the vessel had passed the Arklow Light Buoy on the wrong side, that is, to starboard of the buoy rather than to port. He considered he had sufficient depth of water, based on the tide tables for Dublin.

3.6 Post grounding, the Master went to the Bridge to assess the situation. He ordered the crew to check all round for water ingress and instigated other procedures as per the ISM manual. He did not contact the Irish Coast Guard to inform them of the incident.

3.7 The vessel floated off the bank at approximately 18.30 hrs. It was found that the steering gear was damaged. The Master anchored the vessel close to the grounding position.

3.8 The Owner chartered the tug *"MTS Vanquish"* via an Irish company. The tug arrived on scene in the early hours of 15th January 2014 and preparations were made to tow the damaged vessel to Dublin. The vessel anchored off Dublin late on 15th January 2014. Before being allowed to enter the port it was inspected.

3.9 The vessel was towed into port on 16th January 2014 and brought to the South Bank Quay.

3.10 The vessel later entered dry dock in Dublin for repairs to its rudder (See Appendix 7.3 Photograph 3) and other repairs that might be deemed necessary. In the dry dock, it was noted that the starboard bilge keel for the vessel was missing. Paint coatings indicated that it was missing for a considerable period. The port bilge keel was damaged towards the aft end. The rudder was bent over to starboard and the plating was fractured on the port side. The bottom plating was set in, on both sides, at the turn of the bilge for almost the entire length of the vessel. There was damage to the port side sea chest gratings. There was a stress fracture in the shell plating, port side, at the turn of the bilge in way of frame 40.

4. ANALYSIS

4.1 The vessel carried 3 x deck officers, all taking charge of navigational watches. The Certificates of Competency of all Officers were checked. All had dual certificates, issued by their country of origin and those issued by the vessel's Flag State. The following was noted:

4.1.1 The Master held a Certificate of Competency, issued on 27th September 2012 and valid at the time of incident until 31st December 2016. His certificate entitled him to sail as Master on vessels of up to 6,000 Gross Tonnes. The certificate also indicated he was qualified at management level for navigation, cargo handling and stowage and controlling the operation of the ship and care for the persons on-board. The Master also held a Certificate of Equivalent Competency issued by the Government of Antigua and Barbuda issued on 18th October 2012. This certificate to serve as Master was also valid for use on vessels up to 6,000 Gross Tonnes.

4.1.2 The Chief Officer held a Master's Certificate of Competency, which was unlimited.

4.1.3 The Second Officer's primary Certificate of Competency was issued by the Turkish Government, which is valid until 31st December 2016. He also held a Certificate of Competency issued by the Government of Antigua and Barbuda, valid until 31st December 2016.

4.2 Checking of the Deck Log Book and charts showed that positions were required to be recorded every two hours. Only one record of a position being recorded at a course alteration point was found for the entire voyage. In the main, all positions recorded were taken from the GPS system, rather than being the result of visual or radar bearing and distance from an object.

4.3 Checking of the vessel's Compass Error Book showed that compass checks were taken from buoys and that a 0° gyrocompass error was always recorded.

4.4 The charts and publications in use were checked:

4.4.1 NP 40, "The Irish Coast Pilot" (Admiralty Sailing Directions) was published in 2010 and was out of date at the time of the grounding (new edition issued in late 2013).

4.4.2 British Admiralty Chart, BA 1123, Western Approaches to Saint George's Channel and Bristol Channel was relied on, issued on 12th June 2006, last correction was 5371 of 2013 (Correction 4988 of 2012 was missing). (Please refer to Appendix 4 Figure 1). This was the chart in use at the time. It was found that the last recorded position before the grounding was made at 11.00 hrs CET. Positions

were only recorded at 2 hourly intervals. At 05.00 hrs the vessel's position indicated it was 5 miles to the west of the plotted course line. The required course to steer was not written on the chart, as would be normal practice. There were no courses laid off from the Arklow Light Buoy. Tidal stream references on this chart were related to the tides at Dover.

4.4.3 Other larger scale charts on-board were checked. There were 2 charts that should have been in use:

(a) The most important was BA 1410, Saint George's Channel, was the best chart for the area, and should have been in use before the vessel approached the Arklow Bank. The Master was not aware that this chart was on-board. There were no courses laid off on this chart. Tidal stream references on this chart related to Milford Haven. The chart was issued on 30th July 2013. The last correction was 3554 of 2013.

(b) Prior to arriving off the Arklow Bank the chart should have been changed to BA 1411, which covers the east coast of Ireland up to Howth Head. No courses were laid off on this chart. The chart was issued on 1st August 2010 and the last correction was 4637 of 2013.

4.4.4 NP 201, Volume 1, the Admiralty Tide Tables for 2014 was on-board the vessel. The Second Officer relied on privately published tide tables for the Port of Dublin, issued in 2013.

4.4.5 The Master's Standing Orders for the Bridge were obtained and reviewed. They were noted to be sparse. The most important item with respect to this investigation is "a safe and responsible navigation with all equipment and rule has to be guaranteed".

4.4.6 Calculation of tides using local time:

14.01.2013 Dublin Unofficial Table		14.01.2014 Dublin NP 201		Dover NP 201	
High Water	0054	Low Water	0407	Low Water	0451
Low Water	0624	High Water	1043	High Water	1006
High Water	1305	Low Water	1630	Low Water	1715
Low Water	1857	High Water	2301	High Water	2226

Note: the Second Officer's estimation of tidal conditions was in error by approximately 10 hours.

4.4.7 The vessel's passage plan as presented by the Master was reviewed. The relevant section is on page 2 of the plan. The passage plan was altered by the Master

during the morning of 14th January 2014. Examination of the passage plan shows that it was signed by the Master, Chief Officer and Second Officer, despite being amended. Further examination showed that the course and positions for alterations were incorrect and incompatible with what the vessel did.

4.4.8 The stability calculation for departure from Nemrut was obtained. It is noted that the vessel had a deadweight of 4,404.2 m.t., to include all cargo, fuels and constant. The departure drafts were 5.74 m (F) and 6.33 m (A). It is considered that a clerical error was made in recording the Nemrut departure drafts and the difference between the stability calculation and the Log Book is that the latter records the drafts as read whilst the former records the drafts at the relevant perpendiculars. There was no stability calculation for departure from Ceuta, although the vessel's condition had altered.

4.5 The following was established in the course of the investigation:

- The Master altered the passage plan.
- The Master expected the Second Officer to plot the new courses on the larger scale charts, following his decision to amend the plan.
- The Master had left the Bridge at approximately 11.20 hrs.
- The new course required was 315°T, which would have the vessel pass approximately 1 mile south of the Arklow Light Buoy.
- After the morning watch, the Master went on deck with some of the crew, to check the condition of the vessel's deck lighting following the passage (in preparation for arrival at Belfast). He was paying particular attention to the port side, which had been subjected to immersion by the seas on passage.
- Weather forecasts were normally received by telex, as the vessel passed from one area to the next. These forecasts were received automatically on the ship's radio equipment.
- During the morning watch, he had listened to a weather forecast issued by the Irish Coastguard on marine VHF. He had also listened to forecasts issued by the Maritime and Coastguard Agency (UK). The weather forecast for areas Sole and the Irish Sea were SW'ly winds of Beaufort Force 6 to 7 due "soon".
- The weather information received formed the basis of his decision to amend the passage plan: based on his prior experience of the vessel operating in these waters with steel product cargoes and the stiffness of the vessel.
- At approximately 12.25 hrs, whilst working near the bow area, he noted the motion of the vessel altered and considered that it was unusual. The Boatswain

was with him on deck and a radio transmission from the Bridge indicated the vessel had run aground. As soon as this was realised he went immediately to the Bridge, he could not recollect how long this took but it was between 1 and 10 minutes.

- He did not store the vessel's position in the GPS system or stop the Voyage Data Recorder.

- Following the vessel's arrival in Dublin the Second Officer was relieved of his duties and repatriated. The Master confirmed that the Second Officer had 5 years experience which was served mainly in the Irish Sea.

4.6 The vessel's ISM manual was examined. The ISM manual was issued by PASA International Technical Services Ltd. (PASA ITS). This company is a subsidiary of the vessel's owners. In particular, the section relating to Passage Planning was examined:

The document was entitled PRO 07 09 Section 3, pages 1 to 3.

Page 1: Section 4.2 relates to weather factors.
Section 4.3 relates to route planning.

Page 2: Section 4.7 relates to on-board organisation.
Section 4.8 relates to Bridge management.
Section 4.9 relates to deviations from intended route.

Page 3: Section 5.1 relates to supervision of the voyage and documentation of routes.

4.7 On 16th January 2014, the Voyage Data Recording unit was analysed and the following was noted:

- At 11.00 hrs, the vessel altered course from 345°T to 330°T.

- At 12.39 hrs, the vessel came to a sudden stop.

- The vessel was making 10 knots through the water.

- There was no alteration of course or rudder movement to indicate an attempt to rectify the situation.

- The vessel's radar was operating correctly and could be seen acquiring a target on ARPA mode.

- The sound recording was listened to. There were no sounds of movement on the Bridge from 11.00 hrs to 12.39 hrs.

- At 12.39 hrs there were sounds of sudden movement, as if someone got out of a chair.

4.8 During the course of the investigation it was noted that this was the second grounding incident involving the vessel in recent years. There had been an incident in Scottish waters on 2nd July 2012, when the vessel ran aground on the Isle of Bute (refer MAIB report no. 9 of 2013).

5. CONCLUSIONS

5.1 Standard procedures for navigation and management of a vessel were not adhered to during the voyage. The vessel's actions were based on reliance on a small-scale chart and compounded by the improper use of unofficial tide tables.

5.2 The interval between position fixing was inadequate for a vessel operating in coastal waters. Best practice would suggest in coastal waters the position of the vessel should be checked between 15 and 20 minute intervals, dependent on other information, such as set and drift.

5.3 The incident also highlights the need for a vessel to use other means of navigation, such as visual compass bearings, radar bearings and ranges from fixed objects, in coastal waters to verify its position and the effects of tides, currents and winds on the course made good.

5.4 The vessel was allowed to pass on the wrong side of a navigation mark. The reason provided was that the chart showed a depth of 20 m to the north of the buoy, so the Officer of the Watch considered the vessel was safe.

6. SAFETY RECOMMENDATIONS

6.1 That Antigua and Barbuda as the Flag State, as well as Germany and Turkey who certified the crew, follow up on the safety issues raised including ensuring that the owners and managers of the vessel review the effectiveness of their navigation safety system for this vessel and any others they control.

7. APPENDICES

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Appendix 7.1 Met Éireann Report.

MET ÉIREANN
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30/7/2014

Our Ref. WS 3018/2_15567
Your Ref. MCIB/12/235

Re: Estimate of weather conditions in the Arklow Bank area at position 52° 43.02'N and 5° 58.36'W, on the 14th January 2014, between 6 hours and 18 hours

Dear [redacted]

Please find enclosed the above report.

Yours sincerely,

[redacted]

[redacted]

Appendix 7.1 Met Éireann Report.

MET ÉIREANN
The Irish Meteorological Service

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30/7/2014

Our Ref. **WS 3018/2_15567**
Your Ref. **MCIB/12/235**

Estimate of weather conditions in the Arklow Bank area at position 52° 43.02'N and 5° 58.36'W, on the 14th January 2014, between 6 hours and 18 hours

General Situation
High Pressure over the area declined during the morning as frontal troughs approached from the west. These rain-belts or troughs crossed the area in the afternoon and evening.

Details
6 hours to 12 hours
Winds: mainly from a west to south-west direction, were Light, Force 3 at first, and gradually increased to a Fresh Force 5.
Weather dry and clear conditions initially were replaced by cloudy conditions and outbreaks of rain and drizzle arrived late in the period
Visibility: generally good,
Sea state: Moderate, approx 1.5 m significant wave heights, from the south-west

12 hours to 18 hours
Winds: mainly from a southerly direction, increased further from a Fresh Force 5 to a near Gale Force 7.
Weather: rain and drizzle, heavy at times
Visibility: poor at times but generally moderate to good
Sea state: Moderate, approx. 2m significant wave heights, from the south-south-west.

Note: The shallowness of the Bank area would have caused a focusing of waves towards the Bank and an extra choppiness in the general area.

[redacted]
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Met Éireann

Appendix 7.1 Met Éireann Report.

MET éireann

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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.

Appendix 7.1 Met Éireann Report.

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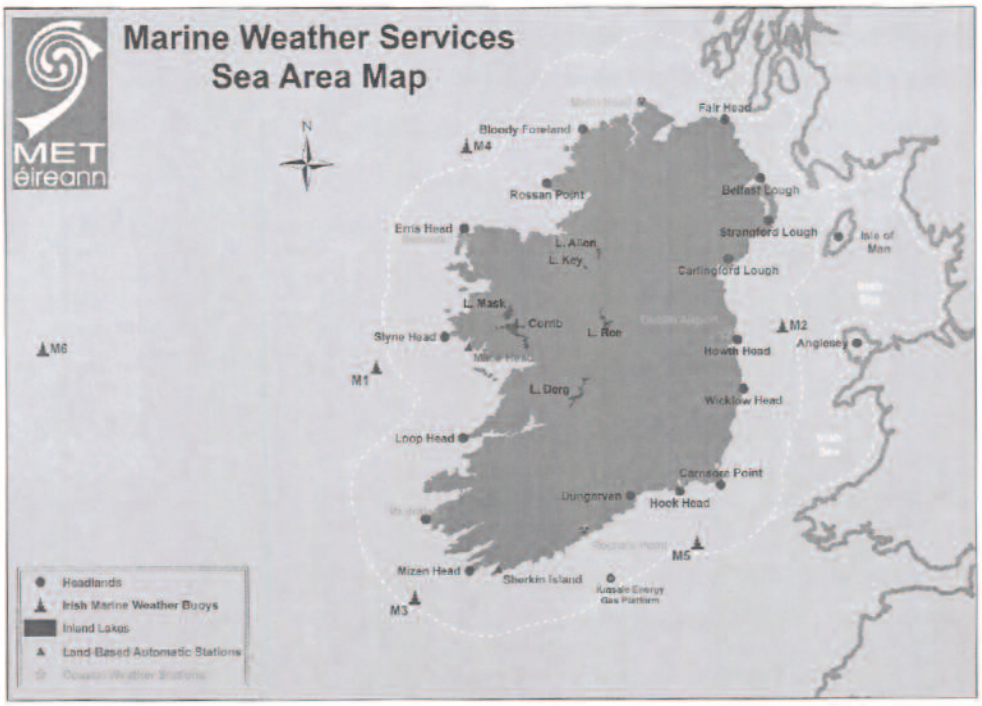
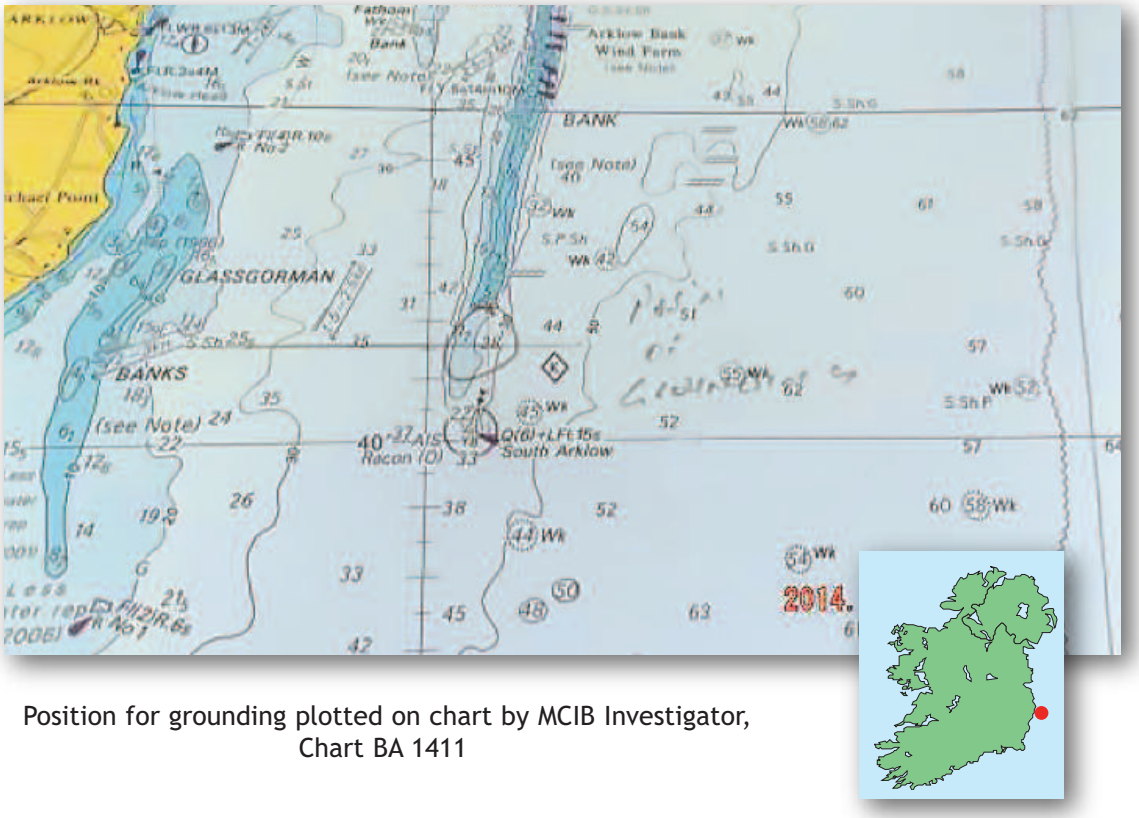


http://www.met.ie/marine/marine_map.asp

Appendix 7.2 Arklow Bank.



Position for grounding plotted on chart by MCIB Investigator, Chart BA 1411

Appendix 7.3 Photographs.

Photograph 1 - Vessel arriving at Dublin

Photograph 2 – Vessel's stern with draft of 6.4 metres

Appendix 7.3 Photographs.

Photograph 3 – Damage to rudder

Appendix 7.4 Chart corrections.

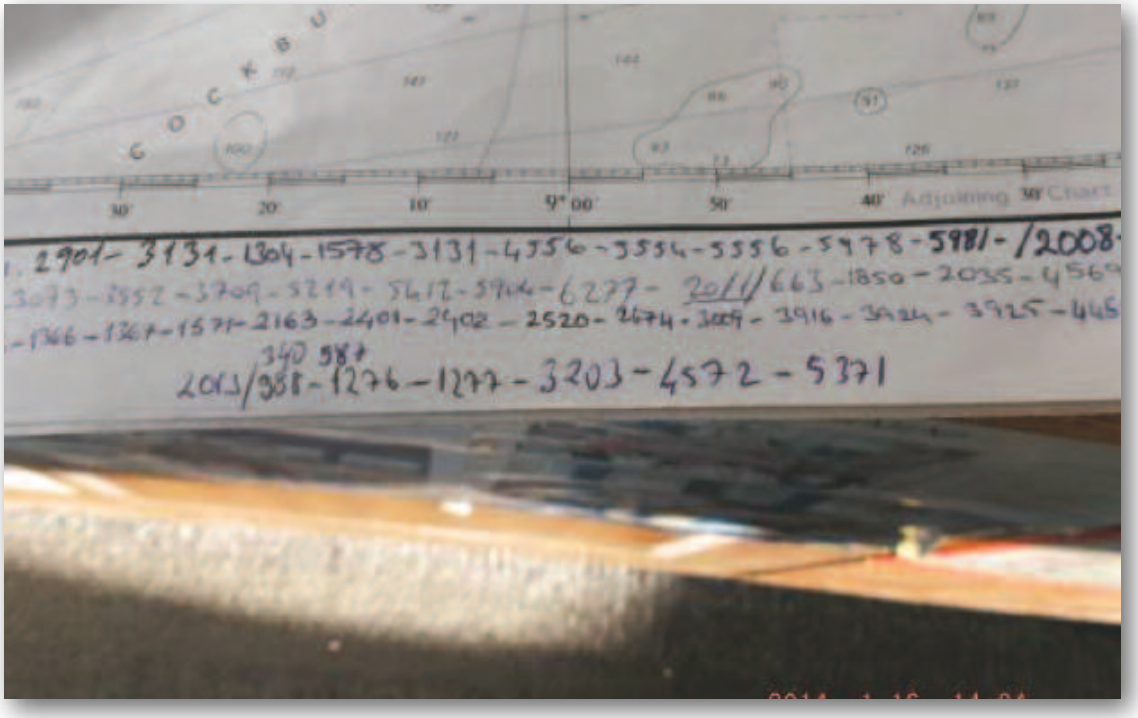


Chart Corrections

8. CORRESPONDENCE RECEIVED

PAGE

8.1 Correspondence from Antigua & Barbuda Maritime Authority (ADOMS) and MCIB response 28

8.2 Correspondence from Antigua & Barbuda Maritime Authority (ADOMS IID) and MCIB response 29

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

Correspondence 8.1 Correspondence from Antigua & Barbuda Maritime Authority (ADOMS) and MCIB response.

From: [redacted]
Sent: 01 September 2014 21:50
To: Marine Casualty Investigation Board
Subject: Draft report grounding of mv Arslan II

Dear Sir/Madam
Thank you for the draft report that I received today, I will consult with my colleagues in our Investigations division as to if they have any comments to make as they were also in communication with the company.
Although not directly connected with this incident we have recently withdrawn the DOC from a company associated with this owner following failure to co-operate with an accident investigation and a lot of other issues!. We are trying to ensure enhanced and more effective monitoring of [redacted] and their vessels under our flag by both our Flag State inspectors and RO auditors and surveyors.
Best regards

[redacted]

Chief Marine Surveyor
ADOMS,
St. John's.

[redacted]

www.abregistry.ag

MCIB RESPONSE:
The MCIB notes the contents of this observation.

Correspondence 8.2 Correspondence from Antigua & Barbuda Maritime Authority (ADOMS IID) and MCIB response.

From: [redacted]
Sent: 08 September 2014 10:35
To: Marine Casualty Investigation Board
Cc: [redacted]
Subject: MV ARSLAN II, Draft Report comments Antigua & Barbuda

Dear [redacted]

Thank you for allowing us to comment your draft report on the grounding of MV ARSLAN II on the Arklow Bank, 14th of January 2014.

We agree to you conclusions made:

- Standard procedures for navigational and management of a vessel were not adhered to
- Inadequate position fixing
- Overreliance (sole reliance) on GPS
- Seemingly complacent acceptance of risk during passage, even though vessel was clearly not on predefined track

Concerning the recommendations made our office will communicate possible measures to ensure that the company/operator of MV ARSLAN II review the effectiveness of procedures in relation to navigation in an overall sense. As the vessel is no longer registered under Antigua and Barbuda, but is sailing under the name "NARGYS H" , Togo registered, this only concerns the company as such. Our office will inform you of possible results.
We also agree that a reference is made to the previous grounding of the vessel under a former name.

Please let us at ADOMS IID know if you require any further info from our side.

Kind Regards

[redacted]
Deputy Chief Casualty Investigator

ADOMS IID
ANTIGUA and BARBUDA W.I. Department of Marine Services and Merchant Shipping
Inspection and Investigation Division
Steubenstraße 7 B
27568 Bremerhaven
[redacted]

MCIB RESPONSE:
The MCIB notes the contents of this observation.