

**REPORT OF THE
INVESTIGATION INTO THE
GROUNDING OF
THE FISHING VESSEL “AINE”
ON 9TH NOVEMBER, 1997.**

TABLE OF CONTENTS

	<u>Page No.</u>
1. Synopsis	3
2. Factual Information	4
3. Events prior to the incident	7
4. The Incident	8
5. Events following the incident	9
6. Conclusions and Findings	10
7. Recommendations	12
8. Appendices	13
9. Index of Correspondence	24

1. SYNOPSIS

On the morning of the 9th November 1997 at approximately 4.50am the steel hulled fishing vessel “Aine” ran aground at Inishnanooan, Co. Donegal.

The eleven crewmembers safely abandoned the vessel by liferaft and were taken on board the fishing vessel “Western Viking”.

No fatalities or injuries were sustained in this incident and no pollution was observed.

2. FACTUAL INFORMATION

2.1 Description of the vessel

Type of Vessel:	Steel Hulled Fishing Vessel
Port of Registry:	Sligo
Owner:	Mr. Joseph Doherty Co. Donegal
Registered Length:	44.25M
Length overall:	48.55M
Breadth Moulded:	44.00M
Moulded Depth:	6.95M
Official Number:	403242
Fishing Number:	734
Gross tonnage:	714
Main Engine:	MAK 6 cylinder
Horse Power:	1103 kW
Keel Laid:	October 1996, The Netherlands

2.2 Lifesaving appliances on board

2.2.1 Liferafts:

2 x 12 person RFD SURVIVA 12 stowed on the wheelhouse deck starboard.
2 x 12 person RFD SURVIVA 12 stowed on the wheelhouse deck port.
All four liferafts were fitted with an Mk 9 Berwyn Hydrostatic Release Unit.

2.2.2 Inflatable Boat

1 x 6 person Duarry SR5 BR stowed on the Wheelhouse Deck port side.

2.2.3 Immersion suits: 12 Bayley

2.2.4 Lifebuoys: 6 (including two with smoke and light)

2.2.5 Pyrotechnics: 12 parachute rockets

2.2.6 Line throwing apparatus: 1 Set

2.3 Navigational and Radio Equipment

	<u>Make</u>	<u>Model</u>
2.3.1 Sonars:	Furuno	CSH 71
	JRC	JFS 3380
2.3.2 Sounders:	JRC	JRC 250
	JRC	JFV 131
	JRC	JRC 250
2.3.3 Plotters:	2 x Sodena	Turbo 2000
2.3.4 GPS:	2 x Furuno	GP80
	1 x Sercel	NR51 Diff
2.3.5 Auto Pilot:	Robertson	AP9 MK11
2.3.6 Gyro Compass:	Robertson	RGC 11
2.3.7 Magnetic Compass:	Kelvin Hughes	
2.3.8 Radars:	Furuno	1831 MK11
	Furuno	FR 2130 S Band ARPA
	Furuno	FR 1510. X Band
2.3.9 Radio Equipment:	Furuno	FM 8500 R/T, CH 70 W/K/R.
	Sailor	RT 144 VHF
	Sailor	RT 2048 VHF
	Furuno	FS 1562 SSB R/T
	Scanti	WR 6000 2182 W/K/R
	Trimble	Inmarsat Standard Satellite Communication System.
	Icom	3 Hand Held VHF IC-M15E
	Kannad	406 W H EPIRB.
	Kannad	Sarts X 2

2.4 Crewmembers of MFV “Aine” at the time of the casualty

Joseph Doherty (Skipper/Owner) Age 46

Holder of a Second Hand Special Certificate of Competency endorsed for Second Hand Limited issued in June 1980. Mr. Joseph Doherty has approximately thirty-two years experience on fishing vessels.

Kieran Doherty (A son of the owner) Age 23

Holder of a Second Hand Full Certificate of Competency issued in May 1996. Mr. Kieran Doherty has approximately six years seagoing experience.

Joseph Doherty (A nephew of the owner)

Did not hold any formal qualifications at the time of this incident.

Philip Greene

Holder of a Fishing Class 2 Engineering Certificate of Service and approximately fourteen year’s seagoing experience.

Paul Carbery

Holder of a Fishing Class 2 Engineering Certificate of Competency.

Michael Doherty – Deck Hand

Jim Doogan – Deck Hand

John Boyle – Radio Officer - Seagoing experience of approximately twenty-six years.

Michael Doherty – Deck Hand

John Gallagher – Deck Hand

Noel McNelis – Chef

2.5 Manning of the vessel

2.5.1 In the Limited area the ‘Aine’ being between 24 to 50 metres registered length is required to carry a minimum of two qualified deck officers. The minimum qualifications required for such a fishing vessel is one Skipper Limited and one Second Hand Limited or one Second Hand Special.

2.5.2 Mr. Kieran Doherty at the time of the incident held a Second Hand Full Certificate of Competency issued in May 1996. After a period of one years’ sea service Mr. Kieran Doherty would have been entitled to apply to have his Second Hand Full Certificate of Competency endorsed to enable him to serve as Skipper Limited. This however had not been done.

- 2.5.3** Mr. Joseph Doherty holds a Second Hand Special Certificate of Competency with an endorsement to enable him to serve as Second Hand in the 'Limited' area.
- 2.5.4** The registered power of the 'Aine' is 1103 kW. The vessel is required to carry a minimum of one Class 2 Engineer and one Class 3 Engineer. At the time of the incident Mr. Philip Greene held a Class 2 Engineer Certificate of Service and Mr. Paul Carbery held a Class 2 Engineer Certificate of Competency.

3. EVENTS PRIOR TO THE INCIDENT

- 3.1** The MFV 'Aine' sailed from Killybegs at approximately *2000 hours on the night of Saturday 8th November 1997. Weather conditions were good with light winds, low swell and good visibility.
- 3.2** A rendezvous had been arranged with the vessel 'Western Viking' and the intention was to engage in pair trawling off the coast of Donegal. The 'Aine' and the 'Western Viking' operate almost exclusively together in pair trawling and the 'Aine' is rigged to this effect.
- 3.3** According to the Skipper the 'Aine' had experienced steering difficulties when pair trawling about a week previously with the fishing vessel 'Atlantean'.
- 3.4** The 'Western Viking' had been delayed at Rathmullan due to engine problems. The Skipper/owner of the 'Aine' decided to wait in Dunfanaghy Bay until the 'Western Viking' was ready to proceed.
- 3.5** On sailing from Dunfanaghy Bay the 'Aine' decided to proceed off 'Horn Head' to rendezvous with the 'Western Viking'.
- 3.6** The Skipper claims that he took over the watch from the mate at sometime just after 0430 hours on the 9th November 1997.

**All times are GMT*

4. THE INCIDENT

- 4.1** When the Skipper took over the watch there were two other people present on the bridge. Mr. Michael Doherty & Mr. John Boyle.
- 4.2** The vessel was on autopilot and proceeding at a speed of approximately seven knots.
- 4.3** According to the Skipper the vessel experienced steering difficulties and “must have veered off course”. At the time of experiencing difficulties the ‘Aine’ was about a half-mile off Horn Head.
- 4.4** According to the Skipper he tried to alter course using the autopilot but it was not functioning. When the vessel was about a quarter of a mile offshore he then switched over to hand steering.
- 4.5** The Skipper maintains that as the vessel was swinging to port he applied starboard helm when the vessel struck bottom at 0450 hours on the morning of Sunday the 9th November 2000.
- 4.6** The vessel was found to be hard aground on a small headland called Inishnanooan Close east of Templebreaga Head. (See appendix 8.1)
- 4.7** Mr. Kieran Doherty had just left the wheelhouse when the incident occurred.

5. EVENTS FOLLOWING THE INCIDENT

- 5.1** Damage assessment was carried out quickly.
- 5.2** The alarm was sounded and all crewmembers awoken.
- 5.3** The Chief Engineer checked the engine room for leaks. None were found.
- 5.4** The hatch cover on the port forward tank, which was full of seawater, had been lifted off with the force of the impact.
- 5.5** The Skipper put the engines astern but the vessel was hard aground at this time.
- 5.6** The vessel developed about a twenty-degree starboard list and the Skipper gave the order to abandon ship.
- 5.7** Prior to abandoning the vessel a mayday message was broadcast and a rocket line was passed to the 'Western Viking'.
- 5.8** The crew abandoned the vessel to a liferaft at approximately 0505 hours. The liferaft was pulled to the 'Western Viking' and the crew of the 'Aine' were picked up.
- 5.9** Marine Rescue Co- ordination Centre (MRCC) Dublin tasked Helicopter R110 and Aranmore Lifeboat at 0507 hours.
- 5.10** At approximately 0630 hours an inflatable boat from the 'Western Viking' was deployed and some of the crew from the 'Aine' assisted by a crewmember from the 'Western Viking' re-boarded the 'Aine'. The 'Aine' was re-floated using a combination of engines and thruster. The 'Aine' accompanied by the 'Western Viking' proceeded to Portsalon and anchored at approximately 1100 hours.
- 5.11** Search and rescue operations concluded when the 'Aine' berthed at Rathmullen at 1853 hours on 9th November 1997.

6. CONCLUSIONS AND FINDINGS

A: FINDINGS

Divers at Portsalon carried out a preliminary inspection of bottom damage. At 1213 hours IMES Mulroy was on the scene and reported no oil pollution evident.

The vessel was later towed to Falmouth where significant bottom damage was repaired.

Approximately 40% of the bottom plating had to be renewed.

There was significant damage to the Steering Gear and Rudder Stock.

The Fore Peak Tank, No.1 Fuel Tanks port and starboard, No.2 Ballast Tank Port, No.1 and 2 Fish Holds Port all sustained significant damage.

During the grounding there was some minor diesel oil leaks but no significant pollution occurred.

B: CONCLUSIONS

(I) The 'Aine' was being navigated too close to the coast.

The Skipper stated that the vessel had been experiencing problems with the steering gear previously. Any vessel experiencing problems with such vital equipment such as steering gear should have exercised due prudence and navigated with caution.

According to the Skipper the vessel was about a half mile off the coast when steering difficulties were experienced. There was no particular reason why the vessel was so close to the shore.

(II) The casualty occurred at or soon after a hand-over of watchkeeping duties.

In addition to the Skipper there were two crewmembers in the wheelhouse at the time of the grounding. The Chief Mate was just leaving or had just left when the problems started to arise. The Chief Mate who handed over watchkeeping duties should have ensured that conditions were such that the vessel was not in any danger prior to handover. The Skipper who was taking over the watch should have ensured that all was in order prior to taking over watchkeeping duties.

(III) There were no fatalities, injuries or serious pollution.

Despite the vessel sustaining significant damage the vessel was saved

without injury or serious pollution. The weather conditions were favourable in this respect (see appendix 8.2).

After the grounding the eleven crewmembers disembarked into a liferaft and by using a rocket line to the 'Western Viking' the liferaft was towed clear and alongside the 'Western Viking'. In this respect the crew displayed good seamanship and made good use of the Life

Saving

Appliances.

7. RECOMMENDATIONS

7.1 Marine Notice No. 39 of 1999 brought to the attention of owners and

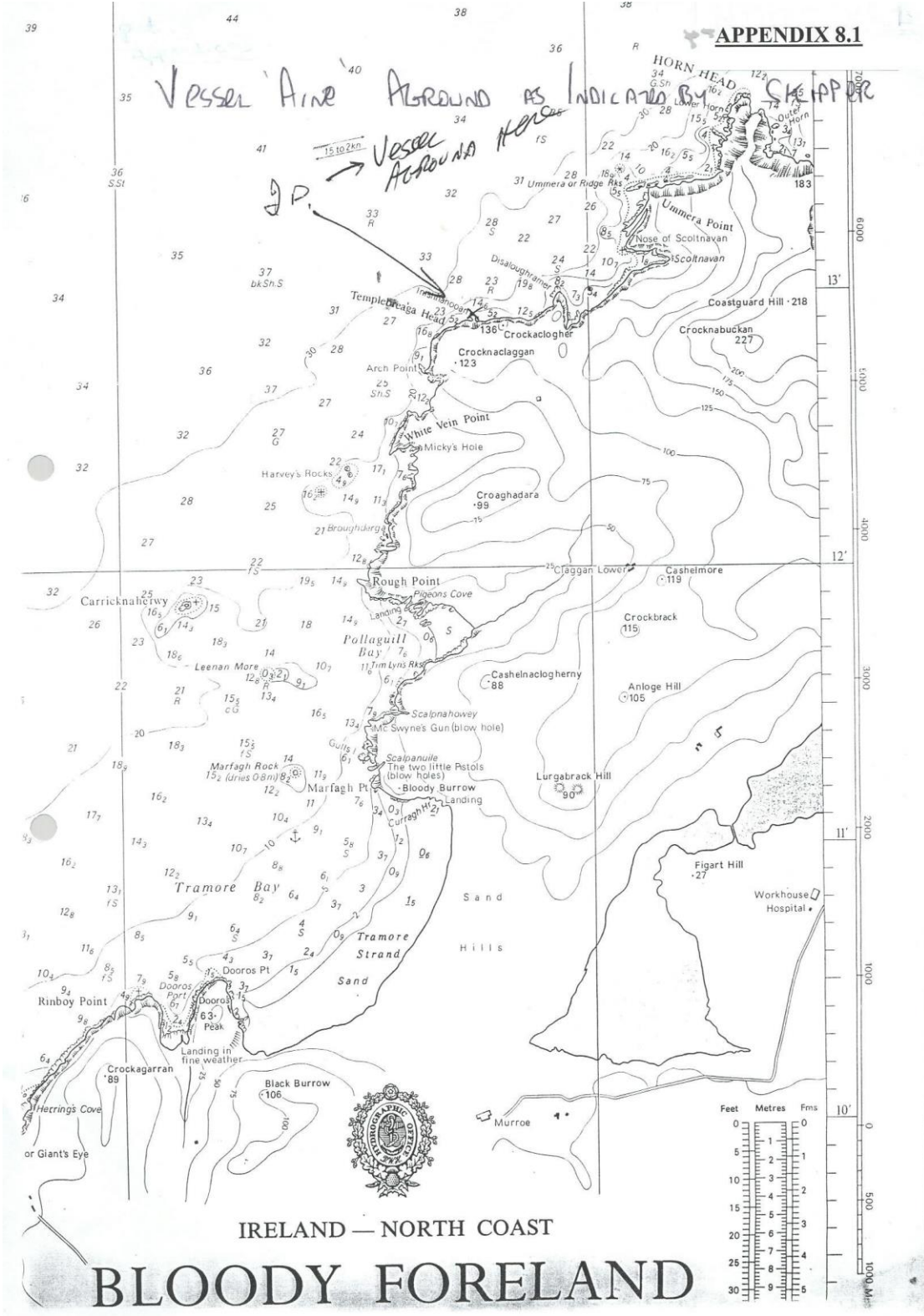
operators of fishing vessels the International Maritime Organisation Resolution A.484 (XII) “Recommended basic principles to be observed in keeping a safe navigational watch on board fishing vessels”. A proposed new marine notice draws the attention of owners and operators of fishing vessels to the dangers of navigating too close to the shore or hazards (See appendix 8.4).

7.2 Before operating astern propulsion the Skipper or person in command of any vessel that is aground should carefully consider if the vessel has sufficient reserve buoyancy. This is especially important if tanks which were previously empty have been breached. The ‘knee jerk’ reaction to try and quickly refloat a vessel may have disastrous consequences.

8. APPENDICES

- 8.1 Chart showing where the vessel went aground.
- 8.2 Weather Report from Met Eireann.
- 8.3 Commissioners of Irish Lights, Status Aids to Navigation.
- 8.4 Draft Marine Notice.
- 8.5 Photograph of F.V. "Aine".

NOT TO BE USED FOR NAVIGATION PURPOSES





MET ÉIREANN
The Irish Meteorological Service

Glasnevin Hill,
Dublin 9, Ireland.

Cnoc Ghlas Naíon,
Baile Átha Cliath 9, Éire.

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Capt. T.C. O'Callaghan,
Department of the Marine
Marine Surveyors Office
26-27 Eden Quay
Dublin 1

28/1/98

Our ref: ws 3018/C

Dear Capt. O 'Callaghan,

I enclose a Weather Report for the 9th November 1997 for the sea area near Horn
Head, Co. Donegal.

Yours Sincerely

A handwritten signature in black ink, appearing to read 'Evelyn Murphy'.

Evelyn Murphy

**Weather Report for the sea area off Horn Head, Co. Donegal
on the 9th November 1997
between midnight and 8 hours.**

General Situation

Ireland lay in the centre of a deep low pressure area which covered much of the north-east Atlantic. Several frontal troughs were swirling around this low centre, but the strongest winds were to the west and south of Ireland.

Details for the sea area near Horn Head 9/11/97 00 to 8 hours

Winds: Variable mainly between west and south-west Force 1 to 4.

Weather: Intermittent rain and showers.

Visibility: Good

Seastate: The closest measurement of seastate available is a buoy at 55.6 North and 12.7 West which indicated waves of significant wave height 2.5 metres. *This wave height is a combined sea and swell wave and the buoy was in a windier part of the ocean than Horn Head*, therefore all I can conclude is that the sea state in the area was between wavelets and Moderate. This would agree with our wave model which was giving westerly swell of 2 metres at midnight in the Horn Head area.

BEAUFORT SCALE OF WIND

(For a standard height of 10 metres above open flat ground)

BEAUFORT NUMBER	DESCRIPTIVE TERM	VELOCITY EQUIVALENT AT A STANDARD HEIGHT OF 10 METRES ABOVE OPEN FLAT GROUND			SPECIFICATIONS			Probable wave height in metres	Probable wave height in feet
		Mean velocity in knots	metres/sec	km/h	Land	Sea	Coast		
0	Calm	< 1	0-0.2	< 1					
1	Light air	1-3	0.3-1.5	1-5	Direction of wind shown by smoke drift but not by wind vanes	Ripples with the appearance of scales are formed, but without foam crests	Calm	0.1 (0.1)	1, (1.1)
2	Light breeze	4-6	1.6-3.3	6-11	Wind felt on face; leaves rustle; ordinary vanes moved by wind	Small wavelets; still short but more pronounced; crests have a glassy appearance and do not break	Wind fills the sails of smacks which then travel at about 1-2 knots	0.2 (0.3)	1, (1)
3	Gentle breeze	7-10	3.4-5.4	12-19	Leaves and small twigs in constant motion; wind extends light flag	Large wavelets; crests begin to break; foam of glassy appearance; perhaps scattered white horses	Smacks begin to careen and travel about 3-4 knots	0.6 (1)	2 (3)
4	Moderate breeze	11-16	5.5-7.9	20-28	Raises dust and loose paper; small branches are moved	Loam of glassy appearance; frequent white horses	Good working breeze; smacks carry all canvas with good list	1 (1.5)	3, (5)
5	Fresh breeze	17-21	8.0-10.7	29-38	Small trees in leaf begin to sway; created wavelets form on inland waters	Moderate waves; taking a more pronounced long form; many white horses are formed (chance of some spray)	Smacks shorten sail	2 (2.5)	6 (8.1)
6	Strong breeze	22-27	10.8-13.8	39-49	Large branches in motion; whistling heard in telegraph wires; umbrellas used with difficulty	Large waves begin to form; the white foam crests are more extensive everywhere (probably some spray)	Smacks have double reef in mainsail; care required when tacking	3 (4)	9 1/2 (13)
7	Near gale	28-33	13.9-17.1	50-61	Whole trees in motion; inconvenience felt when walking against wind	Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind	Smacks remain in harbour and those at sea lie-to	4 (5.5)	13 1/2 (19)
8	Gale	34-40	17.2-20.7	62-74	Breaks twigs off trees; generally impedes progress	Moderately high waves of greater length; edges of crests begin to break into the spindrift; the foam is blown in well-marked streaks along the direction of the wind	All smacks make for harbour, if near	5.5 (7.5)	18 (25)
9	Strong gale	41-47	20.8-24.4	75-88	Slight structural damage occurs; chimney pots and slates removed	High waves; dense streaks of foam along the direction of the wind; crests of waves begin to topple, tumble and roll over; spray may affect visibility		7 (10)	23 (32)
10	Storm	48-55	24.5-28.4	89-102	Seldom experienced inland; trees uprooted; considerable structural damage occurs	Very high waves with long overhanging crests; the resulting foam, in great patches, is blown in dense white streaks along the direction of the wind; on the whole, the surface of the sea takes a peculiar appearance; the tumbling of the sea becomes heavy and shock-like; visibility affected		9 (12.5)	29 (41)
11	Violent storm	56-63	28.5-32.6	103-117	Very rarely experienced; accompanied by widespread damage	Exceptionally high waves (small and completely covered with foam) are lost to view behind the waves; the sails of the wind; everywhere the edges of the wave crests are blown into froth; visibility affected		11.5 (16)	37 (52)
12	Hurricane and over	64 and over	32.7 and over	118 and over				14 (—)	45 (—)

* This table is only intended as a guide to show roughly what may be expected in the open sea, remote from land. It should never be used in the reverse way, i.e., for fogging or reporting the state of the sea. In enclosed waters, or when near land, with an on-shore wind, wave heights will be smaller and the waves steeper. Figures in brackets indicate the probable maximum height of waves.

Wave Heights:

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 systems associated with a range of significant wave heights. The significant 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 by an experienced seaman when making visual observations of wave height.

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.

STATE OF SEA

Descriptive terms	Height* in metres
Calm	0 - 0.1
Wavelets	0.1 - 0.5
<hr/>	
Slight	0.5 - 1.25
Moderate	1.25 - 2.5
<hr/>	
Rough	2.5 - 4
Very rough	4 - 6
<hr/>	
High	6 - 9
Very high	9 - 14
<hr/>	
Phenomenal	Over 14



COMMISSIONERS OF IRISH LIGHTS

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Email: Marine Department - marine@cil.ie

[Redacted]
Nautical Surveyor,
Dept of Marine & Natural Resources,
Marine Surveyor's Office,
Leeson Lane,
Dublin 2.

Your Reference

Our Reference IMS/60/61 II

Date 22nd January 1997

MARINE INCIDENT 9TH NOVEMBER 1997

Dear Sir,

I refer to your letter of 20th January 1998, regarding the Marine incident which occurred on 9th November 1997. All CIL Aids to Navigation, Lights and Buoys in this area were functioning correctly at that time.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'C. J. Lavery', is written over a printed name.

CAPT. C. J. LAVERY

for INSPECTOR & MARINE SUPERINTENDENT

CJL/HS



Draft Marine Notice

No. of 2001

ATTENTION: ALL FISHING VESSEL OWNERS, SKIPPERS, MATES AND FISHERMEN.

RE: NAVIGATING CLOSE TO SHORE OR HAZARDS

- 1 An investigation into an incident where a fishing vessel ran aground found that the vessel was being navigated too close to the coast.
- 2 All vessels should keep, at all times, and allowing for eventualities, a prudent distance from the nearest danger.
- 3 All vessels should monitor their position at regular intervals. Position fixing should be effected by a variety of methods. Over reliance on any one method e.g. GPS should be avoided.
- 4 When taking into account what is a prudent distance the following are among the factors that should be taken into the account:
 - 4.1 *The manoeuvrability of the vessel with special regard to stopping distance and turning ability in the prevailing conditions.*
 - 4.2 *The draft of the vessel in relation to the available depth of water.*
 - 4.3 *The onboard availability and status of navigational aids such as radar, automatic pilot and position fixing equipment.*
 - 4.4 *Proper use shall be made of sounding equipment including pre-setting depth alarms. An appropriate depth scale to be used.*
 - 4.5 *Radars should be set on an appropriate scale and a proper radar watch maintained.*
 - 4.6 *Over-reliance should not be placed on radar and video plotter information. A good lookout by sight and hearing to be maintained.*
 - 4.7 *The weather conditions, visibility and time of day.*
 - 4.8 *The Officer on watch should be aware of the prevailing tidal stream. Proper use should be made of the appropriate tidal atlas and tidal 'diamonds' on Admiralty charts.*

5 Skippers should ensure:

- 5.1 *That the intended voyage be planned in advance taking into account any relevant information. A prudent distance from the coast and navigational hazards to be maintained.*
- 5.2 *That the use of autopilot is confined to waters where it is safe to use this equipment. Handsteering to be employed when in any doubt. Autopilot watch alarms where fitted should be checked as part of regular watchkeeping duties.*
- 5.3 *That watchkeeping officers are informed of a minimum safe distance that the vessel is required to be kept away from the coast and or navigational hazards.*

6 Fitness for duty

- 6.1 *Both the skipper and the watchkeepers should take full account of the quality of rest taken when determining fitness for duty.*

7 Handing over the watch

- 7.1 *The person handing over the watch is required to pass to the relieving watchkeeping officer information relating to the position, speed and course steered as well as any additional information necessary to effect a good hand-over. The Officer on Watch should not hand over the watch to any person who is not capable of taking over the watch. The skipper should be advised accordingly.*
- 7.2 *The relieving watchkeeping officer should not take over the watch until satisfied regarding the position of the vessel, speed and course steered. Any dangers to navigation expected during the watch should be noted.*
- 7.3 *Many groundings occur when the position is not being monitored and an assumption is made that the vessel is in safe water.*

8 Commercial Pressures

- 8.1 *In some instances there maybe short-term commercial gain in operating a fishing vessel close to shore. The possible consequences in pursuing short-term commercial gain are loss of life, loss or damage of the vessel and damage to the marine environment. However any sensible owner, operator or skipper will not allow their vessel to be so compromised.*

9 Local regulations

- 9.1 *Skippers should be aware that local bylaws may prohibit fishing within, harbours, inlets or within a specified distance from the coast.*

10 IMO Resolution A.484 (XII) and Marine Notice No. 39 of 1999.

10.1 Owners and operators of fishing vessels, skippers and watchkeepers should ensure that a proper navigational watch is kept at all times in accordance with the International Maritime Organisation Resolution A.484 (XII) "Recommended basic principles to be observed in keeping a navigational watch on board fishing vessels". Marine Notice No. 39 of 1999 refers.

Thomas Carroll
Secretary
Department of the Marine and Natural Resources
Dublin 2



9. INDEX OF CORRESPONDENCE

Correspondent

Page

Irish Coast Guard

24

MCIB Response

24



Mr Dick Heron
Secretary MCIB
Department of Communications,
Marine and Natural Resources
Leeson Lane
Dublin 2.

18th Nov. 2003.


Re Draft MCIB Report 01 and FV AINE grounding 9th Nov 1997.

Dear Mr Heron,

The Irish Coast Guard request that the following factual correction be made at Section 5.9 on page 10 of the above report; "Marine Rescue Co-ordination Centre (MRCC) Dublin" etc.

The Irish Coast Guard has no other comment or observation to make regarding this Draft Report.

Yours sincerely,


Eamon Torpax
SAR Operations Manager
IRCG HQ.

Department of Communications, Marine and Natural Resources, Leeson Lane, Dublin 2, Ireland.
An Roinn Cumarsáide, Mara agus Acmhainní Nádurtha, Lána Chill Mochargán, Baile Átha Cliath 2, Éire.
Tel: +353 | 678 2324, Fax: +353 | 678 2269, Email: admin@irishcoastguard.ie

The MCIB has amended the Report accordingly.