

**REPORT OF THE
INVESTIGATION INTO
THE FIRE ONBOARD
THE "SPAILPIN FANACH"
NEAR SKELLIGS ISLAND ON
28TH SEPTEMBER 2004.**

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

The copyright in the enclosed report remains with the Marine Casualty Investigation Board by virtue of section 35(5) of the Merchant Shipping (Investigation of Marine Casualties) Act, 2000. No person may produce, reproduce or transmit in any form or by any means this report or any part thereof without the express permission of the Marine Casualty Investigation Board. This report may be freely used for educational purposes.

Published by The Marine Casualty Investigation Board
31st January 2006



	PAGE
1. SYNOPSIS	4
2. FACTUAL INFORMATION	5
3. EVENTS PRIOR TO THE INCIDENT	8
4. THE INCIDENT	9
5. EVENTS AFTER THE INCIDENT	11
6. CONCLUSIONS	12
7. RECOMMENDATIONS	14
8. LIST OF APPENDICES	15

1. SYNOPSIS

- 1.1 The Fishing Vessel "Spailpín Fánach" sailed from Castletownbere, Co. Cork on the 27th of September 2004 with a crew of three persons onboard.
- 1.2 Whilst engaged in fishing operations 11 nautical miles West of the Skellig Islands on the morning of 28th of September, 2004 fire broke out in the engine room and rapidly engulfed the vessel.
- 1.3 The crew abandoned the vessel into a Liferaft and were picked up by another Fishing Vessel. No injuries were sustained by her crewmembers.
- 1.4 The "Spailpín Fánach" subsequently sank at position 051 46.0 North 010 50.24 West 6 hours later.
- 1.5 No pollution occurred.

2. FACTUAL INFORMATION

2.1 PARTICULARS OF THE "SPAILPÍN FÁNACH"

Vessel Name:	"Spailpín Fánach"
Built:	1972 in Killybegs, Co. Donegal.
Owner:	Denis O'Regan, Castletownbere, Co. Cork.
Purchased:	1996
Registered Length:	62.40 feet
Registered Breadth:	20.00 feet
Registered Depth:	7.30 feet
Gross Tonnage:	66.66 tons
Register Tonnage:	32.24 tons
Port of Registry:	Tralee
Official Number:	401202
Call Sign:	EI 6234

2.2 GENERAL DESCRIPTION:

A standard B.I.M. 65 foot design wooden fishing vessel built in the B.I.M. Killybegs yard in October 1972. She was fully decked with a whale back and winch shelter, aft wheelhouse/deckhouse. The vessel was powered by a single Kelvin diesel engine of approximately 310kW driving a four bladed fixed pitch propeller through a reverse/reduction gearbox (See Appendix 8.2).

2.3 MAIN MACHINERY:

Single Kelvin Diesel (Glasgow) 8 Cylinder Main Engine. 414 b.h.p. driving through a reduction gearbox the vessel had been re-engine in 2000 The engine gives an estimated speed of 10 knots. The main engine PTO drove a hydraulic power pack, an alternator and a Jabsco deck wash pump.

2.4 AUXILIARY MACHINERY:

A 80 hp Ford diesel auxiliary engine drove an second 'back up' hydraulic power pack, an alternator and a General Service pump. A separate P.T.O. from the gearbox drove another alternator.

The vessels electrical system was 24 volt D.C. insulated return. The vessel had three electric battery banks, two in the engine room, one for engine starting, the second for general supply. The third 'emergency' battery set was located on the wheelhouse top and supplied radio and navigation equipment and had been retrofitted in 1996.

2.5 VESSELS CONSTRUCTION

The "Spailpín Fánach" was a wood carvel construction with a deep displacement hull, raked soft nose stem, round bilge and canoe stern. She was fully decked with an aluminium whale back and an aft steel deckhouse. The vessel was subdivided under deck by traverse wooden bulkheads into five compartments, comprising a fore peak store, a fish hold, the engine room, crew cabin and a steering compartment.

The deckhouse internally consisted of a wheelhouse forward, with the skippers cabin abaft to port, access to the crew cabin is via a ladder to starboard adjacent to the starboard side deckhouse entrance door, access to the engine space is via a ladder across from the starboard entrance door to port. The mess is located aft to starboard in the deckhouse with the galley area located opposite on the port side. A shower/Toilet and oilskin locker are in the mid deckhouse area. (See Appendix 8.3 for arrangement of vessel).

2.6 LIFESAVING APPLIANCES STATED TO BE AVAILABLE ON BOARD

Lifejackets:	Eight
Lifebuoys:	Two
Pyrotechnics:	Twelve parachute flares
Line throwing apparatus:	One
Liferafts:	Two inflatable liferafts

2.7 NAVIGATIONAL AIDS STATED TO BE PROVIDED ON BOARD

One Magnetic Compass	One NT 921 Autopilot
One Furuno Radar	One Koden 106 sounder
One Koden 8831 sounder	One Sodena fish plotter
One Shipmate RS 2500 fish plotter	One Furuno DGPS Navigator
One Raystar 920 GPS Navigator	One Raytheon GPS backup
One ICOM VHF Installation	One Sailor VHF Installation
One Hand VHF Swiftech	3-minute watch keepers alarm
One ICOM IC-M700 MF Installation	

2.8 FIRE FIGHTING EQUIPMENT REPORTED TO BE ONBOARD

One hand pump, supplying a deck hydrant hose and nozzle with a diverter valve to supply a water spray system in the engine room (A fixed automatic Halon system in the engine room had been removed approximately two years before the incident)

There were 3 fire extinguishers onboard the vessel. 1 x dry powder in the engine room and 1 x dry powder and 1x foam in the deckhouse.

It was stated that a fire detection system was fitted in the engine room.

2.9 THE CREW OF THE "SPAILPIN FANACH" ON THE 28TH DAY OF SEPTEMBER, 2004 CONSISTED OF THE FOLLOWING PERSONS:

Mr. Denis O'Regan	Holder of a Second Hand Special Certificate of Service No. 157, which he obtained in 1990. He has been fishing at sea since 1969 and was the Skipper of the vessel. He had been sailing on the vessel for four years. He is also the holder of Lifeboat, E.D.H. and A.B. Certificates. He had successfully completed a L.R.C. GMDSS course in January 2000.
Mr. Redmond (Reddy) Whelan	Fishing for about 14 years and holds a Second Hand Special Certificate issued in 1999.
Mr. Alex Stoppel	An Estonian National has been fishing for over two years onboard the vessel, he held Estonian fishing qualifications.

3. EVENTS PRIOR TO THE INCIDENT

- 3.1 The "Spailpín Fánach" sailed from Castletownbere, Co. Cork at approximately 09.00 hours on 27th of September 2004,
- 3.2 Before sailing she had undergone routine maintenance to her main engine, including work on her under piston oil sprayers
- 3.3 The vessel commenced fishing operations later the same day and had shot and hauled her gear twice by midnight.
- 3.4 Her fishing gear was shot again at around 02.00 hours once this operation was complete Mr. Stoppel went down to the cabin at about 03.00 hours and Mr Whelan about ten minutes thereafter.
- 3.5 The skipper maintained watch in the wheelhouse and the vessel is reported as steering a North-Westerly course making 2.4 knots, her main engine was running at around 850 RPM, weather conditions were favourable and in line with the forecast (See Met Eireann at Appendix 8.4)

4. THE INCIDENT

- 4.1 At about 05.15 hours on the 28th September 2004 the Skipper noticed a smell of smoke in the wheelhouse, the smoke appeared to be coming over his right shoulder from behind him. He placed the engine in neutral. Then turned on the light in the engine room and made his way aft to the engine room, upon opening the door leading down to the engine room smoke billowed out, the Skipper could not clearly recall if he had shut the door again. (See Appendices 8.5 and 8.6 for plan of wheelhouse deck and engine room).
- 4.2 The Skipper then went down to the crew cabin and woke the two crew, informing them there was a fire in the engine room and to bring up their lifejackets. As the two crew started to dress the lights went out, flickered on again and then went out completely and smoke began to fill the cabin.
- 4.3 Reddy Whelan took two lifejackets from the cabin and made his way after Alex Stoppel to the wheelhouse. Attempts were made to send a 'May Day' message on the main V.H.F. transmitter this appeared not to function on main or emergency power and the portable V.H.F set was then tried without success.
- 4.4 At this time another fishing vessel the "Ariane" was five miles to the east of the incident and heard a broken and unreadable communication on V.H.F. Channel 16.
- 4.5 At this point Reddy Whelan used his mobile telephone to call his brother Denis Whelan and asked him to call for help. He told his brother he believed their position to be somewhere off "Bull Rock". Valentia MRSC received a 999 telephone call from Denis Regan at 05.28 hours passing this information.
- 4.6 The Skipper and Alex Stoppel had placed a SART and some flares in a bag and moved from the wheelhouse forward toward the 'Whaleback' by this time flames were spreading along the wheelhouse floor.
- 4.7 From the light of the flames in the wheelhouse Reddy Whelan saw the portable V.H.F. radio was set to low power (1 watt) he set the unit to high power (25 watt) and repeated his May Day message. Valentia MRSC received this message at 05.29 hours, brief details of the number of persons onboard and a revised location giving the position of the "Spailpín Fánach" as 8 miles North West of Skellig Island were passed before communications between Valentia MRSC and "Spailpín Fánach" was lost.
- 4.8 Valentia MRSC immediately broadcast a May Day Relay message and paged Valentia Lifeboat. The Fishing Vessel "Ariane" on hearing the mayday relay noticed the "Spailpín Fánach" on her radar she responded giving a position 6 miles West of Skellig Island and an ETA of 20 minutes by this time flames were visible from the "Ariane".

- 4.9 At this point the fire onboard the "Spailpín Fánach" had taken a firm hold of the aft accommodation area and wheelhouse and the Skipper decided to launch the liferaft stored on the whaleback, V.H.F. contact was briefly made with Valentia MRSC as the liferaft was launched this communication was timed at 05.31 hours.
- 4.10 At 05.33 hours Irish Coast Guard Rescue Helicopter R 115 was tasked to the incident, V.H.F. contact was again made between the "Spailpín Fánach" and Valentia MRSC, the liferaft was inflated alongside and the crew were staying onboard awaiting the arrival of the "Ariane".
- 4.11 At 05.41 hours the "Ariane" sighted the burning "Spailpín Fánach" 4.9 miles distant and gave her position as 0510 46' North 0100 50.7' West. Her ETA was now 35 minutes.
- 4.12 As the fire was now rising up inside the wheelhouse and as cooking gas cylinders were stored on the wheelhouse roof the crew of the "Spailpín Fánach" decided to take to the liferaft, this information was passed to Valentia MRSC via V.H.F. at 05.44 hours. As the crew attempted to paddle the liferaft clear of the "Spailpín Fánach" the sea anchor of the Liferaft restricted their progress and kept them close to the burning vessel, pyrotechnics left behind in the wheel house became consumed in the fire and started to explode. The wheelhouse windows had shattered with the heat of the fire and burning material and flare casings were blown through the windows towards the raft.
- 4.13 The crew on the raft managed to cut the sea anchor to paddle the raft until eventually it came to position 200 to 300 metres North East of the burning vessel. There was at least one explosion of what is believed to have been a gas cylinder while the crew were in the liferaft and the auxiliary engine of the "Spailpín Fánach" was heard starting by those in the raft.
- 4.14 The "Ariane" sighted the liferaft at a distance of approximately 1.5 miles and the crew of the "Spailpín Fánach" were taken onboard the "Ariane" at shortly before 06.25 hours. (See Appendix 8.7 for chart of area of incident).

5. EVENTS AFTER THE INCIDENT

- 5.1 Once onboard the "Ariane" the Skipper of the "Spailpín Fánach" made radio contact with Valentia MRSC to confirm condition of crew. Arrangements were made for the transfer of the crew of the "Spailpín Fánach" from the "Ariane" to Valentia Lifeboat. The fire was reported as now spreading up the deck of the "Spailpín Fánach". This message was logged at 06.29 hours.
- 5.2 Valentia Lifeboat arrived on scene at 06.37 hours, they noted the "Spailpín Fánach" was now well ablaze and the 3 crewmembers were transferred from the "Ariane" and Valentia Lifeboat left the area to return to base at 07.00 hours. The 3 crewmembers were landed in Knightstown shortly after 08.00hours.
- 5.3 Dublin MRCC assumed control of the incident at 08.15 hours and arrangements were made for R115, who had returned to base in Shannon following the rescue of the crew by the "Ariane" to check for pollution later in the morning.
- 5.4 R115 departed Shannon at 10.15 hours and arrived at 11.20 hours. By this time the "Spailpín Fánach" had drifted approximately 1.5 miles in a North Easterly direction to position 051 46.0 North 010 50.24 West.
- 5.5 Video footage shot from R115 shows the vessel wallowing heavily low in the water, the fire had almost totally consumed the internals of the vessel, the steel wheel house had distorted and buckled forward from the heat of the fire. Large sections of the aluminium whale back have been burned out. A substantial number of planks in the hull had burned through allowing water to enter the hull. (See Appendices 8.8 for video stills showing the damaged vessel).
- 5.6 At 11.43 hours a large cloud of steam is seen to come from the vessel caused by a large inflow of cold seawater, the vessel sinks within a minute of this event. A small amount of bilge oil and burnt gas cylinders are floating on the surface, pollution is minimal. (See Appendix 8.9 video stills taken from R115 show the vessel sinking).

6. CONCLUSIONS

- 6.1 Due to the fact that the vessel sank in over 100 metres of water and only small pieces of wreckage and some fishing gear have been recovered since the date of the accident the initial cause of the fire in the machinery space is not possible to determine.
- 6.2 The cause of the sinking was due to major ingress of seawater into the vessel through hull planking that had been burned during the fire.
- 6.3 The Skipper felt the fire was in the region of the battery box in the engine room, since the auxiliary engine (Battery Start) started while the crew were in the Liferaft it seems that the batteries were not the initial cause of the fire. Other crewmembers reported the smoke and smell as being that of burning hydraulic oil.
- 6.4 The description of the fire from accounts from the crew indicates that a hydraulic oil tank and at least one fuel tank were feeding the fire from the early stages. The absence of any significant oil slick or sheen on the water from video footage from R115 indicates that all Diesel and Lubricating oil onboard the vessel (estimated at around 2,000 litres) was consumed in the fire.
- 6.5 The failure of the fire detection system reported by the Skipper to be fitted to the vessel (although not a statutory requirement) to give warning of the fire meant that it had gained a significant hold by the time the Skipper noticed smoke in the wheelhouse.
- 6.6 The fact that no attempt was made to fight the fire using the vessels fixed or portable equipment, remote quick closing devices on oil tanks were not operated, the engine room door may have been left open and no attempt was made to close ventilators to restrict air flow to the fire meant it was almost inevitable the fire would rapidly burn through the wooden vessel.
- 6.7 The failure of the reserve source of power for the vessels marine radio and the resultant inability to transmit a distress message using the main radio transmitter could have had very serious implications for the rescue of the three survivors. The initial emergency call using a mobile telephone was fortunate in getting through as the area is at the limit of normal coverage.
- 6.8 The radio equipment on this vessel was the subject of question in a previous MCIB report. In the intervening time no Radio survey was carried out and no response was received from the owner to correspondence from the Marine Radio Survey Office
- 6.9 The carriage of a number of LPG gas cylinders and their explosion during the fire along with the explosion of pyrotechnics in the wheelhouse could have killed or seriously injured the survivors and any rescuers close to the vessel.

- 6.10 Although the crew had all had BIM safety training and two held Fishing vessel Certificates of Competency there had been no fire or abandon ship drills or musters held onboard the vessel for a considerable time, this had a major influence in how the crew responded to both the fire and abandon ship situations.
- 6.11 The vessel carried the required two Liferafts. The placing of the rafts at separate locations on the wheelhouse top and whaleback proved fortuitous, if both Liferafts had been on the wheelhouse top they may well have been impossible to launch.
- 6.12 The close proximity of the "Ariane" meant the survivors were recovered quickly; it was the last in a series of events that morning where chance made the difference between the crew being picked up unharmed and one or more of them being killed or seriously injured.

7. RECOMMENDATIONS

- 7.1 The Board recommend that the Department of Communications, Marine and Natural Resources (DCMNR) put in place a survey regime for Fishing Vessels between 15 and 24 metres at the earliest opportunity.
- 7.2 The Board recommend that this regime should ensure as a minimum compliance with current legislation, in particular the 1967 Fire fighting and Lifesaving appliance rules (as amended), the Fishing Vessel (Radio Installations) Regulations 1998, the Fishing Vessel (Certification of Deck Officers and Engineer Officers) Regulations 1988 (as amended) and the M.S. (Muster) (Fishing Vessels) Regulations 1993.
- 7.3 The Board recommend current Fishing Vessel safety legislation be reviewed and that this review should give consideration to the fitting of automatic fire detection equipment to all fishing vessels over 15 metres and the suitability of fixed water spray type installations to give an equivalent level of protection as offered by fixed gas (Carbon Dioxide) be examined.
- 7.4 The Board recommend an overview investigation be carried out by DCMNR to determine the significantly higher rate of fires onboard Irish Fishing Vessels between 15 to 24 metres compared to the same segment of the United Kingdom fishing fleet.
- 7.5 The MCIB previously investigated an incident concerning "Spailpin Fanach" (May 2000) and notes that a recommendation made in this report had not been carried out. This could have had very serious consequences the survival of the crew in this incident.
- 7.6 The Board recommend Marine Notice 1 of 2002 be revised and re issued to draw attention to the fire risks associated with the carriage of LPG in a fire situation
- 7.7 The Board recommend Marine Notice 24 of 1999 be revised and reissued to draw attention to hazards of galley top liferaft stowage in the event of fire.

8. LIST OF APPENDICES

- 8.1 Glossary of abbreviations and acronyms.
- 8.2 Photograph of vessel
- 8.3 General arrangement of vessel
- 8.4 Met Eireann Weather report for time of accident
- 8.5 Plan of deckhouse
- 8.6 Plan of Engine Room
- 8.7 Chart of area of accident
- 8.8 Photograph x 2 vessel
- 8.9 Photograph x 4 vessel sinking

Appendix 8.1

GLOSSARY OF ABBREVIATIONS AND ACRONYMS

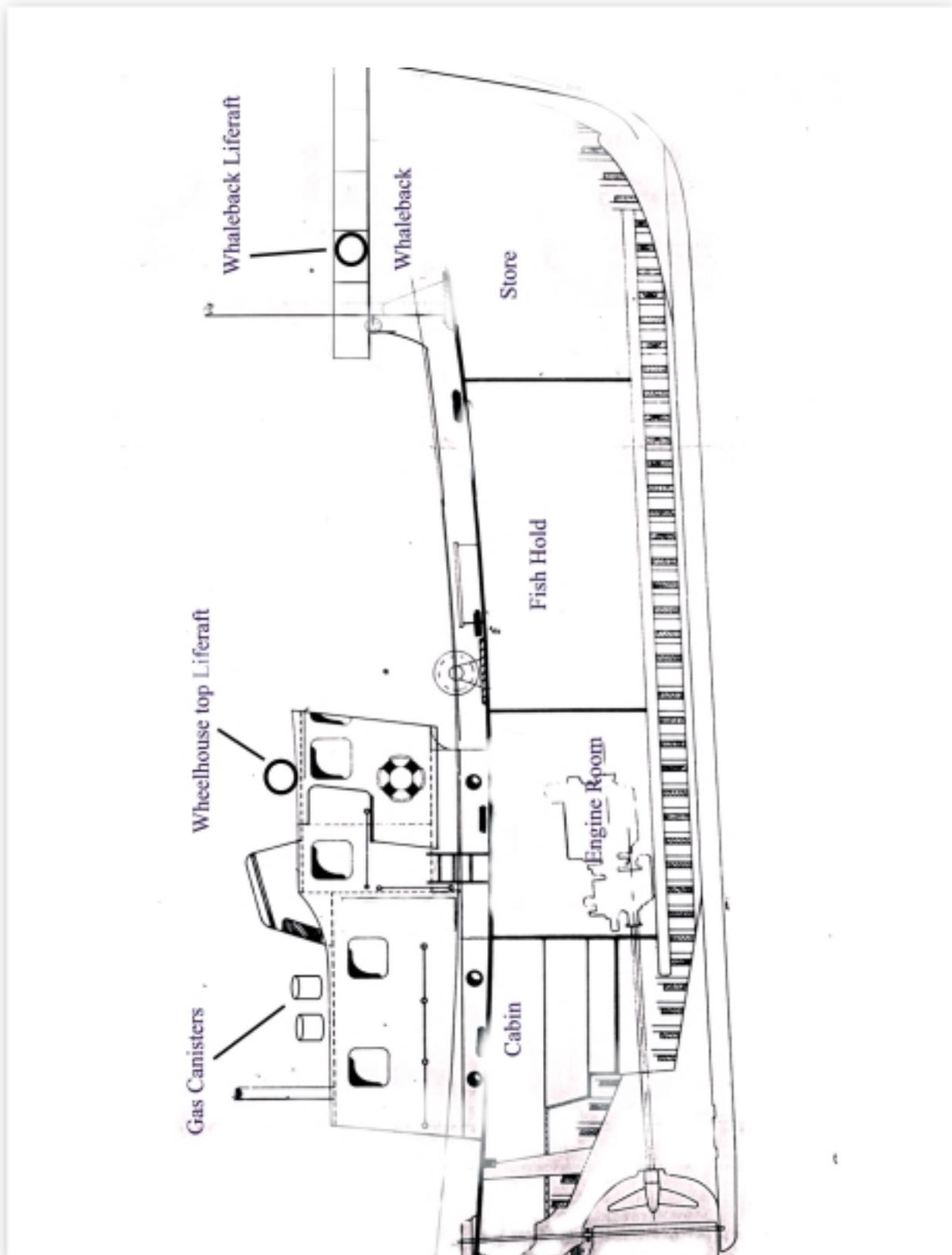
B.I.M.	Bord Iascaigh Mhara
D.C.	Direct Current Electrical supply
E.T.A.	Estimated Time of Arrival
Hrs.	Hours all times are local i.e. Summer Time (UTC+1)
IRCG	Irish Coast Guard
kW	Kilowatts (Engine Power)
L.P.G.	Liquefied Petroleum Gas (Butane/Propane) used for cooking etc.
May-Day	International Marine Distress call
M.R.C.C.	Marine Rescue Co-ordinating Centre
M.R.S.C.	Marine Rescue Sub Centre
P.T.O.	Power Take Off, drive to a pump etc from an engine/gearbox
V.H.F.	Very High Frequency (marine radio)

Appendix 8.2



APPENDIX 8.3

Appendix 8.3



Appendix 8.4

	WeatherDial Fax Product Code 0021 General Forecast Division Fax : 1570 131 838 Sea Area Forecast	
		0603 ✓ 0903: ✓

Sea Area Forecast until : 0600 hours Wednesday, 29-Sep-2004
 Issued at 0600 hours Tuesday, 28-Sep-2004

[NB: Met Éireann's Small Craft Warning service for 2004 ends on September 30th]

~~1. Gale warnings: NIL~~
~~Small Craft warning: NIL~~

2. Meteorological Situation at 0400 hours: A cold front lies across the Northwest of Ireland from Erris Head to Malin Head and will slowly move southwards today.

3. Forecast for coasts from Roche's Point to Slyme Head to Malin Head:

Wind : Southwest to West Force 4 or 5, decreasing Force 3 during this afternoon and becoming variable by this evening, increasing South Force 4 overnight.

Weather : Patches of mist, fog, rain and drizzle. Rain turning persistent later.

Visibility : Mostly moderate to poor, occasionally moderate to good

Forecast for coasts from Malin Head to Wicklow Head to Roche's Point and for the Irish Sea:

Wind : Southwest to West Force 4 or 5, decreasing force 3 this evening and becoming variable in direction.

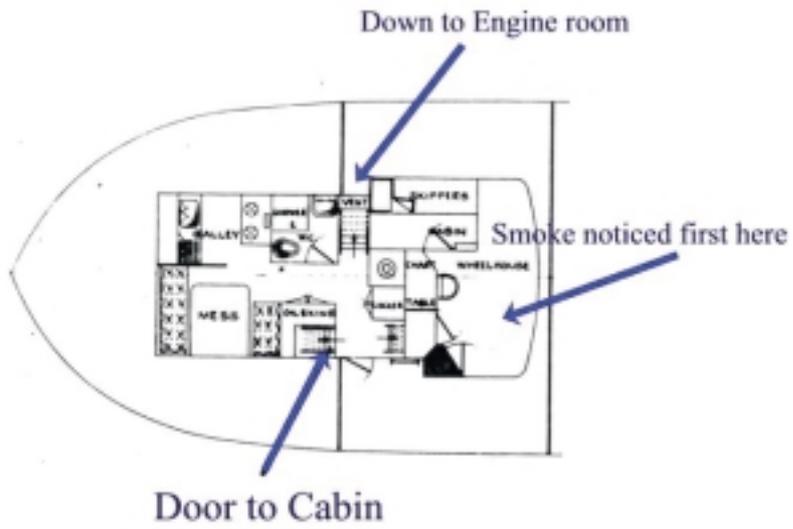
Weather : Pockets of mist, rain and drizzle gradually dying out.

Visibility : Mostly moderate to poor becoming moderate to good

~~3a. Warning of Heavy Swell : Nil~~

4. Outlook for a further 24-hours until 0600 hours, Thursday, 30-Sep-2004 : Moderate to fresh southerly winds veering Westerly as heavy rain spreads eastwards.

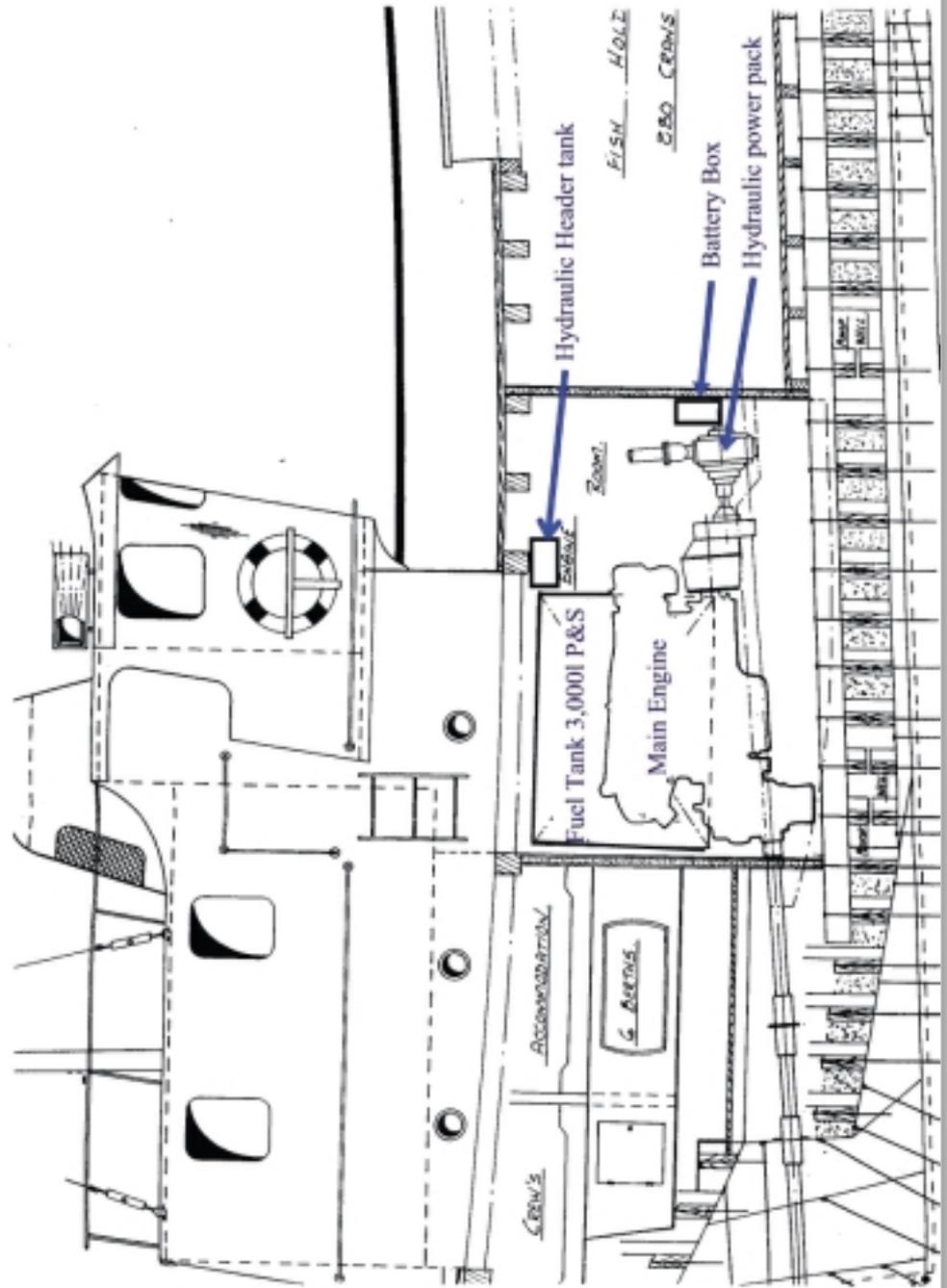
Appendix 8.5



Layout of Wheelhouse and upper crew area

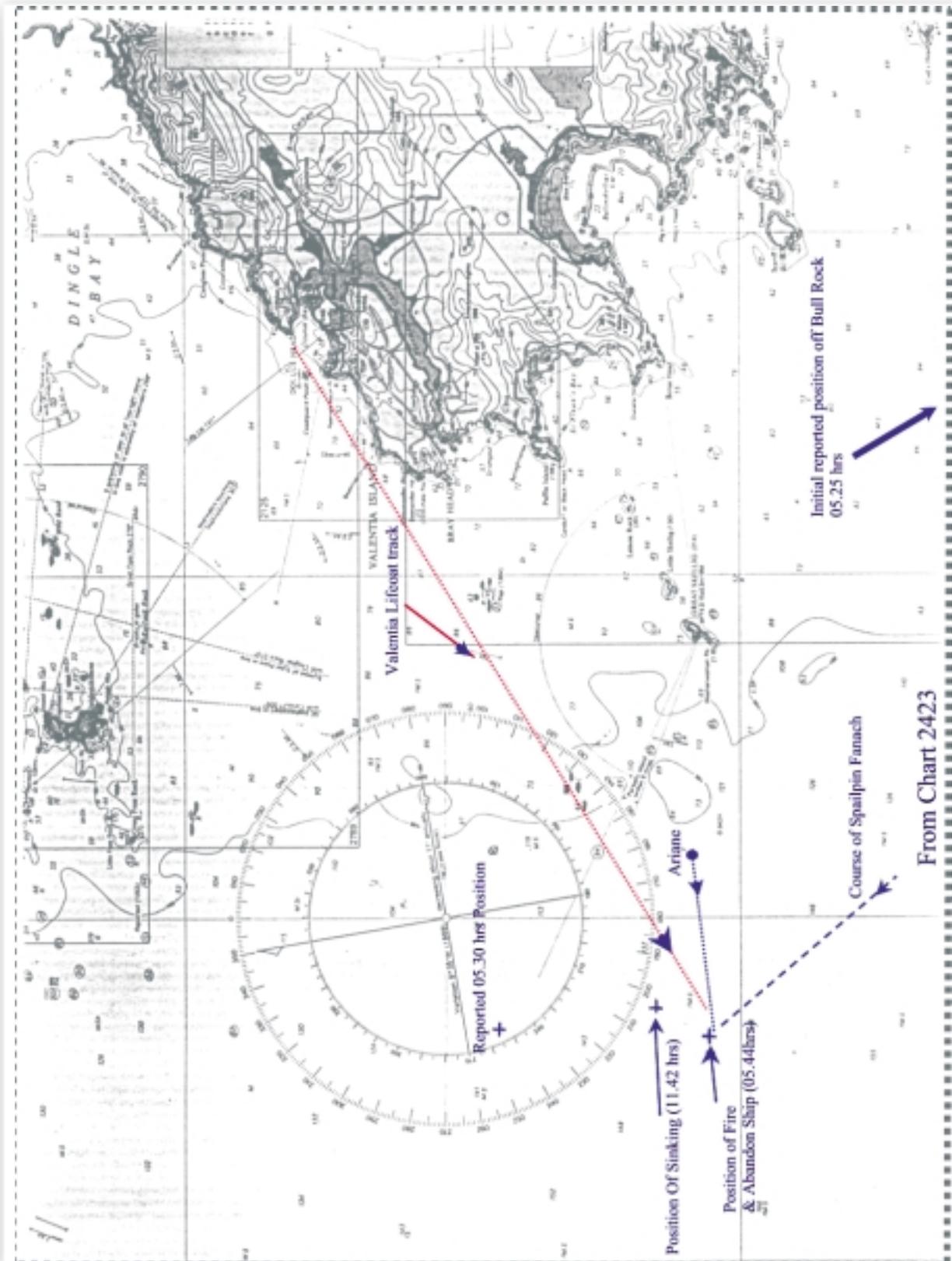
Appendix 8.6

Sectional view of Engine Room



APPENDIX 8.7

Appendix 8.7



Appendix 8.8



Appendix 8.9



Appendix 8.9



