

**REPORT OF THE
INVESTIGATION INTO THE
COLLISION BETWEEN IRISH
REGISTERED TRAWLER
"PRINCESS GRAINNE" AND
PLEASURE CRAFT
"TOUCH - N - GO"**

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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ACKNOWLEDGEMENT

Recognition should be given to all those who responded to the rescue and particular recognition to the person(s) who revived Mr. Muckley. There is little doubt without resuscitation being applied quickly by the rescuing personnel that Mr. Muckley would not have survived.

1. SYNOPSIS

At 17.11 hours on Thursday 13th August 1998 the trawler "Princess Grainne" whilst returning from fishing grounds collided with a 21-foot recreational craft "Touch-n-Go" which was at anchor off Drom Point, Castletownbearhaven, West Cork with three holiday makers on board engaged in rod fishing. The recreational craft was overturned on impact but the three holiday makers were quickly rescued from the water and were transported to the local hospital. Two were discharged that same evening and the third (who had been revived earlier during the rescue by mouth-to-mouth resuscitation) was transferred to Bantry hospital and remained there overnight for observation and was released the next afternoon.

2. FACTUAL INFORMATION

2.1 Particulars of "Princess Grainne".

Name:	"Princess Grainne" formerly "Emily Francis"
Fishing No:	WD 53
Official No:	401438
Built:	Ireland 1974
Registered:	Ireland 1974
Build of Hull:	Wood - fishing
Bulkheads:	Three
Registered length:	62.7 feet
Gross tonnage:	68.22
Registered Tonnage:	39.17
Re-Engined:	March 1980
Type of Engine:	Kelvin Marine BHP 375 - 8 cylinders
Builders:	Maritime Industries Ltd Carrigaloe, Co Cork.
Speed:	9.5 knots (maximum)

2.2 Description of "Princess Grainne":

A typical trawler with a wood carvel built hull, generally of soft wood. The vessel had a full single deck with planking and a deep displacement hull, raked stem, round bilge cruiser stern and aft deckhouse comprising of wheelhouse and galley.

The trawler is rigged for bottom and mid water trawling. It was powered by a Kelvin Marine internal combustion diesel engine of 375 bhp developing a speed of 9 knots approximately. The trawler has three bulkheads and is subdivided into 6 non-watertight compartments: - Fore peak, Machinery space, Refrigerated Fish Hold, Water tank and two fuel oil tanks, Cabin accommodation (containing 6 berths) and the Steering compartment.

The trawler's wheelhouse is well equipped with two radars, four v.h.f. radios, two echo sounders and fish finders, Global Positioning System (GPS) and Magnetic Steering Compass. As an automatic (steering) pilot is not fitted steering is carried out by hand. The vessel was fitted with a whaleback and the viewing visibility from the wheelhouse was satisfactory during an inspection of the vessel carried out on Monday 17th August 1998 while lying alongside Dinish Island. (See photographs at Appendix 8.9).

2.3 Statutory Requirements for fishing vessel "Princess Grainne"

Requirement	Status on board
Nav.lights, shapes & sound	Satisfactory
Hand pump with permanent sea connection outside engine room	Repair required to casing of hand operated fire pump
CO2 or water spray system in Machinery Space	Water spray systems in Machinery Space — Satisfactory
At least 2 - 2 gal foams and 2 portable fire extinguishers	On board
1 fire hose with nozzle	Provide nozzle to fire hose
Remote controls to fuel tanks	Operational
Means of closing doorways to machinery spaces.	Satisfactory
Liferaft for 100% crew	Operational
HRU (recommended) release to liferaft and EPIRB	Fitted
1 Lifebuoys with light and smoke	Smoke expired 3/97
1 Lifebuoy with line	Satisfactory
Name and POR on lifebuoys	Maintenance required
Parachute Distress Rockets x 12	Satisfactory & in date
Line Throwing Appliances	Detonators expired 3/97
Line Throwing Appliances four (4) units required	Only one (1) unit on board
Lifejackets 100% for POB	On board
Muster list	None posted
Compliance SI 506 of 1997 New Medical Scales	Not on board
Manning 1 x 2nd Hand Special (1988 SI & MSA 1979.)	1 x 2nd Hand Limited (1894 Act) and 1 x Class 3 Deck Officer (STCW 78)

2.4 Persons on board "Princess Grainne"

Skipper: Mr. Michael Murphy
Crew: Mr. Basil Murphy
Mr. Peter Elphick

The Skipper held a Second Hand Limited Certificate of Competency issued under the 1894 Merchant Shipping Act. Mr. Basil Murphy holds a Class 3 Certificate of Competency issued under MS (Certification of Deck Officers) Regulations 1988. Mr. Peter Elphick had passed part of the Second Hand Limited examination.

2.5 Particulars of recreational craft "Touch-n-Go":

Name: "Touch-n-Go"
Type: Coastworker 210 Sports Fishing Boat (Day Angling Boat)
Built: circa 1990
Build of Hull: Full planing shallow Vee GRP
Length: 21 feet
Width: 7 feet 2 inches
Depth: 2 feet 11 inches
Draft: 9" without engines fitted
Weight: 1200 lbs
Builders: Souters Shipyard, I.O.W.
Engine: 175 hp Suzuki outboard diesel (maximum size recommended)
Speed: 40/45 knots (maximum)

2.6 Description of "Touch-n-Go"

The construction feature of this day boat is a hand-layed up hull with further strengthening in all vulnerable areas with a heavy-duty transom to take the heavy outboard engine with air buoyancy in the form of sealed polythene bottles filling the space between the hull and deck moulding. It is a one-piece superstructure moulding with pipes leading through the aft engine compartment providing self-draining to the cockpit.

The technical information readily available for the Coastworker 21 was sourced from boat magazines. One stated that "not only diesels can be fitted but also petrol inboards/outboards or simply outboards up to 175hp" and the other magazine stated "engine size is optional but that Coastworkers recommended up to 140hp turbo-diesels for the CW21". The builder/distributor in the UK was contacted and confirmed that up to 175hp was suitable for the CW21.

The following items were stated to be on board at the time of the collision and were sighted when the craft was inspected at the owners holiday cottage outside Castletownbearhaven on the 17th August 1998:

- Suzuki 175 hp outboard engine fitted to transom;
- Suzuki 15 hp auxiliary outboard in cabin;
- GPS Lowrance LMS 350A. Navigational charts were kept ashore;
- Bottom line sounder; VHF not connected; EPIRB 121.5 mHz;
- Full set of navigation lights, no air (fog) horn;
- 3 Crewsaver 150N inflatable lifejackets;
- 1 Beaufort manual inflatable lifejacket;
- 1 Lifeguard " " "
- BCF portable fire extinguisher - 1.5 kg
- Dry Powder - 900 g
- Pyrotechnics: Pains Wessex Hand flares x 2; Rockets x 2;
Orange smoke floats x 2 all expire 12/02/2001
- Magnetic Compass SIVAL S10 401 Sweden;
- Battery Charger; Boat Hook; Set of Fenders:

2.7 Persons on board "Touch-n-Go"

Owner/Person in charge: Mr. Christopher Bartlett
Others: Mr. David Kendall
Mr. Anthony Muckley

Mr. Bartlett, Mr. Kendall and other family members brought the boat from Southampton to Castletownbearhaven by road on the 6th August 1998. This was their annual holiday and they took a cottage for three weeks outside Castletownbearhaven. They were joined by Mr. Muckley another angling friend from Cork. Mr. Bartlett and Mr. Muckley have over 40 years experience of motor powered pleasure craft and sailing vessels on the Solent and in the Castletownbearhaven region among other areas. Mr. Bartlett is the holder of The RYA (Royal Yachting Association) National Motor Cruising Shore base Course Basic with Endorsement B (Coastal Cruising). During their stay in Ireland they frequently took the boat out for recreational rod fishing in the area off Castletownbearhaven.

3. EVENTS PRIOR TO THE INCIDENT

3.1 Introduction

The weather at the time was patchy fog with SW'ly winds force 5/6. The tide was nearly half flood with a maximum rate of about 0.5 knots. The area where the incident occurred was reasonably sheltered from the SW'ly winds. (Refer to Appendix 8.1, 8.2, 8.3, 8.4 and 8.5).

Indicated on the Plan of Admiralty Chart 1840 between Pipers Point and Naglas Point is the Leading Light and Beacon on 0240 true for daylight passage. For passage during darkness there is an occulting white Directional Light on Dinish Island with a narrow fairway sector flanked by red sector and green sector occulting lights. Refer to Appendix 8.6 and the corresponding legend.

There is no channel marked by buoys or perches. Craft and ships are obliged to comply with the International Collision Regulations and where reasonably practicable to keep within the white arc or leading marks over the relevant section of the passage. Where an inward vessel moves into the red sector it would be to the left (port) of the leads and similarly if in the green sector it would be to the right (starboard) of the white sector.

During periods of restricted visibility radar observations and depth soundings will assist transit.

3.2 Recreational Craft "Touch-n-Go".

At about 10.00 hours on the 13th August 1998 Mr. Bartlett age 54, Mr. Kendall age 64, and Mr. Muckley age 55 years departed from the shore and fished in several places within the vicinity of Bearhaven. Later that afternoon they selected a spot off Drom Point, in about 60 feet of water with flat sandy bottom and anchored there to continue recreational angling. Mr. Bartlett stated that he was anchored in a position 200 to 250 yards off Drom Point with visibility at about 500/ 600 yards and that two or three vessels had passed "Touch-n-Go" inwards at a distance of about 25/ 30 yards away.

Immediately before the collision occurred the three people on board "Touch-n-Go" were either engaged in rod fishing or were preparing rods. The fishing vessel "Princess Grainne" was said to have been first observed from "Touch-n-Go" with the masts open thus indicating "Princess Grainne" was going to pass clear.

When the "Princess Grainne" was approximately 50 yards away from the "Touch-n-Go" Mr. Bartlett noticed that it was on a collision course. The three persons on board "Touch-n-Go" attempted to attract the attention of the "Princess Grainne" by shouting and waving as it approached.

3.3 Trawler "Princess Grainne".

"Princess Grainne" had been fishing west of the Skelligs and decided to haul nets and return to Castletownbearhaven to land the catch. On board were the owner/Skipper Mr. Michael Murphy age 30, and the crew Mr. Basil Murphy age 27, and Mr. Peter Elphick age 26.

At the approaches to Castletownbearhaven visibility was stated by them to be very poor. The radar was in use and was adjusted down from the 3-mile range to 1.5 miles and then to 0.75 miles. While inward bound "Princess Grainne" had been in VHF and Mobile telephone conversation with two stations and gave an ETA on the berth at 17.30 hours.

The Skipper was bringing the trawler in by radar. There had been another boat ahead of him on the radar but he had lost it and presumed it had entered harbour. After passing Foilnaboe he checked his heading and headed for the western side of Dinish Island in order to keep in the channel. The Skipper cannot recall whether he was at the altering course point (Refer to Appendix 8.6) for the inner harbour or not when he felt a thump.

4. THE INCIDENT

- 4.1 The Skipper of the "Princess Grainne", Mr. Michael Murphy, stated that a thump was felt which at first he thought might have been the wake wave from another vessel. While reaching for the throttle control to the engine he simultaneously noticed the hull of an upturned boat passing along his starboard side. Mr. Basil Murphy confirmed that "Touch-n-Go" passed down the starboard side. He said that all this happened in a very short space of time. The engine was taken out of gear and stopped as quickly as he could before reversing in order to render assistance.
- 4.2 Just as the "Princess Grainne" impacted with the "Touch-n-Go" Mr. Kendall jumped clear and into the water. "Touch-n-Go" was overturned. The anchor line had parted on impact and the owner Mr. Bartlett and the third person Mr. Muckley were both trapped underneath the upturned hull of the pleasure boat. Mr. Bartlett, having extricated himself from under the upturned hull, was then able to pull Mr. Muckley out from under the hull.
- 4.3 "Touch-n-Go" was forced back by the impact from the trawler and holed on the port side in a position well above the water line. It was stated that the boat was taking water over the stern while the boat was being pushed either sideways and/or astern into the water. (Refer to Photographs in Appendix 8.9).
- 4.4 When Mr. Michael Murphy realised what had happened he made an emergency broadcast on the v.h.f. Radio which was received by (Valentia Coast Radio) Marine Rescue Co-ordination Centre (MRCC) and other craft in the vicinity.

5. EVENTS AFTER THE INCIDENT

- 5.1 FV "Achilles" which had approximately 15 minutes earlier moored alongside the berth heard an emergency call and immediately responded. "Achilles" proceeded with other craft to assist in the rescue. One of the crew from "Achilles" was transferred on to "Princess Grainne" to assist in administering mouth-to-mouth resuscitation to Mr. Muckley.
- 5.2 Mr. Dan O'Sullivan had been walking on his land in the vicinity of Drom Point. When he heard shouts and calls for help he rowed out speedily in one of his boats moored off Drom Point.
- 5.3 Mr. Muckley lost consciousness shortly afterwards but was eventually transferred from Mr. Dan O'Sullivan's rowboat to "Princess Grainne" with the assistance of Mr. Bartlett and two of the fishermen on the "Princess Grainne".
- 5.4 Mr. Muckley was revived on the way in to Castletownbearhaven and recognised people as he arrived at the local hospital. The ambulance transferred him to Bantry Hospital where he was kept in intensive care for about four hours. He was released from hospital the following day.

Other craft rendering assistance:

- Sea rider from LE "Aisling";
- IMES rigid inflatable;
- FV "Achilles" Philip O'Driscoll;
- Dan O'Sullivan's row boat;
- FV "Marina" Donal O'Driscoll;
- FV "Albatross" Danny O'Driscoll;
- Eoin O'Neill's row boat.
- "Solan" owned by C.O'Donovan

6. CONCLUSIONS AND FINDINGS

6.1 When considering the anchored position of "Touch-n-Go" the following was taken into account: -

6.1.1. Mr. Bartlett, owner/Skipper of "Touch-n-Go" stated that he had anchored his boat at 16.30/17.00 hours (maybe a little earlier) in about 60 feet of water out some 200 to 250 yards from the Drom Point. Mr. Bartlett stated that the 60 feet is on the shoal spot marked 17.4 metres and just to the west of the red sector of the Directional Light (Refer to Appendix 8.6). Mr. Bartlett stated that within fifteen minutes or so prior to the collision a few other vessels, all of them inbound, had passed close by at about 25 or 30 yards away and within sight of the anchored vessel. Mr. Kendal on board "Touch-n-Go" stated that a trawler had passed very close.

6.1.2 "Achilles" is a fishing trawler owned and skippered by Mr Philip O'Driscoll age 26 who has a Second Hand Limited Certificate of Competency issued in 1994. Mr. O'Driscoll stated that at about 16.55 hours visibility was so poor that he had to conn the boat in by radar. Having passed Ardnakinna Point he slowed the vessel down from 8 knots to 4 knots. He observed "Touch-n-Go" on his radar and did not visually see the boat until about 500 feet off and continued on his normal track passing very close, just a matter of 10 yards or thereabouts, to the anchored recreational craft. He also states that the anchored boat was either on the white or just into the red sector of Dinish Island directional light as depicted on the chart (Refer to Appendix 8.6). He was certain of this because of the radar points he had selected with the appropriate distances off.

6.1.3 A commercial diver carried out two dives on behalf of the owner of "Touch-n-Go" on 24th and 25th August to recover loose items that fell out of the boat when it had capsized. The items so recovered were in 20 meters of water and to the west of the red sector light. (Refer to Report in Appendix 8.8).

It is unlikely that the inbound craft that passed close to "Touch-n-Go" were all to the west and outside the directional light red sector as marked on the Plan in Appendix 8.6.

6.2 Use of Radar and Speed of "Princess Grainne": -

Radar target of "Touch-n-Go" was observed by FV "Achilles" when passing Ardnakinna Point at approximately 1.25 miles away. "Achilles" reduced speed from 8 knots to 4 knots. Radar target of "Touch-n-Go" was not observed or recognised by the Skipper of "Princess Grainne". Speed was said to be reduced to 7/8 knots. The Skipper stated that he was the only person in the wheelhouse at the time of the incident and for a period leading up to the incident. A check on the radar fitted to "Princess Grainne" carried out on 17th August 1998 indicated that the set was operating satisfactorily.

6.3 Injuries sustained by persons on "Touch-n-Go"

Mr. Bartlett stated that he suffered from a broken toe and hypothermia. He received treatment at the local hospital in Castletown and was discharged the same evening. Mr. Kendall, who managed to jump free, did not complain of any physical injury. He too attended at the local hospital in Castletown and was also discharged that same day.

Mr. Muckley had passed out shortly after he was thrown into the water and had to be revived during the rescue operation. It was stated that his eyes were fixed, his tongue was between his teeth and was going blue in the face. In all probability he had stopped breathing. He too was taken to the local hospital in Castletown and transferred to Bantry hospital where he arrived at 19.00 hours. He was kept in intensive care for about four hours and then placed in the main ward. He received impact blows to the head, shoulder and arm. He was discharged late the following afternoon.

6.4 Use of lifejackets on board "Touch-n-Go"

There were sufficient and suitable lifejackets on board "Touch-n-Go". The occupants on board "Touch-n-Go" were not wearing lifejackets. Mr. Bartlett and Mr. Muckley stated that had they been wearing lifejackets and inflated them they may have found it more difficult or even impossible to overcome the upward buoyancy created by the inflated lifejackets while attempting to get down into the water and get clear from (being trapped) under the boat.

Mr. Bartlett stated that a 150N automatic/manual inflatable lifejacket failed to inflate in automatic mode. This was reported to the manufacturers who concluded that the lifejacket was fully operational. (Refer to report in Appendix 8.7)

Note: SI No. 40 of 1998 European Communities (Recreational Craft) Regulations, 1998 came into operation on the 27th February 1998.

6.5 In compliance with Marine Notice No. 5 of 1995 the Skipper/ owner of "Princess Grainne" should have considered posting extra lookouts and maintain a good visual lookout as well as a good radar watch.

6.6 Breaches of Collision Regulations

There was a difference of opinion between witnesses as to the visibility at the time of the incident. The indications are that poor visibility existed at the time. Poor visibility is defined by the Irish Meteorological Service. (Refer to Appendix 8.5). Taking account of the relevant factors the fishing vessel had not maintained a proper lookout and that the recreational craft was anchored in the main fairway.

It is submitted that fishing vessel "Princess Grainne" was in breach of the following rules contained in The International Regulations for Preventing Collisions at Sea, 1972 as adopted by S.I. No. 29 of 1984 Collision Regulations with amendments:

- Rule 5 Look - out, appropriate to the prevailing circumstances and conditions;
- Rule 6 (a) (i) Visibility and determining safe speed;
- Rule 6 (b) (iv) Small vessels may not be detected by radar at an adequate range;
- Rule 7 (b) Proper use of radar equipment if fitted and operational;
- Rule 19 (b) Proceeding at a safe speed adapted to the prevailing circumstances and conditions of restricted visibility;
- Rule 19 (c) Have due regard to the prevailing circumstances and conditions of restricted visibility;
- Rule 35 (a) Sound signal when making way through the water;

It is submitted that the recreational craft "Touch - n -Go" was in breach of the following rules contained in The International Regulations for Preventing Collisions at Sea, 1972 as adopted by S.I. No. 29 of 1984 with amendments: -

- Rule 9 (b) A vessel of less than 20 metres or a sailing vessel shall not impede the passage of a vessel, which can navigate only within a narrow channel etc.
- Rule 9 (g) Any vessel shall, if the circumstances of the case admit, avoid anchoring in a narrow channel;
- Rule 30 (e) Vessel less than 7 metres if not in or near a narrow channel, fairway etc. or where other vessels normally navigate shall not be required to exhibit lights or shapes; in the situation under consideration "Touch -n - Go" was "in or near a narrow channel".
- Rule 33 (b) Vessel less than 12 metres shall provide some means of making an efficient sound signal;
- Rule 35 (i) Vessel of less than 12 metres is required to make some other efficient sound signal at intervals of not more than 2 minutes.

7. RECOMMENDATIONS

- 7.1 A Marine Notice should be issued drawing to the attention of all mariners the need to be aware of and comply with the International Regulations for Preventing Collisions at Sea. Persons in charge of recreational craft engaged in water pastimes and sport should be made aware of their responsibility to comply with the Collision Regulations.
- 7.2 Persons regularly engaged on the water in marine recreation should be encouraged to attend practical courses in personal survival techniques and other appropriate practical training commensurate with the type of water craft they are operating. This type of training would include the application of the International Collision Regulations and local byelaws.

8. LIST OF APPENDICES

- 8.1 Report on weather/visibility by Officer Commanding Naval vessel LE "Aisling".
- 8.2 Report from the Harbour master on the visibility
- 8.3 SITREP
- 8.4 Tide curve
- 8.5 Met Eireann definition on visibility.
- 8.6 Chartlets indicating probable position where the collision occurred.
- 8.7 Report on the inflatable life jacket.
- 8.8 Report on dive search on behalf of owners of "Touch-n-Go".
- 8.9 Photographs.

Appendix 8.1

Report on weather/visibility by Officer Commanding Naval vessel LE "Aisling".


**CAPT. DONAL LENIHAN
MARINE SURVEYORS OFFICE
DUBLIN**

**L.E. AISLING
NAVAL BASE
HAULBOWLINE
02 DEC 98**

SIR,

COLLISION INCIDENT - CASTLETOWNBERE - 13 AUG 98

1. At the time of this incident L.E. AISLING was at anchor approx 3.3 nm from the scene at Pipers Sound.
2. Recorded weather conditions at our location were a SW'ly breeze force 3, approx 7 - 10 knots of wind, with fog and visibility restricted to between 0.5 to 1.0 nm.
3. The on scene personnel of this unit however reported very thick fog at the location of the incident, in Pipers Sound, at approx 1724 A.
4. Submitted as requested.


**JMF O'HALLORAN
LT. CDR. N.S.
O.C. L.E. AISLING**

Appendix 8.2

Report from the Harbour master on the visibility

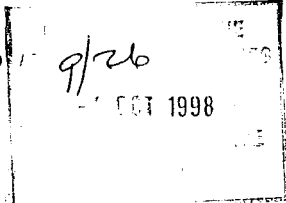
Department of the Marine
Castletownbere Fishery Harbour Centre
Castletownbere
Co. Cork



Roinn Na Mara
Lárionad Chuan Iascaigh Bhaile Chaisleain Bhearra
Baile Chaisleáin Bhéarra
Co. Chorcaí

Telephone: 027-70220
Facsimile: 027-70329

Teileafón: 027-70220
Macasambail: 027-70329



*Copy sent
30th Sept 1998.*

Ref: Report of Visibility Castletownbere Harbour.

at Time of Occident and Detour, I was able to see the
Masts of the MFV. Achilles as they cleared the Trees at Curra Pt.
It would give a range of about 6/7 Cables from my office
and not about 1600/1730 Mts. Thursday 13th August 98.



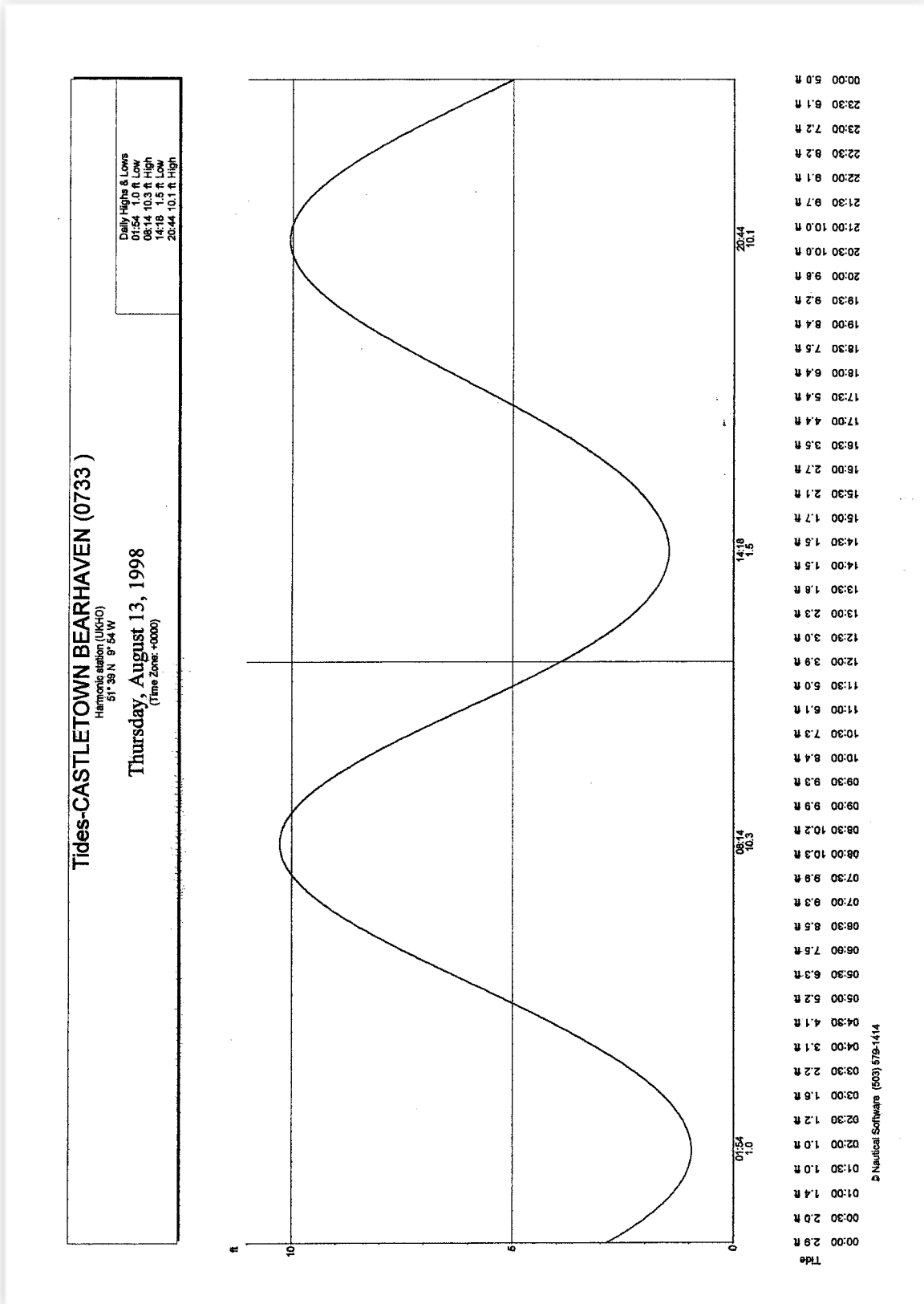
Appendix 8.3

SITREP

	SITREP -----	APPENDIX 8.3
TRANSMISSION PRIORITY		13/08/98
TIME	131805 AUG'98	
INCIDENT NAME	COLLISION CASTLETOWNBERE	
FROM	MRCC	
TO	IMES MSO	
SITREP NUMBER	ONE & FINAL	
.	18' PUNT AND PRINCESS GRAINNE/EI2468	
.	513850N 0095450W NEAR ENTRANCE TO CTBERE HBR	
.	PUNT CAPSIZED	
.	3	
.	RECOVER	
.	DUBLIN	
.	18' WHITE PUNT	
.	SW 5-6 POOR VIS	
.	LOCAL BOATS, AISLING INFLATABLE, CTBERE IMES BOAT PROCEEDING	
.		
.		
.		
1.	1615 REPORT FM ACHILLES OF PUNT CAPSIZED. 1648 3 PERSONS ENROUTE HOSPITAL BY AMBULANCE. ONE UNCONCIOUS WHEN RECOVERED BELIEVED TO HAVE COME ROUND ON PIER.	
	1733 EJK ADZ BY ML MURPHY, E.END CTBERE 027-70663 087-607991 THAT HE WAS ON THE PRINCESS GRAINNE WHO WAS IN COLLISION.	

Appendix 8.4

Tide curve.



Appendix 8.5

Met Eireann definition on visibility.

SEA AREA FORECAST

The Sea Area Forecast issued by the Meteorological Service contains the following standard elements:

METEOROLOGICAL OR GENERAL SITUATION:

A statement of the meteorological situation over Ireland at the stated time and of the adjacent weather systems, e.g. depressions, anticyclones or frontal troughs, which are expected to have an influence on the forecast areas during the following 24 hours.

A general forecast follows giving wind, weather, and visibility for all coastal waters

WEATHER: Terms used to describe weather in the Sea Area Forecast and the Coastal Reports:

Fair: Dry, mainly sunny day. Clear after dark.

Fair: Dry, good sunny or clear spells (cloud no more than 3-5 oktas of medium or low cloud or 6-8 oktas of high cloud).

Cloudy: 6-8 oktas of low or medium cloud.

Mist: Visibility restricted by water droplets.

Haze: Visibility restricted by dust or smoke.

VISIBILITY: Descriptions of visibility in the Sea Area Forecasts mean the following:

Good: more than 5 nm (9km)

Moderate: 2.5 nm (4.9km)

Poor: 1,100yds to 2nm (4km)

Fog: less than 1,100 yds. (1,000 m)

WARNINGS: warnings of heavy swell (> 4 metres) where relevant.

OUTLOOK: a brief outlook for the 24 hour period following the period covered by the forecast.

COASTAL REPORTS (from the following stations)

Malin Head Dublin Airport
Kossiare Roche's Point Automatic
Valentia Behmullet

The coastal reports include:

(a) wind direction on the 16 point compass and speed in knots;

(b) weather;

(c) visibility, in miles and yards;

(d) pressure, in hectopascals,

(e) pressure tendency, which

describes the change in pressure over the past 3 hours, according to this scale:

0.0 — 0.4 hPa = steady
0.5 — 1.9 hPa = rising/falling slowly

2.0 — 3.4 hPa = rising/falling rapidly

3.5 — 5.9 hPa = rising or falling very rapidly
6.0hPa + = rising or falling very rapidly

GALE WARNINGS

GALE WARNINGS are issued by the Meteorological Service for Irish coastal waters, which are regarded as extending 30 miles out from the coastline, and the Irish Sea or part thereof.

GALE WARNINGS are issued if wind of Beaufort force 8 are expected.

STRONG GALE WARNINGS are issued if winds of Beaufort force 9 or frequent gusts of at least 52 knots are expected.

STORM FORCE WARNINGS are issued if winds of Beaufort force 10 or frequent gusts of at least 61 knots are expected.

VIOLENT STORM FORCE WARNINGS are issued if winds of Beaufort force 11 or frequent gusts of at least 69 knots are expected.

HURRICANE FORCE WARNINGS are issued if winds of greater than 64 knots are expected.

Imminent: within 6 hours.
Soon: between 6 and 12 hours
Later: between 12 and 24 hours.

The speed of movement of pressure systems is described as follows,

Steadily: up to 15 knots;
Rather quickly: 15 to 25 knots;
Rapidly: 25 to 35 knots;
Very Rapidly: 35 to 45 knots;
Very Rapidly: greater than 45

WIND: (In the text of the forecast the wind is given in Beaufort force.)

BEAUFORT SCALE OF WIND			Wave height (metres)
Force Description	Speed (knots)	Specification (Sea)	
0	0		0.1 (0.1)
1	1	Sea like a mirror	0.2 (0.3)
2	2	Ripples	0.6 (1)
3	3	Small wavelets	1 (1.5)
4	4	Large wavelets, crests begin to break	2 (2.5)
5	5	Strife waves, decreasing longer, frequent white horses	3 (4)
6	6	Moderate waves, many white horses, chance of spray	4 (5.5)
7	7	Large waves, white foam crests, probably some spray	5.5 (7.5)
8	8	Sea heaps up, streaks of white foam	7 (10)
9	9	Moderately high waves of greater length	9 (12.5)
10	10	High waves, dense streaks of foam, spray may reduce visibility	11.5 (16)
11	11	Very high waves, long overhanging crests, visibility affected	14 (+)
12	12	Exceptionally high waves, long white foam patches cover sea	
		Air filled with foam and spray, sea completely white	

Notes: (1) Speed means the mean speed at a standard height of 10 metres. (2) Wave height is only intended as a guide to what may be expected in the open sea. Figures in brackets indicate the probable maximum wave height.

Appendix 8.6

Chartlets indicating probable position where the collision occurred

Legend to Plan of Castletownbearhaven on Admiralty Chart No. 1840.

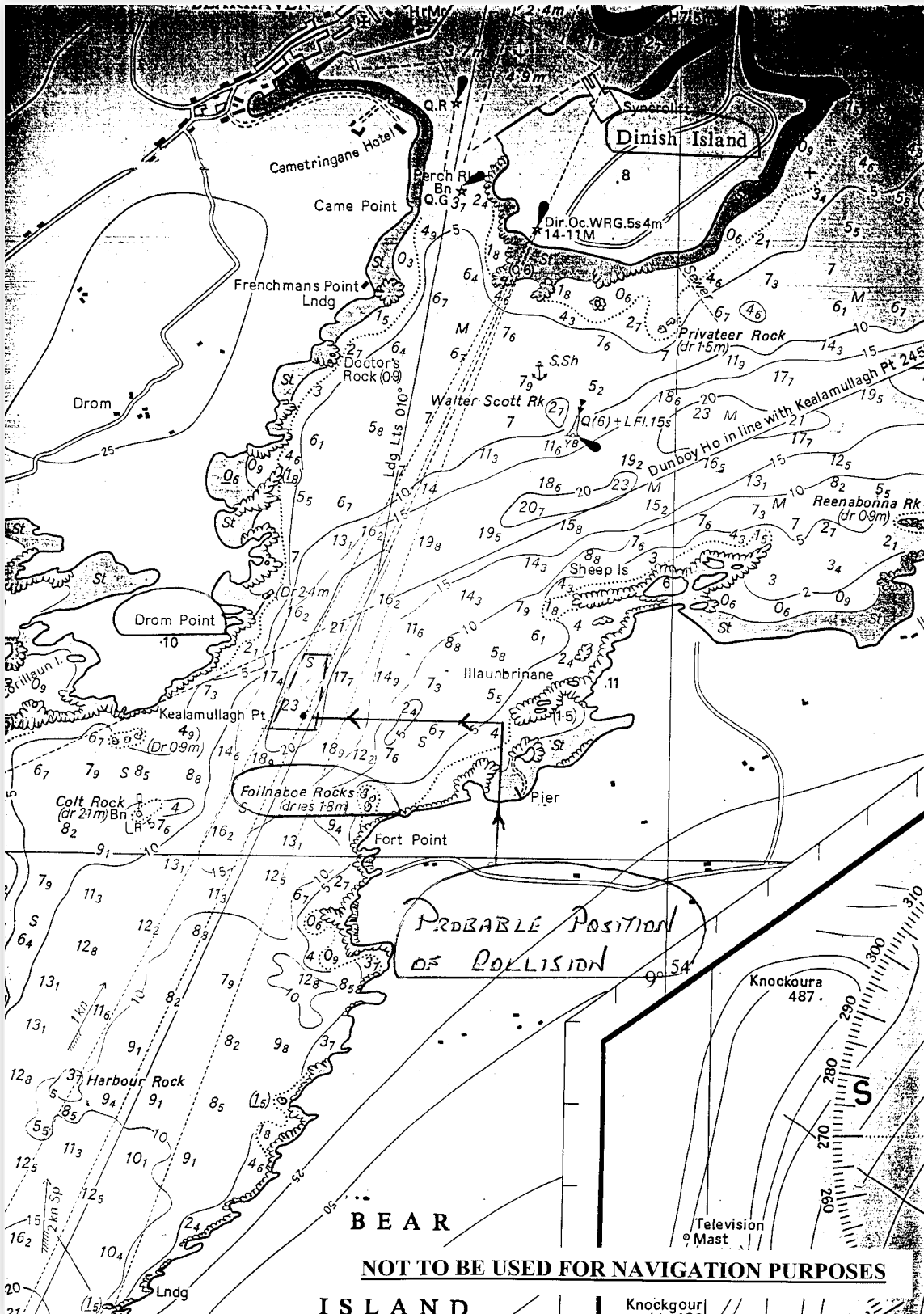
1. Underlining the scale in feet used to measure the offset lines from Drom Point.
2. Directional Occulting Light on Dinish Island indicating a narrow fairway sector flanked by light sectors of different colour.
3. Indicates the leading lights at 010^0 to clear Dinish Island and Came Point.
4. The point for alteration onto the leads above in 3.
5. Drom Point through which a line is drawn running $024^0/204^0$ with two broken lines offset to the east at 200 yards (600 feet) and 250 (750 feet) yards.
6. The 17₄ metres shoal stated by Mr. Bartlett as the position "Touch-n-Go" was at anchor.
7. The leads into the harbour of Castletownbearhaven.
8. Underlining the Red, White and Green sectors indicated in 2. above.
9. The spot marked by the Skipper of "Achilles" as being the position that "Touch-n-Go" was at anchor.

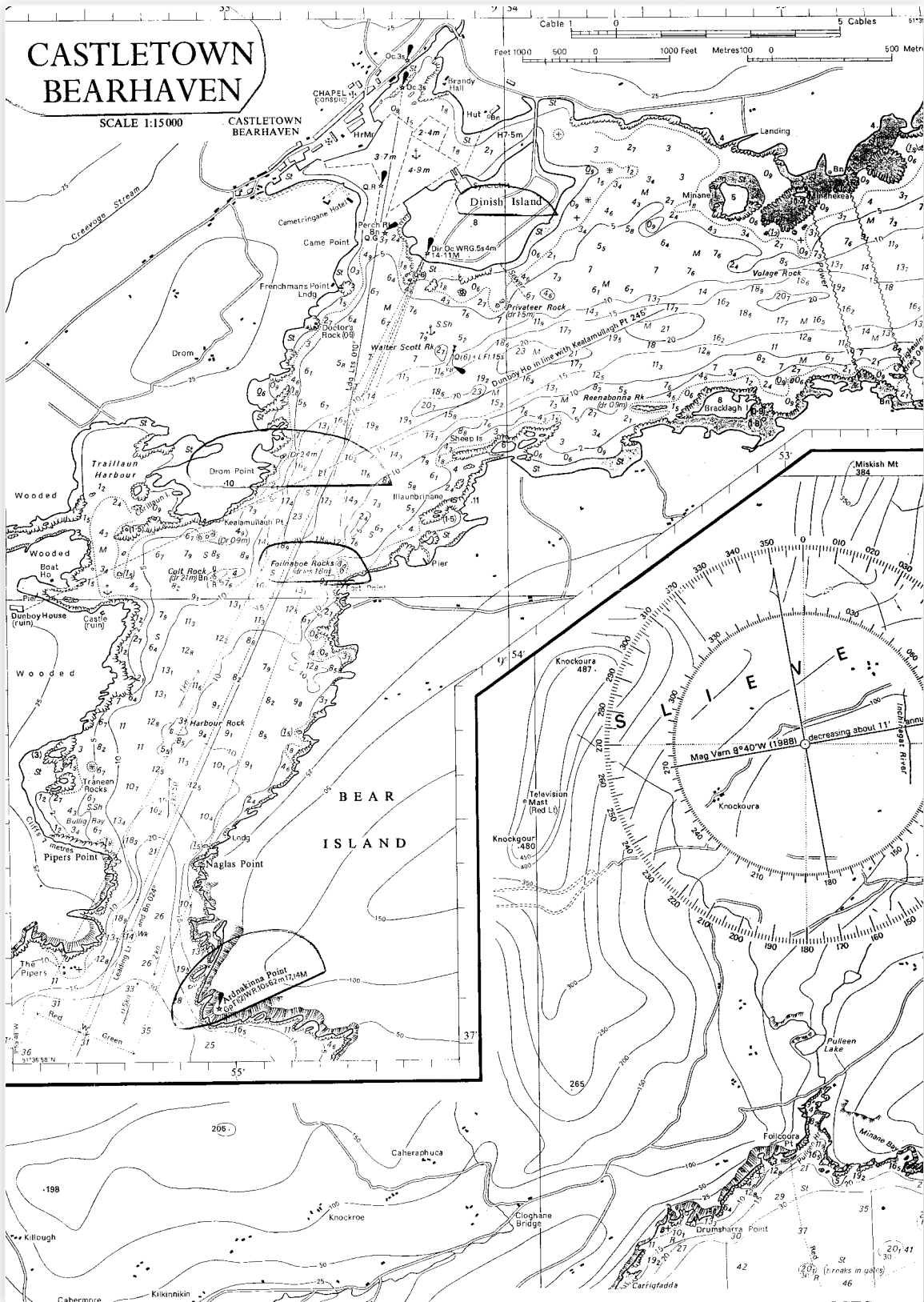
Note:

The Plan is on a scale 1:15000.

The source data for Admiralty Chart No. 1840 covering the area under consideration was obtained from Admiralty Surveys 1895 to 1914.

Global Positioning System is normally referred to the World Geodetic System 1984 Datum. Such satellite-derived positions obtained must be adjusted by given factors. The chart referred to in Appendix 8.6 was corrected to date for the time of the incident. This is a matter of comment, as the GPS was not used to obtain any position relevant to the incident.





Appendix 8.7

Report on the inflatable life jacket.

APPENDIX 8.7



September 28, 1998

Our Ref:

Dear Sir

Re: Boating Collision - Mr Bartlett

Mr Bartlett was involved in an accident on the 13th August 1998 at 5.15pm. The accident occurred at Castletown, Bear Haven, Co. Cork.

I understand from him that you are the investigating officer and that you were concerned that one of the lifejackets he had on board had failed to inflate.

Mr Bartlett came to our works on the 24th September with the lifejacket he suspected was faulty. It was one of four lifejackets he had on board. The other 3 had inflated when his boat was capsized in the collision, this one had not. I was told by Mr Bartlett that one of the four lifejackets has an inflation mechanism manufactured by United Moulders. The other 3 lifejackets had inflation mechanisms manufactured by Hammar, two of these had inflated, the one he had brought back had not inflated.

I explained to Mr Bartlett that the design of the Hammar inflation head was such to substantially reduce if not eliminate the risk of random firings. To achieve this they have protected the water sensitive element by a hydrostatic valve. To allow water into the firing mechanism it must be submerged to a depth of greater than 10cm. As these lifejackets were not being worn it is possible that the lifejacket just floated on the surface and hence would not have fired.

I took the lifejacket as he gave it to me and, he told me, as it was at the time of the accident and plunged it to a depth of approximately 15cm in our test tank, the jacket immediately fired and inflated. There was nothing wrong with the lifejacket. What was wrong was that it was not being worn and therefore did not have the weight of an individual to drag it below the surface. Those lifejackets which did fire must have been caught on part of the boat which must have pushed them below the surface.



Certificate No. 901164/K

Mumby Road, Gosport, Hampshire, England PO12 1AQ
Telephone: 01705 528621 Fax: 01705 510905
e-mail: sales@crewsaver.co.uk www.crewsaver.co.uk

Registered Office: Fish Dock Road, Grimsby, N. E. Lincs. DN31 3NW Registered No. 553893 (England)

A
COSALT plc
Company

I hope that this explanation is clear. Please do not hesitate to contact me if any details need to be explained.

Yours faithfully
CREWSAVER



R ANGEL
Manufacturing Manager

Appendix 8.8

Report on dive search on behalf of owners of "Touch-n-Go".

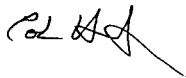
Mr. Colm Harrington.
Ferry Lodge,
Bere Island,
Co Cork.

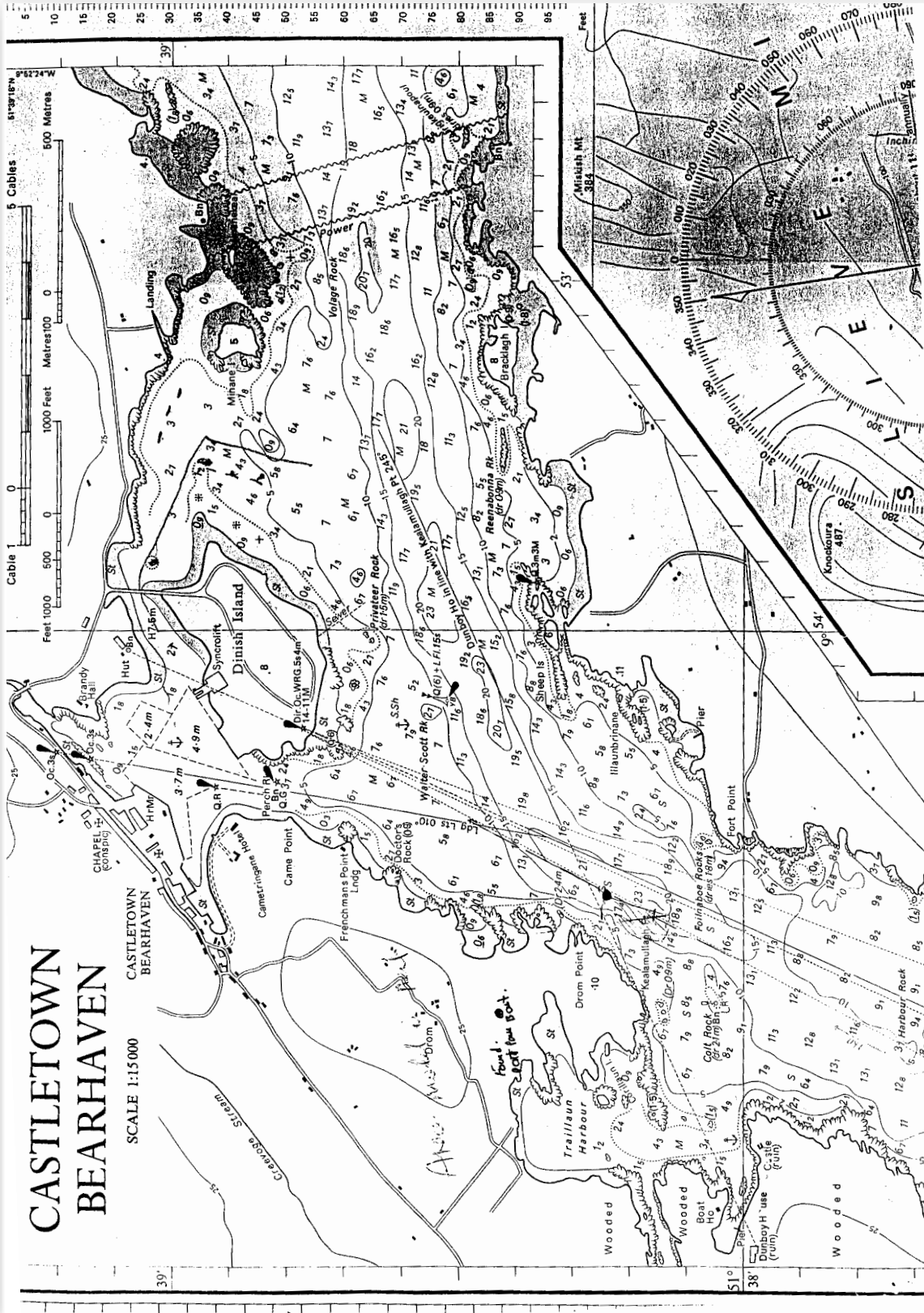
30th August 1998.

Statement/Report on dive/search for items from capsized vessel

On Monday 24th August 1998, I was requested to dive by Mr C Bartlet. Owner of a capsized small boat off Drom pt outer harbour. And to look for and recover any items from the boat, after about 45 mins of the dive time searching seabed at 20mts depth I had found a fishing rod from the boat. Tuesday 25th August 1998 I resumed my search of seabed, and during this time I found 2 pieces of fibre glass with some markings which was later identified as being from the capsized boat, I also found a grappling hook, and a steel line holding frame and a small box of spark plugs dived again and did a sweep of the area, But found no more items. The position of the dive and area covered is marked on the enclosed chart; I took marks from outer leads and the building inside at Drom pt. The area being just on the outer line portside. Of the leading lights.marks that is just west of the line and in 20 metres of water.

Colm Harrington.





APPENDIX 8.9

Appendix 8.9

Photographs.



'Touch-n-Go' at the cottage base 17/8/98. The smaller outboard was said to be in the cabin at the time of the incident.



Damage sustained to port side of 'Touch-n-Go'.



Arrow points to impact scuff marks where 'Princess Grainne' made contact with 'Touch-n-Go'.



Visibility through forward facing window to the port side of wheelhouse 'Princess Grainne'.

9. LIST OF CORRESPONDENCE RECEIVED

Correspondent	Page No.
Philip Wm. Bass and Co. Solicitors	35
MCIB Response	39

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The Marine Casualty Investigation Board,
Leeson Lane,
Dublin 2.

SENT VIA FAX AND POST: 01-6782139

Our Ref: JBOC/MMacS/S.1300 Your Ref: MCIB37.



27th May 2004

RE: COLLISION BETWEEN "PRINCESS GRAINNE" AND LEISURE CRAFT
"TOUCH - N- GO" 13TH AUGUST 1998.

Dear Sirs,

We have been asked by our client Mr. Michael Murphy to respond to your letter of the 19th of April last enclosing the report of the investigation into the above matter.

TIDE

At the time of the casualty say 1700 DST, the tide was flooding; information extracted from the Admiralty Tide Tables for the relevant area and day in question shows that the predicted High Water occurred at 2153 DST (local time, or 2053 GMT) and the Low Water at 1553 DST (local time, or 1453 GMT). The range of the tide (at the Standard port) was 3.4 metres which is just a little back from the Spring Range of 3.7m (the top of Spring Tides occurred a few days earlier on 10th August). This means that the expected flood stream was setting inward in a NNE direction along the axis of Piper Sound for about one hour (or perhaps a little longer), at a likely rate of 1 to 1.5 kn. The stream is strongest in the west entrance, up to 2 knots at spring tides.

M.J. O'KANE B.A., A.C.I.Arb., J.B. O'CONNOR B.C.L., PCLUNE B.C.L., J. MURPHY B.C.L.

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POOR RADAR TARGET

For several reasons, the "Touch – n-Go" would have presented a particularly poor radar target to the approaching "Princess Grainne":

- a) The "Touch - n- Go" was a vessel of GRP construction, a material which produces a notoriously weak reflection of the primary radar signal.
- b) It is always advisable for small craft, especially those having a weak radar signature, to carry a radar reflector for use in fog or, preferably, to have one permanently rigged in a suitable position on board.
- c) The hull shape and profile of the "Touch – n- Go", was such as to reflect very little of the primary radar beam back to the source, the transmitting scanner on board the "Princess Grainne".
- d) Anchored as she was, and laying to the prevailing flood tide, the "Touch – n- Go" must have been pointing in a direction almost directly towards the oncoming "Princess Grainne". This gave the "Touch – n- Go" an end-on radar aspect which would further reduce and degrade the quality of any reflected radar signal.

ANCHORING IN MAIN CHANNEL

If the "Touch – n- Go" was anchored in the position indicated by the investigator, she was precisely on the transit line or leading line marking the main channel into Berehaven through Piper Sound. As an experienced sea angler in this area it would be reasonable to expect the person in charge of "touch –n- Go" to be familiar with the main channel into Castletownbere, and the manner by which that channel was marked with navigational aids such as the sectored and leading lights.

M.J. O'KANE B.A., A.C.L.Arb., J.B. O'CONNOR B.C.L., PCLUNE B.C.L., J. MURPHY B.C.L.

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EQUIPMENT DEFICIENCIES

The alleged equipment deficiencies noted on the "Princess Grainne" were not relevant to the events on the 13th of August 2000. Although not explicitly stated, the result of the inspection appears to be summarised in the table at paragraph 2.3 of the Report. The first item listed, "Nav. lights, shapes & sound", is the only item of relevance to this incident and these are found to be satisfactory. On the other hand, paragraphs 2.6 offer comparable particulars and data in relation to the "Touch -n- Go", but in this case, a relevant item ("no air (fog) horn") appears to be deficient, contrary to the requirement of Rule 33. In the particular circumstances of this incident, it is not unreasonable to conclude that the absence of an efficient sound signal from "Touch - n- Go" in the period immediately prior to the collision was a contributory factor to the subsequent events.

RADAR INFORMATION OF MFV "ACHILLES"

The skipper of the mfv "Achilles", according to the report observed the "Touch - n- Go" in his radar. The skipper had slowed down passing Ardnakinna Point from 8 knots to 4 knots. It would have taken an estimated 15 minutes to reach the position of "Touch - n- Go", assuming a flood tide rate of 1.0 knot. It is not possible for Mr. O'Driscoll to say with certainty that the radar target initially detected at 1.25 miles range and subsequently identified as the motor cruiser "Touch - n- Go" were one and the same vessel unless he or one of his crew were constantly observing the radar display up until the point at which the target vessel was positively identified as such. The target initially detected could have been another vessel; there were several vessels moving in the area at the time. While anchored off Drom Point, Mr. Bartlett recalled " that two or three vessels had passed them at a distance of about 25 or 30 yards away" and it is entirely possible that it was one of these vessels that Mr. O'Driscoll first noticed on his radar at a range of 1.25 miles.

M.J. O'KANE B.A., A.C.I.Arb., J.B. O'CONNOR B.C.L., PCLUNE B.C.L., J. MURPHY B.C.L.

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RADAR

Given the weather and visibility conditions prevailing, the "Princess Grainne" was making proper use of her radar equipment in the sense that she had safely navigated the narrowest part of Piper Sound, making this blind approach on the basis of radar information. In fact her navigation was commendably accurate to an unfortunate degree, in that she was precisely on the main channel leading line. Assuming "Touch – n- Go" was barely detectable on radar, if at all, "Princess Grainne" was dependent on hearing an efficient sound signal from the other vessel in conditions of restricted visibility but the "Touch – n- Go" did not have the means to make such a signal, as required by rule 33b.

Given that the report now indicates that the "Touch –n-Go" was moored in the fairway, we find it surprising that no further action was taken against the person in charge of this vessel.

We also feel that it should be made mandatory for all leisure craft to carry a suitable radar reflector particularly those which intend to be used in busy fishing ports.

Yours faithfully,

P. W. Bass & Co.

Philip Wm. Bass & Co.

M.J. O'KANE B.A., A.C.I.Arb., J.B. O'CONNOR B.C.L., P.CLUNE B.C.L., J. MURPHY B.C.L.

R. Ó CATHÁIN, B.A., LL.B., Dip. Eur. Law.

MCIB RESPONSE TO LETTER FROM PHILIP WM. BASS & CO. SOLICITORS DATED 27TH MAY, 2004.

TIDE

Refer to Appendix 8.4 produced by the UK Hydrographic Office and to the top right hand side of the page for times of High and Low water for the day in question. Those times are given in Greenwich Mean Time (GMT) and add one hour to give Local Time.

The tidal flow as deemed by Bass & Co. "that the expected flood stream was setting inward in a NNE direction along the axis of Piper Sound for about one hour (or perhaps a little longer) as a likely rate of 1 to 1/2 knots. The stream is strongest at the west entrance, up to two knots at spring tides" is not disputed.

However the Irish Pilot Book (sailing directions) states, "Tidal streams within the outer harbour do not exceed a 1/2 knot except in the West Entrance etc." and it is this observation that becomes applicable further up towards Drom Point where the collision occurred. Admiralty Chart No. 1840 insert refers.

The MCIB concurs that the tides were a few days after spring tide but this still does not alter the findings.

It should be noted that the wind was estimated SW'ly force 5/6 and that "Touch - N-Go" was sheltered off Drom Point.

POOR RADAR TARGET

- (a) The MCIB notes and agrees with this statement although "notoriously" is too strong an adjective.
- (b) Noted. In this specific case the Skipper of the "Achilles" was quite certain that he had the correct target on radar.
- (c) Noted.
- (d) Noted.

Comment: The trawler "Achilles" when inward observed the target "Touch-n-Go" visually. This was stated by the Skipper who was there at the time.

ANCHORING IN THE MAIN CHANNEL

The report does not state, as Bass & Co. suggests "that "Touch-n Go" was precisely on the transit line or leading line marking the main channel". The report reflects what the witnesses interviewed stated and that is contained in Section 6 CONCLUSIONS AND FINDINGS. There is a footnote that may be regarded as a logical conclusion.

We do not disagree with the comment in the second sentence. However it does not raise any new information that had not already been submitted to the MCIB.

EQUIPMENT DEFICIENCIES

The equipment deficiencies are set out in the report and may indicate the overall condition of the vessel.

In relation to the breaches of the Collision Regulations, the report has been amended to note the breaches by both vessels. Please refer to Section 6.5 of the report.

RADAR INFORMATION OF MFV "ACHILLES"

The comment in your letter: "It is not possible for Mr. O'Driscoll to say with certainty that the radar target initially detected at 1.25 miles range and subsequently identified as the motor cruiser (sic) "Touch-n-Go" were one of the same vessel unless he or one of his crew were constantly observing the radar display up until the point at which the target vessel was positively identified as such". The MCIB is aware that there is always a possibility of target misinterpretation or swap but an experienced watch keeper will be aware of such possibilities and take all these matters into account. The MCIB notes that Mr. O'Driscoll is an experienced and qualified Skipper, who holds a certificate of competency and is well experienced with pilotage in and out of Castletownberehaven.

Mr. O'Driscoll stated that he picked the boat (Touch-n Go) up on his radar display when passing Ardnakinna Point. He visually sighted "Touch-n-Go" when some 500 feet away having earlier slowed down from 8 knots to 4 knots because of restricted visibility.

RADAR

The assumption by Bass & Co. that "Touch-N-Go" was barely detectable on radar" is noted, however the MCIB points out that this contention does not concur with the statement of witness - Mr. O'Driscoll.

The visibility stated in the MCIB report was "patchy fog". Fog is defined by the Met Eireann in Appendix 8.5 of the MCIB report as Fog: less than a 1000 yards. This is a technical definition of "fog".

The witness on board "Touch-n-Go" claimed the visibility was 500/600 yards. At a speed of 7¹/₂ knots it would take approximately 2 minutes to transit 500 yards. Had the "Princess Grainne" been proceeding at a safe speed in compliance with the Collision Regulations at say half speed of 3 - 4 knots then it would have taken approximately four minutes to transit the 500 yards. That speed reduction together with proper watchkeeping arrangements as outlined in Marine Notice No. 5 of 1995 (for example: - one crewmember on visual look-out, one on radar and if necessary the third crewmember on the helm) would have allowed sufficient time to take avoiding action. The Skipper was alone in the wheelhouse, the vessel was on hand steering and the two crewmembers were not on watchkeeping duty and said to be in the stern area of "Princess Grainne".