Report on the investigation of

the near miss incident between

Mathilda and *Lady Hamilton of Helford*

7 miles east-south-east of Lizard Point, Cornwall

on

28 June 2001

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The fundamental purpose of investigating an accident under these Regulations is to determine its circumstances and the cause with the aim of improving the safety of life at sea and the avoidance of accidents in the future. It is not the purpose to apportion liability, nor, except so far as is necessary to achieve the fundamental purpose, to apportion blame.

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GLOSSARY OF ABBREVIATIONS AND ACRONYMS

AB	-	Able Bodied Seaman
ETA	-	Estimated Time of Arrival
GPS	-	Global Positioning System
gt	-	gross tons
kW	-	kilowatt
MCA	-	Maritime and Coastguard Agency
MF	-	Medium frequency
MGN	-	Marine Guidance Note
UK	-	United Kingdom
UTC	-	Universal Co-ordinated Time
VHF	-	Very High Frequency

SYNOPSIS

On 28 June 2001, the MAIB was notified of a near-miss incident involving the 3,957gt feeder container vessel *Mathilda,* and the 8.53m fishing vessel *Lady Hamilton of Helford*. The incident occurred 7 miles east-south-east of Lizard Point, Cornwall. An investigation began on 2 July 2001.

At 0430 on 28 June, *Lady Hamilton of Helford* left her moorings on the River Helford, bound for fishing grounds approximately 7 to 8 miles east-south-east of Lizard Point, Cornwall to haul her gill nets which had been shot on a previous day. She arrived there about 2 hours later and began hauling. She then steamed towards her third fleet south-east of Lizard Point, and began hauling it at about 0800.

Meanwhile, the container vessel *Mathilda* was on passage from Cork to Rotterdam, making one of her regular passages between Warrenpoint, Cork and Rotterdam. She was steaming at 15 knots and her course was 093°. She was being steered by auto-pilot.

At about 0810, *Lady Hamilton of Helford*'s skipper detected *Mathilda* at an approximate distance of 5 miles. When that distance decreased to 1 to 1.5 miles, he interpreted that *Mathilda* was on a collision course and tried, unsuccessfully, to call her on VHF radio channel 16. When the distance between the vessels had decreased to less than 0.5 mile *Lady Hamilton of Helford*'s crew stopped hauling.

Mathilda's master estimated he only saw *Lady Hamilton of Helford* at a distance of approximately 600 metres. This was due, in part, to the glare from the sun. At that time he assumed the two vessels would pass each other within a safe distance, so made no attempt to alter course, or reduce speed.

When *Lady Hamilton of Helford*'s skipper interpreted that a collision was imminent, he instructed the gear to be cut and came hard to port and full ahead on the main engine.

Lady Hamilton of Helford passed *Mathilda*'s starboard side at a distance of less than 30 metres at 0830.

The immediate cause of the near-miss incident, was *Mathilda*'s master failing to maintain a proper lookout in accordance with the International Regulations for Preventing Collisions at Sea.

Contributory causes were:

- *Mathilda*'s master failing to make a full appraisal of the situation
- The lack of a second person on the bridge to act as a dedicated lookout
- The glare from the sun.

Mathilda's owner is recommended to employ an additional person to act as a dedicated lookout on the bridge, when the officer of the watch is unable to give his full attention to that duty. He is also recommended to equip his vessel with a means of reducing glare from the sun to those on the bridge.

SECTION 1 - FACTUAL INFORMATION (ALL TIMES ARE UTC + 1)

1.1 PARTICULARS OF *MATHILDA* AND *LADY HAMILTON OF HELFORD* AND INCIDENT

Vessel details		*Mathilda*
Registered owner	:	Dorte Haren/Ems Germany
Manager(s)	:	Draxl Schiffahrts, Haren/Ems, Germany
Port of registry	:	Haren/Ems
Flag	:	Antigua & Barbuda
Type	:	Feeder Container 448 teu
Built	:	1994 Detlef Hegemann Rolandwerft KG-Berne
Classification society	:	Bureau Veritas
Construction	:	Steel
Length overall	:	107.98m
Gross tonnage	:	3,957
Engine power and type	:	2099kW MWM heavy oil diesel
Service speed	:	16 knots
Other relevant info	:	Controllable pitch propellers; bow thruster
Incident details		
Time and date	:	0830 on 28 June 2001
Location of incident	:	49° 54.47' N 004° 59.49' E 7 miles ESE of Lizard Point, Cornwall
Persons on board	:	11
Injuries/fatalities	:	None
Damage	:	None

Vessel details		*Lady Hamilton of Helford*
Registered owner	:	Mr D C Bean, Trecoose, St Martin, Helston Cornwall
Port of registry	:	Falmouth
Type	:	Gill Netter
Flag	:	UK
Fishing number	:	FH 214
Built	:	1972 Looe, Cornwall
Construction	:	Wood
Length overall	:	8.53m
Breadth	:	2.98m
Depth	:	1.52m
Gross tonnage	:	6.73
Engine power and type	:	87.0kW
Service speed	:	10 knots
Incident details		
Time and date	:	0830 on 28 June 2001
Location of incident	:	49° 54.47’ N 004° 59.49’ E 7 miles ESE of Lizard Point
Persons on board	:	3
Injuries/fatalities	:	None
Damage	:	None

1.2 DESCRIPTION OF VESSELS

MATHILDA

Mathilda, built of steel in 1994 as a general cargo vessel, was capable of carrying 448 teu containers. The vessel had one deck above the waterline and two cargo holds. The accommodation and engine room were situated aft **(Figure 1)**.

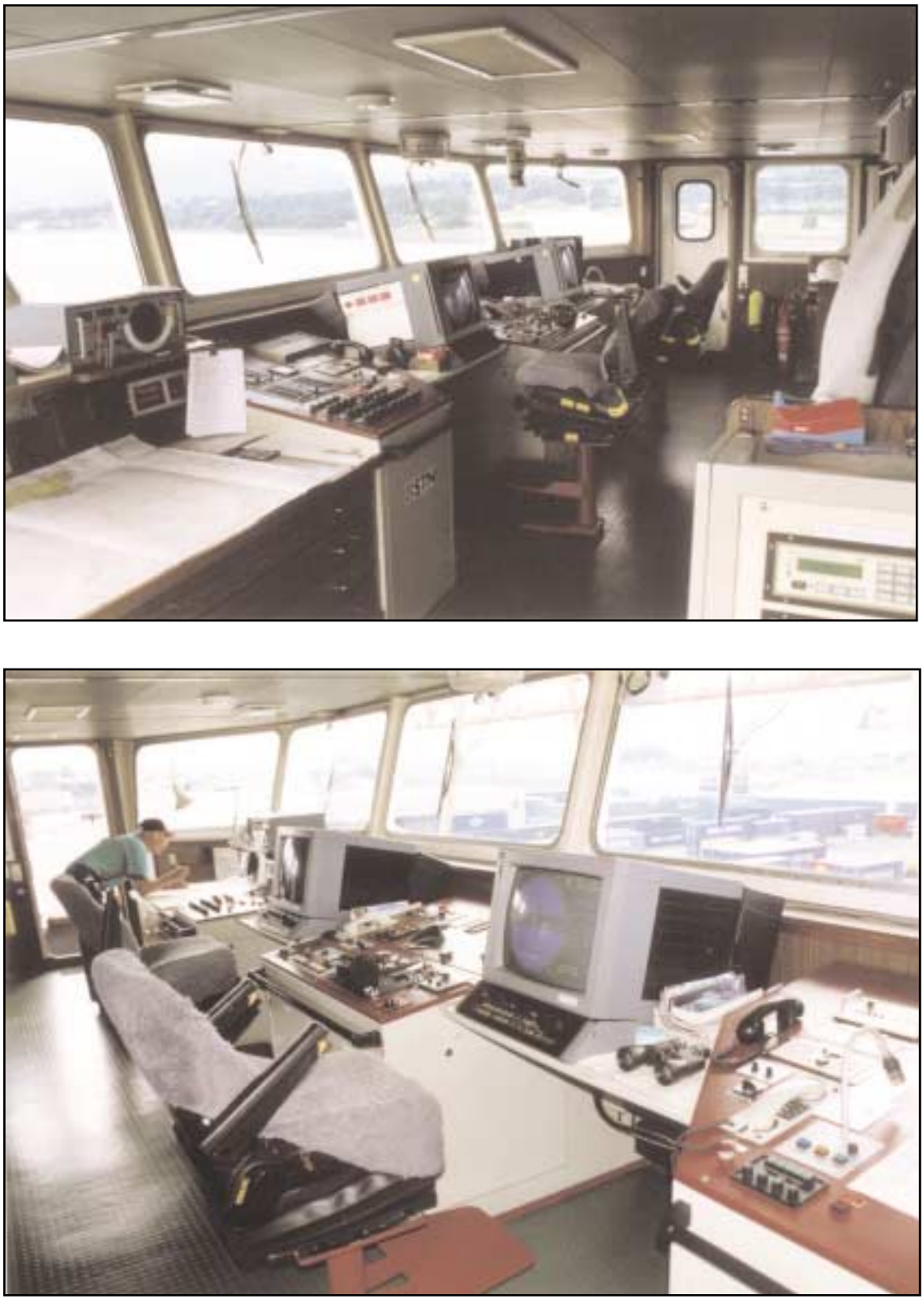
She was equipped with the following navigational equipment: a standard magnetic compass and gyro compass; MF and VHF radios; two GPS navigators; one echo sounder and two relative motion radars.

Most of the navigational equipment was strategically housed in an operating console positioned centrally forward on the bridge. In the centre of the console were the tiller and main engine controls. On the port side of the console was a chart table. In front of each of the two radars was a chair **(Figure 2)**.

Figure 1

Mathilda

Figure 2



Mathilda - bridge

LADY HAMILTON OF HELFORD

Lady Hamilton of Helford was built in 1972 at Looe in Cornwall. Constructed of wood, the design incorporated one deck above the waterline. A wheelhouse/whaleback was situated forward, with the working deck aft. A gill net hauler was positioned on the starboard side of the deck forward **(Figure 3)**.

She was equipped with the following navigational equipment: one GPS navigator incorporating a chart plotter; one differential GPS navigator linked to the GPS plotter; VHF radio and an echo sounder. A radar reflector was fitted to the aft mast, and a fog horn was provided.

The vessel had been family-owned since being built.

Figure 3

Lady Hamilton of Helford

1.3 TYPE OF FISHING

Lady Hamilton of Helford was engaged in gill net fishing; a method using static sheet nets anchored at each end, on or just above the seabed. A dhan marker on the sea surface was attached to each anchor by means of a tow line, to identify the position of the nets.

Each 100m-long tangle net was made up into a fleet of 10 nets; each fleet of nets being anchored and marked at each end.

Normally the nets were shot from the vessel on the fishing grounds one day, and hauled in rotation the next or subsequent days. After hauling, the nets were cleaned before shooting. The nets were hauled and kept on board if the weather forecast was poor, or the tidal streams were very strong.

The nets were set in straight lines up and down the tide, in an east-west direction off The Lizard.

When hauling the nets, the heading of the vessel could deviate constantly, typically up to 20°, during the entire operation. In addition to this, because of the slow speed while hauling, the vessel could appear stationary to passing vessels.

1.4 MANNING AND CERTIFICATION

MATHILDA

Mathilda carried a crew of 11: a master, first and second mates, chief engineer, second engineer, a cook and five ABs.

The master had 42 years experience at sea, 29 years as master. He had been employed on board *Mathilda* for the previous 2 years on a rotational basis of 4 months on and 2 months off. He held a German master's unrestricted certificate of competency.

Both he and the chief engineer were German nationals. The second mate was Romanian, and the remainder of the crew were Filipino.

The master and both mates shared the navigational watch on a 4 on / 8 off basis. The master was normally on watch from 0800-1200 and 2000-2400.

He was alone on watch on the bridge at the time of the incident.

LADY HAMILTON OF HELFORD

Lady Hamilton of Helford carried a crew of three: a skipper and two deckhands. Under *The Fishing Vessel (Certification of Deck and Engineer Officers) Regulations 1984* the vessel was not required to carry any certificated persons on board. All three crewmen had undergone mandatory training in sea survival, fire-fighting and prevention, and first-aid.

The skipper had 11 years experience working on the vessel, including 3 years as skipper. The two deckhands were regular members of the crew.

1.5 ENVIRONMENTAL CONDITIONS

The reported weather throughout the incident was a south-westerly wind of force 4 to 5, with a moderate south-westerly swell. The visibility was very good and the predicted time of sunrise was 0353.

1.6 NARRATIVE OF EVENTS (ALL COURSES ARE TRUE)

At 0430 on 28 June 2001, *Lady Hamilton of Helford* left her moorings on the River Helford bound for the fishing grounds, some 7 to 8 miles east-south-east of Lizard Point, to haul her gill nets which had been shot on a previous day.

Approximately 2 hours later she arrived on the grounds and began hauling her gear. After hauling, first, a fleet of nets off a wreck, and then another fleet, which had been towed away the previous day, she steamed towards the third fleet south-east of Lizard Point and began hauling that one at 0800. All three crew members were on deck hauling. The skipper was in and out of the wheelhouse periodically, guiding the vessel along the gear in a westerly direction.

At 0800 the master relieved the mate on board *Mathilda*, which was on passage from Cork to Rotterdam. She sailed regularly between Warrenpoint, Cork and Rotterdam.

Her 0800 position was about 4 miles south-south-west of Lizard Point. Her course and speed were 093° and 15 knots respectively. She was being steered by auto-pilot. One radar was operational, set to the 6-mile range; the other was in stand-by mode.

At about 0810, *Lady Hamilton of Helford*'s skipper detected *Mathilda* at an approximate distance of 5 miles, and decided to keep an eye on her while hauling the gear. When the distance had decreased to approximately 1 to 1.5 miles, he interpreted that *Mathilda* was on a collision course. He went to the wheelhouse and tried to call *Mathilda* on VHF radio channel 16 to attract her attention and advise her watchkeeper of the situation. He received no reply, and made another call a couple of minutes later, followed by a third call soon after. Other fishing vessels in the area heard these calls. The distance between the vessels had then decreased to less than 0.5 mile. *Lady Hamilton of Helford*'s crew stopped hauling. They had hauled in approximately 600metres of net.

On board *Mathilda* the master saw *Lady Hamilton of Helford* only at a distance of approximately 600 metres due, in part, to the glare from the sun. At that time he estimated her bearing to be 10° to 20° off the port bow, and assumed the vessels would pass each other within a safe distance. Consequently, he made no attempt to alter course or reduce speed. He heard no calls on the VHF radio.

Once *Lady Hamilton of Helford*'s skipper interpreted that *Mathilda* was not going to alter course and a collision was imminent, he instructed one of the deckhands to cut free the gear with the knife he had ready to hand. The skipper then 'knocked out' the hydraulics and came hard to port and full ahead on the main engine.

Lady Hamilton of Helford passed down the starboard side of *Mathilda* at a distance of less than 30 metres, in position 49° 54.47' N 004° 59.49' W. The time was 0830. *Mathilda* maintained her course and speed. Later on the master made a note of the incident in the log book.

When both vessels were clear of one another, *Lady Hamilton of Helford*'s skipper resumed hauling the gear from the opposite end of the fleet. When this was done he reported the incident to the coastguard.

1.7 INSHORE FISHING GROUNDS (SOUTH-WEST)

The majority of fishing vessels operating from the south-west ports of Devon and Cornwall are under 12m registered length and, normally, their area of operation is confined to the coastal areas within the 12-mile fishing limit.

Because of the large number of small fishing vessels working in this area and also because it is on a route commonly used by coasting vessels transiting the Channel, it is often an area of high traffic density.

1.8 COLLISION REGULATIONS

Rule 2(a) of the *International Regulations for Preventing Collisions at Sea 1972 (Collision Regulations)* states:

Nothing in the Rules shall exonerate any vessel, or the owner, master and crew thereof, from the consequences of any neglect to comply with the Rules or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.

Rule 5 states:

Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing conditions, so as to make a full appraisal of the situation and of the risk of collision.

Rule 7 (a) states:

Every vessel shall use all available means appropriate to the prevailing circumstances to determine if risk of collision exists. If there is any doubt such risk will be deemed to exist.

Rule 7 (b) states:

Proper use shall be made of radar equipment if fitted and operational, including long-range scanning to obtain early warning of risk of collision and radar plotting or equivalent systematic observation of detected objects.

Rule 7 (C) states:

Assumptions shall not be made on the basis of scanty information, especially scanty radar information.

Rule 16 states:

Every vessel which is directed to keep out of the way of another vessel shall, so far as possible, take early and substantial action to keep well clear.

Rule 17(a)(i) states:

Where one of the two vessels is to keep out of the way, the other vessel shall keep her course and speed.

Rule 17(a)(ii) states:

The latter vessel may however take action to avoid collision by her manoeuvre alone, as soon as it becomes apparent to her that the vessel required to keep out of the way is not taking appropriate action in compliance with these Rules.

Rule 18(a) states:

Except where Rules 9,10, and 13 otherwise require, a power-driven vessel underway shall keep out of the way of:

(i) *a vessel not under command;*

(ii) *a vessel restricted in her ability to manoeuvre;*

(iii) *a vessel engaged in fishing;*

(iv) *a sailing vessel.*

1.9 NAVIGATIONAL WATCH

Section A-VII/2 of the *International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, incorporating the 1995 amendments (STCW 95)* sets out the basic principles to be observed in keeping a safe navigational watch.

Part 3.1 *Look-out,* Paragraph 14 states:

The look-out must be able to give full attention to the keeping of a proper look-out and no other duties shall be undertaken or assigned which could interfere with that task.

Paragraph 15, among other points, states:

The officer in charge of the navigational watch may be the sole look-out in daylight provided that on each occasion:

1. *the situation has been carefully assessed and it has been established without doubt that it is safe to do so;*

2. *full account has been taken of all relevant factors including, but not limited to*

   (i) state of the weather;
   (ii) visibility;
   (iii) traffic density;
   (iv) proximity of dangers to navigation, and
   (v) the attention necessary when navigating in or near traffic separation schemes; and

3. assistance is immediately available to be summoned to the bridge when any change in the situation so requires.

Paragraph 35 states:

The officer in charge of a navigational watch shall bear in mind the necessity to comply at all times with the current requirements of the International Convention for the Safety of Life at Sea (SOLAS) 1974. The officer of the watch shall take into account:

1. *the need to station a person to steer the ship and to put the steering into manual control in good time to allow any potential hazardous situation to be dealt with in a safe manner; and*

2. *that with a ship under automatic steering it is highly dangerous to allow a situation to develop to the point where the officer in charge of the watch is without assistance and has to break the continuity of the look-out in order to take emergency action.*

SECTION 2 - ANALYSIS

2.1 AIM

The purpose of the analysis is to determine the contributing causes and circumstances of the accident as a basis for making recommendations to prevent similar accidents from occurring in the future.

2.2 INTERPRETATION OF AVAILABLE EVIDENCE

The interpretation is based on the following assumptions:

- *Mathilda* was steering a course of 093° at a speed of 15 knots.
- *Lady Hamilton of Helford* was nearly stationary and her heading was variable between 250° and 290°.
- *Mathilda*'s master first detected *Lady Hamilton of Helford* at close range.
- A collision was imminent when *Lady Hamilton of Helford* altered course to port.

If, as the master of *Mathilda* had thought, he had first detected *Lady Hamilton of Helford* at a distance of 600 metres bearing 10°- 20° off his port bow, for a collision or a very close quarters situation to occur, *Lady Hamilton of Helford* would have had to be making good a south-westerly course at a speed of about 6.5 knots.

Given that during the hauling process *Lady Hamilton of Helford* had made good a distance of about 600 metres in 30 minutes, her speed could not have been more than 0.5 knots.

This being the case, *Mathilda*'s master either mistakenly estimated *Lady Hamilton of Helford* was in that position, or he did not see her until the very last minute, by which time it was too late to take any avoiding action.

2.3 ACTION BY THE MASTER (*MATHILDA*)

Whether *Mathilda'*s master mistakenly estimated the distance and bearing of *Lady Hamilton of Helford,* or he did not see her at all, he was not keeping a proper lookout in accordance with Rules 5 and 2(a) of the *Collision Regulations* and part 3.1 of section A-VII/2 of *STCW 95.*

He might have detected *Lady Hamilton of Helford* and assumed that he would pass clear. However, the evidence suggests that *Lady Hamilton of Helford* was bearing ahead, as opposed to on the port bow. Therefore, his perception of the situation, and the margin of safety he allowed himself, possibly influenced by previous experience, was questionable and in contravention of Rule 7,16, and18(a) of the *Collision Regulations.*

Had the master made a full appraisal of the situation by sight and all other available means, including full use of the radars in accordance with Rule 7 of the *Collision Regulations, Lady Hamilton of Helford* could have been detected at an earlier stage, and effective avoiding action been taken. One radar was operational and set to the 6-mile range; therefore *Lady Hamilton of Helford* should have been easily detectable as a radar reflector was fitted to her aft mast and the weather conditions were good.

Since it was an area of high traffic density, it would have been prudent to employ an additional person on the bridge to ensure a proper lookout was maintained.

2.4 REDUCED VISIBILITY

A contributory factor to the master's late detection of *Lady Hamilton of Helford* was the glare from the sun.

The fitting of sun screens to the bridge windows, or the use of sunglasses by the watchkeepers/lookouts would increase the range of detection in such conditions.

Had such devices been fitted or worn, *Lady Hamilton of Helford*, could have been detected at an earlier stage.

2.5 ACTION BY THE SKIPPER (*LADY HAMILTON OF HELFORD*)

Having received no reply to his call on the VHF radio, the skipper could have made a sound signal on the fog horn, which might have alerted *Mathilda*'s master in time for him to take effective avoiding action.

However, the subsequent action taken by the skipper was effective in preventing a collision, and was in accordance with Rule 17(a)(ii) of the *Collision Regulations.* Even so, an earlier alteration of course would have been more effective.

In view of the imminent risk of collision, an alteration of course to starboard would have been a safer option and in accordance with Rule 2(a), since, if *Mathilda*'s master had decided to alter course at the last minute, it is probable that he would have altered to starboard in accordance with the normal practice of seamanship.

Nevertheless, had it not been for the action taken by the skipper, the vessels would probably have collided.

SECTION 3 - CONCLUSIONS

3.1 FINDINGS

1. The speed of *Lady Hamilton of Helford* was less than 0.5 knots. [2.2]

2. *Mathilda'*s master either mistakenly estimated the position of *Lady Hamilton of Helford*, or did not detect her until the very last minute. [2.2]

3. *Mathilda*'s master was not keeping a proper lookout in accordance with the *Collision Regulations.* [2.3]

4. The master of *Mathilda* might have assumed he would pass clear of *Lady Hamilton of Helford.* [2.3]

5. *Mathilda'*s master's perception of the situation, and the margin of safety he allowed himself, was questionable. [2.3]

6. *Mathilda*'s master failed to make a full appraisal of the situation. [2.3]

7. Effective avoiding action could have been taken had *Lady Hamilton of Helford* been detected earlier. [2.3]

8. *Lady Hamilton of Helford* should have been easily detectable by radar. [2.3]

9. It would have been prudent to employ an additional person on *Mathilda*'s bridge to act as lookout. [2.3]

10. The visibility was reduced by the glare from the sun. [2.4]

11. The fitting of sun screens to *Mathilda'*s bridge windows, or the use of sunglasses by the watchkeepers/lookouts would increase the range of detection in such conditions. [2.4]

12. Sounding the fog horn on board *Lady Hamilton of Helford*, might have alerted *Mathilda*'s master in sufficient time for him to take effective avoiding action. [2.5]

13. The avoiding action taken by *Lady Hamilton of Helford* was effective in preventing a collision. [2.5]

14. *Lady Hamilton of Helford'*s alteration of course to port should have been avoided. [2.5]

3.2 CAUSE

The cause of the near miss between the feeder container vessel *Mathilda* and the fishing vessel *Lady Hamilton of Helford* was the master of *Mathilda* failing to maintain a proper lookout in accordance with the *Collision Regulations*.

3.3 CONTRIBUTORY CAUSES

1. The master of *Mathilda* failing to make a full appraisal of the situation.

2. The lack of a second person on the bridge to act as a dedicated lookout.

3. The glare from the sun.

SECTION 4 - RECOMMENDATIONS

Draxl Schiffahrts, the manager of *Mathilda*, is recommended to:

1. Employ an additional person to act as a dedicated lookout on the bridge when the officer of the watch is unable to give his full attention to that duty.

2. Equip *Mathilda* with a means of reducing glare from the sun to those on the bridge.

Marine Accident Investigation Branch
March 2002