

Report on the Investigation  
of the collision between

**mfv *LUC* and  
mv *Toisa Puffin***

8.5 miles due east of the River Tyne  
on 13 June 1999

Report No 13/2000

**Extract from  
The Merchant Shipping  
(Accident Reporting and Investigation)  
Regulations 1999**

The fundamental purpose of investigating an accident under these Regulations is to determine its circumstances and the causes 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**

AB	Able Seaman
ARPA	Automatic radar plotting aid
CPA	Closest point of approach
FRC	Fast rescue craft
GPS	Global positioning system
kW	kilowatt
LR	Lloyd's Register
m	metre
MF	Medium frequency
MGN	Marine Guidance Note
STCW 95	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (incorporating the 1995 amendments)
TCPA	Time of closest point of approach
UK	United Kingdom
USA	United States of America
UTC	Universal co-ordinated time
VHF	Very high frequency



## SYNOPSIS

At 1630 Universal Co-ordinated Time (UTC+1) on 13 June 1999, the Marine Accident Investigation Branch (MAIB) was informed of a collision between a safety stand-by vessel and a fishing vessel engaged in trawling. An investigation was initiated the next day.

The 782gt Bahamian registered offshore safety stand-by vessel *Toisa Puffin* collided with the 17.80m fishing vessel *LUC*. *Toisa Puffin* was on passage towards Aberdeen Bay. *LUC* was engaged in trawling.

Both vessels sustained minor damage above the waterline. There was no pollution.

The collision was caused by the mate of *Toisa Puffin* failing to detect he was on a collision course with another vessel early enough to take effective avoiding action.

Contributory causes included *Toisa Puffin*'s mate failing to maintain a proper lookout, and *LUC*'s skipper neither making an appropriate sound signal nor taking avoiding action early enough, contrary to the Collision Regulations.

The MAIB has no safety recommendations to issue at this time.





Figures 1 & 2 - *Toisa Puffin*





Figures 3 & 4 - *LUC*





## VESSEL AND ACCIDENT PARTICULARS

<b>Name</b>	:	<b><i>Toisa Puffin</i></b>
Type	:	Offshore safety stand-by vessel
Port of Registry	:	Nassau
LR Number	:	8010001
Built	:	Halter Marine Inc Moss Point Mississippi USA 1980
Construction	:	Steel
Owner	:	Toisa Ltd
Manager	:	Sealion Shipping Ltd, Farnham, Surrey
Gross Tonnage	:	782
Length Overall	:	54.96m
Breadth	:	12.19m
Depth	:	4.27m
Propulsion	:	2 x Detroit diesels 1909kW Twin Screw
Crew	:	12
Damage	:	Starboard quarter bulwark pushed in over length of 4 metres
Injuries	:	None
<b>Name</b>	:	<b><i>LUC</i></b>
Type	:	Fishing vessel (stern trawler)
Port of Registry	:	North Shields
Fishing Number	:	SN 36
Built	:	Wallsend, Tyne and Wear, 1980
Construction	:	Steel
Owner	:	Mr D Clarke, 28 Dilston Ave Whitley Bay, Tyne and Wear
Gross Tonnage	:	56.72
Length Overall	:	17.80m
Length Registered	:	16.95m
Breadth	:	5.82m
Depth	:	3.44m
Propulsion	:	Gardner Diesel, 172kW single screw shaft
Crew	:	Two
Injuries	:	None
Damage	:	Port side forward shell plating and frames indented
Position of Accident	:	55° 01' N, 001° 09.5' W
Date and Time	:	13 June 1999, 1608 (UTC+1)

## **SECTION 1 - FACTUAL INFORMATION (All times are UTC+1 hour)**

### **1.1 Description of vessels**

#### *Toisa Puffin*

*Toisa Puffin* was originally designed as an offshore supply vessel for operation in the Gulf of Mexico. After she was bought by her current owner, she was converted to a safety stand-by vessel to accommodate the demand for this type of vessel in the North Sea oil and gas industry.

The bridge and accommodation of the vessel were situated forward, which allowed a clear cargo/working deck aft. However, during her conversion to a safety stand-by vessel a hospital module was fitted on to most of her main deck, leaving only a small working deck aft.

She was equipped with standard navigational equipment which included: Global Positioning System (GPS), radar with relative motion and Automatic Radar Plotting Aid (ARPA), gyro compass with autopilot, medium frequency (MF) radio, very high frequency (VHF) radio and echo sounder.

The helm position was situated centrally at the forward end of the bridge, with the navigational equipment and main engine controls strategically placed in an operating console either side.

There was a chart table on the starboard side of the bridge.

#### *LUC*

*LUC* was designed as a conventional stern trawler with one deck above the waterline.

The vessel was fitted with a three-quarter length shelterdeck. The wheelhouse was positioned amidships, with the working deck aft.

She was also equipped with standard navigational equipment which included: GPS, relative motion radar, magnetic compass with autopilot, MF radio, VHF radio and echo sounder.

*LUC* held a valid UK Fishing Vessel Certificate.

### **1.2 Background to the voyage**

*Toisa Puffin* was engaged on voyages of 28-30 days duration, mainly in the North Sea. After each voyage, she returned to port where a full change of crew and re-supply of the vessel took place.

A safety stand-by vessel normally remains within a 5-mile radius of the offshore installation she is contracted to. However, *Toisa Puffin* was engaged in duties which involved relieving

other safety stand-by vessels for 2 - 3 days at various installations, allowing these vessels to change crew and re-supply.

*LUC* operated daily from her home port of North Shields, working the inshore fishing grounds off the north-east coast of England.

### **1.3 Type of fishing**

*LUC* was engaged in bottom trawling. This is a method of fishing using a trawl net which is dragged along the seabed, and for which a slow trawling speed and high propeller torque are required.

While engaged in trawling, a fishing vessel is hampered by her fishing gear, which restricts her manoeuvrability.

### **1.4 The crews**

#### *Toisa Puffin*

*Toisa Puffin* carried a crew of 12: the master, mate, chief, second and third engineers, a cook and six ABs. In accordance with her safe manning certificate issued by the Bahamian authorities, *Toisa Puffin* carried two watchkeeping officers.

The master, an experienced seafarer, was the holder of a Class 1 Master Mariner certificate of competency. He had several years experience, having served on various vessels since 1972. He began working on safety stand-by vessels in 1993.

The mate was the holder of a Class 3 certificate of competency. He too was an experienced seafarer, having served on various vessels since 1979 and stand-by vessels since 1993. He had completed several voyages on *Toisa Puffin*.

#### *LUC*

*LUC* carried a crew of 2: the skipper and mate.

Under *The Fishing Vessels (Certification of Deck Officers and Engineer Officers) Regulations 1984*, she was required to carry at least one holder of a Class 2 (Fishing Vessel) certificate of competency.

The skipper was the holder of a certificate of service as a fishing vessel skipper, and the mate was the holder of a Class 2 (Fishing Vessel) certificate of competency.

The skipper, an experienced fisherman was also the owner. He had operated the vessel since she was built in 1980.

The mate, also an experienced fisherman, had been employed aboard the vessel since 1992.

## 1.5 Environmental conditions

The weather throughout the incident was a westerly wind of force 2 to 3 with a slight sea and low swell. The visibility was good. From 1304 until 1804 on 13 June 1999 the predicted tide was flooding in a south-easterly direction at an average rate of 0.7 knots.

## 1.6 Watchkeeping

The navigation watch on board *Toisa Puffin* when at sea, was shared between the master and mate, alternating six hours on, followed by six hours off. The mate was on watch from 1200 until 1800, and from 2400 until 0600.

An AB was always on call to attend the bridge and assist the master or mate when required.

The navigation watch was conducted by the skipper on board *LUC*, when at sea. He was joined in the wheelhouse by the mate, after he had processed the catch on deck. Normally the vessel had an average of two hauls per day. Processing the catch took approximately one hour after each haul.

At the end of the day the vessel returned to port, and both crew members spent the night at home.

## 1.7 Narrative of events (courses are true)

*Toisa Widgeon* relieved *Toisa Puffin* of her temporary stand-by duties at the Rowan Halifax platform in the Bessemer gasfield, at 1830 on 12 June.

*Toisa Widgeon* was the safety stand-by vessel contracted to the Rowan Halifax and was returning to the field after completing a change of crew and re-supply of the vessel.

*Toisa Puffin* then set a course for Aberdeen Bay to await further orders, as instructed by her manager. She also received instructions to remain within mobile telephone contact during the passage.

*Toisa Puffin* proceeded on a north-easterly course towards the coastline off Flamborough Head.

At 0500 on 13 June, *LUC* sailed from her home port of North Shields, bound for fishing grounds 8 miles east of the River Tyne. She reached the fishing grounds at 0630 and shot her fishing gear. *LUC* commenced towing firstly on an easterly course, then a southerly course, displaying the correct signal for a vessel engaged in trawling, consisting of two cones with their apexes together in a vertical line one above the other.

At 1100, *LUC* hauled her fishing gear and the catch was landed on board. By 1140 the gear was shot again and she began towing on a course of 315° at an approximate speed of 2.5 knots.

1191

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DEPTHS IN METRES



*Toisa Puffin*'s mate relieved the master on the bridge at 1200, in position 54°36.4'N, 000°31.7'W. The course steered was 323° at a speed of approximately 9 knots. One hour later, in position 54° 43.2' N 000° 42.4' W an alteration of course was made to 300°.

At approximately 1330 a fault occurred with the autopilot. It was the fourth time the mate had experienced an autopilot fault since most recently joining the vessel. However, he had not reported it to the master. Before the mate noticed this, *Toisa Puffin* had veered off course by 150° - 160°. The autopilot was not fitted with an off-course alarm. The mate switched off the power to the autopilot, and then switched it back on again. The autopilot then continued to operate satisfactorily.

At 1430 in position 54° 48.9' N 001°00.6 W, a further alteration of course was made to about 335° to maintain a parallel track with the coastline in accordance with the passage plan.

An audible alarm alerted the mate at 1520 that the port navigation light was not working. He then switched both radar sets to stand-by mode, left the bridge unattended, and climbed on to the monkey island to change the bulb. He returned 5 - 6 minutes later, switched the radars back to the operating mode, and continued to navigate the vessel.

At approximately 1530, the mate detected a target on the radar. It was not plotted by the vessel's ARPA as the mate considered this was unnecessary. However, he estimated that the target was bearing approximately north-east 4 miles away.

At about 1545 the mate altered course to 350° and acquired the target on the vessel's ARPA, from which he interpreted the following information: distance 2.6 miles, CPA 1.2 miles, time of closest point of approach (TCPA) 18 minutes, course 315°, speed 3.0 knots. However, there is conflicting evidence as to whether the bearing of the target was 060° or 3 points on the starboard bow. The mate plotted a position on the chart for 1545 of 54°57.5' N 001°08.2'W, and made an entry in the deck log book.

The mate was under the impression he altered course before acquiring the target.

He could then see a vessel visually and considered it was a fishing vessel, although he could not detect any signal to indicate she was fishing at the time.

Course and speed were maintained, based on the information the mate interpreted from the ARPA. He monitored the other vessel visually for a short while and then went to the chart table to plot a position on the chart for entry into the deck log book at 1600. The mate also found it necessary at that time to transfer the position from one chart to another.

On board *LUC* both the skipper and the mate were in the wheelhouse. They first detected *Toisa Puffin* approximately 4 miles off their port quarter on a northerly heading. Although they took no bearings they did consider that a risk of collision might exist. Course and speed were maintained; being engaged in trawling, they interpreted that they were the stand-on vessel under the *International Regulations for Preventing Collisions at Sea (Collision Regulations)*.

When the distance between the vessels had decreased to approximately 1 mile, the skipper became concerned. He could make out the other vessel's name using binoculars and, as the



distance between the vessels continued to decrease, he called *Toisa Puffin* on VHF radio, channel 16, to ascertain her intentions.

The skipper had experienced close encounters with this type of vessel before, when they would come alongside in an effort to observe fishing operations. This often happened when ex-fishermen were employed on vessels, so he thought this to be the case on this occasion.

He received no reply, so called again. The skipper then eased back on main engine revolutions to reduce speed. Both the skipper and the mate then donned their lifejackets as a precaution. The distance between the vessels had now reduced to less than 200m. In a last attempt to avoid a collision, the skipper de-clutched the propeller in the hope that the weight of the fishing gear would pull the vessel astern. He then sounded the whistle to attract attention.

Having been alerted, the mate on board *Toisa Puffin* looked up from the chart table and realised that a collision was imminent. He hurried forward to the helm control, switched from autopilot to hand steering and began taking avoiding action by first altering course hard to port, and then reducing main engine revolutions. He was unable to alter course to starboard because of the close proximity of the other vessel, which was now less than 50m away. The mate interpreted that *LUC* had altered course to port since the last time he had monitored her.

As *Toisa Puffin* came hard to port, her starboard quarter collided with *LUC*'s port bow, before she eventually passed ahead.

At 1608, immediately after the collision, *LUC*'s skipper contacted Tyne Tees Coastguard and reported the situation. The mate went below into the engine room to check for damage. Several plates above the waterline had buckled, but there was no ingress of water.

On board *Toisa Puffin* the mate de-clutched the propeller, and called the master to the bridge. On his arrival the master contacted *LUC* and Tyne Tees Coastguard, and stood by to offer help if required. Meanwhile *Toisa Puffin*'s crew were mustered and instructed to check for damage. The starboard quarter bulwark and deck stanchions had been indented over a length of 4m. *Toisa Puffin*'s fast rescue craft (FRC) was launched to make a full appraisal of the damage to both vessels.

At 1619 Tynemouth lifeboat was launched and tasked to the scene. At 1640, *Northards*, a vessel which had been fishing approximately 1.5 miles to the east of *LUC*, arrived on scene and stood by to offer any assistance.

Tynemouth lifeboat arrived on scene at 1655, and one of her crew boarded *Toisa Puffin*. The vessel's details were exchanged with *LUC*. Shortly afterwards, *Northards* was released by Tyne Tees Coastguard, *Toisa Puffin* continued on passage towards Aberdeen, and *LUC* was escorted back to North Shields by the lifeboat. She arrived safely alongside later that evening.

## **1.8 International Regulations for Preventing Collisions at Sea 1972 (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 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(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 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 17(b) states:

*When, from any cause, the vessel required to keep her course and speed finds herself so close that collision cannot be avoided by the action of the give-way vessel alone, she shall take such action as will best aid to avoid collision.*

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.*

Rule 34(d) states:

*When vessels in sight of one another are approaching each other and from any cause either vessel fails to understand the intentions or actions of the other, or is in doubt whether sufficient action is being taken by the other to avoid collision, the vessel in doubt shall*

*immediately indicate such doubt by giving at least five short and rapid blasts on the whistle. Such a signal may be supplemented by a light signal of at least five short and rapid flashes.*

## **1.9 Navigational watch**

Section A- VIII/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 *Lookout*, Paragraph 14 states:

*The lookout must be able to give full attention to the keeping of a proper lookout and no further 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 lookout 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 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.*

## **1.10 Use of VHF radio in collision avoidance**

Guidance and advice in use of the VHF radio in collision avoidance is given in *Marine Guidance Note MGN 27 (Dangers in the use of VHF Radio in Collision Avoidance)*.

Paragraph 3, in part states:

*Valuable time can be wasted while mariners on vessels approaching each other try to make contact on VHF radio instead of complying with the requirements of the Collision Regulations.*



Figure 5 - Damage to *LUC*



Figure 6 - Damage to *Toisa Puffin*

## SECTION 2 - ANALYSIS

### 2.1 Possible autopilot failure

**2.1.1** In view of the recurring problem with *Toisa Puffin*'s autopilot, the possibility that it failed and was a contributory factor in the collision was considered. However, both the skipper and the mate on board *LUC* first detected *Toisa Puffin* 4 miles off their port bow on a steady northerly heading. They did not detect any erratic alteration of course, apart from a broad alteration of course to port immediately before the vessels collided. This was made by the mate on board *Toisa Puffin* in an attempt to avoid the collision. Before altering course he switched from autopilot to hand steering.

**2.1.2** Although there was a recurring problem with the autopilot, there is no evidence to suggest that autopilot failure contributed to the collision.

### 2.2 Interpretation of available evidence

#### 2.2.1

- The collision occurred at 1608.
- The course steered by *LUC* before the collision was 315° at a speed of 2.5 knots.
- The course steered by *Toisa Puffin* before the collision was 350° at a speed of 9 knots.
- *Toisa Puffin* altered course from 335° to 350° at about 1545.

The mate on board *Toisa Puffin* interpreted the following information from the ARPA radar plot at about 1545:

- Distance 2.6 miles.
- Course 315°.
- Speed 3.0 knots.
- CPA 1.2 miles.
- TCPA 18 minutes.

However, conflicting evidence exists as to whether the bearing was 060° or 3 points on the starboard bow.

#### 2.2.2 Scenario 1

Based on the following assumptions;

1. The target was *LUC*
2. Time of collision 1608
3. Course and speed of *LUC* 315° at 2.5 knots
4. Course and speed of *Toisa Puffin* 350° at 9.0 knots
5. Distance of target at time of observation 2.6 miles

the resultant plot gives the following information;

- a. Bearing of target 002° True, 12° Relative
- b. CPA 0
- c. TCPA 22 minutes

### 2.2.3 Scenario 2

Based on the following assumptions;

1. The target was *LUC*
2. Time of observation 1545
3. Course and speed of *LUC* 315° at 2.5 knots
4. Course and speed of *Toisa Puffin* 335° at 9.0 knots
5. Distance of target at time of observation 2.6 miles

the resultant plot gives the following information;

- a. Bearing of target 004° True, 29° Relative
- b. CPA 0.9 miles
- c. TCPA 22 minutes

From the above scenarios it is concluded that if the target was *LUC* she was approximately 3 points on *Toisa Puffin*'s starboard bow at the time of observation.

It is also concluded that the mate on board *Toisa Puffin* acquired the target on the ARPA before altering course to 350°. After the alteration of course no further radar plotting was carried out.

### 2.2.4 Scenario 3

At the time of the accident, *Northards* was fishing approximately 1.5 miles to the east of *LUC*, and it is possible that other vessels were also within radar range. In view of the uncertainty and conflicting nature of the available evidence, and the existence of at least one other vessel in the vicinity of *Toisa Puffin*, it is possible that the mate mistook *LUC* for the target he observed on the radar.

## 2.3 Events leading to the collision

**2.3.1** The mate on board *Toisa Puffin* first detected a target on the radar at 1530. He did not plot the target, as he considered by his estimate of range and bearing there was no risk of collision.



**2.3.2** At about 1545 he acquired the target on the vessel's ARPA and then altered course from 335° to 350° to maintain a parallel track with the coastline. Having only altered course by 15° he mistakenly relied on the information he had previously received from the ARPA, and considered there was still no risk of collision.

**2.3.3** After steadying on the new course, the time was now approaching 1600. He was probably aware from the last time he looked at the chart that the 1600 position would have to be transferred on to a subsequent chart.

**2.3.4** In preparation for obtaining the 1600 position and transferring it to another chart, he began busying himself at the chart table. He was still busy here when he was alerted, either by the second call on the VHF radio, or by the sound of the whistle from *LUC*. He looked up from the chart table, and realised a collision was imminent. He did not have time to answer the call, but hurried forward to the helm position and came hard to port, and reduced engine revolutions in an attempt to avoid the collision.

## **2.4 Action by *Toisa Puffin's* mate**

**2.4.1** Before altering course, the mate acquired the target on the vessel's ARPA. Based on the information provided by the ARPA he considered that a risk of collision did not exist. He did not predict the consequences of an alteration of course. Had a further radar plot been made after altering course, he would have been made aware that if the target was in fact *LUC*, the vessels were on collision courses.

**2.4.2** Some time after altering course to starboard, which was at 1545 or shortly afterwards, he went to the chart table and prepared to plot the vessel's position and transfer it from the current chart in use to the next one in sequence. Meanwhile, a proper lookout was not maintained, contrary to Rule 5 of the Collision Regulations.

**2.4.3** After altering course the mate should have made a full appraisal of the situation by sight and other available means, including continued plotting and a prediction on the ARPA radar. The collision could then have been avoided.

**2.4.4** Had it been deemed absolutely necessary at that particular time to plot the vessel's position on the chart, the mate could have called the available AB to the bridge to act as a lookout. The lookout could then have given early warning of a risk of collision, and avoiding action could have been taken in ample time. It would also have been wise for the mate to have called the available AB to the bridge after the autopilot had failed and while replacing the port navigation light bulb to ensure a proper lookout was maintained.

## **2.5 Deck log book entry**

**2.5.1** While it remains good practice to make regular and timely entries in the deck log book, there will be occasions when a particular entry will have to be postponed because of other more important tasks for the officer of the watch to perform while navigating a vessel.

**2.5.2** In this case, the mate's overriding concern appears to have been to plot the position of the vessel on the charts in question and to make an entry in the deck log book for 1600. The more important task of maintaining a proper lookout and monitoring the other vessel became secondary.

**2.5.3** It would have been sufficient, and would have taken only a matter of seconds, to record the position of the vessel from the GPS receiver on a scrap of paper. The position could then have been plotted on the charts, and an entry made in the deck log book later. More importantly it would have allowed the mate to maintain a proper lookout.

## **2.6 Action by *LUC*'s skipper**

**2.6.1** When *LUC*'s skipper realised that both vessels were on collision courses, he should have made the appropriate sound signal in ample time in accordance with Rule 34(d) of the Collision Regulations, rather than waste valuable time trying to make contact by VHF radio. The appropriate sound signal made at an early stage, would probably have alerted the mate of *Toisa Puffin* in time for him to take avoiding action.

**2.6.2** The subsequent action taken by the skipper was not effective in preventing a collision. Although action was taken in accordance with Rule 17(a)(ii) and (b) of the Collision Regulations, it was not made in ample time.

**2.6.3** An immediate alteration of course to starboard may have been more effective, rather than de-clutching the propeller in the hope that the weight of the fishing gear would pull the vessel astern.

## **2.7 Unsafe practice**

**2.7.1** One of the reasons why *LUC*'s skipper did not take avoiding action until the last minute, was because he thought *Toisa Puffin* was coming close alongside to observe fishing operations, a manoeuvre he had previously experienced with other stand-by vessels.

**2.7.2** Coming close alongside a vessel, or allowing another vessel to come close alongside, for other than operational reasons or in an emergency, is extremely hazardous and contravenes the Collision Regulations. This type of manoeuvre should be avoided at all times. Fortunately, the collision resulted in only minor damage to both vessels; it could have been a lot worse, and could have resulted in serious injury or loss of life.

**2.7.3** The skipper would probably have taken avoiding action earlier if he neither had thought, nor had reason to think, *Toisa Puffin* was coming alongside to observe fishing operations.



Figures 7, 8, 9, 10 - Sequence of photographs immediately before collision





Sequence of photographs continued



## SECTION 3 - CONCLUSIONS

### 3.1 Cause

The collision was caused by the mate of *Toisa Puffin* failing to detect he was on a collision course with another vessel early enough to take effective avoiding action.

### 3.2 Contributory causes

1. The mate of *Toisa Puffin* failing to maintain a proper lookout, contrary to the Collision Regulations. [2.4.2]
2. The mate of *Toisa Puffin* failing to make a full appraisal of the situation after altering course to 350°. [2.4.3]
3. The mate of *Toisa Puffin* being more concerned with plotting a position on the chart and making a log book entry than with keeping a proper lookout. [2.5.2]
4. The skipper of *LUC* failing to make the appropriate sound signal at an early stage, contrary to Rule 34(d) of the Collision Regulations. [2.6.1]
5. The skipper of *LUC* failing to take avoiding action in ample time. [2.6.2]
6. The skipper of *LUC* assuming *Toisa Puffin* was coming close alongside to observe fishing operations. [2.7.1]

### 3.3 Other findings

1. Autopilot failure was not a contributory cause of the accident. [2.1.2]
2. The mate of *Toisa Puffin* assumed that a risk of collision did not exist, based on the information he obtained from the vessel's ARPA radar before altering course. [2.2.3, 2.4.1]
3. Full use of the vessel's ARPA radar would have alerted the mate of *Toisa Puffin* to the danger of a collision. [2.4.3]
4. Contrary to the advice provided in *Marine Guidance Note MGN 27*, the skipper of *LUC* wasted valuable time trying to make contact with *Toisa Puffin* by VHF radio. [2.6.1]

## **SECTION 4 - RECOMMENDATIONS**

The MAIB has no safety recommendations to issue at this time.

**Marine Accident Investigation Branch**  
**May 2000**