

Collision between MV *PHILIPP* AND FV *LYNN MARIE* 6nm south of the Isle of Man 9 April 2011

Extract from The United Kingdom Merchant Shipping (Accident Reporting and Investigation) Regulations 2005 – Regulation 5:

“The sole objective of the investigation of an accident under the Merchant Shipping (Accident Reporting and Investigation) Regulations 2005 shall be the prevention of future accidents through the ascertainment of its causes and circumstances. It shall not be the purpose of an investigation to determine liability nor, except so far as is necessary to achieve its objective, to apportion blame.”

NOTE

This report is not written with litigation in mind and, pursuant to Regulation 13(9) of the Merchant Shipping (Accident Reporting and Investigation) Regulations 2005, shall be inadmissible in any judicial proceedings whose purpose, or one of whose purposes is to attribute or apportion liability or blame.

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SUMMARY

At 0453 UTC on 9 April 2011, the Gibraltar registered, container feeder vessel *Philipp* collided with the United Kingdom registered scallop dredger FV *Lynn Marie* 6nm south of the Isle of Man. There were no injuries or pollution, but *Lynn Marie* was badly damaged and was towed to Port St Mary, Isle of Man.

After the collision, *Philipp* did not stop and neither her officer of the watch (OOW) nor her master tried to communicate with *Lynn Marie* to see if the fishing vessel required assistance. *Philipp* was about 20nm away from the location of the collision when her master eventually informed the coastguard of his vessel's involvement.

The MAIB investigation identified that *Philipp's* OOW had not properly assessed the risk of collision with *Lynn Marie* and that his actions to try and avoid the fishing vessel were contrary to the requirements of the collision regulations.

Lynn Marie's wheelhouse watchkeeper did not notice *Philipp's* alterations of course towards his vessel and did not realise that collision was imminent until it was too late to take effective avoiding action.

A recommendation has been made to *Philipp's* managers aimed at raising the competency of its bridge watchkeeping officers and ensuring that the navigation and anti-collision aids fitted on board its vessels are used effectively.

Image courtesy of www.fotoflite.com



MV *Philipp*

Image courtesy of www.trawlerphotos.co.uk



FV *Lynn Marie*

FACTUAL INFORMATION

Environmental conditions

Nautical twilight was at 0411 and civil twilight was at 0457. There were light airs and the sea state was calm. Visibility was between 6nm and 8nm.

Narrative

Philipp

Philipp sailed from Liverpool at 2300 on 8 April 2011 with a river pilot on board. When the river pilot disembarked at about 0100 the following morning, *Philipp's* master remained on the bridge with the second officer and the able seaman (AB) lookout until 0230, when he retired to his cabin to sleep.

Between 0350 and 0400, the chief officer relieved the second officer as the OOW. The vessel was on an autopilot controlled heading of 298° at a speed of 16.5 knots. After taking over the watch, the chief officer sat in the forward-facing chair sited on the starboard side of the centreline control console (**Figure 1**) from where he could see electronic chart system (ECS) with overlaid automatic identification system (AIS) information on the display directly in front of him.

The display on the port side of the centreline console was configured to show 'X'-band automatic radar plotting aid (ARPA) radar information. The

radar was operating in long pulse and the display was switched to the 6nm range scale, north up and in relative motion. The radar origin was offset to the south east, enabling a detection range ahead of the vessel of about 9nm. The ARPA alarms were set to activate for radar targets with a closest point of approach (CPA) of zero within 2 minutes. Automatic target acquisition was not selected. AIS information was also overlaid on the port display.

At 0424, the chief officer adjusted the autopilot heading to 288° in order to increase the passing distance of a fishing vessel on the starboard bow. Once clear of the fishing vessel, the autopilot heading was reset to 298°. At 0439, the chief officer again adjusted the vessel's heading further to starboard to 314° in order to keep clear of two fishing vessels that had sailed from the Isle of Man and were on the starboard bow and heading south (**Figure 2**). The nearer of these two fishing vessels was at a range of 1.1nm.

By 0445, the two southbound fishing vessels were clear on the port quarter. The lookout and chief officer then saw two further fishing vessels on the starboard bow (**Figure 3**). The nearer of the two fishing vessels was at a range of 2nm and was later identified as *Boys Pride*. The further of the two fishing vessels was later identified as *Lynne Marie*. The chief officer was also concerned about a number of other fishing vessels on *Philipp's* starboard side, and he set the autopilot heading to 298° to alter the vessel's heading to port in

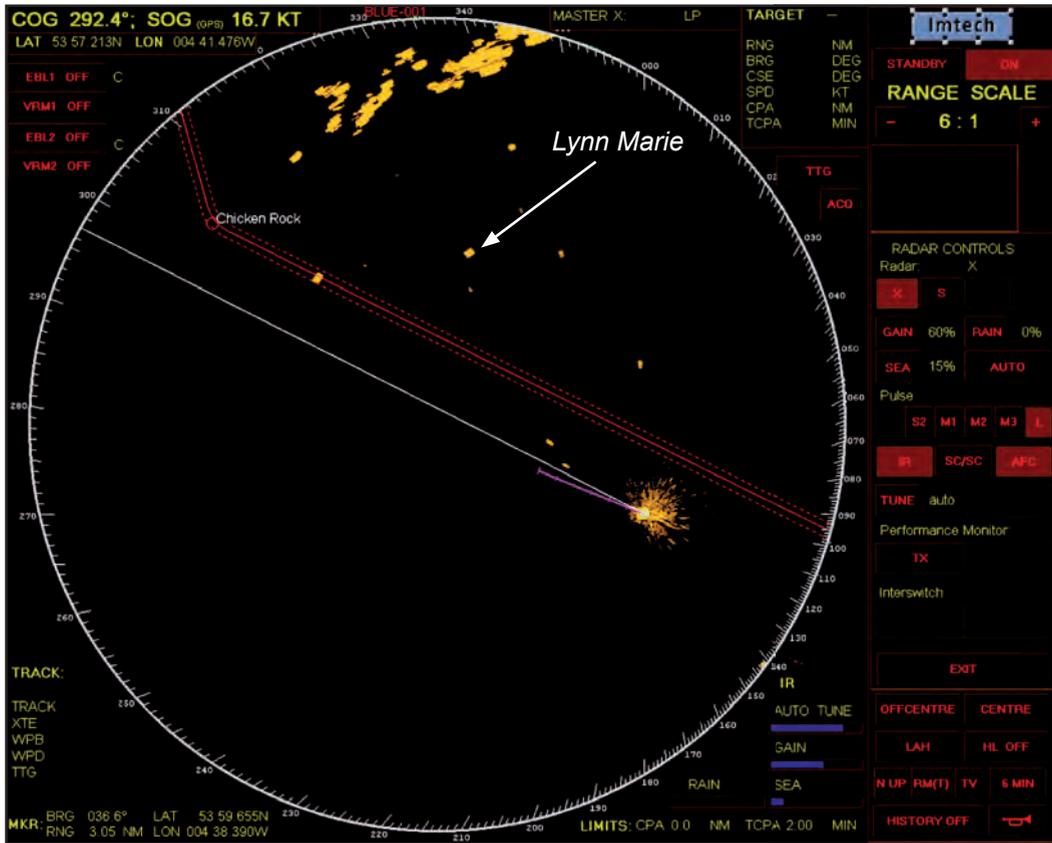
order to avoid the two fishing vessels. At 0449, as *Boys Pride* began to cross *Philipp's* bow (**Figure 4**), the chief officer adjusted the autopilot heading further to port to 285°.

Boys Pride soon passed close down *Philipp's* starboard side, and at 0451 the AB reported that *Lynne Marie* was now very close on the starboard bow (**Figure 5**). The fishing vessel's red side light, white masthead light and aft deck lights were clearly visible. The chief officer moved from his seat and



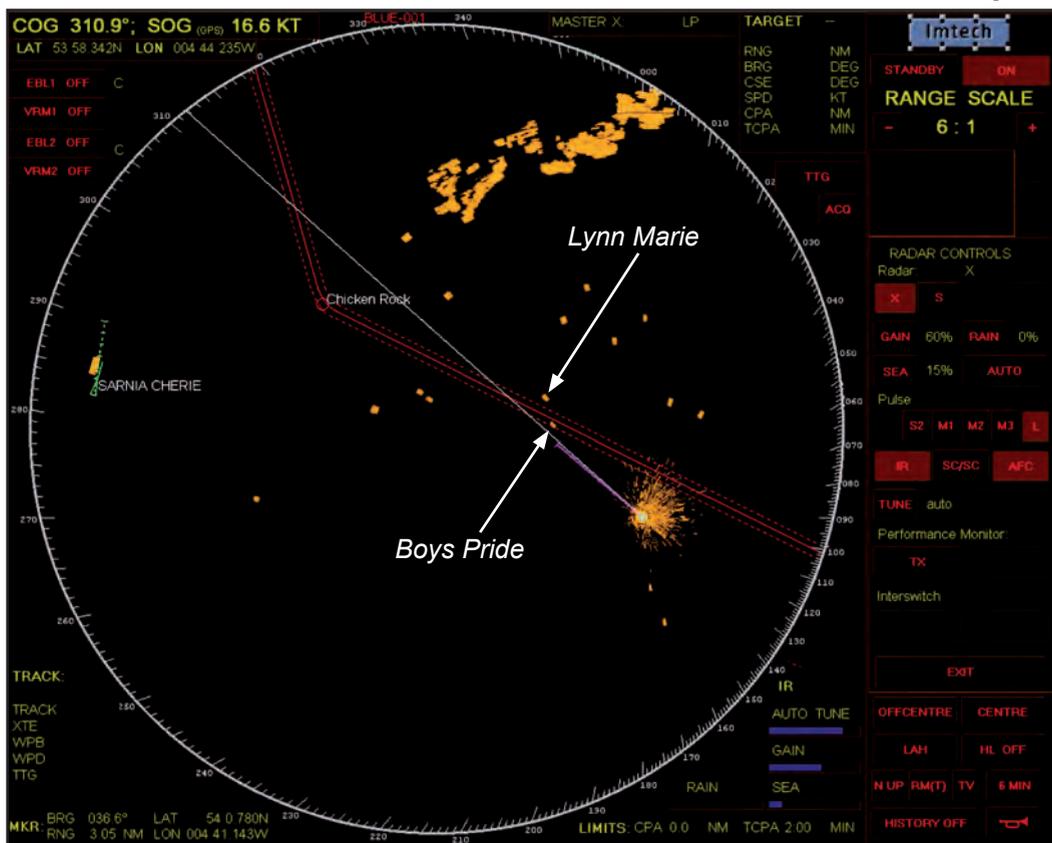
Centreline control console

Figure 2



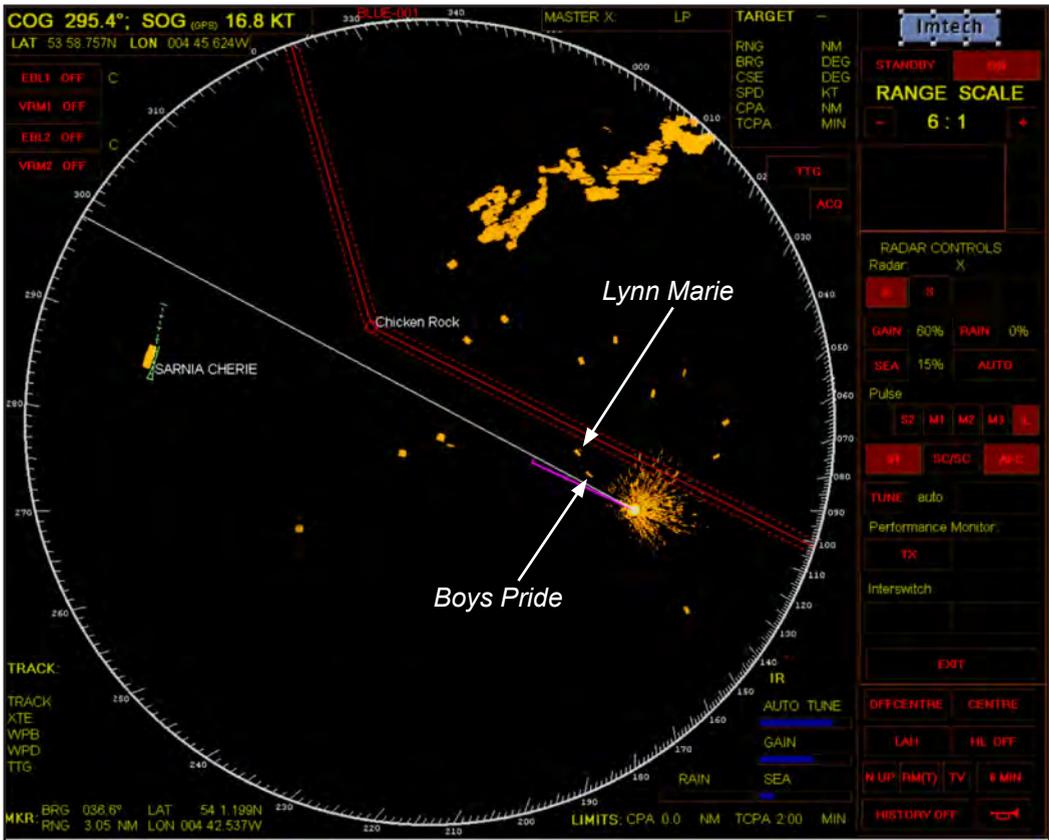
04:38:21 - just before alteration of course to starboard - 314°

Figure 3



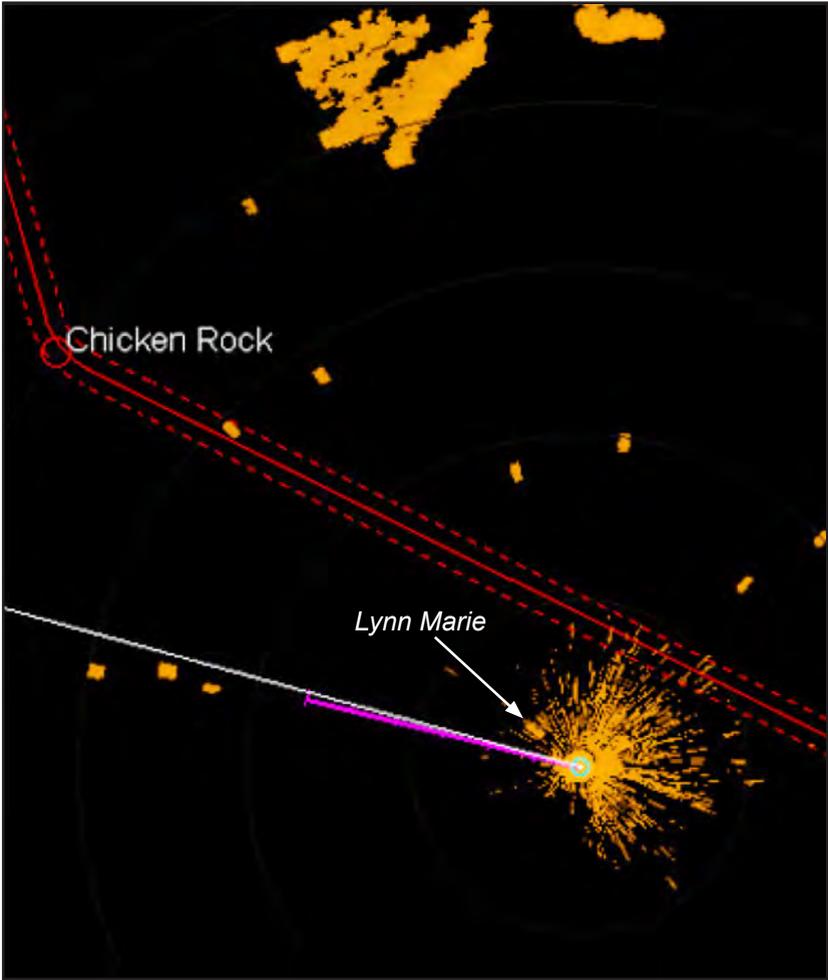
04:45:46 - just before alteration of course to port - 298°

Figure 4



04:49:00 - Boys Pride fine to starboard just before alteration of course to port - 285°

Figure 5



04:51:44 - Lynn Marie close on starboard bow just before alteration of course to port - 243°

adjusted the autopilot override joystick sited on the centreline console in order to turn the container ship to port towards a similar heading to *Lynn Marie's*; a maximum of 8° of helm was applied.

The distance between *Philipp* and *Lynn Marie* continued to reduce, so the chief officer sounded five short blasts on the ship's whistle and the lookout shone a searchlight towards the fishing vessel. The chief officer also moved from the centreline to the starboard side of the bridge to get a clearer view of the rapidly closing fishing vessel. At 0453, the starboard side of the container ship hit *Lynn Marie's* port outrigger; the container ship was still under helm to port and her heading was passing through 250°. *Philipp* suffered cosmetic damage to her starboard side in way of bay 28.

Lynn Marie

Lynn Marie sailed from Port St Mary, Isle of Man at 0400 on 9 April 2011. The skipper manoeuvred his vessel clear of the harbour while the crew lowered the outriggers on the port and starboard quarters. The skipper set a heading of 207° on the autopilot to take the vessel toward her fishing ground. He also adjusted the engine throttle to give the vessel a speed of 8 knots over the ground.

Lynn Marie's skipper then handed the wheelhouse watch to the mate and instructed him to ensure that the vessel followed the track displayed on the chart plotter. *Boys Pride* was about 0.5nm off *Lynne Marie's* port bow and was making good a similar course and speed. The skipper then joined the vessel's two deckhands in the accommodation in order to rest prior to the day's scallop dredging.

The mate kept his watch sitting in the wheelhouse chair, from where he was able to monitor the chart plotter and radar, and could see out of the wheelhouse windows from right ahead to about 30° abaft each beam. The wheelhouse radar display was set on the 6nm range scale.

At about 0430 the mate detected a radar target, later identified as *Philipp*, at a range of between 3nm and 4nm on the port bow. He considered that the target would pass clear down *Lynn Marie's* port side. Shortly afterwards, the mate saw a white and a green light on the same compass bearing to the radar target and thought that *Philipp* had altered course to starboard and would still pass clear down the port side of *Lynn Marie*.

The mate monitored *Philipp's* radar target until it was lost in the sea clutter close to the centre of the radar display. He then stood up from his seat and looked out of the port aft wheelhouse window, where upon he saw the container ship bearing down onto *Lynn Marie* from abaft the port beam: he did not hear the container ship sound her whistle. The mate tried to adjust his vessel's speed but grabbed the winch control handle instead of the engine throttle. Almost immediately, *Philipp* struck *Lynne Marie's* port outrigger, which caused the fishing vessel to pivot to port. As a result, her port bow and stem post made heavy contact with *Philipp's* starboard side.

Post-collision actions

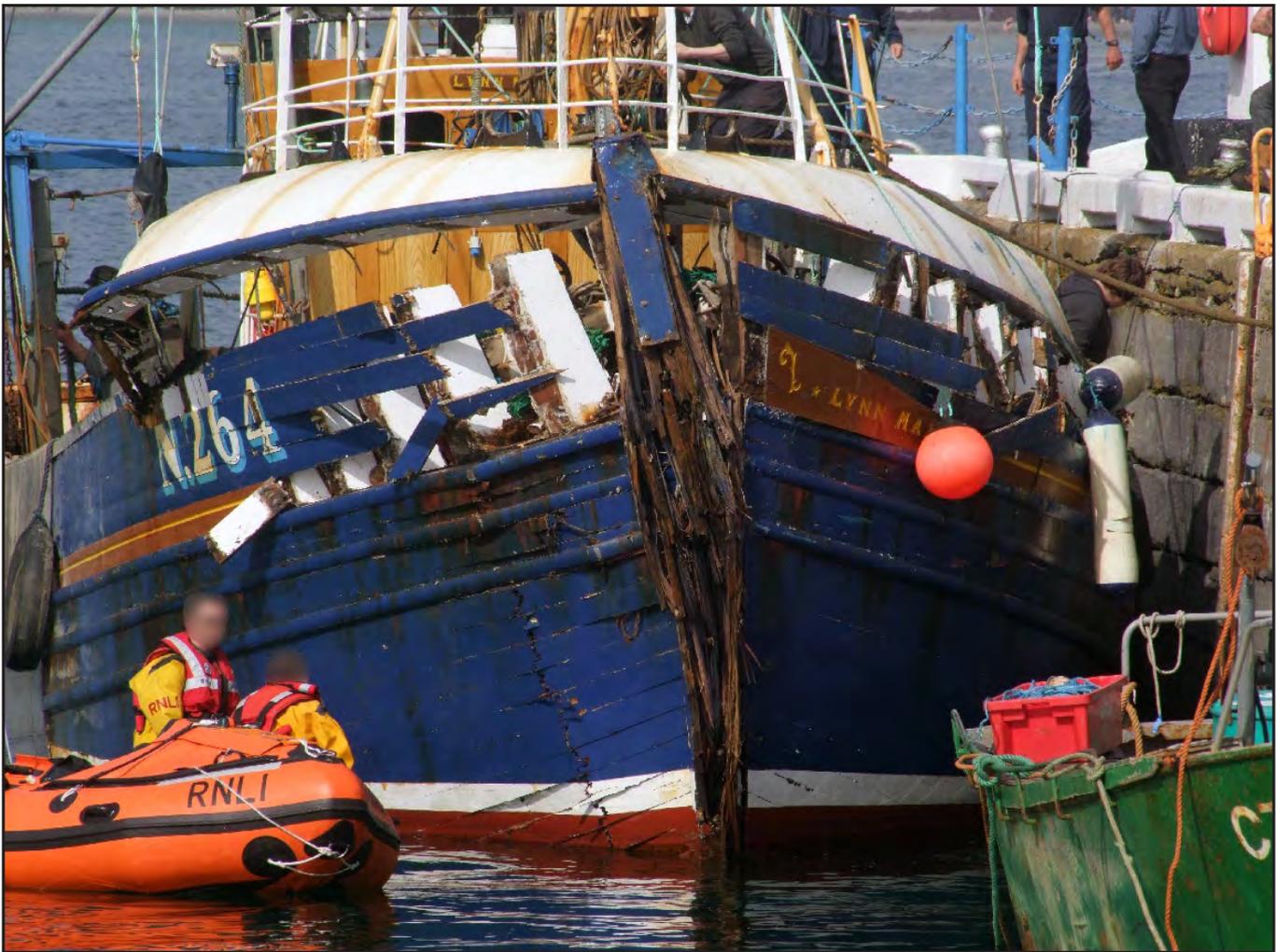
Lynn Marie

Lynn Marie's skipper and deckhands were alerted by the impact and immediately went onto the vessel's weather deck, where they released the vessel's liferaft from its stowage, started two general service pumps, and began a search of the vessel for damage and water ingress. The search revealed that the fish hold had begun to flood and, at 0501, *Lynne Marie's* skipper informed Liverpool Coastguard on very high frequency (VHF) radio channel 16 that his vessel had been hit by a coaster, and was taking on water. He also informed the coastguard that *Boys Pride* was standing close by. The coastguard immediately tasked the launch of a Royal National Lifeboat Institution (RNLI) lifeboat, which then proceeded to assist *Lynn Marie*. A customs launch and several other fishing vessels also attended at the scene. Four portable pumps were transferred to *Lynne Marie* and were used to pump water from the vessel's fish hold while the RNLI lifeboat towed her stern-first back to Port St Mary.

Lynn Marie suffered major damage to planking and frames on the port and starboard bow, stem post, whaleback and port outrigger (**Figure 6**).

Philipp

Philipp's chief officer and the lookout were both aware that *Philipp* had struck *Lynn Marie*, but the chief officer's immediate concern was avoiding several more fishing vessels which were now about 2nm on the starboard bow (**Figure 5**). He therefore continued to turn *Philipp* to port in order to pass them at a safe distance; he did not hear *Lynn Marie's* skipper call the coastguard. By 0506,



Damage sustained to *Lynn Marie*'s bow

the chief officer was satisfied that *Philipp* was clear of the fishing vessels, so he called the master to inform him of the collision with *Lynn Marie*; *Philipp* continued on passage at a speed of 16.5kts.

The master immediately went to the bridge, from where he organised his crew to check for damage. He also informed the vessel's manager of the collision by telephone. The ship's manager prompted the master to report the collision to the coastguard, which he did at 0610. In view of *Philipp*'s distance from *Lynne Marie*, and the assistance already being provided by other vessels, the coastguard allowed *Philipp* to continue with her passage to Greenock, Scotland.

At the request of the MAIB, the coastguard instructed *Philipp*'s master to save the data on the vessel's simplified voyage data recorder (SVDR). This action was taken, but when the information was downloaded by MAIB inspectors on 10 April 2011, no bridge audio data was available.

Bridge and wheelhouse equipment

Philipp

Philipp was fitted with an IMTECH integrated bridge system comprising two multi-functional displays fitted either side of a centreline conning display (**Figure 1**). The displays were capable of displaying either electronic chart or ARPA information, and both were interfaced with the AIS. Engine, helm and autopilot controls were positioned adjacent to the conning display. Each bridge wing conning station was equipped with a single display, helm and engine controls, and a compass pelorus.

The ECS was not an approved electronic chart and display information system (ECDIS). The use of paper charts was therefore the approved method of navigation. The ship's manager had not issued any guidance or instructions to the watchkeepers on how the integrated bridge system should be used.

Lynn Marie

Lynn Marie's navigation equipment included a ship's head up radar display, a chart plotter, a global positioning system (GPS), an autopilot and an AIS receiver.

Vessels' crew

Philipp

Philipp's crew comprised 16 Filipino officers and ratings, but the working language on board was English. The master held a Standards of Training and Certification of Watchkeepers (STCW) II/2 unlimited master's certificate and had joined *Philipp* for the first time in January 2011. *Philipp* was the third vessel managed by Vega Reederei GmbH that the master had commanded.

The chief officer held an STCW II/2 master's certificate, limited to vessels of up to 3000 gross tonnage, and he had attended courses in the Philippines covering ECDIS, ARPA and bridge team management (BTM). He had been employed as a chief officer for 4 years and had joined *Philipp* for the first time in November 2010.

Lynn Marie

Lynn Marie's crew comprised her skipper, a mate and two deckhands. The skipper had held a Class 2 Skipper's Certificate of Competency since 1989 and one of the deckhands, the skipper's son, had recently been awarded a Sea Fish Industry Authority (Seafish) Skipper's Certificate of Competency for vessels less than 16.5m in length. The skipper and crew had completed training courses in safety awareness, fire-fighting, first-aid, and sea survival.

The mate had periodically worked on board fishing vessels and an offshore standby vessel. He had worked on board *Lynn Marie* between October and December 2010 and had rejoined the vessel on a full-time basis in February 2011. The mate did not fully understand the operation and limitations of most of the navigational equipment fitted in the wheelhouse, nor did he have a working knowledge of the International Regulations for the Prevention of Collisions at Sea (COLREGS).

Although based in Kilkeel, Northern Ireland, *Lynn Marie* had been operating from Port St Mary since 7 April 2011, sailing at about 0400 and returning at

approximately 2000 each day. The crew remained on board the vessel overnight while it was alongside in Port St Mary on 7 and 8 April.

Previous accidents

The MAIB is aware of 152 collisions between UK registered fishing vessels and merchant vessels in UK territorial waters which occurred between 1991 and 2010. These collisions resulted in the deaths of 23 fishermen. The MAIB report on its investigation into one of these accidents, the collision between the bulk carrier *Alam Pintar* and the fishing vessel *Etoile des Ondes* on 20 December 2009 (MAIB reports 11/2010), highlighted the potential consequences of a vessel failing to stop and render assistance: *Etoile des Ondes* was lost, one of her crew died, and three other crew were injured.

ANALYSIS

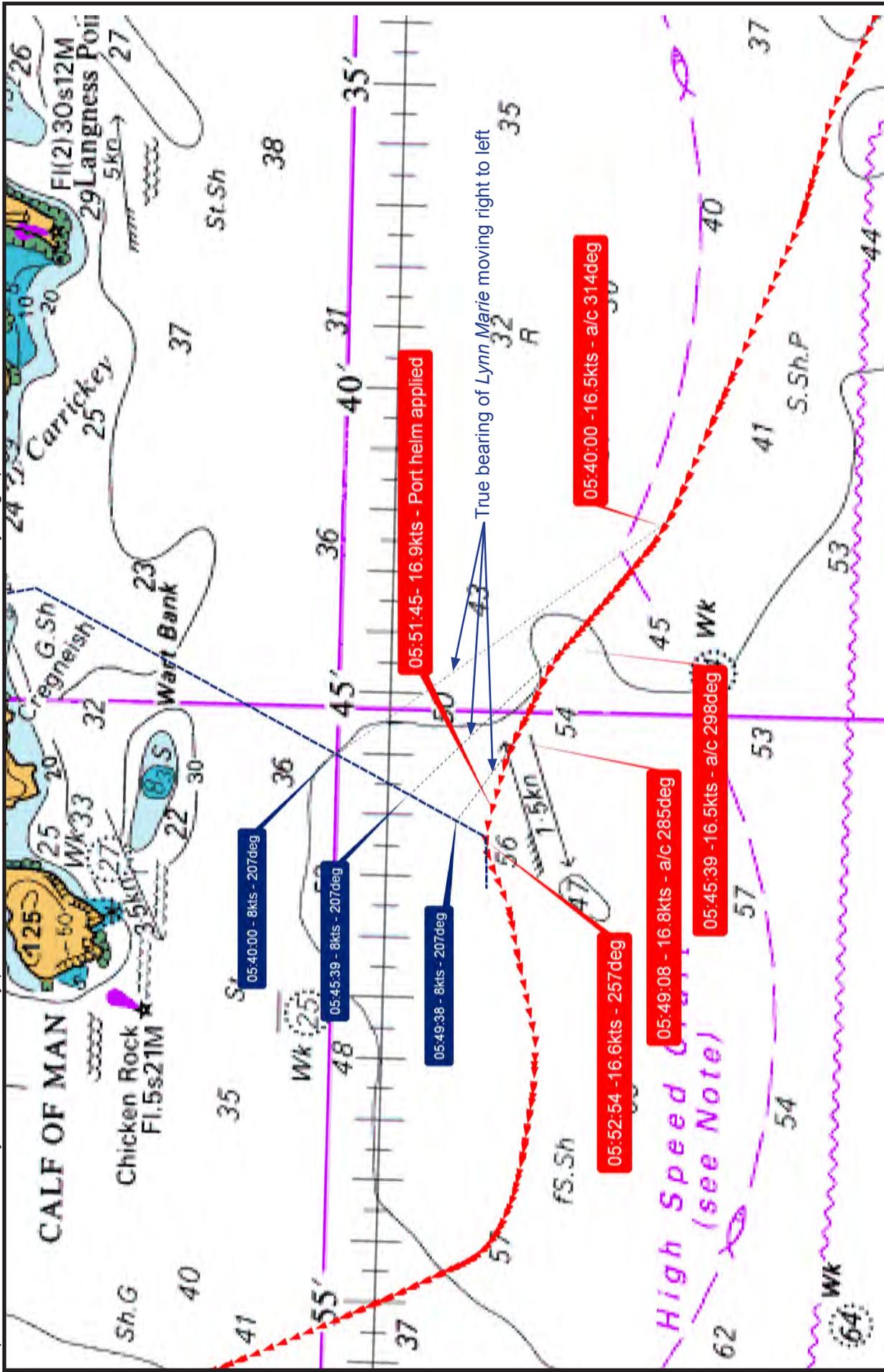
Reconstruction

A reconstruction of the ground tracks of *Philipp*, based on AIS and SVDR information, and of *Lynn Marie*, based on GPS information, is shown at **Figure 7**. From this reconstruction it is evident that between 0440 and 0450 the compass bearing of *Lynn Marie* from *Philipp* moved steadily from right to left, indicating that she was passing ahead of the container ship. This was also the case for *Boys Pride*. It is estimated that had *Philipp*'s chief officer kept the container ship heading 314°, instead of making successive small alterations to port, *Boys Pride* would have passed 1 mile ahead of *Philipp*, with a CPA of 3 cables on the container ship's port bow. *Lynn Marie* would have passed 1.5 miles ahead of *Philipp*, with a CPA of 6 cables also on the container ship's port bow.

The chief officer's adjustments of *Philipp*'s autopilot heading to port resulted in changing the CPA of *Boys Pride* from *Philipp*'s port bow to her starboard beam. More importantly, however, the adjustments to the autopilot and the chief officer's use of port helm shortly after 0451, led to the container ship following a curve of pursuit toward *Lynn Marie*'s port quarter while travelling at twice the speed of the fishing vessel.

Reproduced from Admiralty Chart BA 1826 by permission of the Controller of HMSO and the UK Hydrographic Office

Figure 7



Reconstruction of Philipp and Lynn Marie's ground tracks

Situational awareness

Philipp

It is clear from the chief officer's frequent adjustments to *Philipp*'s course during his bridge watch, that he was aware of the other vessels in the vicinity and had been taking action to avoid them. However, it is equally clear from the recorded radar information (illustrated in **Figures 2, 3, 4 and 5**), that he did not acquire any of the radar targets using ARPA. Consequently, the chief officer did not make full use of the information available to him regarding vessels' courses, speeds, bearing changes, and CPAs. His preference to predominantly remain seated at the starboard side navigational display, where only ECS and AIS information was available, also meant that he did not monitor the bearings of vessels in sight using the compass peloruses sited at each bridge wing.

The chief officer relied solely on his visual assessment of the relative movement of other vessels. Consequently, his situational awareness was much reduced and he was only able to deal with immediate shipping problems, rather than maintain an overview of the traffic situation and the likely consequences of his course alterations. The chief officer's lack of situational awareness also led to his inaccurate assessment of the risk of collision with *Lynn Marie* and *Boys Pride*, followed by his inappropriate avoiding action.

Lynn Marie

Lynn Marie's mate detected *Philipp* both by radar and visually when the container ship was at a distance of about 4nm. Although the mate did not know how to fully utilise the navigation equipment fitted in the vessel's wheelhouse, and was also unfamiliar with the COLREGS, his assessment that *Philipp* would pass clear down *Lynn Marie*'s port side was correct. As the distance between *Philipp* and *Lynn Marie* reduced, the mate was aware of the continued approach of the container ship but, because he was not closely monitoring or plotting her movements, he was unaware of her rapidly reducing CPA. Indeed, once *Philipp* began to pass *Lynn Marie*'s port beam, he considered that she was no longer a potential problem. He certainly was not expecting the container ship to alter course directly towards *Lynn Marie*.

Watchkeeping standards

Philipp

Figure 7 shows that the collision between *Philipp* and *Lynn Marie* resulted from a crossing situation in which *Philipp* was obliged to give way if a risk of collision existed. As *Philipp*'s chief officer had not accurately assessed the CPA of either *Lynn Marie* or *Boys Pride*, and because he was concerned by the proximity of other vessels on *Philipp*'s starboard side, he opted to alter course to port in increments to avoid the two fishing vessels ahead. In doing so, the chief officer's actions increased the risk of collision with both of the fishing vessels. His actions were also contrary to Rules 7, 8 and 15 of the COLREGS, which require:

- vessels to use all available means to determine if a risk of collision exists, including radar plotting and compass bearing observations;
- that any alteration of course be readily apparent and result in passing at a safe distance; and;
- that crossing ahead of another vessel be avoided.

Ship managers frequently assume deck officers' STCW certification guarantees a level of competency. While every deck officer should have a sound knowledge of the COLREGS and apply them correctly, regrettably a significant number of collisions, including this accident, indicate that this is not always the case. Furthermore, individuals' preference for how, and to what extent, navigational aids such as ARPA, AIS, ECS and ECDIS are used will vary considerably according to their knowledge and experience.

In order to raise and maintain bridge watchkeeping standards, it is important that vessel managers are proactive in ensuring that their bridge watchkeeping officers are competent, and that they have the knowledge and are provided with the guidance necessary to properly utilise the navigational aids fitted to their vessels.

Lynn Marie

When *Lynn Marie*'s mate eventually noticed *Philipp* bearing down on his vessel, the container ship would have been too close for any avoiding action to be successful. Therefore, although the mate grabbed the winch control lever, instead of the engine throttle, his mistake did not affect the outcome.

Up until 0445, *Philipp* would have passed clear astern of *Lynn Marie*. However, once *Philipp*'s OOW started altering his vessel's course to port, the risk of collision increased. During the 8 minutes from 0445 until the collision, *Lynn Marie*'s mate did not monitor *Philipp*'s movements and therefore did not detect that a risk of collision was developing. The skipper's decision to use an unqualified watchkeeper to navigate *Lynn Marie* to the fishing ground, through a relatively busy shipping area in the dark was questionable. Both the skipper and his son held fishing vessel watchkeeping certificates and were familiar with the vessel's navigation equipment. Therefore, arguably, it would have been prudent for one of them to be on the bridge during the passage. However, the actions of the watchkeeper on *Philipp* were such that the presence of a qualified watchkeeper in the wheelhouse of *Lynn Marie* may not have prevented the collision.

Post-collision actions

The United Nations Convention on the Law of the Sea (UNCLOS) 1982, Section 98 – Duty to render assistance, states that:

Every State shall require the master of a ship flying its flag, in so far as he can do so without serious danger to the ship, the crew or the passengers:

(c) after a collision, to render assistance to the other ship, its crew and its passengers and, where possible, to inform the other ship of the name of his own ship, its port of registry and the nearest port at which it will call.

It is therefore of serious concern that neither *Philipp*'s master nor her chief officer tried to communicate with *Lynn Marie* to determine whether the fishing vessel required assistance following the collision. Indeed, the master did not even report the accident to the coastguard until over 1 hour after the collision, and then he had to be prompted to do so by the ship's manager.

Although immediately following the collision the chief officer was focused on avoiding several more fishing vessels ahead, and he did not hear *Lynn Marie*'s skipper make a VHF call to the coastguard, there was no reason why he did not try and communicate with *Lynn Marie* as soon as it was safe to do so. Moreover, as the other fishing vessels were about 2nm away, there was sufficient sea-room available for the chief officer to immediately stop *Philipp* or reduce her speed without prejudice to her safety. Such action would have enabled the chief officer to quickly communicate with *Lynn Marie* and for *Philipp*'s crew to be on hand to assist if required.

Similarly, although the master was primarily concerned with establishing the extent of any damage to his own vessel when he first arrived on the bridge, a VHF call to *Lynn Marie* or the coastguard, and the manoeuvring of his vessel in readiness to provide assistance to the fishing vessel if needed, should also have been priorities.

In this case, it was fortunate that *Lynn Marie*'s skipper was able to contact the coastguard and that a lifeboat and several other vessels were at hand to render prompt assistance. In different circumstances, as shown by the collision between *Alam Pinter* and *Etoile des Ondes*, the failure of *Philipp*'s master and chief officer to comply with the UNCLOS requirement to render assistance could easily have resulted in a more tragic outcome.

CONCLUSIONS

- *Philipp*'s chief officer did not utilise the full extent of the information available to him regarding vessels' courses, speeds, bearing changes, and CPAs. Instead, he relied solely on his visual assessment of the relative movement of other vessels. This resulted in him making an inaccurate assessment of the risk of collision with *Lynn Marie*.
- The action taken by *Philipp*'s chief officer to avoid *Lynn Marie* did not comply with the requirements of the COLREGS, and led to the container ship following a curve of pursuit towards the fishing vessel.
- *Lynn Marie*'s wheelhouse watchkeeper correctly assessed that *Philipp* was initially passing clear, but did not notice the container ship's alterations of course towards his vessel until it was too late for him to take effective avoiding action.
- There is a need for vessel managers to ensure that their officers are competent, and that they are trained and capable of gaining the maximum benefit from the navigational aids available.
- *Lynn Marie*'s skipper's decision to use an unqualified wheelhouse watchkeeper, who did not fully understand the operation of the vessel's navigation equipment or have a working knowledge of the COLREGS, to take *Lynn Marie* to the fishing ground in a busy shipping environment and in the dark, was inappropriate.
- Neither *Philipp*'s master nor her chief officer tried to communicate with *Lynn Marie* to determine whether the fishing vessel required assistance following the collision.

RECOMMENDATIONS

Vega Reederei GmbH & Co KG is recommended to:

- 2011/137 Take measures to ensure its bridge watchkeepers are:
- Fully familiar with the requirements of the International Regulations for the Prevention of Collisions at Sea.
 - Provided with training and guidance such that the operation of navigation and anti-collision aids fitted to its vessels is understood and the equipment properly utilised.
 - Cognizant of their responsibilities under UNCLOS 1982, Section 98.

SHIP PARTICULARS

Vessel's name	<i>Philipp</i>	<i>Lynn Marie</i>
Flag	Gibraltar	United Kingdom
Classification society	Bureau Veritas	Not applicable
IMO number	9353735	Not applicable
Type	Container ship	Fishing vessel
Registered owner	MS Vega Philipp Schiffahrtsgesellschaft	Privately owned
Manager	Vega Reederei GmbH & Co KG	Not applicable
Construction	Steel	Wood
Length overall	154.85m	17.13m
Registered length	144.9m	15.55m
Gross tonnage	8971t	65t
Minimum safe manning	11	Not applicable
Authorised cargo	Containers	Not applicable

VOYAGE PARTICULARS

Port of departure	Liverpool	Port St Mary, Isle of Man
Port of arrival	Greenock	Port St Mary, Isle of Man
Type of voyage	Liner container feeder service	Scallop dredging
Cargo information	Containers	70 boxes of scallops
Manning	16	4

MARINE CASUALTY INFORMATION

Date and time	9 April 2011 on 0453 UTC	
Type of marine casualty or incident	Serious Marine Casualty	
Location of incident	53° 59.4'N 004° 47.5'W	
Place on board	Complete vessel	Complete vessel
Injuries/fatalities	None	None
Damage	None	Material damage
Ship operation	On passage	On passage
Voyage segment	Liverpool to Greenock	Port St Mary to Port St Mary
External & internal environment	Morning twilight, good visibility, sea state calm. The wind was light airs. Tidal stream – west-south-west at 1.4kts.	
Persons on board	16	4