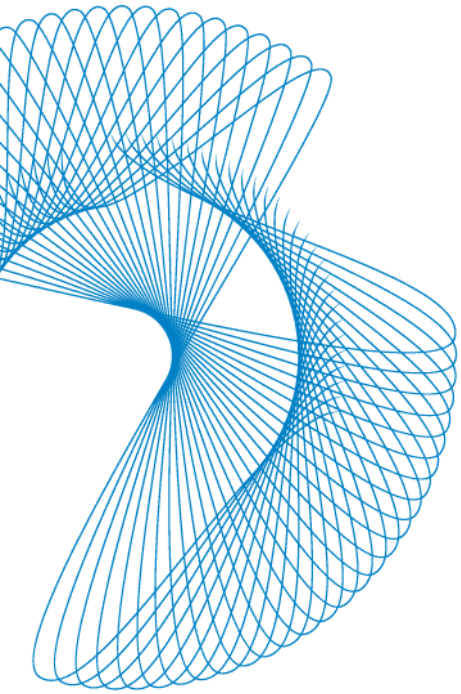
MARITIME NEW ZEALAND



Accident Report

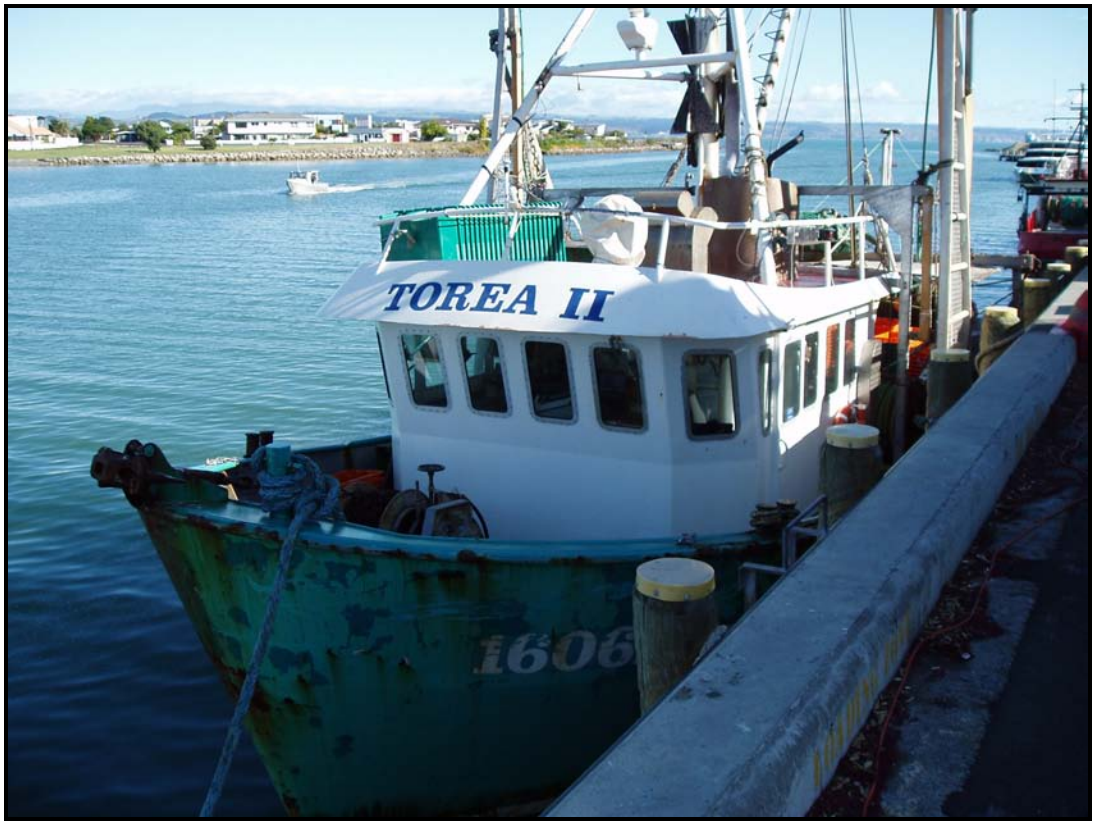
Collision

Torea II & *Lady Anna*

16 October 2005

Class A

Photograph 1
Lady Anna



Photograph 2
Torea II

REPORT NO.: 05 3868

VESSEL NAME: *TOREA II*

Ship Type:	Fishing
Certified Operating Limit:	Offshore, within 100 nautical miles
Port of Registry:	Auckland
Flag:	New Zealand
MSA No.:	101992
Built:	1992
Construction Material:	Steel
Length Overall (m):	17.13
Gross Tonnage:	64
Net Tonnage:	48
Registered Owner:	Torea Partnership
Ship Operator/Manager:	Pacific Trawling
SSM Company:	SGS-M&I
Accident Investigator:	Domonic Venz

REPORT NO.: 05 3868

VESSEL NAME: *LADY ANNA*

Ship Type:	Fishing
Certified Operating Limit:	Offshore, within 100 nautical miles
Port of Registry:	Nelson
Flag:	New Zealand
MSA No.:	101988
Built:	1992
Construction Material:	Wood
Length Overall (m):	15.16
Gross Tonnage:	43
Net Tonnage:	32
Registered Owner:	Ocean Blue Ltd
Ship Operator/Manager:	Ocean Blue Ltd
SSM Company:	SGS-M&I
Accident Investigator:	Domonic Venz

SUMMARY

During the early morning of Saturday 15 October 2005, two fishing vessels were trawling in Hawke Bay. The Skippers of both vessels had communicated late the previous evening and were aware of each other's intentions for the following 12 hours.

The Skipper of one vessel was keeping watch as they trawled in a broadly southeast direction. The Deckhand of the other vessel was on watch as they trawled in a broadly north north west direction. Both watch keepers identified the other on radar and visually for about 2 hours before the collision.

On collision, the stabiliser arms of both vessels made contact with each other causing damage to both vessels.

The two Skippers stopped their vessels, spoke, and then retrieved their trawl nets and returned to Napier for repairs.

The report concludes that both vessels displayed poor watch keeping practises which led to a collision between two fishing vessels in an otherwise traffic free Hawke Bay.

The report makes a number or recommendations including that both Skippers and the Deckhand on watch be censured and the report be sent to Seafood New Zealand for promulgation throughout the fishing industry.

NARRATIVE

Torea II is a 17 metre steel trawler. She has a gross tonnage of 64 and is powered by a 350 kW diesel engine via a single fixed pitch propeller.

She has been given the operating limits of Offshore, within 100 nautical miles of the New Zealand coastline. She has a valid Safe Ship Management Certificate issued by SGS-M&I.

The vessel is owned by Torea partnership of Napier. Pacific Trawling Ltd of Napier operates the vessel.

The Skipper, who was the watch-keeper at the time, holds a Commercial Launch Master's (CLM) Certificate of Competency, issued in December 1992.

The vessel was correctly manned in accordance with Maritime Rule Part 31C, if operating within 12 nautical miles of the shore.

Lady Anna is a 15 metre wooden trawler. She has a gross tonnage of 43, and is powered by a 170 kW diesel engine through a single fixed pitch propeller.

She is owned and operated by Ocean Blue Ltd of Wellington.

SGS-M&I assigned her Offshore limits, within 100 nautical miles of the New Zealand coastline. She has a valid Safe Ship Management Certificate.

The Deckhand, who was the watchkeeper at the time of the collision, holds no maritime qualifications.

The vessel was correctly manned in accordance with Maritime Rule Part 31C.

THE ACCIDENT

Evidence of the Skipper of *Torea II*

Torea II left Port Napier on 12 October 2005 with the Skipper and two Deckhands on board. They trawled in the greater Hawke Bay area.

On Friday 14 October, the vessel trawled in the vicinity of Wairoa in northern Hawke Bay. The Skipper completed four trawls in that same area throughout the day. The Skipper had communicated with ***Lady Anna*** earlier in the day. Contact at that time was made on VHF channel 16, and then a brief conversation took place on channel 17.

The Skipper made the last contact with ***Lady Anna*** at about 2300 hours on his cell phone.

The Skipper was aware that ***Lady Anna*** was going to be in the area later on 14 October and the next day. The trawl net was shot away in the evening with the watch kept by one of the Deckhands, while the Skipper slept. The net was hauled and re-shot at 2330 hours. The Skipper kept watch while the two Deckhands sorted the catch and put it in the hold. The Skipper was towing the net in a broadly easterly direction off the Wairoa River mouth. Once this was completed the two Deckhands went to bed. This was about 0030 hours 15 October 2005.

At about 0030 hours, the vessel was off Whakaki Lagoon. The Skipper decided to alter course to a south easterly direction and tow towards Black Reef, where he intended to haul at about 0300 hours.

The Skipper was operating the vessel in automatic pilot mode, with a stand alone watch-keeping alarm activated. For a time he was reading a book while sitting in the chair at the helm station. He also checked for any water in the fish room and did the dishes in the galley/mess area. The galley, mess and wheelhouse are contained in one space, with unhindered visibility out the forward windows.

The Skipper had the radar set to a range of 6 nautical miles (NM), with a 1 NM variable range marker (VRM) set.

The Skipper detected the radar echo of a vessel which subsequently proved to be ***Lady Anna***, at a distance of 6 NM, bearing fine to starboard of the heading marker. The Skipper was able to discern the lights of ***Lady Anna*** at a distance of 1.8 NM; they were on the starboard bow but now on a slightly broader bearing than before. The Skipper observed a green over white over green combination of navigation lights which he took to be ***Lady Anna's*** trawling lights and her green sidelight. This indicated to him that they would pass clear starboard to starboard.

At 0210 hours, ***Lady Anna*** was observed at a distance of about 1 NM, bearing about 20° on the starboard bow.

At this time the Skipper reset the watch-keeping alarm and went down into the engine room. He pumped out the fish room and also checked the oil in the auxiliary engine.

As the Skipper was climbing out of the engine room into the wheelhouse, he heard the low level watch alarm sounding. The low level alarm activates automatically if the alarm has not been reset, after a period of 14 minutes. He had reached the top of the ladder leading from the engine room, when the collision occurred. The Skipper immediately took the engine out of gear and ran out on deck. He looked up and saw the stabiliser arm belonging to ***Lady Anna*** striking the aerial 'A' frame on the monkey island of ***Torea II***. The arm damaged the VHF, SSB and cell phone aerials. The stabiliser arm of ***Torea II*** struck the handrail of ***Lady Anna*** and then their stabiliser arm. The speed of each vessel on impact was about three knots.

Lady Anna passed down the starboard side of *Torea II.* The two Skippers yelled at each other across the gap between the two vessels. They decided to haul back on the trawl warps to extract themselves from entanglement. *Torea II* hauled and after *Lady Anna* had hauled her gear, they both steamed back to Napier for repairs.

Evidence of the Deckhand of *Lady Anna*

Lady Anna departed Port Napier on Thursday 13 October 2005. On board was the Skipper and two Deckhands. They trawled in the greater Hawke Bay area.

The Skipper shot away the trawl net at about 2100 hours. The Skipper kept watch while the two Deckhands sorted the catch and put the fish in the hold. This took about 40 to 45 minutes. At this time Deckhand 1 was on watch while Deckhand 2 and the Skipper slept. Deckhand 1 woke Deckhand 2 shortly before 2400 hours. Deckhand 1 told him that another vessel was ahead and just visible on the radar at 12 NM. They assumed it was *Torea II*. At the time *Lady Anna* was towing in a broadly north north westerly direction, heading towards the Whakaki Lagoon area.

Deckhand 1 went to bed leaving Deckhand 2 on watch.

At about 0015 hours, on Saturday 14 October, Deckhand 2 moved the VRM and observed the echo of *Torea II* at a distance of 11.7 NM, bearing broad to port of the heading marker.

At 0100 hours, Deckhand 2 observed the echo of *Torea II* at a distance of 6 NM bearing fine on the port side of the heading marker. At this time he altered course on the automatic pilot, putting on 10° of port helm. He had been instructed by the Skipper to follow a broad towline on the plotter, but these instructions were not absolute. At about this time Deckhand 2 stated he could see the white over red fishing lights of *Torea II* above a partly obscured green sidelight.

At about 0130 hours, when the echo of *Torea II* was 2 NM distant and bearing fine to starboard of the heading marker, Deckhand 2 called *Torea II* on VHF channel 17 but received no reply. This channel had been used by the two vessels the previous day. No attempt was made to call *Torea II* on VHF Channel 16 at this time or subsequently.

At about 0145 hours, Deckhand 2 observed the echo of *Torea II* at a distance of 1 NM, still bearing fine to starboard of the heading marker. He made a further unsuccessful attempt to contact *Torea II* on VHF Channel 17*.* At this point he made three consecutive course alterations, each time using 20° of port helm. Deckhand 2 did not apply more than 20° of helm as this would have activated the off course alarm on the automatic pilot.

At about 0215 hours, Deckhand 2 observed the echo of *Torea II* at a distance of 0.7 NM. At this time, it was bearing to port of the heading marker. Deckhand 2 states that he then went below to wake the Skipper. On returning to the wheelhouse he applied a further 20° of port helm. He then yelled out to the Skipper, but got no reply, By this time, *Torea II* was about 200 metres distant on the starboard bow. Deckhand 2 went below again to get the Skipper.

At 0220 hours, as Deckhand 2 and the Skipper returned to the wheelhouse, the two vessels collided. The stabiliser arm of *Torea II* struck a handrail forward of the wheelhouse and afterwards their own stabiliser arm. The two Skippers yelled at each other across the gap between the two vessels. They then hauled their respective trawl nets and returned to port for repairs.

COMMENT & ANALYSIS

Evidence

Documentary and electronic evidence was gathered from both vessels. The parties directly involved were interviewed and evidence obtained from other interested parties.

Analysis

Manning

Torea II was correctly manned in accordance with Maritime Rule Part 31C.12 Inshore Area. Although the vessel was certified to operate within offshore limits, the Skipper was constrained by his Commercial Launch Master (CLM) Certificate, which restricted him to operating up to a maximum of 12 nautical miles from shore. The vessel had two crew; one held an Inshore Launch Master's (ILM) Certificate and the other held an Advanced Deckhand Fishing (ADH-F) Certificate.

Lady Anna was correctly manned in accordance with Maritime Rule Part 31C.10 - Offshore Area. The vessel also had two crew; neither held maritime qualifications.

Training

By holding the CLM qualification, the Skipper of ***Torea II*** was trained amongst other things, in navigation and watch keeping.

Deckhand 2 who was on watch at the time of the collision on board ***Lady Anna*** held no maritime qualifications. He stated that the Skipper was teaching him and he was "learning stuff as I go along".

Environmental Conditions

The wind at the time of the collision was variable up to 10 knots. The sea conditions were flat and visibility was good.

Watch Keeping

Torea II

The Skipper of ***Torea II*** was on watch from approximately 2330 hours. He states that he read a book, did some dishes and checked the fish hold during the time leading up to the collision. He first observed the navigation lights of ***Lady Anna*** approximately 6 miles away and was monitoring the vessel both by radar and visually. He altered course approximately 2 hours before the collision and did not make any further course alterations between then and the time of the collision at 0220 hours. He left the wheelhouse to go to the engine room when ***Lady Anna*** was approximately 1 NM away. When he returned to the wheelhouse just before the collision, the watch keeping low level alarm was sounding at its first level, indicating that he had been out of the wheelhouse for at least 14 minutes.

Lady Anna

The Skipper of ***Lady Anna*** had spoken to both Deckhands before he retired to his bunk, leaving Deckhand 1 on watch. He instructed them to wake him if another vessel came within 1 NM, and to tow near a line that was marked on the Chart Plotter. When Deckhand 1 woke Deckhand 2 at 0000 hours, he told him that another vessel was ahead. They assumed it to be ***Torea II***. Deckhand 2 was monitoring ***Torea II*** both visually and by radar throughout the following two hours. When ***Torea II*** came within the 1 NM threshold, he failed to wake the Skipper as instructed and instead waited until the vessel was approximately 7 cables away. Deckhand 2 states that ***Torea II*** was observed fine on the port bow both visually and by radar when he made several alterations to port in the period leading up to the collision. During the course of the interview, it was found that Deckhand 2 had a very rudimentary knowledge of the Collision Regulations.

Deckhand 2 called ***Torea II*** on VHF channel 17 a number of times leading up to the collision but got no reply. The Skippers of both vessels had spoken briefly on this channel after making contact on channel 16 earlier in the day. The Skipper of ***Torea II*** was keeping a listening watch on VHF Channel 16, save for the period of about 14 minutes before the collision, when he was below in the engine room.

General

Maritime Rule Part 31C.16 Watchkeeping Standards contains the following:

> *(1) The owner and the Master of a fishing vessel must establish and implement Watch Keeping procedures addressing –*
>
> *(a) for navigational watchkeeping, -*
>
> *(i) the composition of the watch; and*
> *(ii) the fitness for duty of watchkeepers; and*
> *(iii) the navigation planning and duties; and*
> *(iv) the use of navigational equipment; and*
> *(v) look-out duties; and*
> *(vi) the notification of the Master of any change in weather conditions; and*
> *(vii) the protection of the marine environment; and*
> *(viii) navigation with a pilot on board; and*
> *(ix) any characteristics of the fishing vessel that may affect safe navigation; and*
> *(x) keeping an anchor watch; and*
> *(xi) radio watchkeeping and;*
>
> *(2) The crew of a fishing vessel must comply with watchkeeping procedures established under Rule 31C.16(1).*

The Advisory Circular to **Rule Part 31C** refers amongst other things for the officer in charge of a watch to comply at all time with the provisions on the use of radar contained in the applicable regulations for preventing collisions at sea and of the need to keep a proper lookout. However, nowhere in the Advisory Circular or in the Rule is there a requirement for all watch keepers on the bridge to have a working knowledge of **Maritime Rule Part 22 – Collision Prevention.**

Collision Regulations

Both vessels were duty bound to comply with **Maritime Rule Part 22 – Collision Prevention**.

Maritime Rule Part 22.5 Look-Out:

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

Both the Skipper of ***Torea II*** and Deckhand 2 of ***Lady Anna*** failed to keep a proper lookout by all available means.

Maritime Rule Part 22.7 Risk of Collision:

> *(1) Every vessel must use all available means appropriate to the prevailing circumstances and conditions to determine if the risk of collision exists. If there is any doubt, such risk must be considered to exist.*
>
> *(2) Proper use must be made of radar equipment, if fitted and operational, including long range scanning to obtain early warning of the risk of collision and radar plotting or equivalent systematic observation of detected objects.*
>
> *(3) Assumptions must not be made on the basis of scanty information, especially scanty radar information.*
>
> *(4) In determining if the risk of collision exists, the following considerations must be among those taken into account –*
>
> *(a) such risk must be considered to exist if the compass bearing of an approaching vessel does not appreciably change; and*
>
> *(b) such risk may sometimes exist even when an appreciable bearing change is evident, particularly when approaching a very large vessel or tow or when approaching a vessel at close range.*

Up to the time of that Deckhand 2 first altered course to port, ***Lady Anna*** would have been showing her red sidelight *(See Figure 1).* Accordingly, if the Skipper of ***Torea II*** did see a green sidelight, it must have been after the Deckhand altered course to port at which time, ***Lady Anna*** would have been under 5 miles distant and not 6 NM as he has stated *(See Figure 2)*. By leaving the bridge unattended, the Skipper breached Maritime Rules Part 31.16 – Watchkeeping Standards and 22.5 - Look out.

This was a crossing situation – ***Lady Anna*** was the stand on vessel and as such should have maintained her course and speed under Maritime Rule Part 22.17 Action by Stand-On Vessel.

Instead, Deckhand 2 altered course to port when the two vessels were less than 5 NM apart. Reference to *Figure 2* shows that when the two vessels had closed to a distance of about 2½ NM, Deckhand 2 altered course to starboard. By reference to *Figure 3*, it can be seen that he altered course to port again when the two vessels were under 1 NM apart. This had the effect of bringing the two vessels into a head on or nearly head situation that subsequently resulted in the collision occurring.

Maritime Rule Part 22.15 – Crossing Situation

> *When two power-driven vessels are crossing so as to involve risk of collision, the vessel which has the other on its own starboard side must keep out of the way. The vessel required to keep out of the way must, if the circumstances of the case allow, avoid crossing ahead of the other vessel.*

Maritime Rule Part 22.16 – Action by Give-Way Vessel

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

Maritime Rule Part 22.17 – Action by Stand-On Vessel

(1) If one of two vessels is to keep out of the way, the other must keep its course and speed.

(2) As soon as it becomes apparent to the stand-on vessel that the vessel required to give way is not taking appropriate action in compliance with this Part-

(a) it may take action to avoid collision by its manoeuvre alone; and

(b) if it is a power-driven vessel in a crossing situation, if the circumstances of the case allow, it must not alter course to port for a vessel on its own port side.

(3) When, from any cause, the stand-on vessel finds itself so close that collision cannot be avoided by the action of the give-way vessel alone, it must take whatever action will best avoid collision.

(4) This rule does not relieve the give-way vessel of its obligation to keep out of the way.

Maritime Rule Part 43.4 Radio Watch

(1) The Master of any ship must ensure that a continuous radio watch is maintained while the ship is at sea. The watch must be kept at the position from which the ship is normally navigated.

(2) The continuous watch required by Rule 43.4(1) must be maintained –

(a) for every ship not undertaking an international voyage and which maritime rules require to be fitted with a VHF radio

Torea II was listening on VHF channel 16 on one radio and was scanning selected channels on another. Deckhand 2 of ***Lady Anna*** could have called ***Torea II*** on VHF channel 16.

Collision Details

Torea II had altered course approximately 2 hours before the collision. His course was broadly southeast. ***Lady Anna*** was travelling in a broadly northwest course. Both vessels had spoken earlier and each new the other would be fishing in the same general area.

Both watchkeepers involved in the collision had observed each other either by sight or by radar or both for a least 2 hours before the collision. The Skipper of ***Torea II*** assumed that they would pass safely and did not attempt to call ***Lady Anna*** to confirm their intentions. Deckhand 2 of ***Lady Anna*** was concerned enough to attempt to call ***Torea II*** on VHF, but did not wake his Skipper for assistance.

The Skipper of ***Torea II*** left the wheelhouse for the 14 minutes before the collision. ***Torea II*** was towing at a speed of about 3 knots. Using the Speed x Time = Distance formulae, it can be calculated that after the Skipper left the wheelhouse, ***Torea II*** covered almost ¾ of a nautical mile before the collision.

Passage

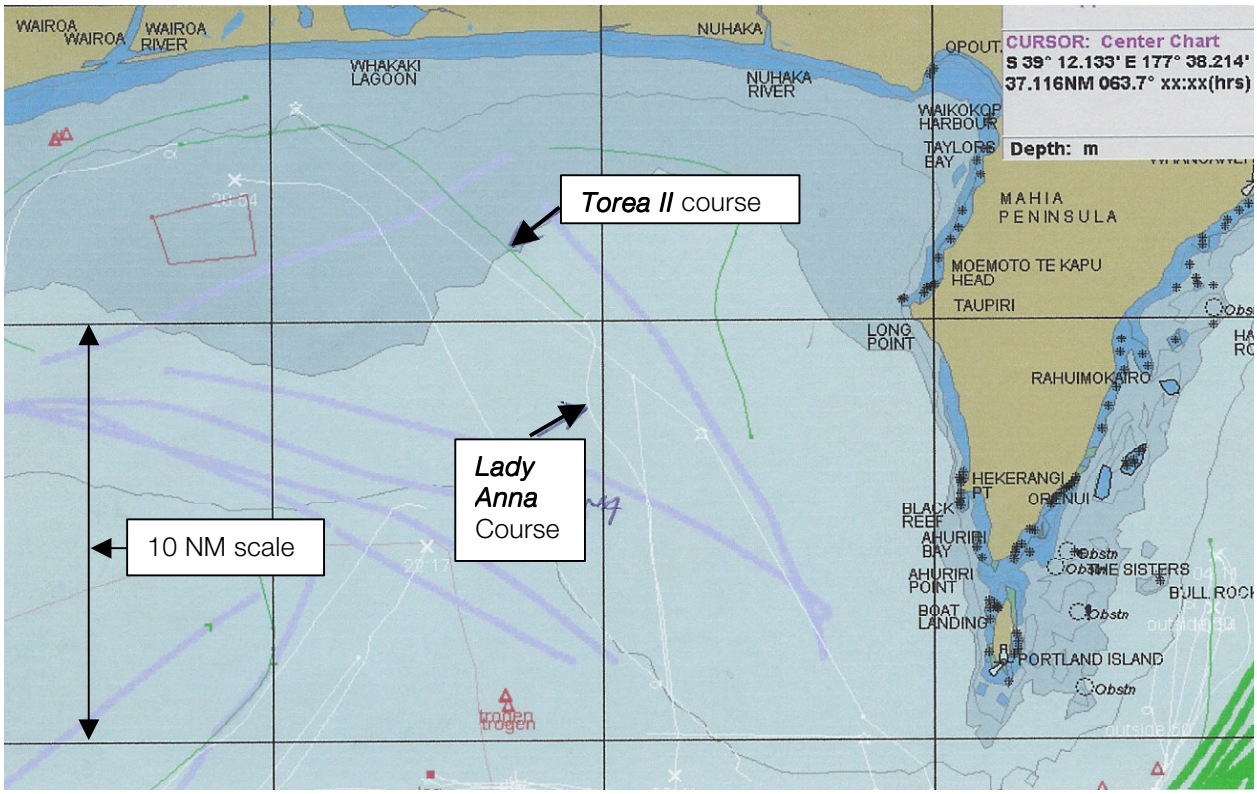


Figure 1
Figure 1 above is the combined electronic plotting chart from both vessels. The track of ***Torea II*** is displayed in green and the track of ***Lady Anna*** in white. The scale of the grid is 10 NM in this instance.

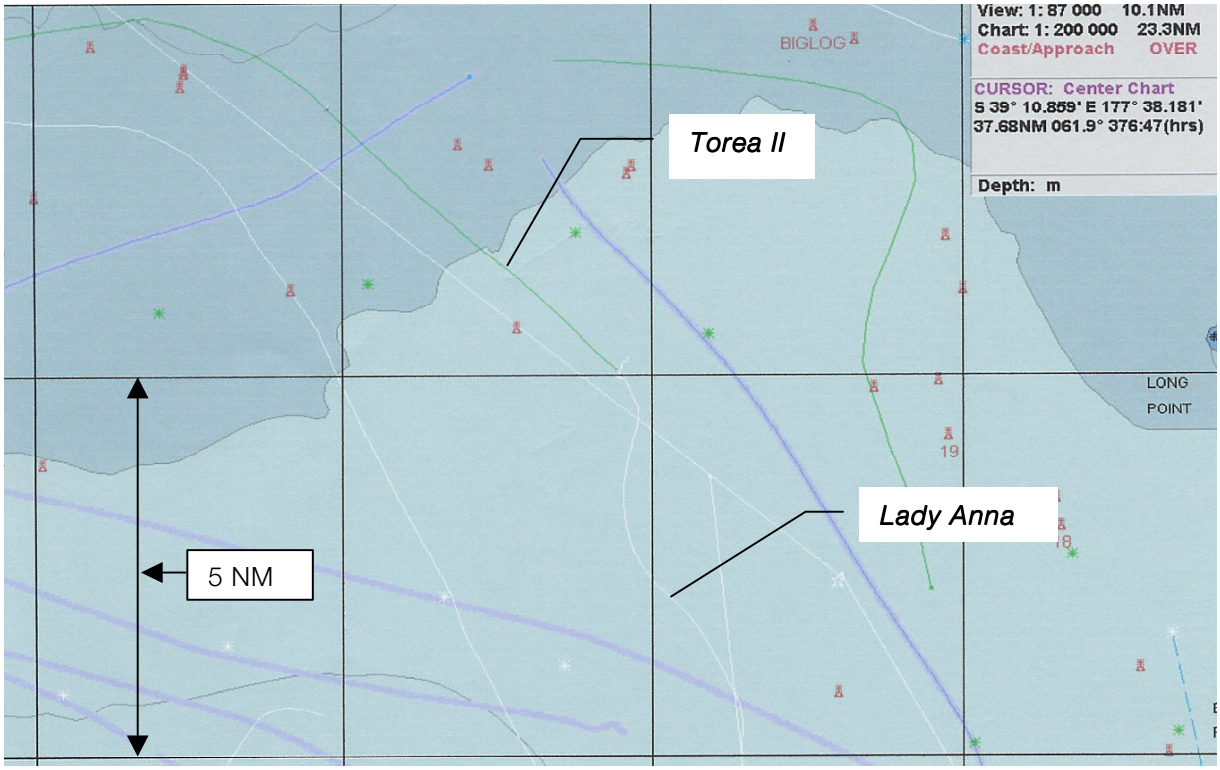


Figure 2

Figure 2 above chart is displayed on a 5 NM scale. This shows ***Torea II*** holding an almost constant straight course. The course of ***Lady Anna*** shows that she altered course to port approximately 5 NM before the collision point. Deckhand 2 states he put 20° of port helm on the automatic pilot. The pilot would then bring the helm back to 0°. After a time, Deckhand 2 would re-apply another 20° of port helm. This is illustrated in the white course above.

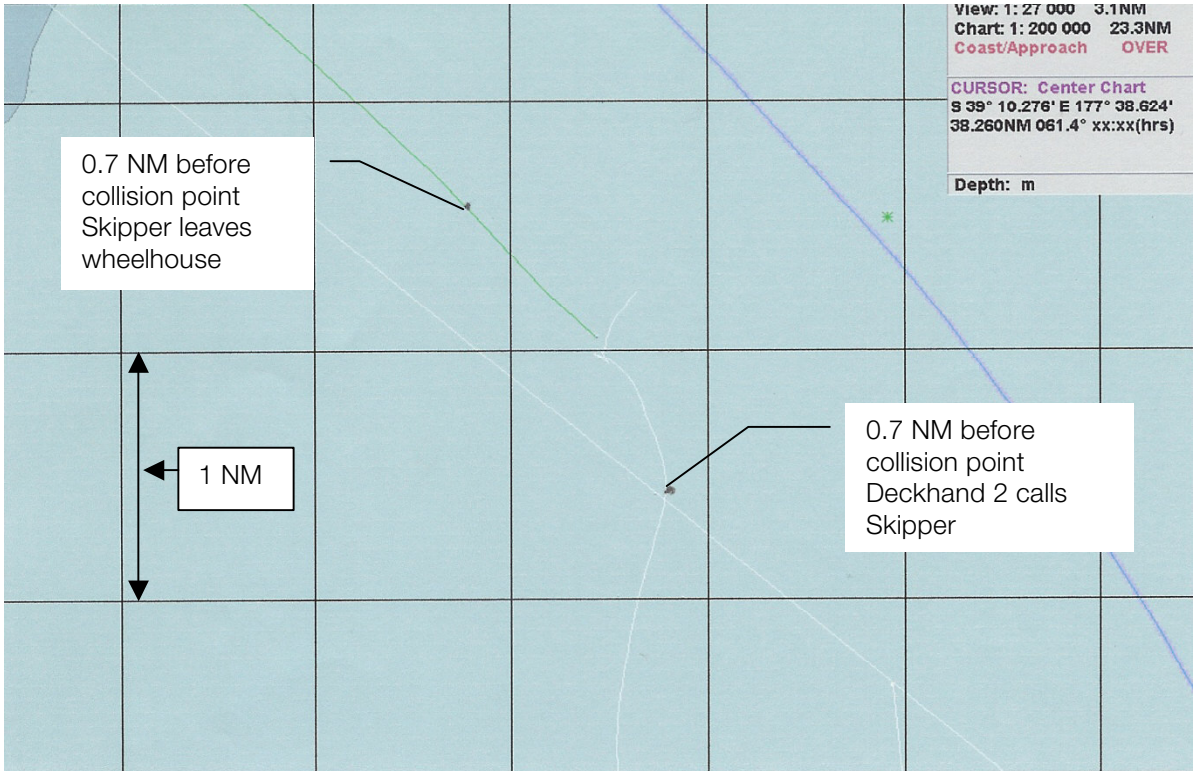


Figure 3

Figure 3 above is displayed at a scale of 1 NM. The points marked on each track line are at 0.7 NM before the collision point. ***Torea II*** continued on a straight course. The track of ***Lady Anna*** shows an alteration to port shortly after Deckhand 2 would have returned to the wheelhouse after waking the Skipper.

CONCLUSIONS

N.B. These are not listed in order of importance

A number of active and latent failures have been identified.

An **active failure** is an error made by the operational personnel. In this case this was the watch keepers. This error can have an immediate adverse effect.

A **latent failure** is the result of a decision or action made well before the accident and usually has been lying dormant for a long time. Such a failure is usually initiated by someone far removed from the event in both time and space, who is the decision maker in the line management. The failure can then be introduced at any time into the system by the human element.

Active Failures

- When faced with a crossing situation Deckhand 2 made a number of course alterations instead of maintaining his course and speed. Deckhand 2 should have taken such action as would best aid to avoid a collision as soon as it became clear that a collision could not be avoided by the action of ***Torea II*** alone.
- Both watch keepers failed to communicate with each other to confirm their intentions.
- The Skipper of ***Torea II*** did not maintain a proper look out when he left the wheelhouse.
- Deckhand 2 did not wake the Skipper as requested during the pre watch briefing earlier that evening.

Latent Failures

- Deckhand 2 had not been trained by the Skipper to an appropriate level where he was conversant with the operation of the radar and the automatic pilot.
- Deckhand 2 had not been trained by the Skipper to an appropriate level where he was conversant with the Collision Regulations.
- Both vessels did not have instructions from the Owners regarding watch keeping standards and practises to be adhered to on board.

Root Causes

- The Skipper of ***Torea II*** had observed ***Lady Anna*** for sometime; he had decided that the vessel's would pass safely clear.
- Deckhand 2 did not have the competency to carry out an unsupervised watch.

SAFETY RECOMMENDATIONS

It is recommended:

1. That both Skippers are censured for their failures to maintain good watchkeeping standards as required by Maritime Rule Part 31C.16 and for the Skipper of *Torea II* leaving the wheelhouse unattended.

2. That Deckhand 2 is censured for his failure to wake his Skipper.

3. While not mandatory, Maritime New Zealand encourages all Owners and Skippers to provide either semi-formal watchkeeping training on board, or supporting unqualified crew in formal shore based training, such as the Advanced Deckhand Fishing (ADH-F) Certificate.

4. That this report be promulgated to the fishing industry through Seafood New Zealand magazine. This report should be accompanied by an article highlighting the fact that good communication between vessels is vital when each other's intentions are not fully known.

5. That Maritime New Zealand amends Maritime Rule Part 31C.16 to require all watch keepers to have a working knowledge of the Collision Regulations.