

Class A Accident Report

# Louisa & Emma J

## Collision

At Golden Bay on 7 November 2004

KEEPING YOUR SEA SAFE FOR LIFE



**Maritime Safety**

MARITIME SAFETY AUTHORITY OF NEW ZEALAND  
*Kia Maanu Kia Ora*



**REPORT NO: 04 3598**

**VESSEL NAME: LOUISA**

**Ship Type:** Fishing Vessel

**Certified Operating Limit:** Offshore Restricted within 100 nm of New Zealand

**Port of Registry:** Nelson

**Flag:** New Zealand

**MSA No.:** 101137

**Built:** 1980

**Construction Material:** Wood

**Length Overall (m):** 13.86

**Maximum Breadth (m):** 4.06

**Gross Tonnage:** 21

**Net Tonnage:** 15

**Registered Owner:** Crusader Holdings Limited

**Ship Operator/Manager:** Crusader Holdings Limited

**SSM Company:** Survey Nelson

**Accident Investigator:** Domonic Venz



<b>VESSEL NAME:</b>	<b>EMMA J</b>
<b>Ship Type:</b>	Fishing/ Passenger Vessel
<b>Certified Operating Limit:</b>	Offshore Restricted within 100 nm of NZ/ Nelson/Marlborough Inshore Restricted
<b>Port of Registry:</b>	Nelson
<b>Flag:</b>	New Zealand
<b>MSA No.:</b>	102001
<b>Built:</b>	1992
<b>Construction Material:</b>	Wood
<b>Length Overall (m):</b>	13.30
<b>Maximum Breadth (m):</b>	4.03
<b>Gross Tonnage:</b>	29
<b>Net Tonnage:</b>	5.6
<b>Registered Owner:</b>	KC & JF McBride
<b>Ship Operator/Manager:</b>	KC & JF McBride
<b>SSM Company:</b>	Survey Nelson



LOUISA



EMMA J

## SUMMARY

On the morning of 7 November 2004 the scallop dredging fleet was at work fishing in Golden Bay near Nelson. The weather at the time was calm with restricted visibility in thick fog. The fishing vessel *Emma J*, which had departed Tarakohe that morning, was towing its two dredges while both the Skipper and one crew sorted the previous catch at the tray table at the after end of the main deck.

During the early morning the fishing vessel *Louisa* departed Port Nelson bound for Golden Bay. At about 0645 hours New Zealand Standard Time, *Louisa* was approaching the area in Golden Bay that the Skipper wanted to fish. He had started to slow the vessel to around 5 knots when the *Louisa* and *Emma J* collided. Damage checks were carried on both vessels. *Emma J* sustained very minor damage and was able to continue fishing; *Louisa* sustained serious damage, and went to Tarakohe for temporary repairs, then returned to Port Nelson for slipping.

The reports conclusions include:

Both Skippers failure to sound a fog signal and a failure to properly maintain a navigational watch while in restricted visibility.

The report makes one recommendation involving both Skippers undergoing remedial radar training.

## NARRATIVE

- **EMMA J**

*Emma J* is an offshore-restricted fishing and an inshore-restricted passenger vessel of wooden construction, built in 1992. She has an overall length of 13.3 metres (m), a breadth of 4.03 m and a gross tonnage of 29. She is powered by a 128 kW medium speed diesel engine via a standard fixed pitch propeller.

KC & JF McBride of Takaka own the vessel.

*Emma J* had a valid Safe Ship Management (SSM) Certificate issued by Survey Nelson Ltd. The vessel was deemed fit to ply as a fishing vessel in the offshore restricted limits within 100 nm of the New Zealand coast. She was also fit to ply as a passenger vessel operating within the Nelson and Marlborough inshore limits.

The Skipper was aged 35, resident of Takaka. He holds an Inshore Launch Masters (ILM) Certificate obtained in June 2000. He also holds a Qualified Fishing Deckhands (QFDH) Certificate obtained in 1992. He has worked in the scallop industry for 12 years on various vessels. During 2003/2004 he was Deckhand/Relief Skipper on board *Emma J* and took over as full-time Skipper for the 2004 scallop season.

There was one crew member on board who was unqualified and in his first season fishing for scallops but had experience in other types of fisheries.

- **LOUISA**

*Louisa* is an offshore restricted fishing vessel of wooden construction built in 1980. She has an overall length of 13.86 m, a breadth of 4.06m and a gross tonnage of 21. She is powered by an 84 kW medium speed diesel engine via a standard fixed pitch propeller.

Crusader Holdings Limited of Nelson owns the vessel.

*Louisa* had a valid SSM Certificate issued by Survey Nelson Limited. She was deemed fit to ply as a fishing vessel the offshore restricted limits within 100 nm of the NZ coast.

The Skipper was aged 27, resident of Nelson. He holds an ILM Certificate obtained in August 2000. He has been in the fishing industry for 11 years and has worked as Skipper on various inshore vessels since gaining his ILM in 2000.

There was one crewmember on board who was unqualified.

## **THE INCIDENT**

### **Evidence of Skipper of *Louisa***

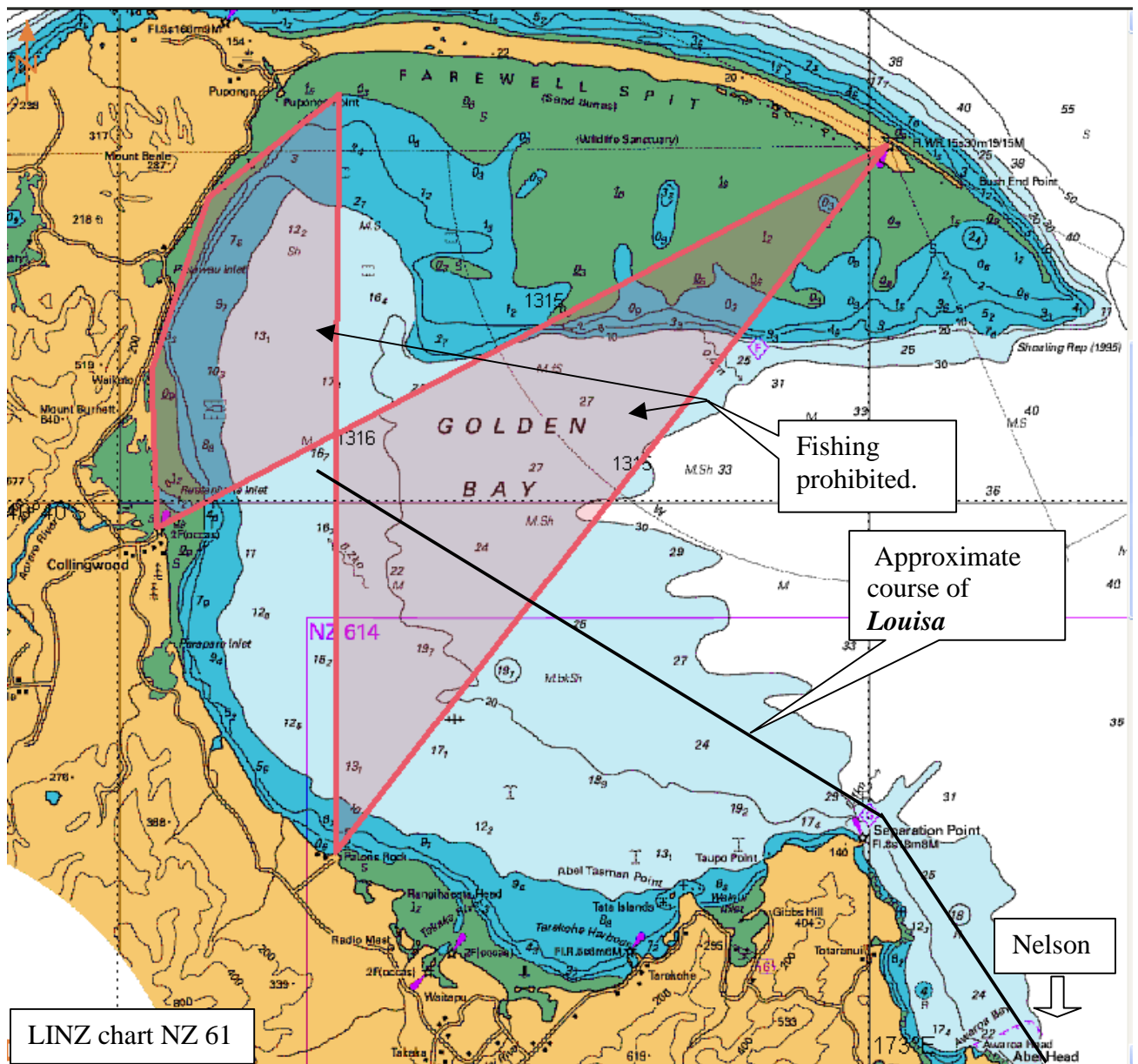
At 0015 hours, Sunday 7 November 2004, the fishing vessel *Louisa* departed its berth and went to the fuel berth for bunkers. At 0045 hours, bunkers were completed and the Skipper then departed Port Nelson bound for the Golden Bay scallop grounds at a speed of about 7 knots. In company with *Louisa* was the scallop fishing vessels *Unity* and *Southern Cross*.

The Skipper conned the vessel out of the port and stood the first watch until 0400 hours when he was relieved by the crewmember.

At 0615 hours the Skipper was awoken by the crewmember and came on watch in the wheelhouse. By this time the vessel had made passage into Golden Bay, where the Skipper observed thick fog ahead. He reduced main engine revolutions from 1500 down to 1100, giving the vessel a speed of about 5 knots. He adjusted the radar range down from 3 nm to 1.5nm.

He observed on the radar about 6 to 8 vessels within the 1.5 nm range of the radar that were ahead of the vessel on his current course. The crewmember had a cup of coffee with the Skipper in the wheelhouse for a time and then lay down on the day bunk in the wheelhouse.

He decided that due to the restricted visibility, he would alter course to starboard and skirt around to the north of the above vessels and fish along the north-western boundary line where he assumed he would be alone.



LINZ chart NZ 61

Fishing prohibited.

Approximate course of *Louisa*

Nelson

At about 0645 hours, *Louisa* had 0.2 nm to run to where the Skipper wanted to start fishing for the day. He looked down to adjust the GPS plotter scale, looked up again and saw *Emma J* about 10 m away ahead and to starboard. The Skipper engaged full astern but made no sternway and the vessels collided. The Skipper engaged neutral and he and the crewmember checked the vessel for water ingress. He ran to the bow where the vessels had started to drift apart. The Skipper saw that *Louisa* had sustained serious damage to the starboard shoulder. He rang the vessel *Unity* who was fishing in the general area and appraised them of the situation and asked them to bring a spare bilge pump to them as a back up. The Skipper then rang the owner and told him of the situation. It was decided that due to the vessel not taking on any water that they would steam to Tarakohe and effect temporary repairs before returning to Port Nelson for slipping and permanent repairs.

*Louisa* was accompanied by *Unity* to Tarakohe.

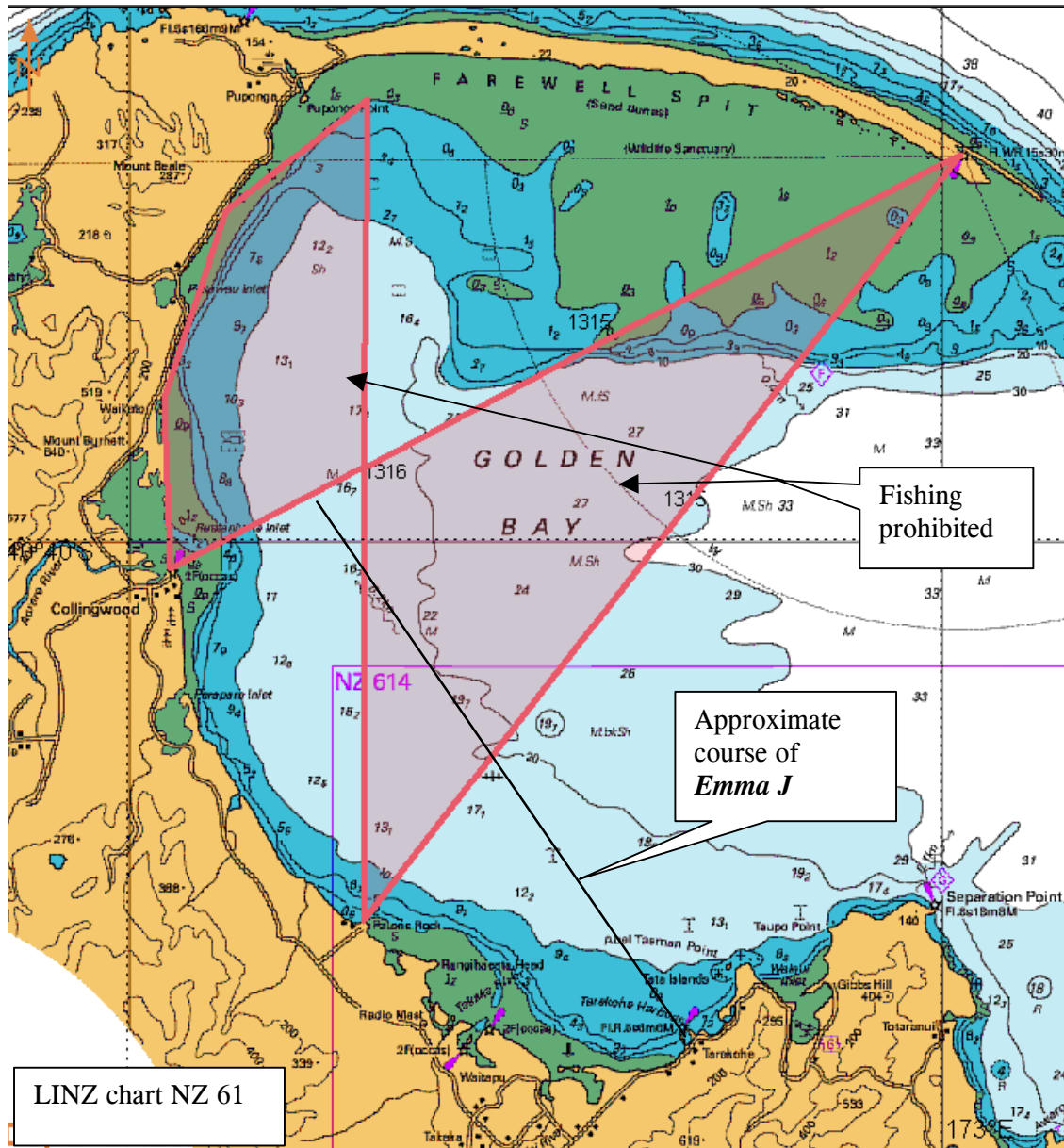
At 1330 hours *Louisa* departed Tarakohe bound for Port Nelson. At Separation Point they were met by another fishing vessel of the same company and accompanied to Port Nelson.

### **Evidence of Skipper and crew of *Emma J***

At 0430 hours, on 7 November 2004 the Skipper and crew of the fishing vessel *Emma J* arrived onboard the vessel at its berth in Tarakohe Harbour in Golden Bay. Normal main engine and vessel checks were completed, the main engine started and electronics warmed up.

At 0445 hours, the vessel departed the Harbour and the Skipper set a course for the scallop area off Collingwood, about 12 nautical miles (NM) to the northwest.

At 0615 hours, after the vessel had steamed into restricted visibility in thick fog, the Skipper shot away his two dredges and started fishing along the northwestern boundary of the open scallop area.



He reduced the radar range down from 3nm to 1½ nm and activated the ¼ nm range rings. He observed 7 to 8 other vessels within the 1½ nm range situated broadly south of his position.

The Skipper towed for about 25 minutes keeping watch in the wheelhouse while the crew set up the deck for the first catch of the day. At approximately 0635 hours, he hauled the dredges, emptied the catch onto the aft sorting tray, then set away again and continued towing in a northeasterly direction along the boundary line.

The crewmember started hand sorting the scallops facing aft at the tray situated over the stern of the vessel. The Skipper set the vessel up on course and then also went aft to help sort the scallops. At an interval of 2 to 3 minutes he would leave the sorting tray and go to the wheelhouse to monitor his position and check by radar and visually for other vessels.

At 0643 hours, he went to the wheelhouse, checked for other vessels by radar and then applied 40° of starboard helm and left the wheelhouse to return to the sorting tray.

At 0645 hours, the Skipper estimates that the vessel was about halfway through the 180° course alteration when *Emma J* and *Louisa* collided.

Immediately after the impact he ran to the wheelhouse and engaged neutral. He met the crewmember at the bow. By this time the two vessels had drifted apart slightly and the serious damage could be seen on the bow of *Louisa*. The Skipper and crew checked damage on *Emma J* but found only some minor paint cracks around the bow area.

The Skipper and crew then retrieved their dredges and attempted to contact *Louisa* by cell phone but was unable to for a time. The Skipper contacted the owners of *Emma J* and appraised them of the situation and said that there was no water ingress so they decided to continue fishing.

Contact was made between the two vessels later in the day and the Owner of *Emma J* attended *Louisa* when it arrived in Tarakohe Harbour.

## COMMENT & ANALYSIS

### **Evidence**

On 11 November 2004 a Maritime Accident Investigator from the Maritime Safety Authority attended *Emma J* in Tarakohe Harbour. The Skipper and crewmember were interviewed and provided accounts of the incident along with pertinent documentation. The Owners were spoken to the same day and their information taken into consideration. On 12 November 2004, the Skipper of *Louisa* was interviewed and provided accounts of the incident along with relevant documents. The owners were also spoken to as well as other fishers in the area and information gathered relevant to the accident.

### **Analysis**

#### **Manning Details**

*Louisa* and *Emma J* were correctly manned in accordance with **Maritime Rule Part 31C.12 Crewing and Watch keeping Fishing Vessels, Inshore Area.**

#### **Navigation and Equipment**

##### *Louisa*

The vessel is equipped with the following navigational aids:

- Navigation lights and fishing lights
- Horn
- Furuno FAP 300 automatic pilot
- Plastimo Offshore 105 magnetic compass
- Sitex mariner VHF radio
- Nobletrack computer based GPS chart plotter
- Simrad CR 44 radar
- Simrad EX 42 echo sounder
- Furuno FS 1550 SSB radio

The Skipper was navigating using the navigation lights, chart plotter, echo sounder and radar throughout the voyage.

The range of the radar was set at 3nm for the duration of the voyage until the vessel reached the fog situated in the northwestern side of Golden Bay. At this time he reduced the range down to 1½ nm and had activated 10 out of a maximum of 70 anti-rain clutter. He reduced the main engine revolutions so that the speed of the vessel was 5 knots.

When the vessel entered the fog the crewmember was in the wheelhouse having a cup of coffee and a talk with the Skipper. After about 15 minutes the crewmember laid down on the day bunk in the wheelhouse below the level of the forward windows. He stayed there for the next 15 minutes up until the collision.

After the vessel rounded Separation Point, the Skipper used the cursor function of the GPS plotter. He placed the cursor over the position he wanted to go to and was provided with a course and time to go (TTG).

The Skipper noted 6 to 8 other vessels on the radar, but at no time did he observe the target of *Emma J* almost dead ahead.

### *Emma J*

The vessel was equipped with the following navigational aids: -

- Course Master automatic pilot
- Navigation and fishing lights
- Suneto magnetic compass
- Furuno GP 1250 GPS receiver
- Seiwa C Map Fish 12 Mk II GPS plotter
- Furuno 1940 radar
- 2 GME VHF radios
- Furuno FS 1550 SSB radio
- Horn

The Skipper states he was navigating using navigation and trawling lights, GPS plotter and radar. There is evidence to suggest that *Emma J* did not have any navigation lights showing at the time. The Skipper and crew of *Emma J* vigorously dispute this.

He reduced the radar range from 3 nm down to 1½ nm when he entered the fog. During the first tow he navigated the vessel from the wheelhouse while the crewmember set up the deck. After hauling and then shooting the dredges, he maintains that he intermittently moved every 2 to 3 minutes between wheelhouse and the aft deck where the sorting tray was situated. He wanted to tow the dredges along the boundary line heading northeast and then turn through 180° and head back down a reciprocal course. He went to the wheelhouse, checked the position and looked at the radar, saw no targets in the immediate area of concern, then put 40° of a maximum of 50° of starboard helm on and then left the wheelhouse. The vessel had turned through about 90° when the collision occurred.

### **Weather Details**

The sea conditions at the time were calm with no wind. Visibility in the fog was between 10 to 50 metres.

### **Damage Details**

*Louisa* sustained extensive damage to the starboard side planking, ribs, beam shelf, deck beams, deck crash bulkhead, stringer, bull-works and capping rail.

*Emma J* sustained very minor damage to the paint work around the stem post.

### **Collision Details**

*Emma J* had been towing in a northeasterly direction along the northern boundary of the fishing prohibited area. The Skipper wanted to turn the vessel onto a reciprocal course when he neared the northeastern corner. At the same time *Louisa* was on a nearly reciprocal course but slightly to the south of track of *Emma J*. The Skipper of *Emma J* went into the wheelhouse and applied 40° of starboard helm then went back to the tray. This alteration closed the distance between the vessels; the angle of impact was almost 90°, with the stem post of *Emma J* striking the starboard shoulder of *Louisa*.

If we take an average reported visibility of 30 metres, and a combined converging speed of 8 knots then whether the navigation lights of *Emma J* were on or not, the time for both vessels to cross the 30 metres would be 7.2 seconds.

Using the  $\text{Distance} \div \text{Speed} = \text{Time}$  formulae, it can be calculated that based on the combined speeds of *Louisa* at 5 knots and the *Emma J* at 3 knots, the radar range at 1½ nm, then the total time that each vessel could have potentially observed each others radar echo was 11 minutes.

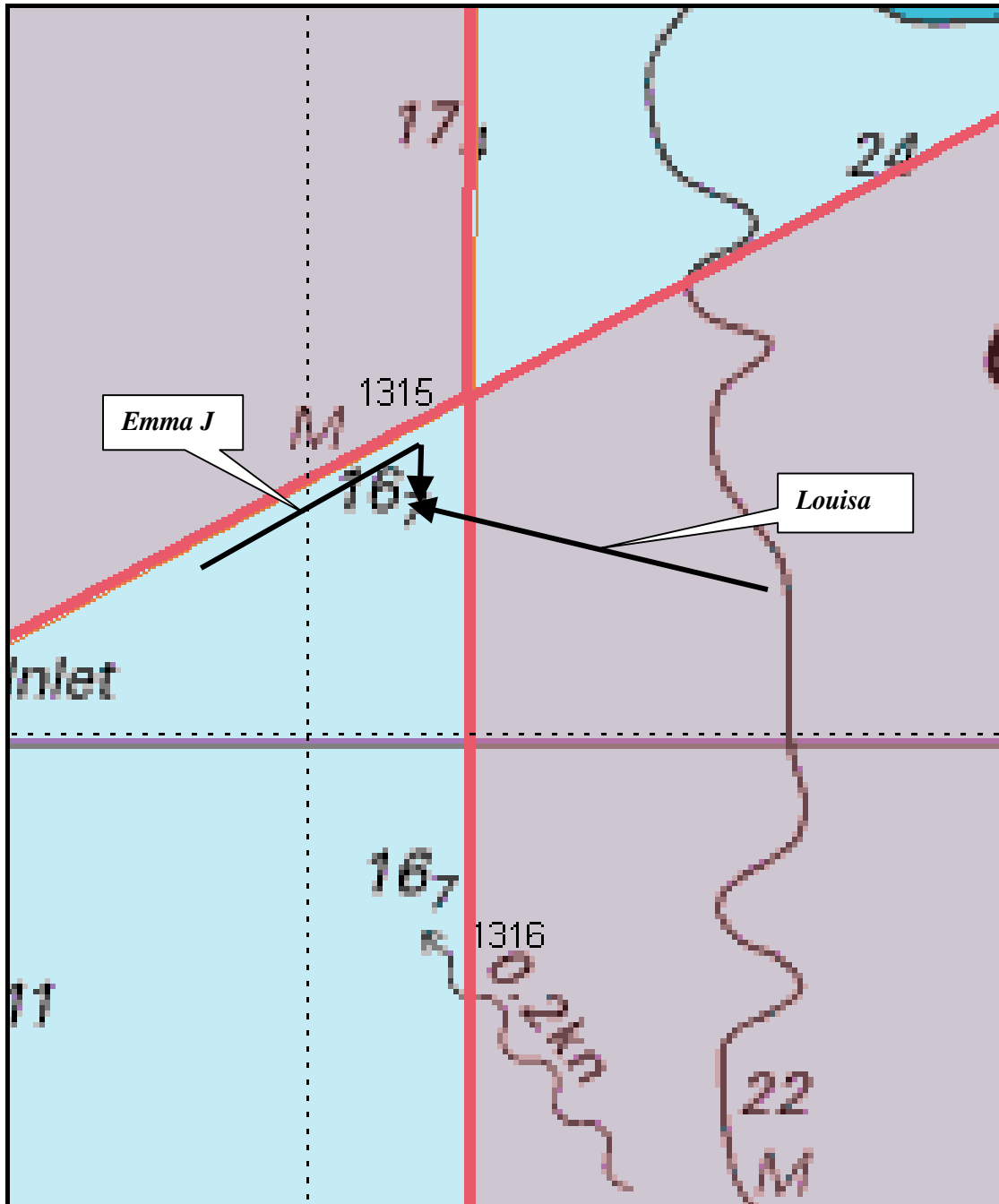


Chart NZ 61

### Applicable Maritime Rules

#### Maritime Rule Part 22 Collision Prevention

##### 22.19 Conduct of vessels in restricted visibility

- (1) *This subsection applies to vessels not in sight of one another when navigating in or near an area of restricted visibility.*

- (2) *Every vessel must proceed at a safe speed adapted to the prevailing circumstances and conditions of restricted visibility.*
- (3) *A power-driven vessel must have its engines ready for immediate manoeuvre.*
- (4) *Every vessel must have due regard to the prevailing circumstances and conditions of restricted visibility when complying with subsection 1 of this section.*
- (5) (a) *A vessel which detects by radar alone the presence of another vessel must determine whether a close-quarters situation is developing and must determine if risk of collision exists. If so, it must take avoiding action in ample time.*  
(b) *If such action consists of an alteration of course, the following must, as far as possible, be avoided:*
  - (i) *an alteration of course to port for a vessel forward of the beam, other than for a vessel being overtaken; and*
  - (ii) *an alteration of course towards a vessel abeam or abaft the beam.*
- (6) *Except where it has been determined that there is no risk of collision, every vessel that hears the fog signal of another vessel apparently forward of its beam, or cannot avoid a close-quarters situation with another vessel forward of its beam, must -*
  - (a) *reduce its speed to the minimum at which it can be kept on its course;*
  - and*
  - (b) *if necessary, take all way off; and*
  - (c) *in any event navigate with extreme caution until the danger of collision is over.*

### **22.35 Sound Signals in Restricted Visibility**

*In or near an area of restricted visibility, by day and by night, the following signals must be used:*

- (a) *subject to rule 22.35(b)—*
  - (i) *a power -driven vessel making way through the water must sound one prolonged blast at intervals of not more than 2 minutes;*

*(ii) a power - driven vessel underway but stopped and making no way through the water must sound two prolonged blasts in succession with 2 seconds between them at intervals of not more than 2 minutes:*

*(b) the following vessels —*

*(i) vessels not under command, vessels restricted in their ability to manoeuvre, vessels constrained by their draught, sailing vessels, vessels engaged in fishing, vessels engaged in towing or pushing another vessel; and*  
*(ii) vessels engaged in fishing at anchor and vessels restricted in their ability to manoeuvre when carrying out work at anchor; must sound three blasts in succession, namely one prolonged followed by two short blasts, at intervals of not more than 2 minutes:*

## **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 Skippers failed to maintain a proper lookout.

## **22.6 Safe speed**

*Every vessel must at all times proceed at a safe speed so that proper and effective action to avoid a collision can be taken and the vessel can be stopped within a distance appropriate to the prevailing circumstances and conditions.*

*In determining a safe speed, the following factors must be among those taken into account -*

*(1) For all vessels -*

*(a) the state of visibility;*

*(b) the traffic density, including concentrations of fishing vessels or any other vessels:*

*(c) the manoeuvrability of the vessel, with special reference to stopping distance and turning ability in the prevailing conditions:*

*(d) at night, the presence of background light such as from shore lights or from the back scatter of the vessel's own lights:*

*(e) the state of wind, sea, and current, and the proximity of navigational hazards:*

*(f) the draught in relation to the available depth of water.*

*(2) Additionally, for vessels with operational radar -*

*(a) the characteristics, efficiency, and limitations of the radar equipment:*

*(b) any constraints imposed by the radar range scale in use:*

*(c) the effect on radar detection of the sea state, weather, and other sources of interference:*

*(d) the possibility that small vessels, ice, and other floating objects may not be detected by radar at an adequate range:*

*(e) the number, location, and movement of vessels detected by radar:*

*(f) the more exact assessment of the visibility that may be possible when radar is used to determine the range of vessels or other objects in the vicinity.*

Both Skippers failed to mitigate against any erroneous or missed radar targets.

## **22.18 Responsibilities between vessels**

*Except where rules 22.9 (narrow channels), 22.10 (traffic separation schemes), and 22.13 (overtaking) require otherwise, the following rules apply -*

*(1) a power-driven vessel underway must keep out of the way of -*

*(a) a vessel not under command:*

*(b) a vessel restricted in its ability to manoeuvre:*

*(c) a vessel engaged in fishing:*

*(d) a sailing vessel or a vessel under oars;*

## CONCLUSIONS

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

Both Skippers failed to sound a fog signal.

Both Skippers failed to identify each other using radar when they had both had 6 to 8 other vessels as targets on their radar display. Nor did they range up and down on the radar to improve the chances of picking up a missed target.

The Skipper of *Emma J* navigated his vessel every 2 to 3 minutes from the wheelhouse after they had entered restricted visibility in fog.

The Skipper of *Louisa* did not use his crewmember as an extra lookout when in restricted visibility in fog.

Both Skippers are young and had both obtained their ILM certificates in 2000. This course contains the Restricted Radar Operators Certificate as a statutory part of the ILM. They both showed very poor knowledge of the principles of general navigation in restricted visibility, and poor knowledge of collision prevention using radar alone.

## **SAFETY RECOMMENDATIONS**

Both Skippers should re-attend a Restricted Radar Operators Certificate course at the New Zealand School of Fisheries. A course is scheduled to start on 21 February 2005 in Nelson.