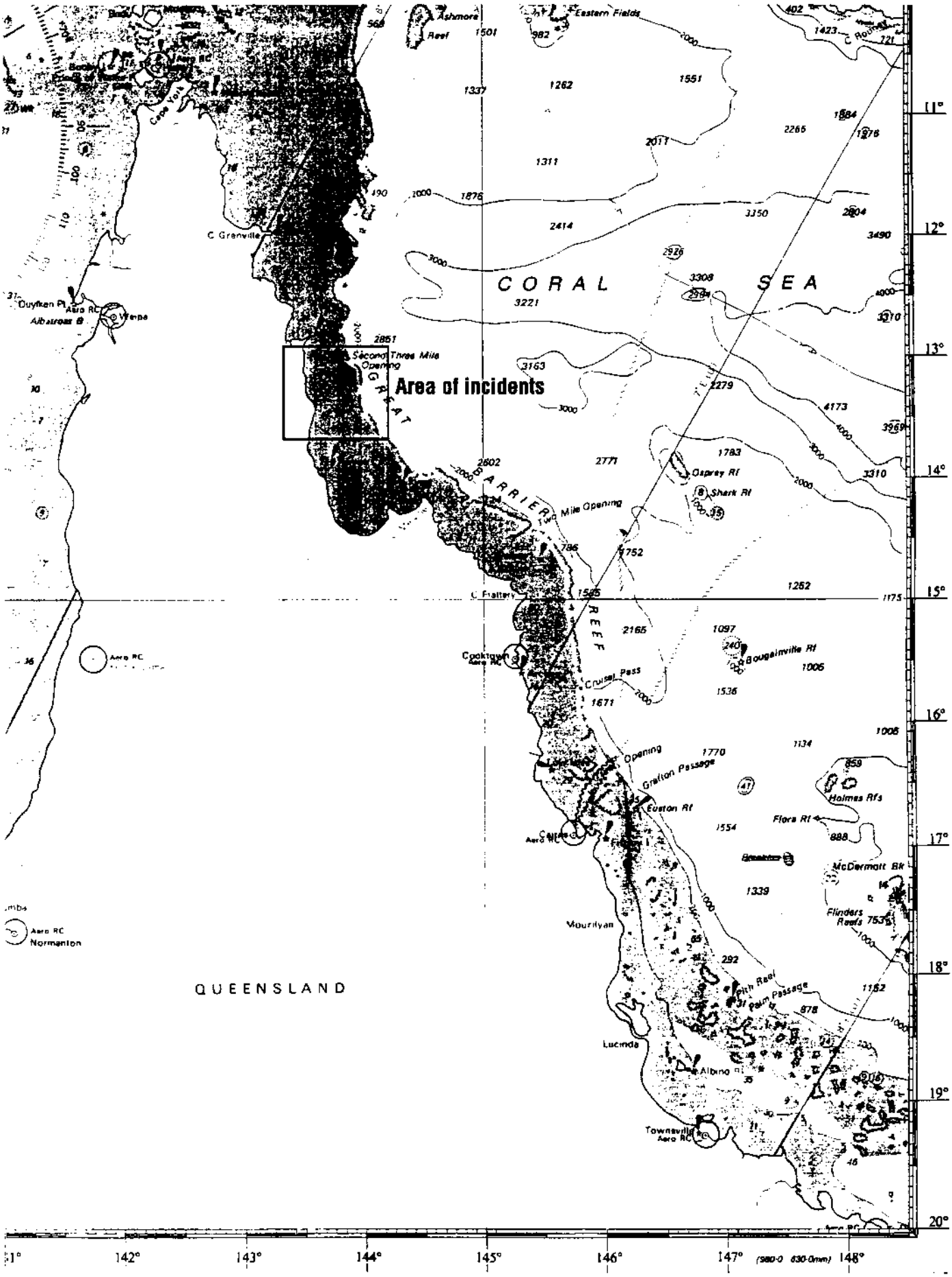
Contents

Attachments

Charts & Diagrams



Area of close quarter incidents

Summary

In November 1993, two reports of close quarter incidents were brought to the attention of the Inspector of Marine Accidents. In both cases the navigation of the two ships concerned was under the charge of pilots licensed for the Great Barrier Reef inner route. The four ships involved were "regulated" ships within the meaning of the Great Barrier Reef Marine Park Act 1975. Under the Act any ship over 70m, navigating the Reef between Cape York and Cairns (Low Isles), must take a duly licensed pilot.

The Inspector regarded the reports as "incidents" in that each one was, on the face of it, an event as a result of which serious damage to a ship or the environment might reasonably have occurred and it was reasonably suspected that the safety of ships' personnel were imperilled.

Incident 1

On 2 November 1993, the south-bound Philippine flag bulk carrier Blossom Forever was slowly overtaking the Indian flag bulk carrier Pearl Prosperity in an area of the Great Barrier Reef where the maximum width of fairway reduced from about 1.5 miles to about 1 mile. The differential in speed meant that the overtaking manoeuvre would take about 45 minutes or about 10 miles to complete.

Both ships, in ballast en route for Hay Point, were of almost identical size, marginally over 180m in length, with deadweight tonnages of 38,852 tonnes and 34,554 tonnes respectively.

The two pilots had been in contact by VHF and it was mutually agreed that Blossom Forever would overtake on Pearl Prosperity's port side. The distance by radar between the two vessels reduced to 143m, with the overtaking vessel between 30 and 60 degrees on the Pearl Prosperity's port quarter. The Pearl Prosperity's Pilot considered that the vessel was unnecessarily close and the passing distance would be less than a cable (185m). The ship's master commented on the fact to the Pilot, who was becoming concerned. He therefore contacted the Pilot on board the Blossom Forever and suggested that he alter course away from the Pearl Prosperity.

The Blossom Forever's Pilot agreed and the distance between the ships increased and the passing manoeuvre was completed safely.

Incident 2

On 15 November 1993, the Liberian tanker Palm Monarch, of 81,282 tonnes deadweight, was overtaking the Australian bulk carrier Iron Shortland, of 107,140 tonnes deadweight. Both vessels were in ballast, each vessel being in excess of 225m in length. The two ships were in the same area of the Great Barrier Reef as the incident of 2

November, but in this case the vessels were north-bound, Iron Shortland bound for the Western Australian port of Port Hedland and Palm Monarch for the offshore installation of Challis Venture.

Palm Monarch overtook Iron Shortland and the converging courses put the overtaking ship close ahead with both ships on course to pass to the east of Waterwitch Reef. The Master of Iron Shortland expressed concern at the closeness of the other ship and the Pilot altered the ship's course to port, to pass to the west of Waterwitch Reef and any potential risk of collision was averted.

Sources of information

The Queensland Coast and Torres Strait Pilot Association

The Queensland Coast and Torres Strait Pilot Service

The Master and Chief Mate of Blossom Forever

The Master of Pearl Prosperity

The Master, Mate and Cadet of Iron Shortland

The Master of Palm Monarch and Teekay Shipping

Acknowledgement:
The Inspector gratefully acknowledges the assistance of the Hydrographer, RAN

Sequence of events - Incident one

The Indian flag bulk carrier Pearl Prosperity and the Philippine flag bulk carrier Blossom Forever arrived off Booby Island within a short time of each other. The two ships were of nearly identical size (see Attachment 1), being marginally over 180m in length and having summer deadweight capacities of 34,554 tonnes and 38,852 tonnes respectively. Both ships were bound for Hay Point, a coal loading port in Queensland, about 300 miles south of Cairns.

A pilot of the Queensland Coast and Torres Strait Pilot Association boarded Pearl Prosperity at about 1430 on 1 November 1993, and commenced the south-bound transit of the inner route of the Great Barrier Reef. The ship was drawing a deepest draught of 6.5m. The Pilot found an efficient Indian crew and a well appointed ship.

A pilot of the Queensland Coastal Pilot Service boarded Blossom Forever at 1500 and passed Harrison Rock buoy at the western extreme of the Prince of Wales Channel at 1515. Blossom Forever was also drawing a deepest draught of 6.5m. The Pilot found a well appointed ship of just one year in age, with an efficient and competent crew of Philippine nationals.

The transits of both ships, under the direction of their respective Pilot proceeded normally, in clear weather and good visibility. Sunset was at 1828, there was little fishing activity and both Pilots were able to take brief rest periods south of Wyborn Reef. While the speeds of both ships varied marginally throughout the afternoon and night, the Blossom Forever was marginally faster than Pearl Prosperity.

The two Pilots had established communications at about 0400 on 2 November, in the vicinity of Chapman Reef. Both realised that Blossom Forever would overtake Pearl Prosperity at some stage after passing Waterwitch Reef and, amongst other things, the passing manoeuvre was discussed. Blossom Forever was by this time close astern, alternating from one quarter to the other as the courses of the respective ships changed. Contact was thereafter maintained at regular intervals and it was agreed that Blossom Forever would overtake on Pearl Prosperity's port side. When Blossom Forever's Pilot requested an increase in speed, the ship's engine revolutions were increased marginally, but after a little time the engine temperatures rose, causing the engine room duty officer to request the bridge to readjust the speed to the original propeller revolutions.

Civil twilight on the morning of 2 November was at 0531. Pearl Prosperity had passed to the west of Waterwitch Reef a little before 0530. After passing the reef the Pilot shaped a course directly for Bow Reef. His normal practice, once past Waterwitch Reef, was to keep Bow Reef ahead until two miles off, when he would alter course to put Heath Reef ahead to pass 5 cables off Bow Reef light.

A north-bound ship, River Embley, was shaping to pass to the east of Waterwitch Reef. Blossom Forever passed to the east

of Waterwitch Reef and then altered to starboard a few degrees to allow River Embley more sea-room and they passed port to port.

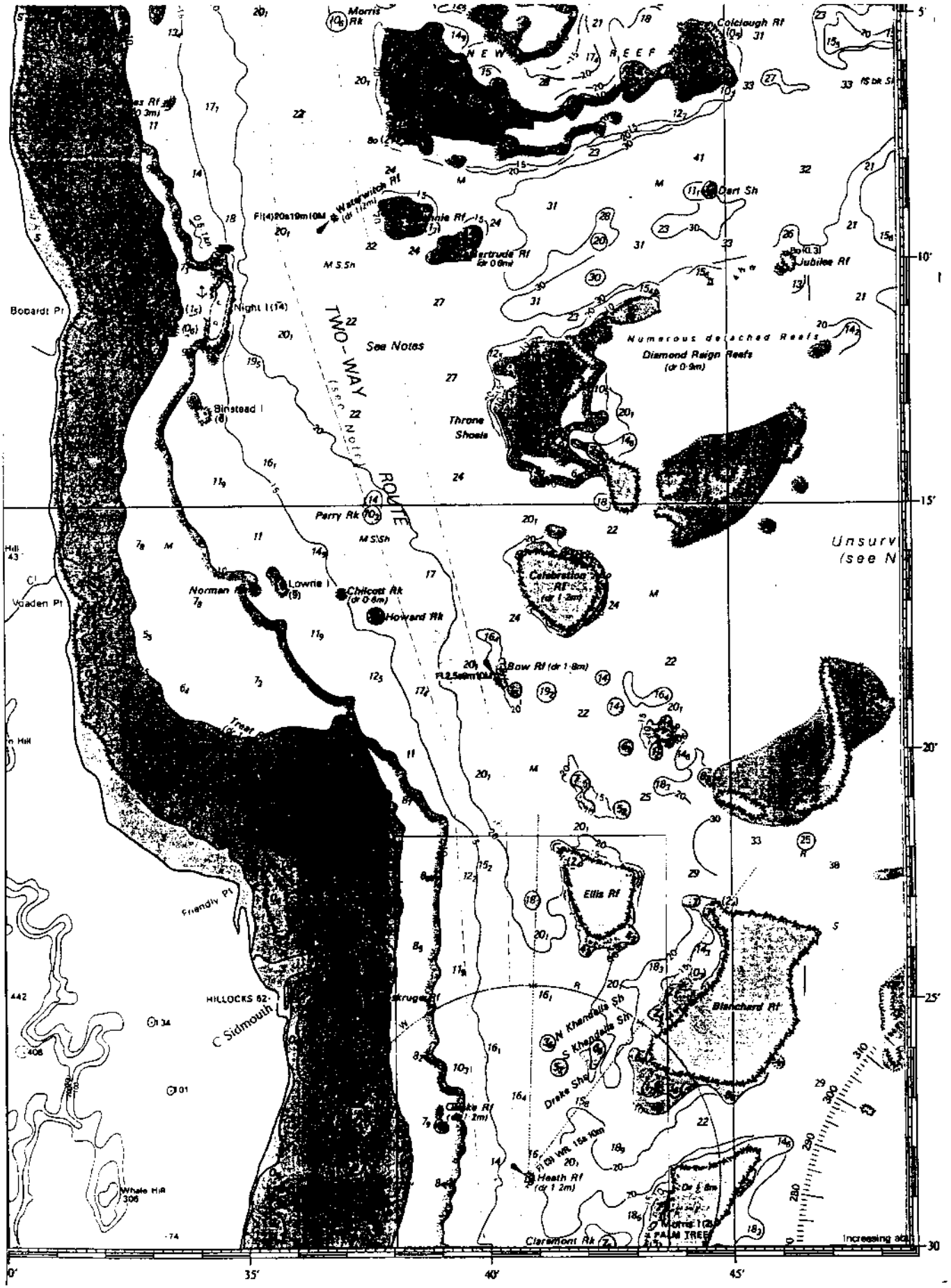
Pearl Prosperity was making good a speed of about 14 knots with Blossom Forever gaining slowly, the difference in speed being about 0.3 of a knot, or 9m per minute.

According to the Pilot of Pearl Prosperity, between Waterwitch and Bow Reef he became concerned at the closeness of Blossom Forever, which was by this time between 30 and 60 degrees on the vessel's port quarter. Pearl Prosperity's Master was on the bridge with the officer of the watch, the Chief Mate, and remarked on the closeness of the other vessel. The Pilot assured him that Blossom Forever would soon alter course. He adjusted course to starboard to pass an estimated 8 or 9 cables (1480 to 1670m) off Bow Reef, when his normal passing distance was about 5 cables or (900m).

The Pearl Prosperity's Pilot stated that he monitored the approach of Blossom Forever on the radar and the overtaking ship came within 1 cable (185m) as measured from the radar mast. At this stage, he again spoke with the other Pilot by VHF and suggested that he alter course to port.

The Pilot on board the Blossom Forever did not check the distance off by radar. He estimated that the two ships were about 3 cables, and certainly no less than 2 cables apart, when the Pilot on Pearl Prosperity called up on VHF and expressed concern at the close approach of the Blossom Forever. Blossom Forever altered course and the two ships diverged. According to a statement signed by the Master and Mate, Blossom Forever passed less than 5 cables from Bow Reef.

Once the courses diverged the close quarter situation was relieved. By the time they reached Heath Reef, 10 miles south of Bow Reef, Blossom Forever was passed and clear.



Extract from chart AUS 834

Analysis - Incident one

Analysis of the incident is limited by the unavailability of the records from both ships and objective documentary evidence, such as a course recorder trace. The analysis relies upon the statements of the Pilots concerned and statements obtained from officers of the two ships.

Although the inner route of the Great Barrier Reef is relatively narrow and deep draught vessels may have limited room to manoeuvre in various places, neither ship was limited by its draught within the two-way route. In this case the general width of the two-way route is 1.1 miles west of Waterwitch Reef and 0.5 miles to the east, a general width of 1.6 miles narrowing to 1 mile off Bow Reef. There is navigable water outside the route but it is limited to the west, both by the standard of survey and Parry, Chilcott and Howard Rocks. To the east it is limited by Throne Shoals and Celebration Reef. There is a recognised "escape" by rounding Bow Reef to the east, rather than the west. Given the normal volume of traffic, there is ample room for passing and for overtaking manoeuvres within the marked route.

The two Pilots had discussed the issue of passing by VHF radio. They mutually agreed that it would take place south of Waterwitch Reef and that the overtaking ship would pass down the port side of Pearl Prosperity.

Blossom Forever covered the distance between Chapman and Heath Reef, a distance of 35.8 miles, in 2.5 hours at a speed of 14.32 knots. Pearl Prosperity covered the distance between Restoration Point and Hay Islets, a distance marginally under 67 miles, in 4.75 hours at a speed of 14.06 knots. Blossom Forever was therefore the marginally faster ship, gaining on Pearl Prosperity at a rate of 8m/min. At this rate, for Blossom Forever to overtake, from its bow level with Pearl Prosperity's stern to being one ship length clear, would take about 45 minutes.

According to the Pilot on Blossom Forever, with the divergence of the ships around Waterwitch Reef at about 0530, he expected Pearl Prosperity to make a course to allow the passing manoeuvre to take place and to keep to the west of the two way route. According to the ship's Master, Blossom Forever was steering 163 degrees for a position 5 cables off Bow Reef.

The Pilot on Pearl Prosperity decided to follow his normal practice and set course with Bow Reef ahead. However, as Blossom Forever was close on the port quarter he subsequently altered course to starboard to pass Bow Reef at between 8 and 9 cables. This was confirmed in a brief statement received from the Master, who stated that Blossom Forever was overtaking at a distance of 1.3 cables (240m) and the Pilot on his ship altered course 5 degrees to starboard.

The Pilot on board Blossom Forever saw that the other vessel had adopted a converging course and contacted Pearl Prosperity, offering to pass to the east of Bow Reef - although outside the marked route as shown on the chart, it is recognised as an "escape route". The Blossom Forever's Pilot stated that the

other Pilot expressed the view that such a manoeuvre was unnecessary.

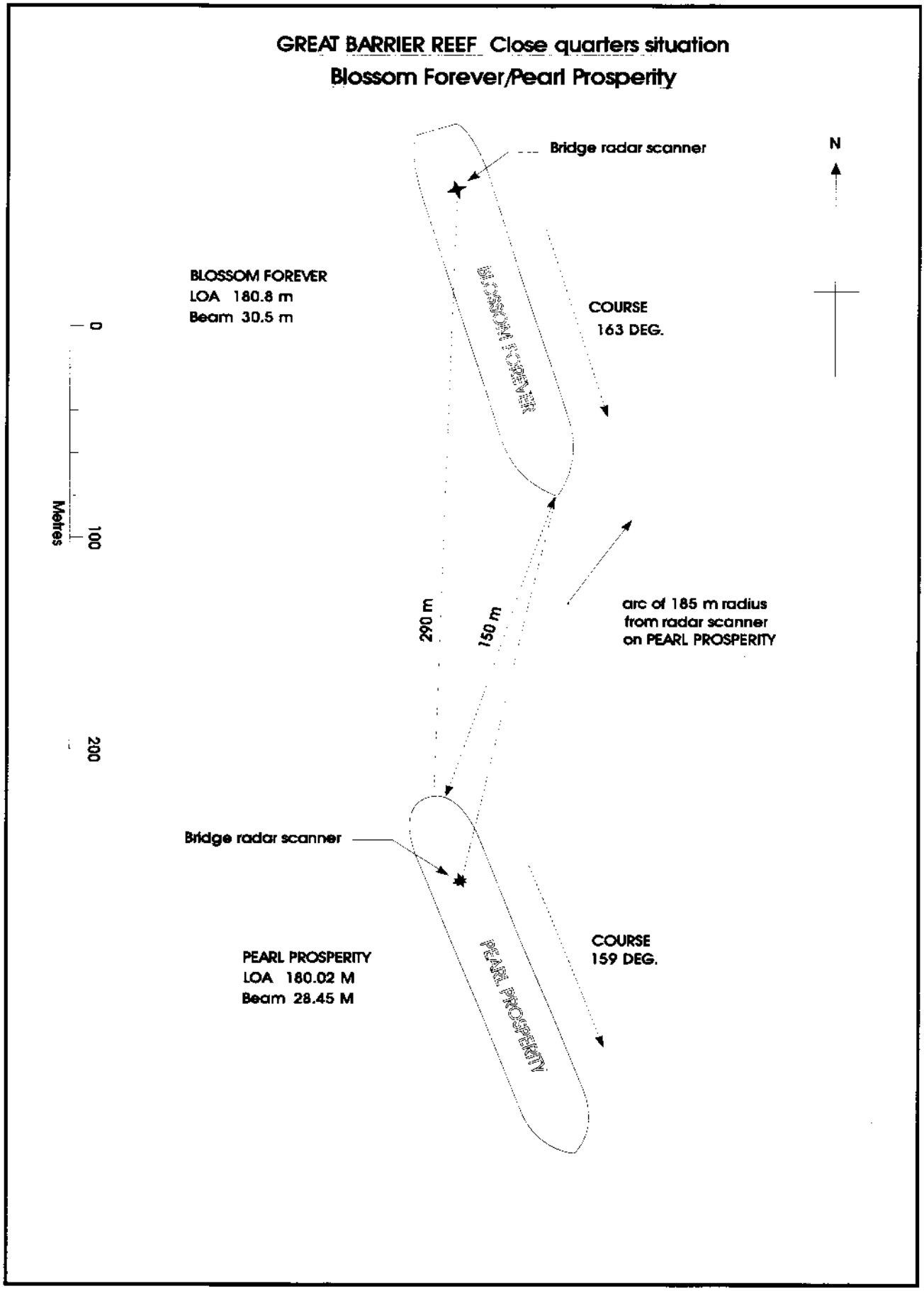
North of Bow Reef, Blossom Forever came within 185 to 240m of the Pearl Prosperity's radar mast, which was 40m from the ship's stern. The distance between the two ships at their closest encounter was therefore between 140 and 200m. This was, under the circumstances, unnecessarily close and was contributed to, in part, by the converging courses adopted by the two ships and their closeness in speed.

In the event, according to the Master and Mate of Blossom Forever, their ship passed less than 5 cables off Bow Reef, on the eastern side of the route, while according to the Pilot on board Pearl Prosperity his ship passed between 8 and 9 cables off Bow Reef, in the mid-part of the designated route.

The main problem in this instance was the use by the Pilots of their own particular and customary route, rather than reacting to the particular circumstances at the time.

It would be reasonable to overtake a vessel on its port side when it is on the starboard side of a channel. In this case, with both vessels tending to the port side of the route and the overtaking manoeuvre taking 45 minutes or so (in excess of 10 miles), it would have been prudent for the overtaking ship to pass down the starboard side. Particularly so, in the event of one or both of the ships needing to make a course alteration for a north-bound ship or fishing boat.

The distance from Blossom Forever's bow to its bridge is about 140m. In overtaking Pearl Prosperity its bow reportedly came as close as 160m from the overtaken vessel's port quarter. However, the distance from Blossom Forever's bridge to Pearl Prosperity's quarter was nearly twice this distance. This may, in part, account for the different perspective from which those on the bridges of the two ships viewed the situation.



Blossom Forever / Pearl Prosperity
Reconstruction of nearest approach

Sequence of events - Incident two

The following sequence of events is based on the log book entries submitted by the two ships involved, from Pilots' note books and time sheets and the course recorder trace submitted by the Iron Shortland.

On 14 November 1993, the Australian bulk carrier Iron Shortland, operated by BHP Transport Ltd, of Melbourne, embarked a pilot of the Queensland Coastal Pilot Service off Cairns Fairway buoy at 1100 hours EST. Iron Shortland, built in 1979, is marginally under 250m in length and has a summer deadweight capacity of 107,140 tonnes. It is crewed by Australian officers and ratings. The Pilot found the ship to be well found and the crew to be efficient and competent.

At 1259, Iron Shortland passed Low Isles, the southern limit of the Great Barrier Reef compulsory pilotage area, with a deepest draught of 8m, on ballast passage from Newcastle, New South Wales, to Port Hedland, Western Australia. The vessel passed Three Isles at sunset (which was at 1836), making good a speed of about 13.5 knots. From VHF radio traffic he was aware that a tanker, Palm Monarch, was following him northward through the Reef.

The Liberian crude oil tanker, Palm Monarch, of about 81,282 tonnes deadweight, sailed from Brisbane in ballast at about 2130 on 11 November 1993, bound for the Challis Venture, an offshore installation off the north-west coast of Western Australia. The Palm Monarch, built in 1981, is a crude oil tanker of 229m in length. The crew consisted of European senior officers and Filipino junior officers and ratings.

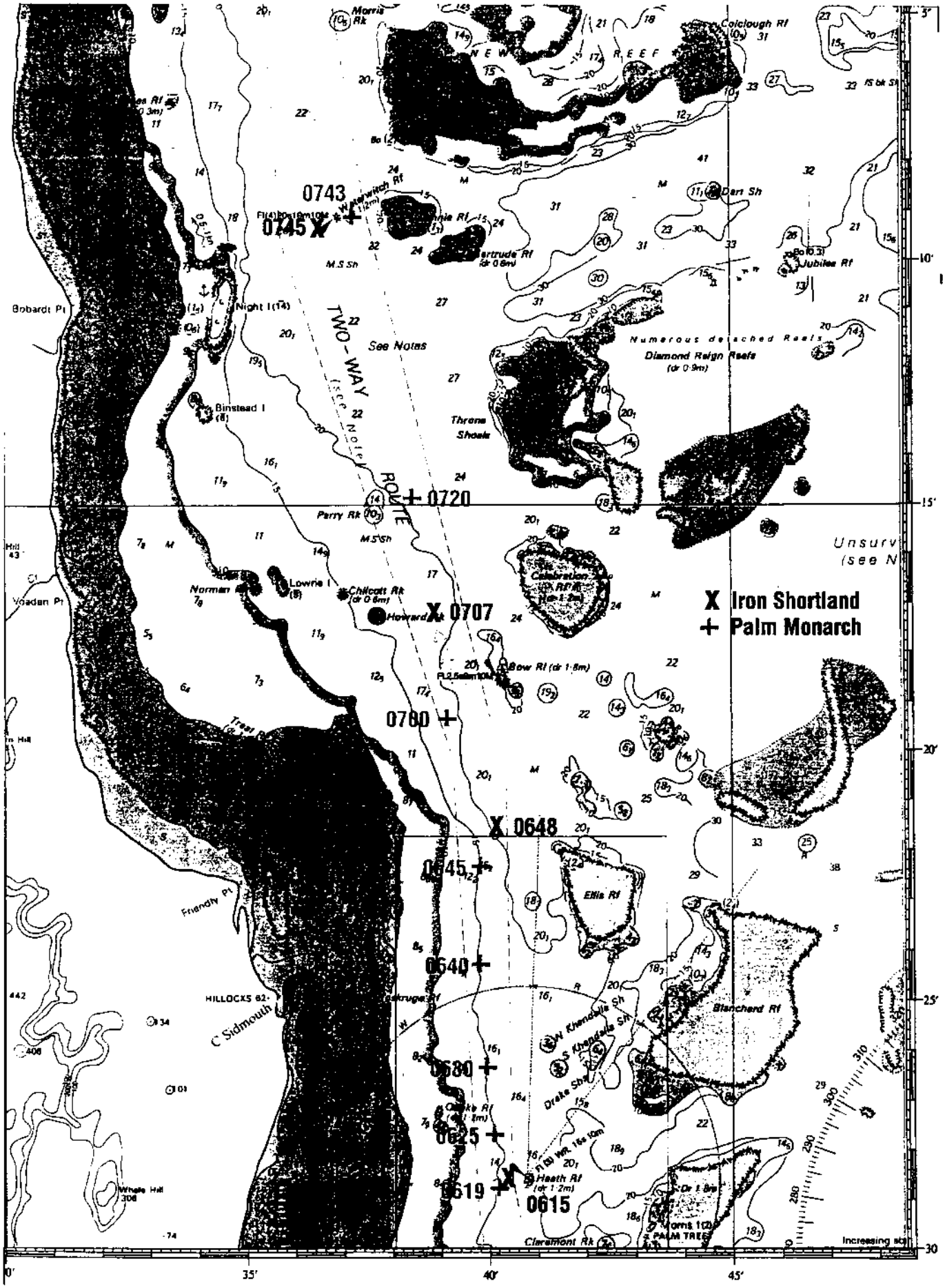
A pilot from the Queensland Coast and Torres Strait Pilot Association joined the ship in Brisbane. He spent some time on the bridge between Brisbane and the start of the compulsory pilotage area, familiarising himself with the ship and its operation. He found that the ship and its equipment functioned perfectly and that the ship was easy to handle. He considered the ship to be well run and managed by an efficient and competent crew.

Palm Monarch passed Low Isles at 1406 on 14 November 1993, making good a speed of about 14.5 knots and with a draught of about 9.3m.

The transit of the Reef by both ships proceeded normally. Both Pilots were able to take rest periods, as traffic allowed, in the recognised sections of the route: from Low Isles to Gubbins Reef; from Archer Point to Three Isles; and, later in the night, across Princess Charlotte Bay. There were few fishing vessels in the Reef and those that were fishing were clear of the main shipping channels.

Throughout the night the speeds of the two ships varied with the tidal conditions, the Palm Monarch maintaining a speed advantage of a little less than 1 knot, gaining at nearly 28 m/min. By the time the two vessels passed Pipon Island, Iron Shortland was about 26 minutes ahead.

Both vessels used the alternative route east of Fahey Reef and Burkitt Island.



Iron Shortland/Palm Monarch
Relative positions as plotted on chart AUS 834

Iron Shortland passed Fife Reef at 0526 on 15 November, by which time Palm Monarch was about 6 minutes astern at a distance of 1400m or 7.6 cables. The Pilot on board Iron Shortland made VHF contact with a south-bound ship, Sevastapol. With the intentions of Sevastapol confirmed, the Pilots of the two north-bound ships discussed the overtaking manoeuvre. Iron Shortland's Pilot suggested that his ship would stay to the east of the route, in the region of Khandalla Shoals, after the two vessels passed Heath Reef. A south-bound ship, Star Mikhalis, which was approaching the two vessels, confirmed that it had a draught of only 6m and would stay to the west.

Iron Shortland passed Heath Reef at 0615, closely followed by the Palm Monarch at about 0621. Iron Shortland was on a course of 006 degrees, to take the ship to the east side of the two-way route and toward Khandalla Shoals. Palm Monarch increased engine revolutions by 2rpm giving a speed of about 14.52 knots, steering 350 degrees and making good about 354 degrees. At approximately 0622, once north of Heath Reef and at the eastern extreme of the two-way route, the Pilot on board Iron Shortland altered course to 000 degrees putting Bow Reef ahead. By this time Palm Monarch had started to overtake Iron Shortland at a distance estimated at 2 to 4 cables. The Star Mikhalis passed to the west of both ships.

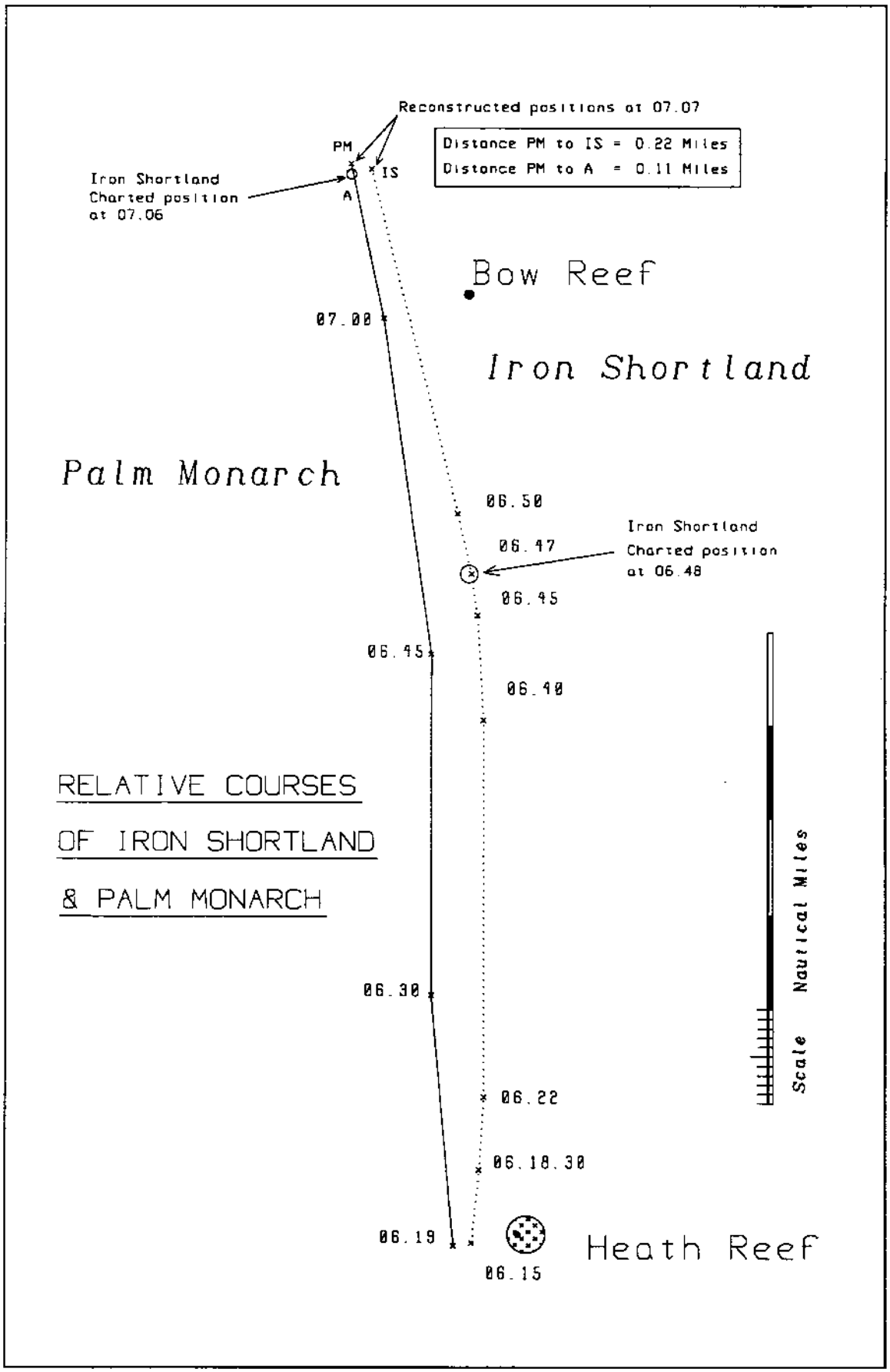
At 0630, Palm Monarch altered course 10 degrees to starboard to a course of 000 degrees and then at 0645 altered to 352 degrees.

Between 0640 and 0650, when Iron Shortland was a little under 3 miles due south of Bow Reef, the Pilot progressively altered course twenty degrees to port to 346 degrees, putting Waterwitch Reef ahead, to pass about 5 cables from Bow Reef.

At about 0655, Iron Shortland's Master was on the bridge and saw Palm Monarch forward of the beam at a distance he estimated as 3 to 4 cables. At 0700, Palm Monarch passed Bow Reef, about one minute ahead of Iron Shortland and made a four degree adjustment of course to port to 348 degrees, to pass to the east of Waterwitch Reef and to keep to the eastern (starboard side) of the two-way route.

Iron Shortland's Pilot had left the bridge at about 0700 to have breakfast in the dining saloon, having discussed with the Master the probable course that Palm Monarch would follow. From the saloon window the Pilot saw that Palm Monarch appeared closer to Iron Shortland than during the overtaking manoeuvre and that the two courses were converging. It seemed that the overtaking vessel would cross ahead, so he immediately returned to the bridge.

Marginally before 0707, the Iron Shortland's Master measured the distance between his ship and Palm Monarch by radar, as 2 cables (370m). The Pilot altered course to 342 degrees to increase the distance between the ships. Although his original plan was to pass to the east of Waterwitch Reef, he decided to pass to the west. Palm Monarch passed to the east of Waterwitch Reef at 0743 and Iron Shortland passed to the west of Waterwitch Reef at 0745. By the time the two vessels passed Chapman Reef, a little over 15 miles north of Waterwitch Reef, Palm Monarch was 7 minutes (1.6 miles) ahead.



Iron Shortland / Palm Monarch
Relative courses vicinity Bow and Heath Reef

Analysis - Incident two

In this incident, no concern was expressed by the Master or Pilot on board Iron Shortland until after Palm Monarch had passed ahead and the converging courses put the overtaking ship close ahead. In the judgement of the Pilot and Master of Iron Shortland, the distance between the two vessels was unnecessaily close, notwithstanding the fact that Palm Monarch was the faster ship.

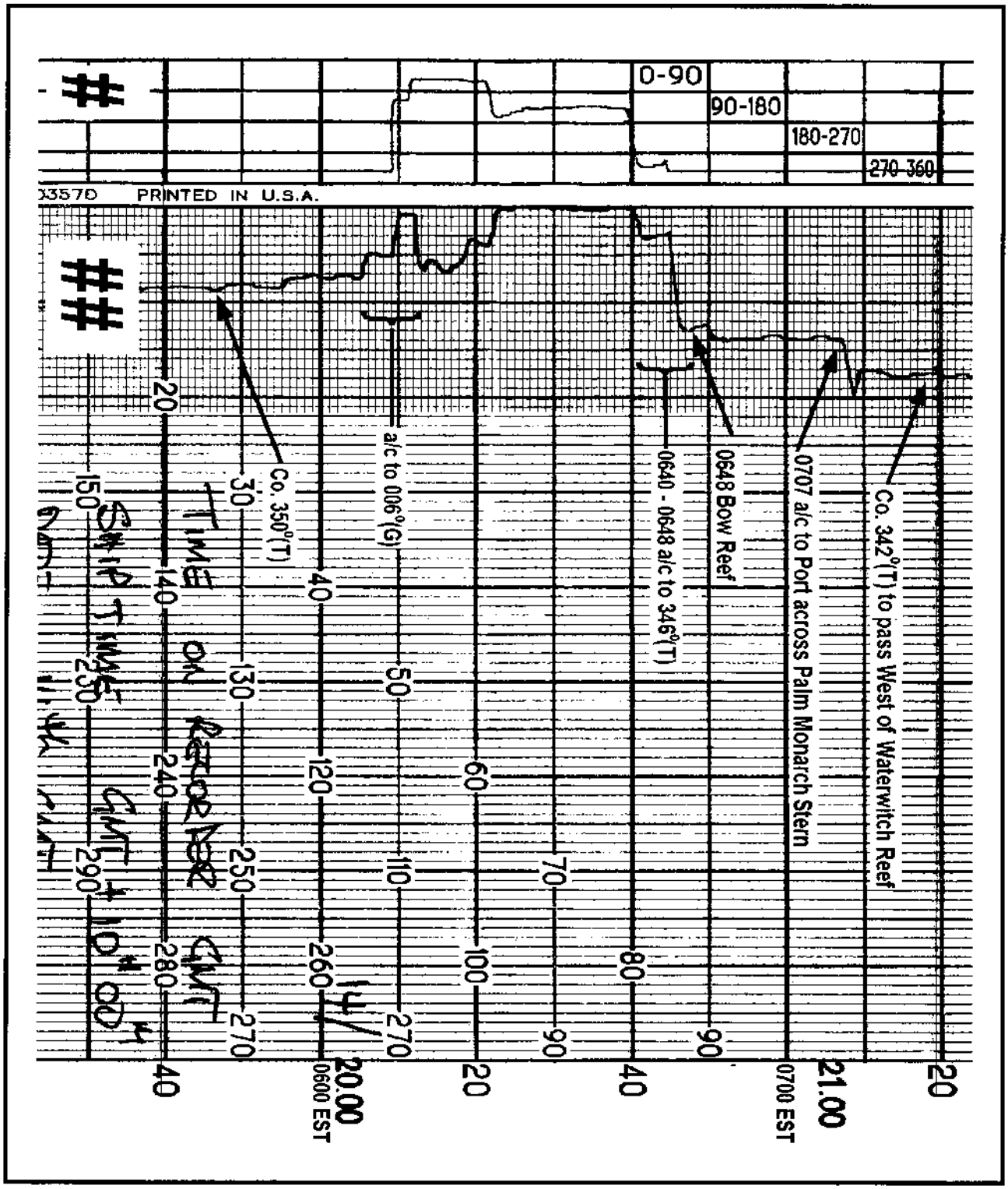
Detailed analysis of this incident is not possible due to inconsistencies in times and courses (as presented in the various documentation), the absence of any documented gyro compass error, variation in the accuracy of time kept on the respective ships and the different reference points used by each ship to record its position. However, the Inspector is satisfied that the times given in the sequence of events are accurate within one minute for each ship, though the degree of synchronisation between the two ships cannot be established.

For the purposes of this analysis the respective tracks have been redrawn based on the course recorder chart submitted by Iron Shortland and the courses and times supplied by Palm Monarch. The respective speeds have been calculated, based on the lapsed time between Eden Reef and Bow Reef. Two positions, taken at 0648 and 0707 on 15 November, by the deck watch of Iron Shortland have also been plotted. This reconstruction is not absolutely accurate, but gives an indication of the respective courses followed by the two ships from Heath Reef to the crossing situation north of Bow Reef.

The Master of Iron Shortland submitted the ship's course recorder trace. The sections of the trace from 1800 to 2300 UTC, 14 November (0400 to 0940 EST, 15 November) were analysed. It was not possible to establish the accuracy of the time shown on the chart or any time difference between the times the Pilot kept or the ship's clocks. However it is evident that the trace is accurate to within two minutes of the times recorded in the ship's log book.

Iron Shortland's course recorder shows that, at about 0438, course was altered off Magpie Reef from 329 degrees to 351 degrees. This general course was maintained until 0606 when the course was altered over a period of 8 minutes to about 006 degrees. This, in turn, was maintained for about 9 minutes when, at 0622, the ship was then brought onto a course of 000 degrees. At 0640, course was altered to port and by 0648 Iron Shortland was steady on a course of 346 degrees. At 0707, course was altered to 342 degrees. This final course took Iron Shortland west of Waterwitch Reef.

Between 0600 and 0630 Palm Monarch maintained a course of 350 degrees and the two ships diverged. Between 0630 and 0645 Palm Monarch altered course to starboard to 000 degrees on a track generally parallel to Iron Shortland. At 0645 Palm Monarch altered course to 352 degrees, at a time when Iron Shortland was slowly coming to a heading of 346 degrees, a course to take the vessel east of Waterwitch Reef. Unknown to either ship the two courses



Iron Shortland
Course recorder trace 15 November 1993

\# Quandrant indicator has a varing degree of inaccuracy

\## One minute grid superimposed over section of course recorder for analysis

were converging. At 0700, Palm Monarch made a final course adjustment to port to bring the ship's course to a heading of 348 degrees, to pass east of Waterwitch Reef. Although these 4 degrees reduced the rate of convergence marginally, it was not done with this conscious intent.

From these courses and the log book entries made by the officer of the watch, the Inspector is satisfied that between Heath Reef and Bow Reef, Iron Shortland kept to the east side of the two-way route. However, it would appear from the positions taken by the Master that Iron Shortland passed about 0.7 cables off Bow Reef and by 0707 was more or less in the middle of the two-way route.

Although the visibility was excellent and there were no ships ahead shown on the radar, the Pilot aboard Palm Monarch elected to pass to the east of Waterwitch Reef and to keep to the starboard side of the two-way route, although this meant both ships making for the same approximate position off the reef.

At about the time the ships were passing Bow Reef, Iron Shortland and Palm Monarch were making good speeds of about 13.38 and 14.54 knots respectively (413 and 448m/min). The speed differential of 35m/min meant that Palm Monarch would take 7 minutes to gain 250m (the length of Iron Shortland) on the overtaken ship. The evidence is that a little after 0655 Palm Monarch's bridge was just forward of Iron Shortland's beam. Therefore, twelve minutes later, when altering course to 348, Palm Monarch would have gained a little over two cables as measured from Iron Shortland's bridge shortly before 0707. This is consistent with the radar distance taken from Iron Shortland and the reconstruction shown in the diagram. Allowing for the length of the ship from the bridge to the bow being about 200m, the two ships were about 170m apart at their nearest point of overtaking.

Had Palm Monarch suffered some mechanical failure, particularly a steering gear failure, the proximity of the ships was such that those on Iron Shortland would have had little time to react effectively.

Although the Pilots discussed the passing manoeuvre and they agreed that the overtaking ship should pass down Iron Shortland's port side, there was no discussion of either vessels' intended track.

Comment

In the two incidents, the Pilot of each ship was responsible to the respective Master for navigation. There is no suggestion in either of the reports received that the Master or crew of any of the four ships were responsible for the alleged close quarter incident.

A licensed pilot offers a service to the ship owner to assist the master by the application of his/her local knowledge. Any master, while delegating the navigation of the ship to a pilot, remains responsible for the safety of the ship, including the safety of navigation. The fact that experienced masters expressed concern at the proximity of another ship under pilotage conditions, and the fact that experienced mariners considered it proper to notify their principals and the Australian Maritime Safety Authority of the incidents, is indicative that, in their opinion, the other ship was unnecessarily close.

Whether or not a close quarter situation can be classed as an incident with the potential for a serious accident may, in many cases, be a matter of subjective judgement, depending upon the perception of those involved.

Having studied the available information, the Inspector is satisfied that close quarter incidents did occur and that it was reasonable to regard the reports as "incidents" within the meaning of the Regulations.

The two reported incidents involved overtaking manoeuvres in the inner route of the Great Barrier Reef, where the channel width varies from 2 miles to about 1.5 miles.

Under the provisions of the International Regulations for Preventing Collisions at Sea, any vessel coming up on another from more than 22.5 degrees abaft the beam, is an overtaking vessel and has a duty to keep clear of the vessel being overtaken until finally past and clear. The vessel being overtaken has a duty to maintain its course and speed, unless it becomes apparent that the vessel required to keep out of the way is not taking appropriate action. However, given the need to remain within a designated channel, vessels may not be able to maintain a steady course.

In other, more congested waters of the world (and, from time to time within the Great Barrier Reef), passing distances may be minimal as a matter of necessity. However, there was no need, in either of these two cases, for the overtaking ship to place itself so close to another ship while overtaking, particularly where the encounter or proximity time was lengthened by the closely matched speeds.

In the first incident the overtaking ship, as measured by radar, closed to within one cable before a VHF radio contact led to a greater and safe passing distance. The second incident involved two ships closely matched in speeds on courses where their tracks would have crossed. Although a close quarter situation developed, the faster ship was increasing the distance between the two vessels.

Pilots tend to utilise consistent courses (and their reciprocal courses) based on land marks as turning points and headings. Thus a pilot will know that

his ship is two miles from Bow Reef, either by radar or by land marks, when Lowrie Island is in line with the southern end of the Adam Range. Pilots will thus use the Reef lighthouses as either ahead marks or astern marks, which means that, instead of using the width of the route and staying on its starboard side, there is a tendency to use a single track. These tracks may vary marginally from pilot to pilot, depending on their own particular marks and any draught constraints. This also means that pilots do not often check their position by distance and bearings (either visual or radar). When departing from their regular courses, while having certainty with regard to safe water, they will not necessarily know with accuracy the ship's position relative to shoals.

The issue raised by these incidents is whether, had any of the ships experienced a failure in steering and/or engine power, could the other ship have avoided collision. There are a number of notable incidents, including the collision between Trent Bank and Fogo in 1964, and Frosta and Fotini Carras in 1968, both of which involved ships passing at distances of 2 cables or less and which resulted from the failure of steering gear in the overtaking vessel.

In a third such incident, Kylix and Rustringen in the Thames Estuary in 1972, the overtaken ship was criticised for not slowing down under the provisions of a local bylaw, to assist the vessel overtaking to clear the overtaken ship more rapidly.

It must be recognised that in the relatively confined waters of the Great Barrier Reef, overtaking manoeuvres occur on a daily basis, many of which necessarily involve ships in "close-quarter" situations between ships closely matched in speed and size. It is important that the time that the ships are in close proximity is reduced to a practical minimum.

In such cases a reduction in speed by the overtaken vessel would assist in the manoeuvre and reduce the time in proximity. However, notwithstanding the necessity of altering course to keep to the channel, some masters of vessels being overtaken may regard an alteration of speed as contrary to a strict reading of Rule 17 (Action by Stand-on Vessel) of the International Regulations for Preventing Collisions at Sea. This makes it important that such manoeuvres should be fully discussed between pilots so that appropriate courses and speeds can be predetermined. Further, pilots should discuss the estimated time of being clear of each other, and the courses that will be steered and the passing distances off relevant reefs, points and islands.

In the incidents of 2 and 15 November, the Masters of both overtaken ships stated that a reduction in the engine revolutions of their respective ships could be have been achieved immediately and easily through the bridge control and that any such reduction would not have involved the engine room staff in any extra activity.

Conclusions

1. Having studied the available information, the Inspector is satisfied that the ships involved in the reported incidents were unnecessarily close, therefore close quarter incidents did occur and that it was reasonable to regard the reports as "incidents" within the meaning of the Regulations.

2. Given that all ships were aware of the close quarter situation and all those on the respective ships' bridges were alert to the potential danger, the risk of collision, had a failure of machinery or steering gear occurred, was remote.

3. Given the situation on the day, there was no compelling reason for ships to overtake in such close proximity.

4. Although communications were established between the vessels involved and the passing manoeuvres discussed, the general level of planning and discussion of projected manoeuvres and courses was inadequate.

5. Given the limits of the water available within the Great Barrier Reef, close quarter situations are bound to occur from time to time. Where vessels' speeds are close and the overtaking manoeuvre prolonged, the overtaken vessel should, in consultation with the overtaking ship, consider reducing engine revolutions to reduce the time of any close proximity.

Particulars of ships - Incident one

Name	**Blossom Forever**
Flag	Philippine
Lloyd's No.	9038701
Call sign	DZSL
Type	Bulk carrier
Owners	Tropical Shipping Corp, Manila
Classification Society	Nippon Kaiji Kyokai
Builders	Harima Heavy Industries Co Ltd - Ishikawajima
Year built	1992
Length	180.8m
Breadth	30.5m
Depth	15.3m
Summer draught	10.931m
Gross Tonnage	22147
Net tonnage	12665
Summer deadweight	38852 tonnes
Engine	Sulzer 6 cylinder (Engine room manned)
Power	4939kW
Propeller	Single, fixed

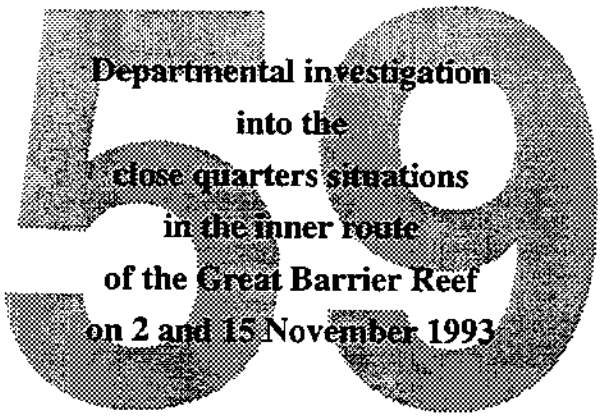
Name	**Pearl Prosperity** (ex Renko 1989, ex General Roxas 1988, ex Manila Success 1986, ex Barkness 1985.)
Flag	Indian
Lloyd's No.	7501699
Call sign	VTVG
Type	bulk carrier
Owners	Sicaal Jebsen Ships India Ltd
Classification Society	Lloyd's Register
Builders	Sumito Heavy Industries, Uraga
Year built	1978
Length	180.02m
Breadth	28.45m
Depth	15.02m
Summer draught	10.891m
Gross Tonnage	19169
Net tonnage	12571
Summer deadweight	34554 tonnes
Engine	Sulzer 7cylinder (Engine room UMS)
Power	10298kW
Propeller	Single, fixed

Particulars of ships - Incident two

Name	**Iron Shortland**
Flag	Australian
Lloyd's No.	7802043
Call sign	VJIS
Type	Bulk carrier
Owners	BHP Transport
Classification Society	Lloyd's Register
Builders	Ishikawajima Harima Heavy Industries
Year built	1979
Length	249.51m
Breadth	41.08m
Depth	20.71m
Summer draught	15.025m
Gross Tonnage	59962
Net tonnage	42002
Summer deadweight	107140 tonnes
Engine	Sulzer 6 cy.(Engine room UMS)
Power	17249kW
Propeller	Single, fixed

Name	**Palm Monarch** (ex Universal Monarch)
Flag	Liberian
Lloyd's No.	7915357
Call sign	ELLH4
Type	tanker
Owners	Palm Monarch Inc
Operators	Teekay Shipping Co Ltd
Classification Society	American Bureau of Shipping
Builders	Mitsui Eng & SB Co Ltd (Chiba)
Year built	1981
Length	229.55m
Breadth	44.05m
Depth	18.93m
Summer draught	12.917m
Gross Tonnage	40839
Net tonnage	30282
Summer deadweight	81282 tonnes
Engine	B&W 6cy (Engine room manned)
Power	13534kW
Propeller	Single, fixed

Corrigendum



Page 3 - "The Queensland Coast and Torries Strait Pilot Service"
should read
"The Queensland Coastal Pilot Service"