Departmental investigation into the collision between the Singapore bulk carrier MAERSK TAPAH and the Australian fishing vessel NIMBUS south of Low Isles, Great Barrier Reef on 26 November 1996

MIIU

Report 103

COMMONWEALTH DEPARTMENT OF TRANSPORT AND REGIONAL DEVELOPMENT

Contents

Navigation Act 1912

Navigation (Marine Casualty) Regulations

investigation into the collision between

the Singapore bulk carrier

MAERSK TAPAH

and the Australian fishing vessel

NIMBUS

south of Low Isles, Great Barrier Reef

on 26 November 1996.

Conducted in conjunction with the

QUEENSLAND DEPARTMENT OF TRANSPORT

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Summary

In the afternoon of 26 November 1996, the Australian fishing vessel Nimbus was on passage from Cairns to Thursday Island in company with the fishing vessel Anniki, after both vessels had completed a refit. Each vessel was towing a string of aluminium dories or dinghies in line astern - Nimbus was towing five. The Singapore flag bulk carrier Maersk Tapah was on passage from Gladstone to India with a full cargo of coal. The navigation was under the control of a licensed pilot.

Both vessels were making for a point to the east of Low Isles, about 30 miles north of Cairns. At about 1522, while Maersk Tapah was overtaking Nimbus the two vessels collided. Nimbus sustained damage to its bow and wooden hull. Nobody was hurt and no pollution resulted from the collision.

The Pilot on Maersk Tapah ensured that Nimbus required no assistance and the two vessels exchanged details. Maersk Tapah continued on its voyage to India and Nimbus resumed passage for Thursday Island.

Sources of Information

The Master and crew of Maersk Tapah

The Skipper and crew of the fishing vessel Nimbus

BMT Seatech Ltd
Dr I.W. Dand C.Eng, B.Sc, Ph.D MRINA

Acknowlegement

Portion of chart Aus 830 reproduced by kind permission of the Hydrographic Office, RAN

Department of Transport, Queensland

Narrative

Nimbus

Nimbus is a wooden fishing vessel, built in 1964, with an overall length of 15.087 m, a beam of 3.658 m and a depth of 1.82 m. It is powered by a 90 kW diesel engine giving a speed of between 6.5 and 8 knots at 1500 rpm.

The vessel acts as a mother vessel for dories (dinghies) fishing with lines in and about the reef. The vessel normally has a crew of ten but on the repositioning voyage to Thursday Island a crew of five was carried. The only member of the crew who carried, or was required to carry, a certificate of competency was the Skipper who held a Master Class 5 (Fishing) issued on 17 January 1989.

Nimbus is equipped with a magnetic compass, a flux compass attached to the automatic steering, a global positioning system, radar, HF and VHF radio. The automatic steering is fitted with an "off course" alarm which sounds if the vessel's course varies by more than 20° for more than a preset period.

Maersk Tapah

Maersk Tapah is a Singapore registered bulk carrier of 68,429 tonnes summer deadweight at a summer draught of 13.202 m. The ship was built at the Namura Shipbuilding Co. Ltd, Imari, Japan and launched in 1989 as the Lake Towada. It is 225.78 m in length, has a beam of 32.24 m, a moulded depth of 18.3 m and is powered by a 6 cylinder diesel engine developing 9180 kW driving a single fixed pitch propeller giving a service speed of 14 knots.

The Incident

Nimbus

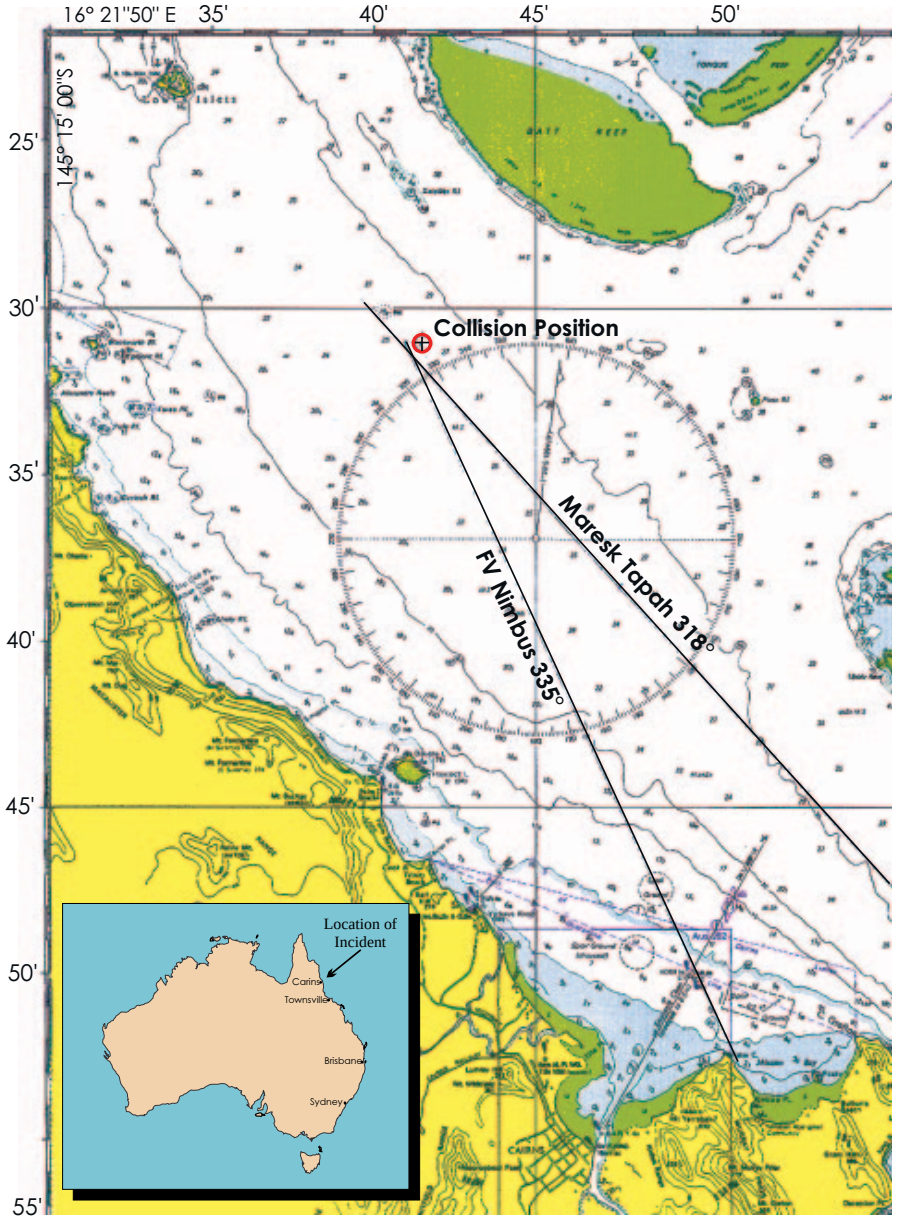
Nimbus and the fishing vessel Anniki, under the same ownership, sailed from Cairns at 1200 on 26 November 1996 bound for Thursday Island. Both vessels were towing aluminium dories, Nimbus had five in tow while Anniki had four.

The vessels left the Cairns channel between beacons C5 and C7 and set a course, based on a pre-set GPS track, on a heading of 335° on the auto-pilot. The VHF radio on each vessel was set to channels 77 and 16. The dories were set in line astern from each vessel, with about 25 m between each dory. The wind was south-east 5 to 10 knots, the sea and swell slight from the south and the weather was good with at least
10 miles visibility. Nimbus led the two vessels at a speed of about 7.5 knots and remained about 0.5 of a mile ahead of Anniki. Nimbus did not have its radar switched on.

Once clear of Cairns and on course for Low Isles, the Skipper of Nimbus started to clear up the wheelhouse after the refit. The vessel was on auto helm and the Skipper was navigating on GPS plotter making for Pratt Rock, west-north west of Low Isles. The view ahead was clear but curtains at the after end of the wheelhouse restricted vision astern.

Anniki had just been fitted with new electronic equipment and auto pilot. At about 1500 the Skipper was reading the instruction manual for the auto pilot, which interfaced with the GPS.

The Skipper of Anniki first became aware of Maersk Tapah when he walked out on to the stern of his vessel and saw the bulk carrier



Portion of chart Aus 830 showing location of incident

overtaking about 0.5 miles on Anniki's starboard quarter. He estimated that the large ship was on a collision or near collision course and he went to the wheel and altered course away from the vessel, on a westerly course. He gained the impression that the larger vessel was altering course as it seemed that the direction of the wake altered to starboard as it passed his vessel at not more than 0.5 miles. He heard no whistle signal and there was no call on VHF radio. He was surprised that the larger vessel was passing so close and had made no attempt to contact him. He did not alert Nimbus and returned to studying the auto helm manual.

At about 1500, the Skipper of Nimbus, who was in the wheelhouse, saw a south bound ship some ten or so miles ahead and it seemed that it would pass well clear to port. The vessel's four crew members were asleep in the sleeping quarters astern of the wheelhouse. The vessel's video cassette recorder had been replaced at the vessel's refit and he soon became preoccupied with fitting the new VCR into the space from which the old one had been taken, while listening to a cricket commentary on a domestic radio receiver. The new VCR was bigger and he sat on the deck of the wheelhouse trying to connect it and fit it in place.

He had been sitting on the deck for some time when he felt Nimbus roll, followed by an impact. His immediate thought was that Nimbus had run aground, but virtually simultaneously he realised that he was well clear of any reef. As he got to his feet, the shouts of his crew made him realise that a ship coming up from astern had collided with Nimbus. The next thing he realised was that the anchor chain was paying out and he reacted by putting the engine out of gear. Within a few seconds he saw Maersk Tapah passing ahead on his starboard side and crew members of the ship at its stern shouting at Nimbus.

The automatic bilge pump started and he sent a crew member to check the spaces, particularly the engine room, while he went forward and checked the bow to ensure that none of the hull planking had

been sprung. The most obvious damage was to the stem and anchor roller, both of which had carried away releasing the anchor. The Nimbus crew were instructed to recover the anchor.

Some minutes after the collision, which he estimated as occurring at about 1530, the Skipper fixed the position as 16° 31'South 145° 41' East, he recorded that the bearing of Low Isles was 335°.

Maersk Tapah called the fishing vessel on VHF channel 16 and asked whether the fishing vessel was all right and if the Skipper wanted the bulk carrier to stop. The Skipper confirmed that nobody was hurt, the vessel seemed all right and they did not require Maersk Tapah to stop as they were in company with the other fishing vessel astern. The vessels exchanged names and details of the Pilot and owners.

Later the Skipper of Nimbus called Maersk Tapah and had another conversation on channel 77. During the conversation he asked the Pilot why the ship passed so close, but received no reply that satisfied him.

After ensuring that Nimbus was fit to proceed, the Skipper took the vessel to Low Isles to anchor for the night. Nimbus also anchored overnight on 27 November at Pipin Reef and on 28 November at New Reef and arrived at Thursday Island on 29 November.

Maersk Tapah

The Singapore registered bulk carrier Maersk Tapah arrived at the Barney Point Terminal, Gladstone, at 0836 on Sunday 24 November 1996.

A pilot from the Queensland Coastal Pilot Service arrived on board at about 1030 on 24 November, having flown from Cairns to Gladstone via Brisbane. He introduced himself to the Master and they exchanged details about the ship and the pilotage. The Pilot inspected

the wheelhouse and acquainted himself with the ship before having lunch. After lunch and before the ship sailed he relaxed and had a short sleep. The Pilot went to the bridge for the passage from Gladstone harbour. All bridge equipment was operational and working properly and the ship's course recorder was synchronised with the ship's clocks.

The vessel sailed at 1634 and cleared the Gladstone approach channel at 1824. The vessel had sailed with some ballast required by the Draught Surveyor for operational reasons, resulting in a deepest draught of 13.38 m. The Pilot had a firm undertaking that the ballast would be discharged to ensure a maximum draught of 12.1 m for passage through the Prince of Wales and Varzin Passage. The ballast was discharged and the ship suitably trimmed at the correct draught within the first 24 hours.

This was the second time that the Pilot had charge of the reef passage on Maersk Tapah, having piloted it on a north-bound passage in mid October. The Master and Pilot discussed the introduction of "bridge resource management"(BRM) by the Maersk Line management and the Pilot referred the Master to his "pilotage folder and passage plan" which also contained information on BRM and articles on the subject. The Pilot's passage plan and "Pilots advice to watchkeeping officers" was referred to the watchkeeping officers.

On passage from Gladstone through the non-compulsory pilotage area south of Low Isles, the Pilot was called for each course alteration, satisfying himself that the ship had settled on course and there were no dangers before leaving the bridge. He found the ship's officers and bridge ratings to be efficient and competent.

At noon on 26 November, Maersk Tapah was north of Russell Island in a position logged as 17°05' South 146° 07' East, steering 345° true. Over the previous 24 hours the vessel had covered 311 miles at an average of 12.96 knots.

The Pilot went to the bridge a little before 1245, as the vessel was approaching Little Fitzroy Island, off Cairns. At 1250, with Little Fitzroy Island light bearing 274° x 3.4 miles the course was altered to 318° true, 316° gyro, to put Low Isles dead ahead and the speed was measured at 12.87 knots. The Second Mate was the officer of the watch and a rating was working close by the bridge, on call should the watch require a lookout or helmsman.

There were seven or eight fishing vessels, small commercial craft and pleasure boats off Cairns. Maersk Tapah's radars were running, the Pilot had charge of the navigation and the Second Mate was using the automatic radar plotting aid (ARPA) to plot the vessels. At about 1340, the vessel passed abeam and about 2.3 miles off the fringing reef off Green Island.

At about 1400 a relatively large piloted south bound vessel was seen north of Low Isles. Also two fishing vessels were seen on the port bow, both vessels were on a north-westerly course and each seemed to be towing a string of dinghies astern. At 1404, when about 5 miles west-north-west of Green Island, the Pilot ordered an alteration of course to starboard to pass astern of a small tourist vessel crossing from starboard on its way back to Cairns. The ship reached a heading of about 336° at about 1405, when the ship's head was allowed to slowly come to port and resume its course at about 1409.

The Second Mate acquired the fishing vessels as a target, but the CPA and courses of the vessel calculated by the ARPA were not consistent.

At about 1455, the Master went to the bridge to check on the ship's progress and, after satisfying himself all was well, he left the bridge again at 1505. At this time the Pilot and Second Mate were concentrating on the south-bound ship. All this time Maersk Tapah was drawing closer to the two fishing vessels, which appeared to be on a parallel, or slightly converging, course.

The first (southern most) of the two fishing vessels was left astern of Maersk Tapah and the other was on the port bow. The Second Mate asked the Pilot whether or not they were passing clear and the Pilot, who was monitoring the vessels at the centre line gyro compass repeater, assessed that they would pass clear. At this time the south bound bulk carrier ahead of Maersk Tapah was at six miles. There is a difference in recollection between the ship's officers and the Pilot as to whether the vessel was fine on the starboard bow or port bow, but it was on a course towards Cairns fairway buoy, passing clear of Maersk Tapah.

The Pilot watched the second fishing vessel pass down the side and estimated that, when just forward of the bridge, it was about 30 m off (one ship's beam width) and was passing clear. The Master had returned to the bridge a little earlier and was at the chart table reading the Pilot's folder on Bridge Resource Management. At 1523, the Pilot was talking to the Master when there was the loud noise of an impact. Both the Master and the Pilot rushed to the bridgewing where they saw the fishing vessel astern lying at right angles to Maersk Tapah's course and the fishing vessel's dinghies formed an angle of about 30° to 40° to Maersk Tapah's track. The fishing vessel had evidently collided with Maersk Tapah, aft of the bridge, close to the after draught marks about 10 m from the stern. The fishing boat seemed to be lying to its anchor. The position of the collision was fixed as Low Isles light bearing 316° x 11.0 miles in latitude 16° 31'South 145° 41.5' East.

A number of Maersk Tapah's ratings were at the ship's stern. They later stated to the Master that the fishing vessel headed toward the ship's side at an angle of about 40°- 45° and only its bow struck the bulk carrier's side. They did not see anybody on the fishing vessel's deck or in the wheelhouse immediately before the collision but tried to shout warnings to its crew.

The bulk carrier's engine room was put on stand-by for manoeuvring. Immediate calls on channel 16 VHF went unanswered, but after some minutes contact was made. It was established that nobody on the fishing vessel was injured and, although there was some damage to the hull, the vessel did not require assistance.

The Pilot asked why the fishing vessel had altered course towards the larger vessel, to which the fishing vessel replied that no alteration had been made and the vessel was on auto pilot. In turn the fishing vessel asked why Maersk Tapah had passed so close to which the pilot replied that the two vessels were passing safely.

When asked what had happened by Maersk Tapah's Master, the Pilot, who felt strongly that the fishing vessel had altered course to cause the collision, stated that he could not understand why the fishing vessel altered course.

Comment and Analysis

The Collision Regulations

Rule 5, “Lookout”, requires:

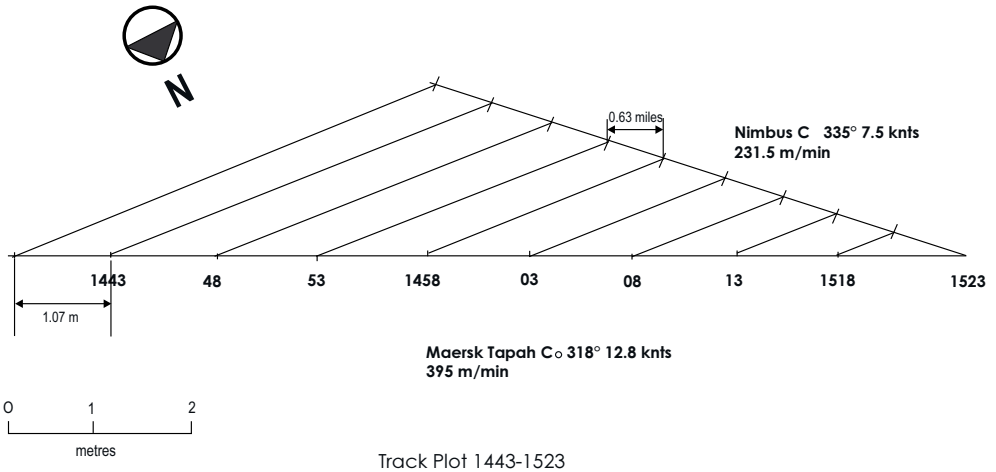
> Every vessel shall at all times maintain a proper lookout by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.
>
> The reference to a lookout involves not only seeing or detecting a vessel but also “ . . . involves the intelligent interpretation of the data received by way of [these] various scientific instruments.”[1]

Rule 7, "Risk of collision", contains a mandatory and all embracing requirement that every vessel shall use all available means to determine if risk of collision exists and states that if there is doubt such risk shall be deemed to exist. It also states that assumptions shall not be made on the basis of scanty information.

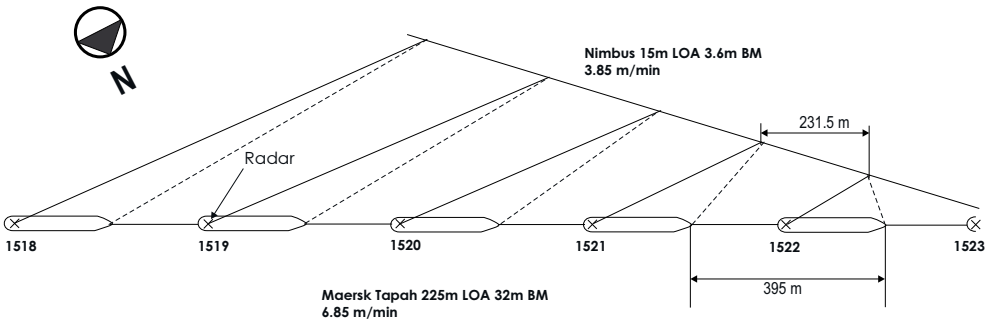
Maersk Tapah was an overtaking ship and had a duty to keep clear of Nimbus. The International Regulations for Preventing Collisions at Sea, 1972 define an overtaking ship as any vessel coming up with another vessel from a direction more than 22.5° abaft her beam and is required by Rule 13 to keep out of the way.

Nimbus was a vessel being overtaken and was the “stand-on” vessel and was required to maintain her course and speed. Rule 17 makes provision for the stand-on vessel to take action to avoid collision.

[1] Mankabady, S.,1991. International Shipping Law, Vol II,



Track Plot 1443-1523



SITUATION 1518 -1523

The Skipper of Nimbus, by his own admission, was sitting on the deck trying to connect and fit his video recorder. He relied on any other ship to which Nimbus was required to give way to call him on VHF channel 16. The vessel's radar, although operational, was not switched on.

The Skipper was not complying with the obligation to keep a proper lookout and he was therefore not in a position to take any appropriate action required by the Collision Regulations.

The Pilot and Second Mate of Maersk Tapah had seen both the fishing vessels on a similar course to their own and the bulk carrier on a southerly course. As give-way vessel, the issue is whether or not they made a correct assessment of the fishing vessels' courses and relative movement, whether they made appropriate use of the navigation equipment and obeyed the Collision Regulations.

(Note: Rules 5, 7, 13 and 17 are reproduced at Annex 1)

Reconstruction

Nimbus was on a delivery voyage to return the vessel to its base in Thursday Island and was in company with Anniki. The port movement log book records Nimbus as passing the Pier Master's office, outward bound at 1212 on 26 November. Nimbus and Anniki, once clear of the shoal water off Cairns, set their usual course for a point north-east of Low Isles. To reach the collision point the vessels needed to steer between 340° and 335° at a speed of about 8 knots, depending on where the vessels cleared the Cairns approach channel. Also, Cairns was experiencing spring tides with high water on 26 November at 1000. With the tide on the ebb at Cairns the fishing vessels would have experienced a north-easterly set through Trinity Opening. The course of 335° and a speed of 7.5 knots once clear of

the Cairns approach channel is consistent with the time and position of the collision.

As the fishing vessels were on passage to Thursday Island and making for a way point north-east of Low Isles, there seems to be no reason why the Skipper should have altered course to starboard at any time. The evidence is that the automatic steering was operating properly and would not have caused Nimbus to veer into Maersk Tapah. The Skipper stated that the "off course" alarm did not sound at any stage before the collision, although there would have been a short delay before any alarm would have sounded.

The Inspector therefore accepts the fishing vessel's account of its course and speed.

The officers of the watch on board Maersk Tapah fixed the ship's position at regular intervals and maintained a record of positions and courses in the log book. The vessel also had a course recorder which had been turned on and synchronised before sailing from Gladstone.

From this data the Inspector is satisfied that Maersk Tapah was on a course of 318° at a speed of, or slightly in excess of, 12.8 knots. The course recorder shows that, other than a deviation at 1404 over a period of about 6 minutes, the vessel maintained a course of about 318° from the alteration off Little Fitzroy Island at 1250 to the alteration near Low Isles at about 1543, 20 minutes after the collision.

The conclusion therefore is that both vessels maintained a constant course and speed and were on converging tracks.

Before the collision the Second Mate queried the Pilot in respect of the passing distance from Nimbus. The Pilot assessed the other vessel's course as being nearly parallel to that of Maersk Tapah. In fact the two vessels were on a collision, or near collision, course converging at an angle of 17° and closing at the rate of about 70 m per minute.

One minute before the collision Nimbus would have been level with the break of the forecastle and about 70 m from the ship. Within 30 seconds, Nimbus would have been at mid-length and about 35 m from Maersk Tapah's side and this is consistent with the Pilot's own observation. This would have brought Nimbus very close to Maersk Tapah's stern. If collision did not result from a direct converging of the vessels' tracks, it is probable that interaction occurred, the pressure wave at the stern of the bulk carrier causing the fishing vessel's bow to turn to starboard, drawing the fishing vessel against Maersk Tapah's stern, resulting in damage to the fishing vessel's stem area. This would be consistent with the observations of the Maersk Tapah's crew, gathered at the stern of the bulk carrier.

Although the Pilot maintained that he used the centre line gyro repeater to monitor the bearing of the fishing vessel to assess the overtaking situation, the evidence is that the vessels were converging and the Pilot did not appreciate the degree to which this was occurring.

In submission the Pilot stated that he did not accept this analysis and the fishing vessel was on a parallel or nearly parallel course. Also he had checked the true vectors on the ARPA some time earlier and this also showed a parallel course. However, both the Master and Second Mate felt the ARPA was giving inconsistent readings, which they suggested may have been due to the towed dinghies, which may have resulted in inconsistent returns of the ARPA signal.

If the vessels had been on a parallel course with Nimbus at 7.5 knots, the speed differential between the two vessels would have been 5.2 knots and Nimbus would take 1 minute 24 seconds to pass down the bulk carrier's length of 225 m. If Nimbus was making a greater speed of 8.6 knots, close to its maximum speed, Nimbus would have taken 1 minute 48 seconds to pass down the side of the bulk carrier. Had the

fishing vessel been 70 m forward of the eventual collision position, when the pilot last saw it and believed it was passing clear, it would have been about 11 seconds before the time of collision. An alteration by the fishing vessel to cause the collision would mean that the fishing vessel must have been within 25 m of the bulk carrier's hull when it was last seen.

Given that Nimbus set course from Cairns fairway and Maresk Tapah had rounded Russell Island at 3.4 miles it is probable that the vessels were on a converging course. However, even assuming a parallel course situation, the Pilot did not allow a sufficiently safe passing distance, particularly in view of the sea room available to the overtaking vessel, and he did not appreciate the risk or allow sufficient margin for error. In so doing Maersk Tapah did not follow the requirements of the Collision Regulations when overtaking.

The bridge team

From Fitzroy Island to the time of the collision, the bridge was manned by the Pilot, who had charge of the navigation, and the Second Mate. The Master went to the bridge periodically, but left the conduct of the navigation to the Pilot. There was no rating on the bridge, though one was in contact by UHF radio and was available to be summoned to the bridge if required.

According to the ship’s officers, the ARPA plot of the small vessels being overtaken was not giving consistent data but the Second Mate did not use compass bearings to see if the bearings of the vessels being overtaken was changing appreciably. The Pilot stated that he used compass bearings, as required by the Collision Regulations, to establish whether or not the bearing of the vessels was changing. Although at a distance any change in bearing would have been very gradual, as the range decreased no change in the bearing should have

alerted them to a possible close quarters situation. When close the bearings of vessels may change but a collision may still result. The Second Mate did express some concern to the Pilot, who reassured him. If the Second Mate had a well founded concern, as he did have, he should have raised the matter with the Master.

The Pilot's roster

The Pilot had nearly 33 years experience as a seagoing officer, with between eight and nine years command experience. He started training as a Barrier Reef Pilot in 1994 and once the training was completed went on to qualify for ships of maximum draft.

The Pilot's home port is Cairns. This particular tour of duty had started on 16 October, when he piloted Maersk Tapah from Gladstone to Goods Island. However he had had a six day period without duty between 21 and 27 October and as a Cairns based pilot he had had time at home between ships.

Over the preceding 30 days, he had 18 nights on pilotage duty on board ship. However, this taken without qualification, may be misleading. On the three nights before the collision he had spent the night of 23/24 at home and the nights of 24/25 and 25/26 on Maersk Tapah. On these nights he only went to the bridge at change of course and therefore the night duties were neither long nor onerous. It seems unlikely that acute fatigue was a factor affecting the Pilot's judgement. However, although chronic fatigue, reached when "normal" periods of sleep prove insufficient to restore an individual's work pattern, would also seem unlikely, the possible effects of a prolonged period of duty on the performance of routine tasks is not known and warrants expert objective study.

The Master stated that no alcohol had been supplied to, or sought by, the Pilot and that none had been brought on board by the Pilot. The Inspector is absolutely satisfied that neither alcohol nor prescribed or

illicit drugs were used by the Pilot and were not a factor in this incident.

Collisions involving trading ships and fishing vessels

In the last ten year period, thirteen incidents involving collisions between trading ships and fishing vessels have been investigated. Of these, five incidents involved crossing situations, five involved vessels being overtaken, one involved an end on or nearly end on passing situation, and two involved fishing vessels run down while at anchor.

In considering the collisions involving fishing boats being overtaken, none of the five were in sight of the overtaken vessel for less than 30 minutes and two were in sight, as was Nimbus, for over one hour.

The time the fishing vessels are in sight seems to delay the decision process aboard the overtaking vessel and seems to engender acceptance of a lesser passing distance. Conclusions

These conclusions identify the different factors contributing to the collision between Maersk Tapah and Nimbus and should not be read as apportioning liability or blame to any particular individual or organisation.

The factors leading to the collision centre on the watchkeeping aboard both vessels and the disregard of the International Regulations for preventing Collisions at Sea.

1. Neither the Pilot or Second Mate of Maersk Tapah made a full appraisal of the overtaking situation and risk of collision; their use of objective means to assess whether or not the bearing of the fishing vessel was appreciably changing was not effective.

2. Maersk Tapah's Pilot accepted an unnecessarily close quarter situation in the overtaking manoeuvre, resulting in contact between the two vessels.

3. With Maersk Tapah's automatic radar plotting aid giving inconsistent data for the vessels being overtaken, the Second Mate did not use compass bearings to establish whether the bearings of the vessels being overtaken were altering appreciably.

4. Maersk Tapah's Second Mate having voiced a concern about the overtaking situation did not inform the Master of his concern.

5. The lack of a lookout or any proper watchkeeping aboard Nimbus meant that the Skipper was not in a position to take action within the requirements of the Collision Regulations to take any necessary avoiding manoeuvre.

Submissions

The provisions of sub-regulation 16 (3) of the Navigation (Marine Casualty) Regulations require that if a report, or part of a report, relates to a person's affairs to a material extent, the Inspector must, if it is reasonable to do so, give that person a copy of the report or relevant part of the report. Sub-regulation 16(4) provides that such a person may submit written comments or information relating to the report.

The final draft of the report, or part thereof, was sent to the Pilot, Master and Second Mate of Maersk Tapah and the Skipper/Owner of Nimbus.

A submission was received from the Pilot.

During the overtaking of f/v Nimbus I was objectively monitoring the bearing change from the centre line gyro repeater in the wheelhouse.

I was surprised to learn that the ARPA courses and CPA were not consistent, unfortunately these had not been brought to my attention.

I reject as inaccurate the attached situation diagram from the report showing the relative bearings between Maersk Tapah and f/v Nimbus.

The technical evidence is sourced from Maersk Tapah and there is nil course recorder data or positions from f/v Nimbus.

In my view it seriously prejudices the (my) interests that the standard of evidence supplied by the fishing vessel does not appear to be of the same quality as presented by the personnel aboard Maersk Tapah at the time of the incident.

I strongly contend that no collision would have occurred had Nimbus maintained her original course and speed.

Additionally it is admitted by f/v Nimbus that there was -

- *No bridge watch*
- *No lookout*
- *No Helmsman*
- *Skipper sitting on deck engaged in non-navigational duties for "some time"*
- *Remainder of the crew asleep*
- *Skipper thought he had run aground*
- *Finally, was the Skipper of f/v appropriately certificated?*

Details of Nimbus

Registration Number	H.P.F-T
Nationality	Australian
Type	Fishing vessel
Year Built	1964
Owner	P & J S Ah Loy
Length overall	15.087 m
Moulded breadth	3.658 m
Depth	1.82 m
Engine power	90 kW
Crew	5

Details of Maersk Tapah

Previous name	Lake Towada, ex Lago Bentene
IMO Number	8808367
Flag	Singapore
Classification Society	Lloyds Register of Shipping
Type	Bulk Carrier
Builder	Namura Shipbuilding Co Ltd, Imari
Year	1989
Owner	A P Moller Singapore Ltd
Gross tonnage	36,858
Net tonnage	22,944
Deadweight	68,429 tonnes
Summer draught	13.202 m
Length overall	225.78 m
Moulded breadth	32.2 m
Engine	Sulzer
Engine power	9180 kW
Crew	24

Annex 1

Extracts from the International Regulations for Preventing Collisions at Sea, 1972, as amended and in force in Australia.

Rule 5 - Lookout

Every vessel shall at all times maintain a proper lookout 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 of the risk of collision.

Rule 7 - Risk of Collision

(a) Every vessel shall use all available means appropriate to the prevailing circumstances and conditions to determine if risk of collision exists. If there is any doubt such risk shall be deemed to exist.

(b) Proper use shall be made of radar equipment if fitted and operational, including long range scanning to obtain early warning of risk of collision and radar plotting or equivalent systematic observation of detected objects.

(c) Assumptions shall not be made on the basis of scanty information, especially scanty radar information.

(d) in determining if risk of collision exists the following considerations shall be amongst those taken into account:

(i) such risk shall be deemed to exist if the compass bearing of an approaching vessel does not appreciably change;

(ii) 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.

Rule 13 - Overtaking

(a) Notwithstanding anything contained in the Rules of this section any vessel overtaking any other shall keep out of the way of the vessel being overtaken.

(b) A vessel shall be deemed to be overtaking when coming up with another vessel from a direction more than 22.5 degrees abaft her beam, that is, in such a position with reference to the vessel she is overtaking, that at night she would be able to see only the sternlight of that vessel but neither of her sidelights.

(c) When a vessel is in any doubt as to whether she is overtaking another, she shall assume that this is the case and act accordingly.

(d) any subsequent alteration of the bearing between the two vessels shall not make the overtaking vessel a crossing vessel within the meaning of these Rules or relieve her of the duty of keeping clear of the overtaken vessel until she is finally passed and clear.

Rule 17 - Action by stand-on vessel.

(a) (i) Where one of two vessels is to keep out of the way the other shall keep her course and speed.

(ii) The latter vessel may however take action to avoid collision by her manoeuvre alone, as soon as it becomes apparent to

her that the vessel required to keep out of the way is not taking appropriate action in compliance with these rules.

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

(c) A power-driven vessel which takes action in a crossing situation in accordance with sub-paragraph (a)(ii) of this Rule to avoid collision with another power-driven vessel shall, if the circumstances of the case admit, not alter course to port for a vessel on her own port side.

(d) This Rule does not relieve the give-way vessel of her obligation to keep out of the way.