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Collision between *FV Ocean Odyssey* and *MV P&O Nedlloyd Taranaki*

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Collision between *FV Ocean Odyssey* and *MV P&O Nedlloyd Taranaki*

At 0244 on Tuesday, 29 June 2004, the fishing vessel *Ocean Odyssey* collided with the container ship *P&O Nedlloyd Taranaki* in the approaches to Port Botany, New South Wales. At the time of the collision *P&O Nedlloyd Taranaki* was 'not under command'[1] with a main engine breakdown and was in a position with Cape Banks light bearing 327°(T) by 4.7 miles. *Ocean Odyssey* sustained damage to its hull and deck in the collision and returned to Sydney immediately for repairs. *P&O Nedlloyd Taranaki* sustained only slight scratching to the paintwork on the ship's side.

P&O Nedlloyd Taranaki

P&O Nedlloyd Taranaki is a hybrid cellular container/roll on-roll off ship registered in the United Kingdom. It has an overall length of 199.7 m, a moulded breadth of 31.7 m and a moulded depth of 18.8 m. The ship has a deadweight capacity of 27 893 tonnes at a summer draught of 9.5 m. It is classed by Germanischer Lloyd. At the time of the incident, it was jointly owned and managed by P&O Nedlloyd London, England and P&O Nedlloyd Amsterdam, Netherlands.

The ship is equipped with a range of navigation equipment consistent with SOLAS[2] requirements, including a three centimetre radar unit fitted with ARPA[3] and a ten centimetre radar unit. Both radars, located near the bridge chart table, were in use at the time of the collision.

P&O Nedlloyd Taranaki is on a regular liner container service between South East Asia, New Zealand and Australia. The ship is powered by a ten-cylinder Sulzer diesel engine of 21 344 kW driving a single fixed pitch propeller giving a service speed of 19.5 knots.

At the time of the collision, the ship had a crew of 28. The master, chief engineer and one other officer were British, the remainder of the crew were Filipino.

FV Ocean Odyssey

Ocean Odyssey is a New South Wales registered long-line fishing vessel built in 1993. It is registered as a Class 3B commercial vessel (limited to operating within 200 miles to seaward of the NSW coast) with the New South Wales Maritime Authority (formally the NSW Waterways Authority). The vessel's home port is Ulladulla, NSW. *Ocean Odyssey* has a length of 16.45 m, a moulded breadth of 4.34 m and a moulded depth of 1.42 m. The hull, deck and wheelhouse are constructed of fibreglass.

Ocean Odyssey is fitted with twin 112 kW General Motors diesel engines which drive two fixed-pitch propellers, giving the vessel a

1 'Not under command', means a vessel which through some exceptional circumstance is unable to manoeuvre as required by the International Regulations for the Prevention of Collisions at Sea, 1972, and is therefore unable to keep out of the way of another vessel.

2 The International Convention for the Safety of Life at Sea 1974 as amended, Chapter 5.

3 Automatic Radar Plotting Aid.

maximum speed of about 10 knots. The vessel has a raked stem and a transom stern. The wheelhouse is located just forward of midships and the sleeping quarters are forward of, and below, the wheelhouse. Navigation equipment on board includes a JRC Rasterscan radar, a Furuno GPS unit, an electronic chart plotter (TQM C-Plot) and an autopilot. Radio equipment includes a radio telephone (R/T) installation and VHF (very high frequency) radio. At the time of the incident, there were three crew on board: the skipper, (holding a Skipper Grade 3 (issued by Marine Safety Victoria) and a marine engine driver Class 3 certificate) and two deckhands. One deckhand had completed 'Maritime Services Certificate 2 (Fishing)' which is equivalent to a Coxswain (Fishing) certificate and the other was unqualified.

The incident

Ocean Odyssey left the fish markets at Pyrmont in Sydney Harbour at about 0330 on Sunday, 27 June 2004 after spending three days in port. The fishing vessel firstly proceeded south to Bate Bay to catch live bait before heading out to fishing grounds between 30 and 40 miles east of Sydney. The skipper and each of the two deckhands took turns to maintain the navigation watch while the others rested.

At about 1730 on Sunday, after arriving at their chosen fishing area, the skipper and crew started to shoot the longline, baiting it and paying out while the vessel made good a course of about 205°(T). The crew finished shooting the line late that evening and *Ocean Odyssey* returned to the northern end of the line to land a fish that they saw take the bait as the line was being shot. At about midnight they started drifting and the skipper went to bed, waking every hour or so to check the radar. At 0600 on Monday morning the skipper awoke and set course for the southern end of the long line. By 0800 the crew had started to recover the line. The catch was good and recovering the line took about eleven hours. The skipper then decided that they would return to Bate Bay to catch more bait before landing their catch at the fish markets at Pyrmont.

At about 2130 *Ocean Odyssey* set course for Bate Bay at reduced speed. The skipper left one of the two deckhands in charge of the watch after setting a course of 269° (T) on the autopilot. The other deckhand and the skipper then went to bed. A little after midnight the skipper awoke and, feeling alert, told the deckhand on watch that he would take over. His intention was to ensure that both deckhands were well rested when they arrived at Bate Bay. The skipper then settled into the large comfortable chair at the steering position in the warm wheelhouse. The radar was operating and set on the six mile range scale.

In the early hours of Tuesday 29 June 2004, *P&O Nedlloyd Taranaki* was approaching the Port Botany pilot boarding ground at the end of a voyage from Nelson, New Zealand. The ship was steering a base course of about 290° (T).

At about 0140, *P&O Nedlloyd Taranaki*, doing about 19 knots, overtook *Ocean Odyssey*, passing closely down its port side. The ship then crossed ahead of the fishing vessel and continued on course, opening to the north of the fishing vessel's track for a little over three miles. The ship then slowed and altered course to the south to make a lee to embark a pilot. The Port Botany harbour pilot boarded the ship from the pilot launch at 0206 and immediately made his way to the bridge where he joined the master, second mate (officer of the watch) and a helmsman. The ship then

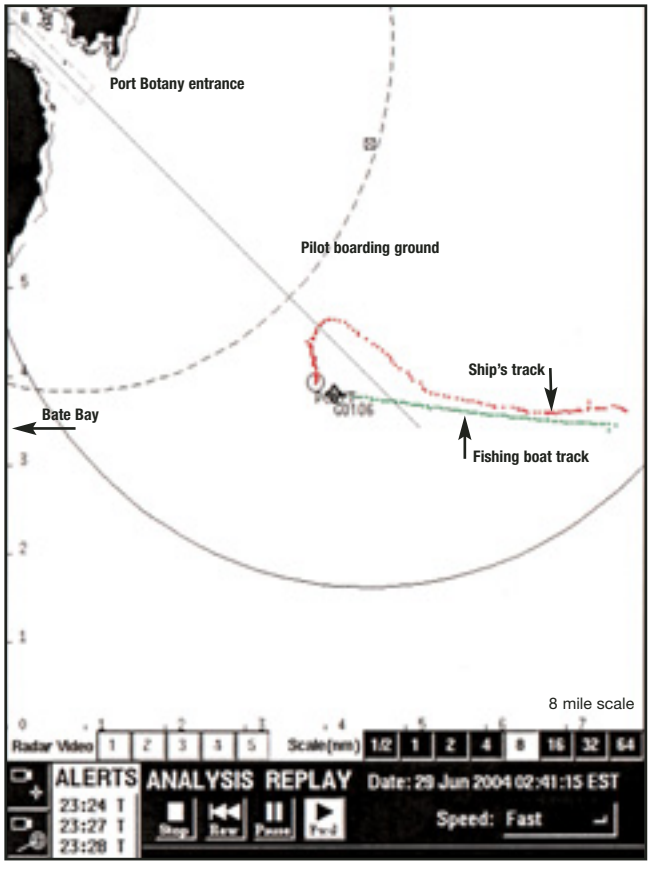
continued with its manoeuvres to bring the Port Botany leading lights in line. During this time *Ocean Odyssey* was clearly visible, both visually and on radar, mostly on the container ship's port quarter. The night was clear with a wind from the WSW at about 10 knots and there was a slight sea.

The skipper of *Ocean Odyssey* remembered the container ship overtaking his vessel sometime before 0200 and watching it as it approached the pilot station. When the ship was about three miles ahead, the skipper adjusted *Ocean Odyssey*'s course by about five degrees to port. At the time, he recalled that his vessel was making about five knots (The port VTS shows the boat to be doing about eight knots on course 269°).

At 0223, *P&O Nedlloyd Taranaki*'s chief engineer rang the bridge and informed the master of a main engine problem. Shortly after the phone call the ship's engine stopped. The master put the engine telegraph to stop. The pilot in consultation with the master, ordered full port rudder to allow the remaining momentum of the ship to turn it away from the coast. The master then left the bridge for the engine room to discuss the breakdown with the chief engineer. The pilot, second mate and helmsman remained on the bridge. The 'not under command' lights and all of the ship's deck lights were turned on. The pilot contacted port control and asked them to broadcast an all ships warning of their status on VHF 13.

At 0227, the second mate looked at the ARPA and observed that the fishing boat they had overtaken earlier was approaching the ship's port quarter at about eight knots on a steady bearing. As the distance between the two vessels decreased, the second mate became concerned. He started to sound the forward and after whistles in an attempt to alert the fishing boat. The master returned to the bridge at 0236 and immediately sounded five short and rapid blasts on the whistles. Being unable to manoeuvre the ship, the bridge team continued watching *Ocean Odyssey* and sounding the whistles.

Replay of Vessel Traffic System display for the area off Port Botany showing the ship and boat tracks



At 0244 *Ocean Odyssey* collided with *P&O Nedlloyd Taranaki*'s port side just forward of midships.

From about 0200 onward, the skipper of *Ocean Odyssey* had fallen asleep. He remembered nothing for the half hour or so before the collision until he was woken when his vessel struck the port side of the container ship (near the 'P' on the ship's side). He stated that he immediately tried to disengage the auto pilot and steer away from the ship, however, before he could manoeuvre his vessel clear, *Ocean Odyssey* made a series of contacts with the hull of the larger vessel. The skipper stated that he stopped *Ocean Odyssey* while he established that the deckhands were safe and he had checked for damage. Although the two deckhands had been thrown from their bunks by the collision, neither was injured. *Ocean Odyssey* had sustained significant damage to the hull and forward deck, but all above the

waterline. The rigging, including the VHF radio aerials, had been brought down. The skipper decided to immediately divert to Sydney Harbour and the Pyrmont fish markets. He did not attempt to contact the ship or port authorities using the VHF radio.

From the perspective of those on the bridge of *P&O Nedlloyd Taranaki*, after the collision, the fishing vessel seemed to continue on its course without pausing. The bridge team tried to contact the Rescue Coordination Centre in Canberra (RCC Australia) using digital selective calling (DSC) on 2187.5 kHz. The pilot called the pilot launch, which had nearly reached the entrance to Port Botany on its way back into port and asked that they go to the fishing vessel and try and establish if the vessel and crew were safe. By 0300 the crew of the pilot launch had established that *Ocean Odyssey* did not require assistance. This was relayed from the pilot launch to *P&O Nedlloyd Taranaki*, thence to Sydney Port Control, the Sydney Water Police and RCC Australia.

Ocean Odyssey was escorted by a Water Police vessel from Sydney Heads inward and arrived safely at Pyrmont fish markets at about 0530. *P&O Nedlloyd Taranaki* was unable to make the required engine repairs and was eventually towed to its berth in Port Botany where it was secured alongside at 1924 on 29 June.

Contributing factors

The collision between *Ocean Odyssey* and *P&O Nedlloyd Taranaki* was a direct result of the fishing vessel's skipper falling asleep at the wheel. The last time the skipper was aware of the ship, it was on his starboard bow and the bearing was opening. He had made a small adjustment of course to port to ensure what he thought would be a sufficiently large clearing distance based on his assumption that the ship would continue to proceed into Botany Bay.

When the ship's main engine broke down it drifted into the path of the approaching fishing vessel but by this time *Ocean Odyssey*'s skipper had already fallen asleep. The ship's crew tried to alert *Ocean Odyssey* using the ship's whistles but this was not sufficient to rouse the skipper in the fishing vessel's enclosed wheelhouse. The ship did not attempt to call the fishing vessel on VHF radio which, although the all ship's call made earlier did not, may have been effective in alerting the skipper as it would have contained a more alerting calling phrase such as 'fishing vessel'.

For the fishing vessel, the collision may have been fortuitous in some ways. Given its proximity to the coast, it is likely that if it had not collided with the ship, *Ocean Odyssey* may well have grounded in Bate Bay half an hour later with possibly more serious consequences.

Hours of work and environment

The skipper of *Ocean Odyssey* said he had fallen asleep some time soon after 0200.

The skipper (and crew) of *Ocean Odyssey* had been at sea for about 48 hours at the time of the collision. Within that time, the skipper had had three opportunities to sleep for about two hours at a stretch and one night of about six hours of broken sleep. The day of 28 June had been one of eleven hours of physically demanding labour. Although the master had slept for about two hours before coming up to take over the watch at midnight, it is probable that the quality of his sleep over the previous 36 hours and the period of sustained physical activity during the day would have resulted in a significant level of fatigue.

Ocean Odyssey's warm enclosed wheelhouse, the early morning hour, combined with the comfortable chair and the regular vibration of the vessel's engines were all triggers for sleep. After assessing that there was no risk of collision at around 0200, the skipper's alertness would have decreased further. His pre-existing level of fatigue and his environment meant that there was a high likelihood of the skipper falling asleep when he did.

Skippers of fishing vessels need to be aware of, and minimise the risk of, fatigue in the way that they conduct their operations. The fact that the skipper thought he was the only qualified watchkeeper on board *Ocean Odyssey* meant that he in particular needed to plan his work routine carefully so that he was alert when navigating the vessel.

Communications

Both the ship's bridge team and the pilot confirm that both the *P&O Nedlloyd Taranaki*'s whistles were used to try and alert the fishing vessel that it was standing into danger. The skipper of *Ocean Odyssey* did not hear the whistles, despite the fact that he is regularly wakened by an alarm clock with a very quiet ring.

Both vessels were also maintaining a listening watch on VHF radio; *P&O Nedlloyd Taranaki* initially on channel 16 and changing to channel 13 as instructed on approach to the port; *Ocean Odyssey* was listening on channels 10 and 16. Neither vessel attempted contact with the other before or after the collision.

Had the crew aboard *P&O Nedlloyd Taranaki* tried to call the fishing vessel on VHF channel 16 when they became disabled it may have roused the skipper and prevented the collision, particularly if it included some alerting calling phrase such as 'fishing vessel'. At interview the master of *P&O Nedlloyd Taranaki* stated that in his experience fishing vessels did not answer big ship calls on VHF. Similarly the skipper of *Ocean Odyssey* stated that although he routinely tried to speak to large ships approaching his longline, he seldom received a response. 'I think we are sort of insignificant to them', he commented.

After the collision there was a requirement for the vessels to make contact with one another. *Ocean Odyssey* did not attempt to make contact with the ship but the pilot on *P&O Nedlloyd Taranki* did arrange contact with the fishing vessel by using the services of the nearby pilot boat.

Conclusions

These conclusions identify the different factors contributing to the incident and should not be read as apportioning blame or liability to any particular individual or organisation.

Based on the evidence available, the following factors are considered to have contributed to the incident:

1. The collision was a direct result of the skipper of *Ocean Odyssey* falling asleep.
2. The skipper of *Ocean Odyssey* was fatigued after two days of poor quality sleep and a day of prolonged physical activity. The time of day combined with the wheelhouse environment was also conducive to sleep.
3. *P&O Nedlloyd Taranaki* broke down and drifted into the path of *Ocean Odyssey*.
4. *P&O Nedlloyd Taranaki*'s crew tried unsuccessfully to alert the fishing vessel to the danger of collision by sounding the ship's whistles.
5. No attempt was made by either vessel to communicate with the other by VHF radio before or after the collision.

Recommendations

MR20050015

Fishing vessel owners, operators and skippers should ensure that vessel work routines allow watchkeepers to be adequately rested and alert when they are required to maintain a navigation watch.

MR20050016

Navigation watchkeepers should implement risk reduction strategies to mitigate sleep inducing environments.

MR20050017

The crews of all vessels equipped with VHF radio should maintain a watch on channel 16, especially at the entrances to busy harbours, and calls should be attempted in dangerous situations even if a response is not expected.

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Media Release

Ship and Fishing Vessel collision off Port Botany

Fatigue was a major contributing factor to the longline fishing vessel *Ocean Odyssey* collision with the side of the container ship *P&O Nedlloyd Taranaki*. The ship was drifting while assessing its engine problem when the fishing boat ran into it, according to an ATSB investigation report released today.

The Australian Transport Safety Bureau report states that the N.S.W registered *Ocean Odyssey* collided with the port side of the container ship at about 0244 local time on 29 June 2004 near the entrance to Port Botany, after the boat's skipper had fallen asleep on watch. The boat was returning from its fishing grounds off the N.S.W coast at the time and was on autopilot. The container ship had had a main engine breakdown prior to the incident and was unable to get out of the way of the approaching fishing vessel.

A local port pilot had just boarded the container ship which was preparing to enter port when the engine breakdown occurred. The crew on the bridge of the ship had illuminated the ship and switched on the correct signal lights after the breakdown. As they watched the fishing vessel approach, they sounded the ship's whistle in an attempt to alert the fishing vessel to the impending collision but were powerless to prevent the boat from running into the ship's side.

After the collision, the pilot requested that the pilot boat meet with the fishing boat to ensure that its crew were safe. The fishing boat then returned to its berth at the Sydney Fish markets where an investigation into the collision was initiated.

The report concludes that the skipper was fatigued at the time of the collision due to his work schedule and that his wheelhouse environment at the time was conducive to sleep.

Neither vessel used their VHF radio before or after the collision.

Copies of the report can be downloaded from the ATSB's internet site at www.atsb.gov.au, or obtained from the ATSB by telephoning (02) 6274 6478 or 1800 020 616.

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