Australian Government

Australian Transport Safety Bureau

ATSB TRANSPORT SAFETY REPORT
Marine Occurrence Investigation No. 277
MO-2010-006
Final

Independent investigation into the collision between the Singaporean registered offshore supply vessel

Far Swan

and the barge

Miclyn 131

at Dampier, Western Australia

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Abstract

At about 1944 on 6 October 2010, the offshore supply vessel *Far Swan* collided with the barge *Miclyn 131* in the port of Dampier, Western Australia. At the time, *Miclyn 131* was being towed by the Western Australia registered vessel *Global Supplier*. Both *Far Swan* and *Miclyn 131* sustained minor damage as a result of the collision but there were no injuries or pollution.

The ATSB investigation found that *Global Supplier*'s skipper was not keeping a proper lookout at the time of collision and that *Miclyn 131*'s navigation lights were not appropriately mounted.

The investigation also identified three safety issues: that *Global Supplier* was not exhibiting the correct navigational lights for a vessel engaged in towing operations; Dampier Port Authority's pilotage directions were unclear and ambiguous with respect to the requirements for towing vessels or on the use of pilotage exemptions by crew other than the master; and that *Global Supplier* was not fitted with radar or an AIS unit which would be required under the provisions of the current National Standard for Commercial Vessels.

The ATSB is satisfied with the safety actions taken to address two of these issues but has issued a safety advisory notice about the lack of a requirement for the carriage of radar and AIS on small commercial vessels surveyed under the Uniform Shipping Laws code.

THE AUSTRALIAN TRANSPORT SAFETY BUREAU

The Australian Transport Safety Bureau (ATSB) is an independent Commonwealth Government statutory agency. The Bureau is governed by a Commission and is entirely separate from transport regulators, policy makers and service providers. The ATSB's function is to improve safety and public confidence in the aviation, marine and rail modes of transport through excellence in: independent investigation of transport accidents and other safety occurrences; safety data recording, analysis and research; fostering safety awareness, knowledge and action.

The ATSB is responsible for investigating accidents and other transport safety matters involving civil aviation, marine and rail operations in Australia that fall within Commonwealth jurisdiction, as well as participating in overseas investigations involving Australian registered aircraft and ships. A primary concern is the safety of commercial transport, with particular regard to fare-paying passenger operations.

The ATSB performs its functions in accordance with the provisions of the Transport Safety Investigation Act 2003 and Regulations and, where applicable, relevant international agreements.

Purpose of safety investigations

The object of a safety investigation is to identify and reduce safety-related risk. ATSB investigations determine and communicate the safety factors related to the transport safety matter being investigated. The terms the ATSB uses to refer to key safety and risk concepts are set out in the next section: Terminology Used in this Report.

It is not a function of the ATSB to apportion blame or determine liability. At the same time, an investigation report must include factual material of sufficient weight to support the analysis and findings. At all times the ATSB endeavours to balance the use of material that could imply adverse comment with the need to properly explain what happened, and why, in a fair and unbiased manner.

Developing safety action

Central to the ATSB's investigation of transport safety matters is the early identification of safety issues in the transport environment. The ATSB prefers to encourage the relevant organisation(s) to initiate proactive safety action that addresses safety issues. Nevertheless, the ATSB may use its power to make a formal safety recommendation either during or at the end of an investigation, depending on the level of risk associated with a safety issue and the extent of corrective action undertaken by the relevant organisation.

When safety recommendations are issued, they focus on clearly describing the safety issue of concern, rather than providing instructions or opinions on a preferred method of corrective action. As with equivalent overseas organisations, the ATSB has no power to enforce the implementation of its recommendations. It is a matter for the body to which an ATSB recommendation is directed to assess the costs and benefits of any particular means of addressing a safety issue.

When the ATSB issues a safety recommendation to a person, organisation or agency, they must provide a written response within 90 days. That response must indicate whether they accept the recommendation, any reasons for not accepting part or all of the recommendation, and details of any proposed safety action to give effect to the recommendation.

The ATSB can also issue safety advisory notices suggesting that an organisation or an industry sector consider a safety issue and take action where it believes it appropriate. There is no requirement for a formal response to an advisory notice, although the ATSB will publish any response it receives.

TERMINOLOGY USED IN THIS REPORT

Occurrence: accident or incident.

Safety factor: an event or condition that increases safety risk. In other words, it is something that, if it occurred in the future, would increase the likelihood of an occurrence, and/or the severity of the adverse consequences associated with an occurrence. Safety factors include the occurrence events (e.g. engine failure, signal passed at danger, grounding), individual actions (e.g. errors and violations), local conditions, current risk controls and organisational influences.

Contributing safety factor: a safety factor that, had it not occurred or existed at the time of an occurrence, then either: (a) the occurrence would probably not have occurred; or (b) the adverse consequences associated with the occurrence would probably not have occurred or have been as serious, or (c) another contributing safety factor would probably not have occurred or existed.

Other safety factor: a safety factor identified during an occurrence investigation which did not meet the definition of contributing safety factor but was still considered to be important to communicate in an investigation report in the interests of improved transport safety.

Other key finding: any finding, other than that associated with safety factors, considered important to include in an investigation report. Such findings may resolve ambiguity or controversy, describe possible scenarios or safety factors when firm safety factor findings were not able to be made, or note events or conditions which 'saved the day' or played an important role in reducing the risk associated with an occurrence.

Safety issue: a safety factor that (a) can reasonably be regarded as having the potential to adversely affect the safety of future operations, and (b) is a characteristic of an organisation or a system, rather than a characteristic of a specific individual, or characteristic of an operational environment at a specific point in time.

Risk level: The ATSB's assessment of the risk level associated with a safety issue is noted in the Findings section of the investigation report. It reflects the risk level as it existed at the time of the occurrence. That risk level may subsequently have been reduced as a result of safety actions taken by individuals or organisations during the course of an investigation.

Safety issues are broadly classified in terms of their level of risk as follows:

- **Critical** safety issue: associated with an intolerable level of risk and generally leading to the immediate issue of a safety recommendation unless corrective safety action has already been taken.
- **Significant** safety issue: associated with a risk level regarded as acceptable only if it is kept as low as reasonably practicable. The ATSB may issue a safety recommendation or a safety advisory notice if it assesses that further safety action may be practicable.
- **Minor** safety issue: associated with a broadly acceptable level of risk, although the ATSB may sometimes issue a safety advisory notice.

Safety action: the steps taken or proposed to be taken by a person, organisation or agency in response to a safety issue.

EXECUTIVE SUMMARY

At 1830[1] on 6 October 2010, the Western Australia registered catamaran *Global Supplier* departed the West Lewis Island moorings, Dampier, Western Australia, with the flat top barge *Miclyn 131* in tow, bound for Flying Foam Passage, Dampier.

At about the same time, the Singaporean registered offshore supply vessel *Far Swan* departed King Bay, Dampier, bound for the deepwater development semi-submersible platform *Maersk Discoverer*.

The weather was fine with a northerly wind at about 10 knots[2] on a rippled to slight sea. The visibility was good, the sun had set and there was no moon.

Just after 1942, *Far Swan*'s chief mate saw a single green light about three to four points[3] on the port bow. He saw a trace of a target on radar but there was no automatic identification system (AIS) vector on the electronic chart system (ECS). Thinking the target was a small boat, he continued observing the light visually. After a while, it appeared to *Far Swan*'s chief mate that the small boat (*Global Supplier*) was trying to cross ahead and it would probably be a very close crossing. To avoid a close quarter situation, he altered the ship's heading by a few degrees to port.

Global Supplier maintained its speed and course. By 1944, *Global Supplier* had passed ahead of *Far Swan* and was on the ship's starboard bow, moving away. Once satisfied that the small boat had passed clear, *Far Swan*'s chief mate and lookout looked to port and were surprised to see a large object closing very fast on the ship's port bow. It was only then the chief mate realised that the small boat was towing what looked like a barge (*Miclyn 131*). He immediately stopped the ship's engines and altered course to port. However, it was too late. *Miclyn 131* had already passed down *Far Swan*'s port side, collided with its fenders and was bouncing back towards the bow, where it impacted the hull and then moved clear to starboard.

Both *Far Swan* and *Miclyn 131* sustained minor damage as a result of the collision but there were no injuries or pollution.

The ATSB investigation found that *Global Supplier*'s skipper was not keeping a proper lookout at the time of collision and that *Miclyn 131*'s navigation lights were not mounted in compliance wuth the relevant regulations.

The investigation also identified three safety issues: that *Global Supplier* was not exhibiting the correct navigational lights for a vessel engaged in towing operations; Dampier Port Authority's pilotage directions were unclear and ambiguous with respect to the requirements for towing vessels or on the use of pilotage exemptions by crew other than the master; and that *Global Supplier* was not fitted with radar or an AIS unit which would be required under the provisions of the current National Standard for Commercial Vessels.

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1 All times referred to in this report are local time, Coordinated Universal Time (UTC) +8 hours.

2 One knot, or one nautical mile per hour equals 1.852 km/hr.

3 One point of the compass equals 11¼°.

The ATSB is satisfied with the safety actions taken to address two of these issues but has issued a safety advisory notice about the lack of a requirement for the carriage of radar and AIS on small commercial vessels surveyed under the Uniform Shipping Laws code.

1 FACTUAL INFORMATION

1.1 *Far Swan*

*Far Swa*n is an offshore supply vessel which was built in 2006 by Aker Aukra, Norway (Figure 1). The ship has an overall length of 73.4 m and a beam of 16.6 m. At its summer draught of 6.42 m, it has a deadweight of 3,570 tonnes.

Propulsive power is provided by two Caterpillar 3606 diesel engines, each delivering 2,030 kW through a controllable pitch propeller. This gives *Far Swan* a service speed of about 11.5 knots[4]. The ship is equipped with two high lift rudders[5] and four tunnel thrusters, two forward and two aft.

Figure 1: *Far Swan* at anchor in Dampier

At the time of incident, *Far Swan* was registered in Singapore and classed with Det Norske Veritas (DNV). It was owned by Farstad Shipping, Singapore, and operated by Farstad Shipping (Indian Pacific), Australia (Farstad).

Far Swan's navigation bridge was equipped with navigational equipment consistent with SOLAS[6] requirements. This included an automatic identification system (AIS), an electronic chart system (ECS) and two automatic radar plotting aid (ARPA) equipped radars with AIS input, a global positioning system (GPS) and a global maritime distress and safety system (GMDSS).

The ship had a complement of 11 Australian nationals. While at sea and in port, the master and two mates maintained a traditional watchkeeping routine of 4 hours on,

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4 One knot, or one nautical mile per hour equals 1.852 km/hr.

5 A type of rudder that gives 60% to 70% higher maximum lift and better manoeuvrability than a conventional rudder.

6 The International Convention for the Safety of Life at Sea, 1974, as amended.

8 hours off. During the hours of darkness at sea, an integrated rating (IR) was posted on each watch as a dedicated lookout.

The master began his seagoing career with the Royal Australian Navy in 1990. In 1998, he obtained his first Australian merchant navy qualification. He joined Farstad shortly afterwards and has since sailed on board a number of Farstad ships operating out of Dampier and South East Australia. In 2005, he obtained his master class one certificate of competency. He had sailed as master on *Far Swan* since February 2010 and held a pilotage exemption for Dampier.

The chief mate, the officer on watch at the time of the collision, had 14 years of seagoing experience. He obtained his master class one certificate of competency in 2007 and joined Farstad in 2008. He had sailed on a number of Farstad ships and first joined *Far Swan* in September 2010. He also held a pilotage exemption for Dampier.

The IR on lookout duty at the time of collision had about 20 years of seagoing experience. He had sailed on Farstad ships for about 4 years and had sailed on board *Far Swan* for 5 months.

1.2 *Global Supplier*

Global Supplier is an aluminium catamaran which was built in 2002 by Fine Entry Marine, Geraldton, Western Australia (Figure 2). It has an overall length of 17.15 m, a beam of 6.0 m and a moulded draught of 1.25 m. *Global Supplier* did not have a gross registered tonnage (GRT).

Figure 2: *Global Supplier* berthed in Port Samson

Propulsive power is provided by two Caterpillar C18 diesel engines that deliver a total of 1,298 kW, giving the boat a top speed of about 26 knots.

Global Supplier's wheelhouse is located forward of a large working deck. The helm, engine controls and navigational equipment are located on an elevated deck on the starboard side of wheelhouse. Access to the working deck from the wheelhouse is through a single door. A tarpaulin cover is permanently erected on

framing over the deck and the deck is lit by two floodlights mounted on the after end of the wheelhouse, under the tarpaulin cover.

A single 8 tonne towing bollard is mounted on the forward part of the working deck, near the wheelhouse door. Several 80 mm diameter polypropylene ropes are kept on board for use as towing lines.

At the time of the collision, *Global Supplier* was owned and operated by Global Marine and Engineering, Point Samson, Western Australia. It was employed in the Point Samson and Dampier region as a work boat and crew transfer vessel. It was registered with the Western Australia Department of Transport as both a Class 2B or 2B1[7] passenger vessel and Class 3B[8] fishing vessel.

The boat was equipped with a C-Map electronic charting system, a GPS unit, an echo sounder, a very high frequency (VHF) radio, a medium and high frequency (MF/HF) radio and an auto-pilot.

Global Supplier had four persons on board: the skipper, two crew members and a passenger. The skipper held a master class four certificate of competency, a marine engine driver grade two certificate. He had extensive experience in the Point Samson and Dampier area.

1.3 *Miclyn 131*

Miclyn 131 is an unmanned, steel, flat top cargo barge (Figure 3) which was built in 2000 in Batam, Indonesia. It has an overall length of 40.32 m, a beam of 17.07 m, a depth of 3.05 m and a deadweight of 1,360 tonnes. The barge has a GRT of 540.

Figure 3: *Miclyn 131*

At the time of incident, *Miclyn 131* was owned and operated by Samson Maritime, Western Australia. It was registered in Singapore and in survey with the Western Australia Department of Transport. It was classed with the American Bureau of Shipping (ABS).

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[7] Trading vessels that may carry up to 12 passengers in offshore operations to 200 nautical miles of the coast.

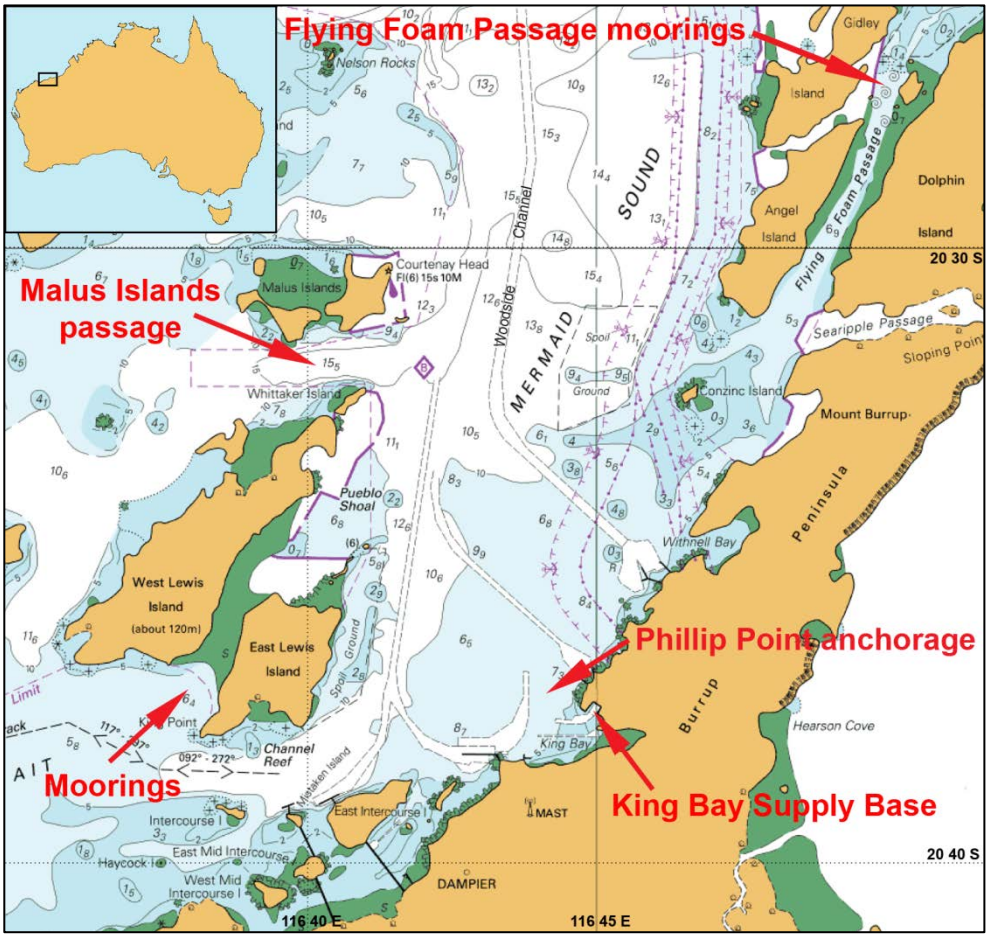
[8] Fishing vessels in offshore operations to 200 nautical miles of the coast.

For the towage on the evening of 6 October, *Miclyn 131* was equipped with 'BargeSafe' portable, battery powered LED navigation lights. These lights had a visible range of approximately 3 miles[9].

1.4 The Incident

At about 0730[10] on 6 October 2010, *Far Swan* berthed at the supply base at King Bay, Dampier, Western Australia. It had returned to King Bay from the deepwater development semi-submersible platform *Maersk Discoverer* to load supplies and was due to depart at about 1830 that evening.

Figure 4: Section of navigational chart Aus 741 showing the port of Dampier



At 1520, *Global Supplier* departed its mooring at Point Samson[11] for Flying Foam Passage, where the skipper intended to check the condition of some moorings. On board were the skipper, two crew members and a passenger. After checking the moorings, the skipper decided to move the barge *Miclyn 131* from its mooring off the southern end of West Lewis Island to one of the Flying Foam Passage moorings (Figure 4).

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9 A nautical mile of 1852 m.

10 All times referred to in this report are local time, Coordinated Universal Time (UTC) + 8 hours.

11 A small fishing port about 27 nautical miles east of Dampier.

At about 1820, *Global Supplier*'s crew made fast a tow line to *Miclyn 131*. The barge was empty and they used a single 80 mm diameter polypropylene rope. The length of the rope was 140 m, thus the length of the tow was about 180 m, measured from the stern of *Global Supplier* to the after end of the barge.

At 1830, *Global Supplier* departed the moorings with *Miclyn 131* in tow. The passage would take the two vessels out of port limits, to the west of West Lewis Island, back into the port limits, through the Malus Islands passage, eastwards across Mermaid Sound and the main shipping channels, and then into Flying Foam Passage (Figure 4).

Global Supplier's navigation lights and working deck lights were switched on. The barge's portable battery powered navigation lights were also on.

At about the same time, loading operations on board *Far Swan* were completed and, soon afterwards, the crew prepared the ship for the 110 mile overnight voyage to *Maersk Discoverer*.

At 1842, *Far Swan* departed King Bay. The chief mate, under the master's supervision, had the conduct of the ship. The second mate and one IR were standing by forward and the remaining IR's were standing by aft. When the ship had cleared the berth, the crew prepared it for sea and, with the exception of one IR forward, stood down.

At 1845, *Far Swan* passed through the Phillip Point small vessel anchorage, just to the west of King Bay, on a heading of 336° (T). When the last anchored vessel had passed abeam, the IR on the forecastle secured the anchors and returned to the accommodation.

At 1906, *Far Swan*'s chief mate altered the ship's course to 010° (T). This course would keep the ship just to the east of the Woodside Channel, but have it running parallel to the channel (Figure 5).

Visibility was good, there was a northerly wind at about 10 knots on a rippled to slight sea. The sun had set and there was no moon. Traffic in the port was light and while a liquefied natural gas (LNG) ship was anchored in the designated IA5 anchorage, on its 010° (T) course, *Far Swan* would pass well to the west of it.

At 1910, the duty IR arrived on the bridge so the master went down to his cabin to prepare for his 2000 to 2400 watch.

At 1923, *Global Supplier* reached the western approach of Malus Islands passage. The skipper reported *Global Supplier*'s position, and his intention to cross Mermaid Sound, to Dampier Communications but he did not report that he was towing a barge.

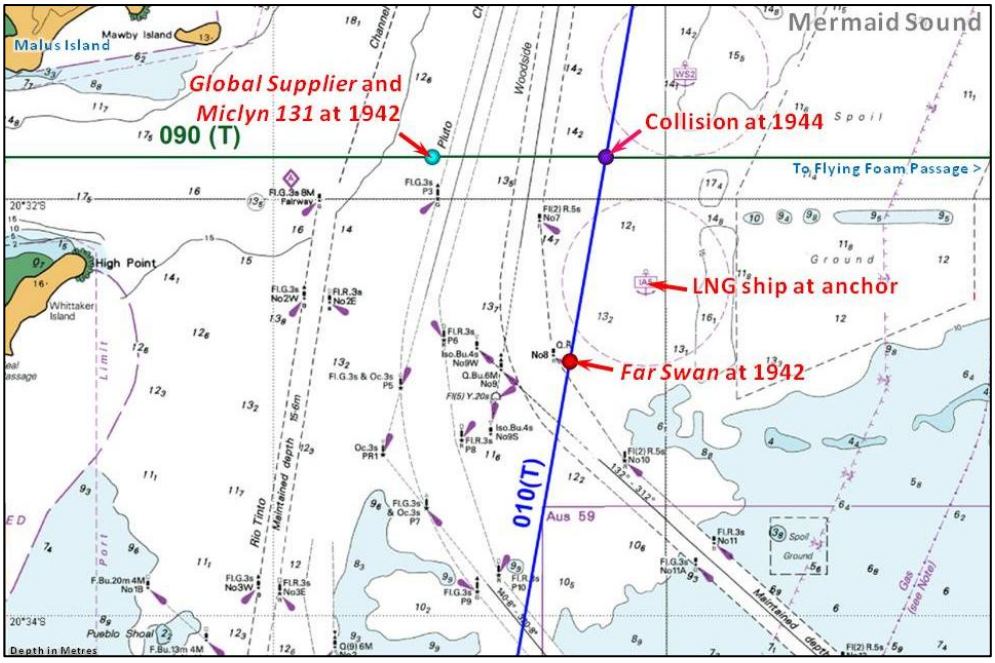
At 1942, *Far Swan* passed 150 m abeam of the Woodside Channel's number 8 beacon. The ship's speed was about 9 knots. The chief mate was monitoring the ship's progress both visually and on the ECS which had a radar and AIS input. The radar was set on the 3 mile range scale and its ARPA function was not activated.

By this time, *Global Supplier* and *Miclyn 131* had entered Mermaid Sound and were to the north of the Pluto Channel's P3 beacon.

Shortly afterwards, *Far Swan*'s chief mate saw a green light, three to four points[12] on the ship's port bow. Both the chief mate and the lookout thought that the light was a small boat, and the chief mate checked the radar to see what it had detected. There was a trace of a target on the radar display but no AIS vector on the ECS display. This confirmed the chief mate's belief that the light was on a small boat. The chief mate then returned his attention to observing the light.

The chief mate and the lookout continued to observe the light and it soon became apparent to them that the small boat was trying to cross ahead. Although the small boat would probably pass ahead, it would be a very close crossing. The chief mate was expecting the boat to 'give way'[13]. However, there was no indication that the small boat was going to give way so the chief mate shone a search light on the boat to alert its crew to *Far Swan*'s presence. The search light lit up the small boat, which looked like an aluminium fishing boat. However, the small boat still maintained its easterly course and speed.

Figure 5: Section of navigational chart Aus 58 showing *Global Supplier*'s track in green and *Far Swan*'s track in blue



On board *Global Supplier*, the skipper was near the helm and there were several other crew members in the wheelhouse near the pantry. However, no one saw the search light and they were not aware that *Far Swan* was closing on the boat's starboard side.

Having received no acknowledgment of, or response to, the search light, *Far Swan*'s chief mate concluded that the small boat was still endeavouring to cross ahead. In an effort to avoid a close quarters situation, he altered the ship's heading a few degrees to port.

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[12] One point of the compass equals 11¼°.

[13] When two power-driven vessels are crossing so as to involve risk of collision, the vessel which has the other on her own starboard side shall keep out of the way and shall, if the circumstances of the case admit, avoid crossing ahead of the other vessel.

Shortly afterwards, *Global Supplier*'s skipper looked out of the starboard wheelhouse windows and noticed that the lights of Dampier were no longer visible. He then realised that the lights were covered by *Far Swan*'s bow which was looming close on his starboard side. He immediately pushed the engine controls to full ahead. *Global Supplier* sped up a little and passed ahead of *Far Swan*.

At about 1944, *Far Swan*'s chief mate satisfied himself that the small boat had passed ahead of the ship and was clearing to starboard. Then, almost immediately, he and the lookout saw a large object closing on the port bow. Not knowing what it was, the IR ran onto the bridge wing to try and identify it. The large object was closing quickly and within a few seconds, it was very close on the ship's port bow. It was only then that the chief mate saw a red and a green navigation light and realised that the small boat was towing what looked like a barge.

The chief mate immediately stopped *Far Swan*'s engines and altered the course further to port. However, it was too late. The barge, *Miclyn 131*, had passed down *Far Swan*'s port side, made contact with its fenders and was bouncing back up towards the bow.

The chief mate called the master and at about the same time, he heard and felt a large impact. *Miclyn 131* then pulled clear of *Far Swan*'s port bow and moved off to starboard.

Figure 6: Damage to *Far Swan*'s hull

By the time the master got to the bridge, *Far Swan* was almost stopped in the water while *Global Supplier* and *Miclyn 131* were moving away from the ship, towards the eastern side of Mermaid Sound. The master then took over the conduct of the ship and slow steamed it so as to remain in the vicinity of where the collision occurred. He also ordered the crew to begin inspecting the ship for damage.

At 1950, *Far Swan*'s master reported a suspected collision with a barge to Dampier Communications on VHF channel 11. This communication was monitored by *Global Supplier*'s skipper, who realised that his tow may have collided with *Far Swan*.

Global Supplier's skipper contacted *Far Swan*'s master via VHF radio. He asked whether *Far Swan* had actually made contact with the barge, as he thought 'that *Far Swan* had probably just bruised the tow line'. *Far Swan*'s master assured the skipper that the ship had collided with a barge and that his crew were assessing the ship for any possible damage.

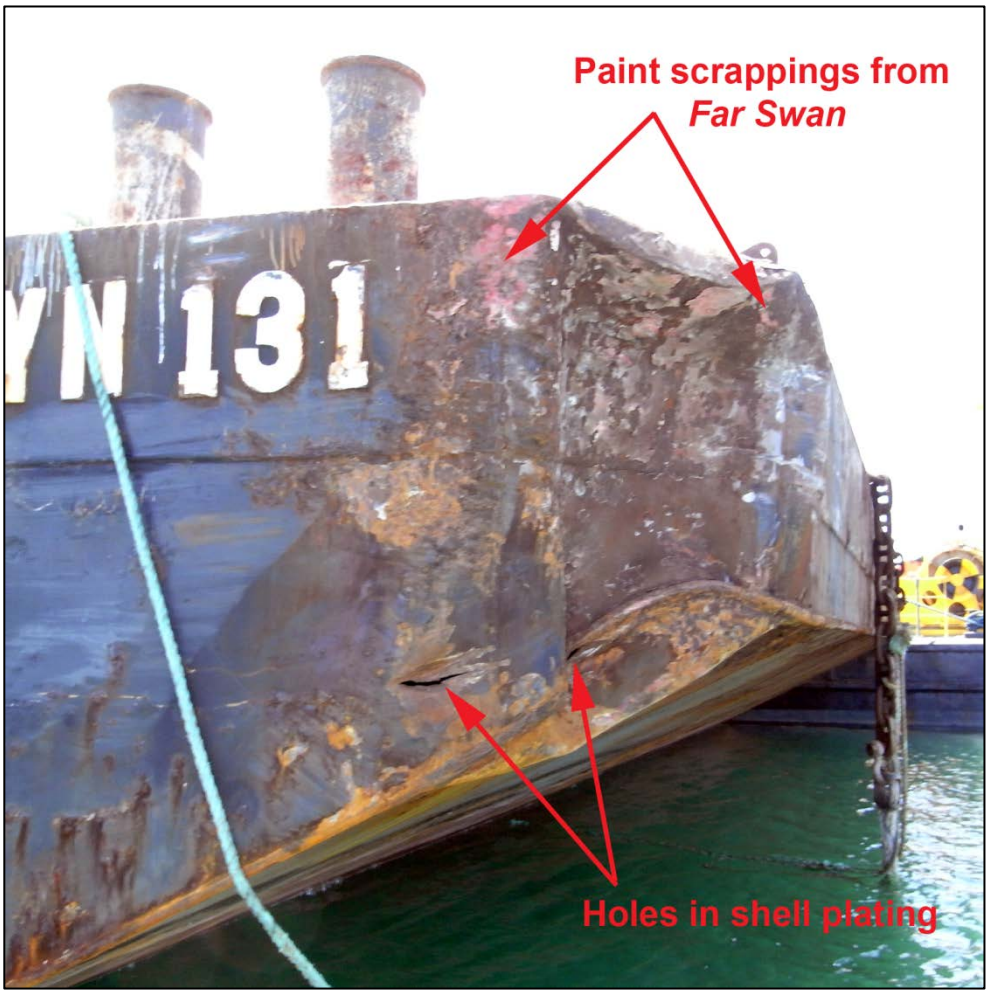
At 2030, *Global Supplier*'s skipper advised Dampier Communications that there appeared to be no damage to either his vessel or the barge. He reconfirmed that he was proceeding to anchor in Flying Foam Passage.

Shortly after 2030, *Far Swan*'s crew found a large hole in the port side shell plating in the vicinity of the emergency generator room and above the ship's water line (Figure 6).

Far Swan's master contacted *Global Supplier*'s skipper and informed him of the damage sustained by *Far Swan* and advised him that it was unlikely that the damage was due to a 'wire strike'. He asked the skipper to assess the damage to the barge. However, the skipper reassured him that the barge had not been damaged.

At 2050, *Far Swan*'s master advised Dampier Communications of the damage and that he had cancelled the voyage and was slow steaming the ship towards the Phillip Point small ship anchorage. He informed Dampier Communications that the voyage would be resumed the next day if conditions permitted. In the mean time, his crew were still inspecting the ship for any further damage.

Figure 7: Damage to *Miclyn 131*



At 2203, *Far Swan* anchored in the Phillip Point anchorage while *Global Supplier* and *Miclyn 131* continued their passage, now to Point Samson. By midnight, *Global Supplier* was all fast in the John's Creek Boat Harbour, Point Samson.

Early in the morning of 7 October, *Far Swan* berthed at King Bay. A thorough inspection of the ship revealed that the only major damage was the hole in the shell plating in way of the emergency generator room. The ship remained in Dampier while repairs were carried out.

Global Supplier's skipper inspected *Miclyn 131* on the morning of 7 October and found that the starboard shoulder had been pushed in (Figure 7). He also found several small holes in the shell plating around the starboard shoulder area. *Miclyn 131* remained at Point Samson while repairs were carried out to the American Bureau of Shipping's satisfaction.

Following the incident, an investigation was also carried out by Marine Safety officers from the Western Australia Department of Transport.

2 ANALYSIS

2.1 Evidence

On 7 October 2010, two investigators from the Australian Transport Safety Bureau (ATSB) attended *Far Swan* at the King Bay Supply Base in Dampier. The master, the chief mate and the seaman on watch at the time of the collision were interviewed and they provided their account of the incident. The investigators took copies of relevant records and documents, including the navigational charts in use at the time, the deck log book, bell book, position log, passage plans, work and rest hour records, procedures and various other documents.

On 8 October, the ATSB investigators attended *Miclyn 131* at Point Samson. *Global Supplier*'s skipper was interviewed and he provided his account of the incident. The investigators also took copies of relevant documents.

During the investigation, further information was provided by the Dampier Port Authority (DPA) and the Western Australia Department of Transport.

2.2 Lookout, risk of collision and action to avoid collision

The International Regulations for the Prevention of Collisions at Sea 1972, as amended (COLREGs) state that there is an obligation for all seafarers to maintain a proper lookout during their navigational watch, to assess the risk of collision and to take appropriate action to avoid collision. Rule 5 of COLREGs, (Lookout), states:

> Every vessel shall 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 of the risk of collision.

2.2.1 *Global Supplier*

In the time leading up to the collision, *Global Supplier*'s skipper stated that he was near the helm, on the starboard side of the wheelhouse. From there, he had a clear view out of the boat's windows, both ahead and to starboard. However, he was talking to one of the other crew members and thus his attention was diverted away from the safe navigation of the boat. As a result, he was not keeping a proper visual lookout.

Had the skipper been keeping a proper lookout, he could have first seen *Far Swan*, or at least its navigation lights, just as *Global Supplier* cleared High Point on Whittaker Island (just to the south of the Malus Islands passage) about 5 minutes before the collision. At this time, the two vessels would have been about 2 miles apart with more than adequate time for the skipper to alter course to starboard and pass astern of *Far Swan*, the appropriate course of action as the give-way vessel.

As it was, the skipper only became aware of *Far Swan*'s presence a few seconds before it collided with *Miclyn 131*, when he and the other crew member noticed that the shore lights in the port had 'disappeared'. It was only then that both men looked up and saw *Far Swan* close on their starboard side.

In submission, *Global Supplier*'s skipper stated that:

> Looking towards the gas works, it is almost impossible to distinguish a ship's lights against the glare.

While this may be the case, it reinforces the importance of keeping a vigilant lookout when transiting from Malus Islands passage to Flying Foam Passage at night.

Also, had *Global Supplier* been equipped with radar and/or AIS, the skipper would have had additional tools to assist him in his watchkeeping in this area, rather than relying on visual lookout alone.

Global Supplier's skipper was not aware of *Far Swan*'s presence until seconds before the collision, therefore he was not able to determine whether there was a risk of collision in sufficient time to take the appropriate avoiding action. All he could do was to put the engine to full ahead and hope that this action was sufficient to move *Global Supplier* and its tow clear of *Far Swan*.

2.2.2 *Far Swan*

At about 1942, *Far Swan*'s chief mate and lookout saw only a single green navigational sidelight about three to four points on the ship's port bow. They thought that the light represented a small boat. This immediate conclusion was reinforced by the lack of any AIS return on the ship's electronic chart display. When they shone the search light on the boat to alert its crew to *Far Swan*'s presence, they saw what looked like an aluminium fishing boat. They did not shine the search light aft of *Global Supplier* because there was nothing to indicate that there was anything behind the small boat. Consequently, the search light did not illuminate *Miclyn 131*.

Believing they only had to be concerned about one small boat, they continued to observe it visually and saw that, while its change of bearing indicated it was going to cross close ahead, it would result in a close quarters situation.

While the chief mate did not measure the distance to *Global Supplier* when he first saw it, a reconstruction of the incident shows that it would have been about 1.1 miles away (Figure 5).

Far Swan's chief mate relied only on visual observation of *Global Supplier*. He did not use all the navigational equipment he had available to him at the time in order to get a better appraisal of the situation. He could have: adjusted the radar range scale to get a better and earlier trace of the target; estimated its course, speed and passing distance using the ARPA function of the radar; sounded the ship's whistle to attract the attention of *Global Supplier*'s crew; or used the VHF radio to call *Global Supplier* in order to establish the intentions of its skipper.

Given the fact that the chief mate believed they were observing a small boat which was going to cross closely ahead, he initially maintained *Far Swan*'s course and speed, as the stand-on vessel, expecting the boat to give way. However, when it became apparent to him that *Global Supplier* was maintaining its course and speed and that a close quarter situation would be the result, he made a small alteration of the ship's course to port.

Rule 17 of the COLREGs (Action by stand-on vessel) permits a stand-on vessel to 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'. This means that *Far Swan*'s chief mate was permitted to take avoiding action as soon as he became concerned that the small vessel on his port bow was not altering its course or speed.

However, Rule 17 also states that a vessel which takes action in a crossing situation in accordance with the above shall 'if the circumstances of the case admit, not alter course to port for a vessel on her own port side'.

The reason for this is because if, at the last minute the vessel required to give way alters its course to starboard to go around the other vessel's stern, the two vessels will now be in a more dangerous position as the stand-on vessel will have altered course into the path of the give-way vessel. Also, if the give-way vessel reduces its speed or stops, then again the stand-on vessel will have altered into a dangerous situation.

However, if the circumstances of the case are such that the stand-on vessel, in this case *Far Swan*, has no option but to alter course to port, then the usual practice of seamanship requires that alteration to be made, so far as possible, early and substantial.

At interview, *Far Swan*'s chief mate said that he chose to alter course a few degrees to port as he thought a course alteration to starboard could take the ship too close to the anchored gas tanker and it would have resulted in him having to take a round turn[14].

However, at the time there was sufficient sea room to starboard of *Far Swan* for the chief mate to alter course to starboard. Alternatively, and probably his best option, the chief mate could have reduced *Far Swan*'s speed early enough by returning the engine telegraphs to stop and/or to astern. Had he done this, the way could have been quickly taken off the ship, thus allowing *Global Supplier* to pass well ahead.

2.3 Navigation lights

2.3.1 *Global Supplier*

At the time of the collision, *Global Supplier* was exhibiting the lights appropriate for a power driven vessel of less than 50 m in length underway (Figure 8). The masthead light of *Global Supplier* should have been seen earlier than its sidelight. However, *Far Swan*'s chief mate and lookout both stated that in the time prior the collision, they could only see its green sidelight and not its masthead light.

Global Supplier was also towing *Miclyn131* and hence should have been exhibiting the navigation lights prescribed under Rule 24(a) (Towing and pushing) of the COLREGs. Since *Global Supplier* was towing with a total tow length of less than 200 m, it should have been exhibiting two white masthead lights in a vertical line. The boat should also have been exhibiting a yellow towing light in a vertical line above its sternlight.

At interview, *Global Supplier*'s skipper stated that he was aware of the COLREGs requirements relating to navigation lights on towing vessels and that he had ordered a new set of towing lights which were to be fitted on board *Global Supplier*.

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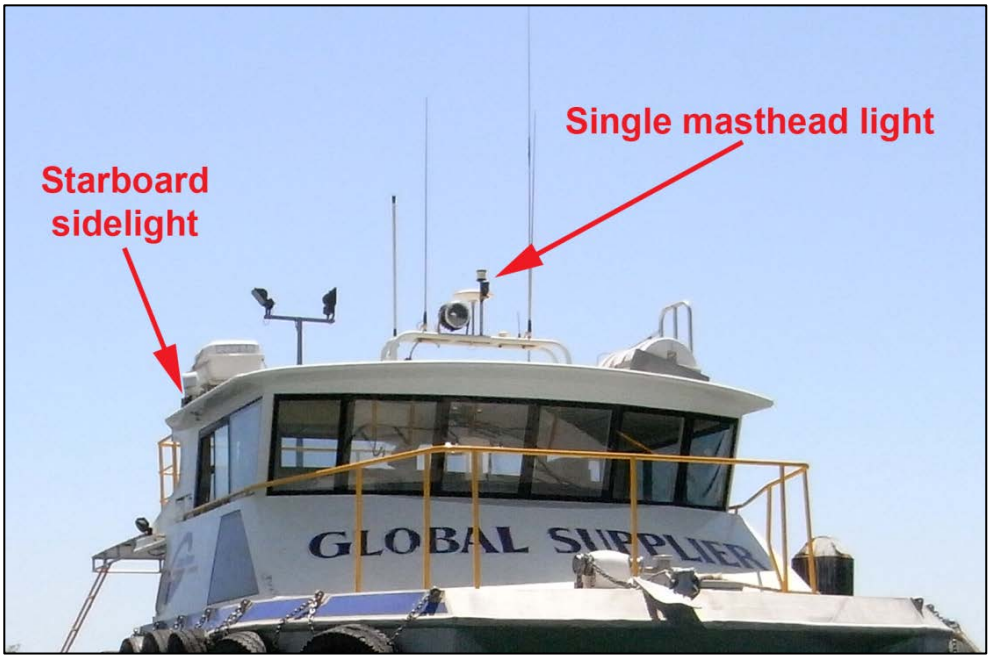
[14] To manoeuvre a ship so that it completes a 360° turn.

However, at the time he decided to move *Miclyn 131* to Flying Foam Passage on 6 October, they had not been received.

The skipper also stated that on 6 October, he was working later than expected because he departed Point Samson 2 or 3 hours later than he had originally planned. However, when he decided to move *Miclyn 131* from the West Lewis Island moorings, he knew that the operation would be completed in darkness.

When Global Marine purchased *Global Supplier* in 2006, several modifications were made to the vessel. This included the addition of single 8 tonne towing bollard which was mounted on its main deck. By adding the bollard, the company was enabling the vessel to be used as a 'tug'. Consequently, the appropriate navigation lights required for towing operations should have been fitted to the vessel at that time.

Figure 8: *Global Supplier's* navigational lights



Despite the correct navigation lights not being on board *Global Supplier* when it departed Point Samson, the skipper undertook the tow that evening. Consequently, with the lights not fitted to the boat, *Global Supplier* was not in compliance with the COLREGs and as a result the crew on board *Far Swan* did not know the small vessel was towing a barge.

According to James Reason[15]:

> For many acts of non-compliance, experience shows that violating is often an easier way of working and brings no obvious bad effects. The benefits are immediate and the costs are seemingly remote and, in the case of accidents, unlikely.

The only explanation offered as to why the skipper chose to tow *Miclyn 131* at night, without the correct navigation lights being displayed, was that it would be quicker to do it then, rather than return to Point Samson after checking the Flying

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[15] Reason, J. *The human contribution: Unsafe acts, accidents and heroic recoveries.* Ashgate, UK, 2008, p 57.

Foam Passage moorings that evening and then undertake the longer return voyage from Point Samson to the West Lewis Island moorings on another day. In doing so, he was putting time and costs (fuel etc) ahead of compliance with the COLREGs, in the belief that there would be no adverse consequences resulting from his actions.

Had *Global Supplier* been exhibiting the correct navigation lights, it is likely that *Far Swan*'s crew would have been alerted to the fact that the small boat they were observing was actually a 'towing vessel'. Hence it is likely that the response by the chief mate on board *Far Swan* would have been different and the collision would probably have been avoided.

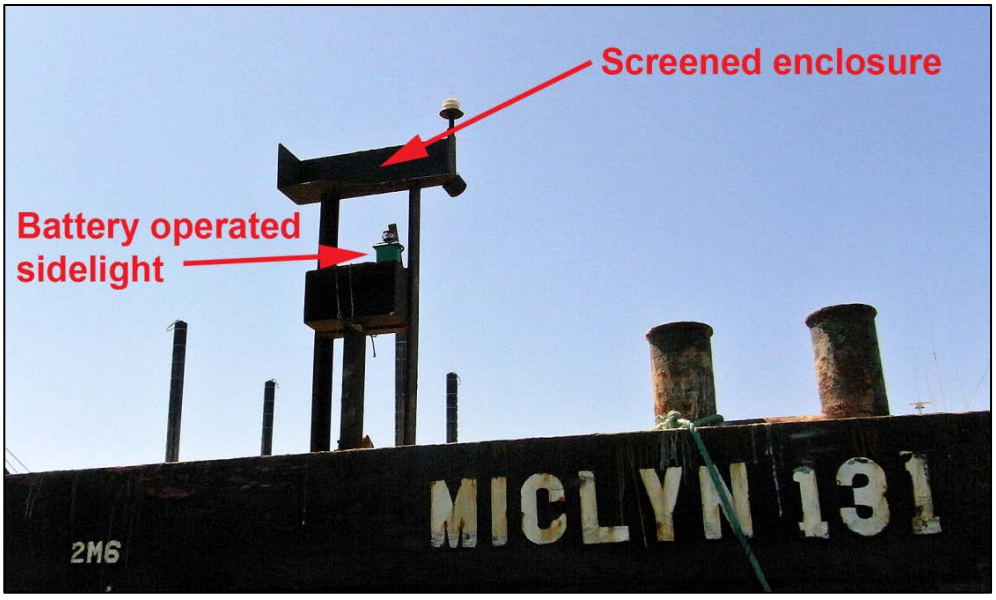
2.3.2 *Miclyn 131*

When interviewed, *Global Supplier*'s skipper stated that, at the time of the collision, *Miclyn 131* was exhibiting port and starboard sidelights and a sternlight as prescribed in Rule 24(e) (Towing and pushing) of the COLREGs.

Based on *Miclyn 131*'s length, the sidelights should be visible at a range of at least 2 miles[16] and therefore should have been visible to the watchkeepers on board *Far Swan* when they first saw *Global Supplier*'s sidelights. However, the watchkeepers did not see the barge's navigation lights until just moments before the collision.

Miclyn 131 was fitted with permanent sidelight enclosures (Figure 9). The COLREGs designate the correct dimensions of such enclosures[17] and stipulate that they should be painted matt black. This ensures that scattered light is appropriately restricted and the colour contrast between the light and its surroundings is maximised, thus ensuring the visibility of the light is enhanced.

Figure 9: *Miclyn 131* sidelight



However, when the ATSB investigators inspected *Miclyn 131*, they found that the portable battery powered all-round navigation lights used on board the barge on 6

[16] Rule 22(b) of COLREGs.

[17] COLREGs, Annex 1, Positioning and technical details of lights and shapes.

October were not placed in the enclosures. They were placed beneath them in an area where there was no inboard screening for visibility and horizontal sectoring.

Therefore, the lights exhibited were a red all-round light and a green all-round light, instead of the required screened sidelights. Consequently, the effectiveness of the lights was not maximised. It is possible that this is the reason why the barge's sidelight was not detected by *Far Swan*'s watchkeepers until immediately before the collision.

2.4 Port of Dampier pilotage directions

2.4.1 Towage

The port of Dampier pilotage directions[18] applied to vessels navigating within the Dampier Port Authority's (DPA) limits. These directions provided comprehensive guidance to masters of vessels intending to undertake towage operations within the port's limits. This guidance stated that:

> 2.5 **Vessels Towing Any Craft or Item within the Port.**
>
> 2.5.1 All towing operations require prior notification to DPA Port Communications, preferably with several days notice to allow preplanning. All masters of towing vessels are required to contact Port Communications before commencing the tow within the Port, or if entering the Port, at least three hours before abreast of Seabuoy, Northwest Reefs or Roly Rock.
>
> 2.5.2 Masters of towing vessels will be required to wait off the applicable Port entrance or at the place of departure within the Port if the tow will conflict with a large ship operation/s at any segment of the towage transit within Port Limits.
>
> 2.5.3 Appropriate towage daymarks or lights are to be worn by the towing vessel and the tow as according to Colregs. Towed items such as black loadout hoses are difficult to see from other vessels by day and impossible by night.
>
> 2.5.4 Tows where an approved Dampier Pilot is employed may move within the Port at any time provided that the Pilot has obtained a current vessel traffic briefing from Port Communications, remains well clear of deep draft shipping, and has established clear communications with other Pilots and exempt Masters moving within the Port.

The moorings to the south of West Lewis Island are within the port limits and to get to Flying Foam Passage, *Global Supplier*'s skipper had to transit Mermaid Sound. Therefore, he was required to give DPA notification regarding his intention to tow *Miclyn 131* well before the event. He was also required to report his intended route to Dampier Communications before he departed the moorings and when he left Dampier port limit. These requirements were not followed. The only notification given to Dampier Communications was when he entered the port limit again through the Malus Islands passage, before crossing Mermaid Sound. However, the

[18] Revision 1 of 4 September 2006.

notification the skipper gave did not include the information that *Global Supplier* was towing a barge.

Global Supplier's skipper had not only been master on vessels within the port of Dampier for a number of years, he had managed towage operations within the port. As a result, he should have been aware of these reporting requirements.

Had the skipper complied with the port's towage regulations, the port authority's officers would have been provided with sufficient information, and an opportunity, to analyse the risks associated with the towing of *Miclyn 131* across the port's main shipping channels that night. Furthermore, the Dampier Communications officers could have advised the masters of all other vessels operating in the vicinity that *Global Supplier* was towing a barge across the port from Malus Island passage to Flying Foam Passage.

Had the watchkeepers on board *Far Swan* been forewarned about *Global Supplier* and its tow, it is likely that they would have been actively looking for a small boat towing a barge in the area where the collision occurred and thus the collision would probably have been avoided.

2.4.2 Pilotage exemptions

Global Supplier

At the time of the collision, *Global Supplier*'s skipper did not hold a pilotage exemption for the port of Dampier and on 6 October 2010, he had not engaged the services of a pilot. It was his belief that he did not need to have either while towing *Miclyn 131*.

Global Supplier was less than 35 m in length so it was normally not necessary for its skipper to hold a pilotage exemption or to engage the services of a licensed pilot when operating within the port.

The port of Dampier pilotage directions provided requirements for vessels with respect to exemptions from compulsory pilotage which stated:

> 1.4 **Exemptions from Compulsory Pilotage**
>
> The following categories of vessel shall be exempt from compulsory pilotage:
>
> - Australian Defence Force vessels other than those used primarily to transport troops, fuel, stores or equipment.
> - Commercial fishing vessels less than 35 metres.
> - Vessels less than 150 gross registered tonnes other than vessels under tow where towing vessel does not carry an exempt master.
> - Vessel that:
>   - Are under the command of an exempt master[19],
>   - May be moved under cover of the exempt master's pilotage exemption certificate,
>   - Are being led by another vessel under the control of a pilot in the circumstances outlined at Port Authorities regulation 40, and

[19] The exempt master must be on the bridge throughout Dampier entry and departure.

- Are for the convenience of shipping in the Port or because the vessel is engaged in dredging operations, exempted by the harbour master from using pilotage services.

However, advice received from the Dampier harbour master after the collision is that none of the exemptions from compulsory pilotage applied to *Global Supplier* while it was towing *Miclyn 131.* Consequently, the skipper was required to hold an exemption or engage a licensed pilot for the towage operation because the combined GRT of the two vessels exceeded 150 (there is no available GRT data for *Global Supplier* and *Miclyn 131* had a gross tonnage (GT) of 540, equivalent to a GRT of about 700).

While this may be a technically correct interpretation of the pilotage guidelines, the guidelines in the pilotage directions are not completely clear with regard to towage operations. While they clearly state that pilotage is compulsory for 'all vessels over 150 gross registered tonnes' they do not contain any explanation that, in the case of towing vessels, that this refers to the combined GRT of the towing vessel and the tow.

Far Swan

The pilotage directions stated that pilotage was compulsory for all vessels over 150 gross registered tonnes (GRT) and for all commercial fishing vessels over 35 m in length. The directions (section 1.5) also provided for the issuing of pilotage exemptions to masters and mates of specific vessels operating out of minor terminals in the port.

At the time of the collision, *Far Swan*'s master and chief mate both held pilotage exemptions for the port. This meant that the port authority had determined that the master and chief mate had 'demonstrated practically and by examination his qualifications to navigate a vessel without the services of a pilot into, out of and within the Port of Dampier'.

However, the pilotage directions (footnoted in its section 1.4) stated that 'the exempt master must be on the bridge throughout Dampier entry and departure'.

At the time of the collision, *Far Swan*'s chief mate had the conduct of the ship as the master was in his cabin. To enable the ship to transit the port without a licensed pilot on board, the master needed to be on the bridge of the ship.

In submission, Farstad stated that:

> In Farstad Shipping's view the Chief Mate was entitled to pilot the vessel under the exemptions in 1.4 and 1.5, which specifically regulates: "*Masters and Mates of specific vessels for minor terminals*". Accordingly Farstad Shipping does not consider the footnoted restriction is applicable to a Chief Mate PEC Holder piloting under the specific provisions of article 1.5. With regard to the footnoted exemption, Farstad Shipping considers that the Chief Mate, being in charge of the vessel during the Master's rest break, was in charge of the vessel and therefore an "exempt master" for the purposes of the Pilotage Directions for the reasons explained in full in section 2 below.

Farstad also stated that:

> From discussions between Farstad Shipping personnel and DPA personnel, it is Farstad Shipping's understanding that the DPA considers it is acceptable for a Chief Mate who holds a Masters certificate and a PEC valid for the specific vessel

> to pilot that vessel independently in the pilotage area, without a Master PEC holder on the bridge as well.

However, in their submission, the DPA, confirmed that vessels navigating in the compulsory pilotage area of the port are not to be under the control of a first mate who holds a pilotage exemption certificate rather than the master.

> Non exempt small ships, rig tenders and the like are piloted to and from the vicinity of channel marker Woodside 4 if entering via Mermaid Sound.... If entering or leaving via Mermaid Strait the pilot boards and disembarks in the vicinity of Channel Reef beacon.
>
> Our interpretation has always been that we expect no less from an exempt Master. Our lawyers and ourselves share the opinion that the ability for a 1st Mate to obtain an exemption certificate provides the opportunity to develop his career not to act as pilot/master in place of the Master.
>
> Dampier is the only WA port where this provision exists, it is also the port with the greatest demand for exemptions driven by our proximity to the North West Shelf oil and gas fields.... We will again strengthen the Port of Dampier Pilot Directions to reinforce this aspect and issue a Marine Notice in relation to the matter.

While it cannot be definitively said that the presence of the master on the ship's bridge during the ship's departure from Dampier would have averted the collision, at the time, the ship was operating outside of the provisions of the port pilotage directions.

2.5 *Global Supplier*'s navigational equipment

Global Supplier was constructed and fitted out in 2002 to the dual standard of class 2B and 2B1 passenger vessel and class 3B fishing vessel, in accordance with the Uniform Shipping Laws (USL) Code in force at that time. The boat has since been routinely surveyed to ensure that it continues to comply with the USL Code. As a result, on 6 October 2010, *Global Supplier* was equipped with the navigational equipment required by the USL Code.

Over time, the USL Code has been further developed and, in part, replaced by the National Standard for Commercial Vessels (NSCV). Today, a hybrid USL Code/NSCV 2010 standard is in force across all Australian states. Part C, Section 7, Subsection 7C of the NSCV now details the equipment that should be fitted to the various classes of vessels. It states that a Class B vessel of less than 35 m in length should be fitted with, amongst other things, radar and AIS. However, since the provisions of the NSCV are not applied retrospectively to Western Australian registered vessels, there was no requirement, under Western Australian legislation, for *Global Supplier* to have radar or AIS fitted.

The introduction to Subsection 7C of the NSCV outlines the objective of that subsection of the standard. It states that:

> The objective of this subsection is to ensure vessels are equipped with certain key items of navigational equipment necessary to permit safe navigation of the vessel throughout a voyage.

Note: The objective of the National standard implicitly includes the avoidance of collisions with other vessels in accordance with the International Regulations for Preventing Collisions at Sea including local rules.

However, the realisation of this objective is limited because not all commercial vessels are expected to meet the standard.

The application of the NSCV construction and design provisions to vessels which are subjected to USL Code survey may be considered unreasonable because of the cost of what might, in some circumstances, be extensive structural changes to existing vessels. However, the retrospective application of the NSCV requirements, as they relate to safety and navigational equipment, which can be relatively easily fitted, should be possible.

There is little doubt that a correctly tuned radar and an appropriately setup AIS unit on board *Global Supplier* would have aided in avoiding the collision between *Far Swan* and *Miclyn 131*. Both of these devices would have provided *Global Supplier*'s skipper with information that would have increased the likelihood of him detecting *Far Swan* and taking appropriate action to avoid the collision.

Similarly, an AIS unit onboard *Global Supplier* would have provided *Far Swan*'s chief mate with more detailed information about the small boat. This information would have included the boat's name, speed, heading and mode of operation (i.e. 'towing vessel'). Armed with this information, the chief mate would have been better informed as to his options when considering what action to take to avoid the collision.

3 FINDINGS

3.1 Context

At about 1944 on 6 October 2010, the offshore supply vessel *Far Swan* collided with the barge *Miclyn 131* in the port of Dampier, Western Australia. At the time, *Miclyn 131* was being towed by the Western Australia registered vessel *Global Supplier*. Both *Far Swan* and *Miclyn 131* sustained minor damage as a result of the collision but there were no injuries or pollution.

From the evidence available, the following findings are made with respect to the collision and should not be read as apportioning blame or liability to any particular organisation or individual.

3.2 Contributing safety factors

- *Global Supplier*'s skipper was not keeping a proper and effective lookout in the time leading up to the collision. Consequently, he did not know that *Far Swan* was in the vicinity of his vessel and that the ship presented a collision risk.
- *Far Swan*'s chief mate relied on visual observation of *Global Supplier* and did not appropriately use all of the navigational equipment available to him to properly determine whether a risk of collision existed.
- *Far Swan*'s chief mate made a small alteration of course to port to increase the passing distance between his ship and *Global Supplier*. However, by doing so, he effectively altered course into a collision situation with *Miclyn 131*.
- *Global Supplier* was not fitted with the correct navigational lights for a vessel engaged in towing operations. *[Minor safety issue]*
- *Far Swan*'s watchkeepers did not see *Miclyn 131*'s sidelights until immediately before the collision.
- *Miclyn 131*'s portable sidelights were not as clearly visible as they could have been because they had not been fitted within the barge's sectored navigation sidelight screens.
- *Global Supplier*'s skipper did not comply with the Dampier Port Authority's reporting requirements regarding towage in the port.
- *Global Supplier*'s skipper did not hold the necessary pilotage exemption to undertake the tow within the port of Dampier without engaging a licensed pilot.
- Dampier Port Authority's pilotage directions were unclear and ambiguous with respect to the requirements for towing vessels or on the use of pilotage exemptions by crew other than the master. *[Minor safety issue]*
- *Global Supplier* was built and surveyed as a Uniform Shipping Laws (USL) Code vessel and therefore was not fitted with radar or an AIS unit which would be required under the provisions of the current National Standard for Commercial Vessels. Had these devices been fitted, they would have provided information that would have assisted both *Global Supplier*'s skipper and *Far Swan*'s watchkeepers, in avoiding the collision. *[Minor safety issue]*

3.3 Other key finding

- *Far Swan*'s chief mate was not entitled to use his pilotage exemption as he was not in command of the ship.

4 SAFETY ACTION

The safety issues identified during this investigation are listed in the Findings and Safety Actions sections of this report. The Australian Transport Safety Bureau (ATSB) expects that all safety issues identified by the investigation should be addressed by the relevant organisation(s). In addressing those issues, the ATSB prefers to encourage relevant organisation(s) to proactively initiate safety action, rather than to issue formal safety recommendations or safety advisory notices.

All of the responsible organisations for the safety issues identified during this investigation were given a draft report and invited to provide submissions. As part of that process, each organisation was asked to communicate what safety actions, if any, they had carried out or were planning to carry out in relation to each safety issue relevant to their organisation.

4.1 Global Marine and Engineering

4.1.1 *Global Supplier*'s navigation lights

Minor safety issue

Global Supplier was not fitted with the correct navigational lights for a vessel engaged in towing operations.

Action taken by Global Marine and Engineering

The ATSB has been advised by Global Marine and Engineering that towing lights, radar and AIS have been fitted to *Global Supplier*.

ATSB assessment of response

The ATSB is satisfied that the action taken by Global Marine and Engineering adequately addressed this safety issue.

4.2 Dampier Port Authority

4.2.1 Pilotage directions

Minor safety issue

Dampier Port Authority's pilotage directions were unclear and ambiguous with respect to the requirements for towing vessels or on the use of pilotage exemptions by crew other than the master.

Response from the Dampier Port Authority

The ATSB has been advised by the Dampier Port Authority that the pilotage directions have been revised and reissued with increased emphasis on the requirements when towing and on the use of exemption certificates.

ATSB assessment of response

The ATSB is satisfied that the action taken by the Dampier Port Authority adequately addressed this safety issue.

4.3 State and territory marine authorities

4.3.1 Carriage of radar and AIS units on small commercial vessels

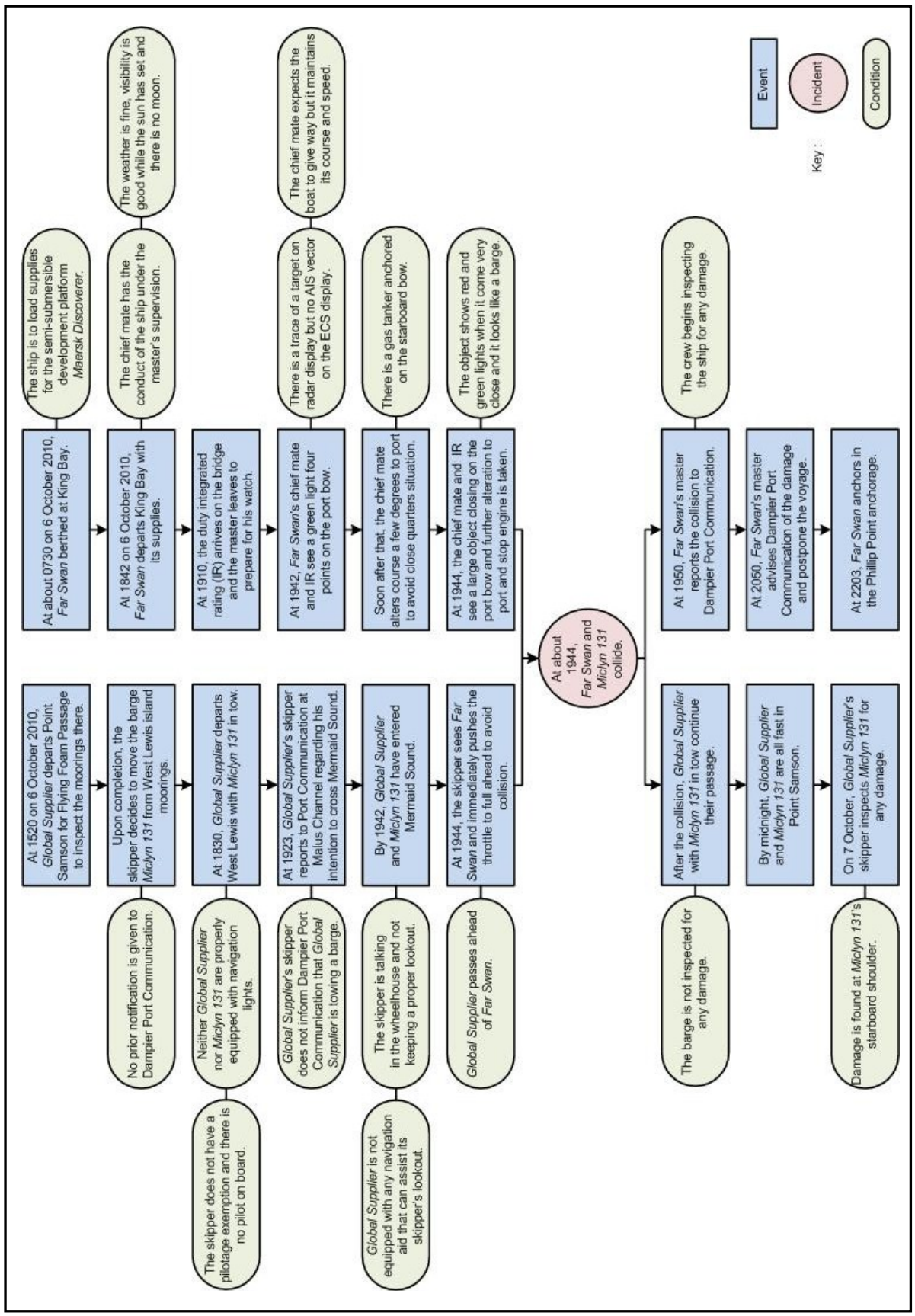
Minor safety issue

Global Supplier was built and surveyed as a Uniform Shipping Laws (USL) Code vessel and therefore was not fitted with radar or an AIS unit which would be required under the provisions of the current National Standard for Commercial Vessels. Had these devices been fitted, they would have provided information that would have assisted both *Global Supplier*'s skipper and *Far Swan*'s watchkeepers, in avoiding the collision.

ATSB safety advisory notice MO-2010-006-SAN-015

The Australian Transport Safety Bureau advises that all state and territory marine authorities should consider the safety implications of this safety issue and take action where considered appropriate.

APPENDIX A : EVENTS AND CONDITIONS



APPENDIX B : SHIP INFORMATION

Far Swan

IMO Number	9355953
Call sign	9VME5
Port of Registry	Singapore
Classification society	Det Norske Veritas (DNV)
Type	Offshore supply vessel
Builder	Aker Yards Langsten
Year built	2006
Owners	Farstad Shipping, Singapore
Operator	Farstad Shipping (Indian Pacific), Australia
Gross tonnage	2,465
Net tonnage	859
Deadweight (summer)	3,570 tonnes
Summer draught	6.42 m
Length overall	73.40 m
Length between perpendiculars	64.00 m
Moulded breadth	16.60 m
Moulded depth	7.60 m
Engine	2 x CAT 3606 DITA
Total power	4060 kW
Speed	11.5 knots

Global Supplier

Port of Registry	Fremantle, Western Australia
Type	Aluminium catamaran
Builder	Fine Entry Marine, Geraldton, Australia
Year built	2002
Owners	Global Marine & Engineering Pty Ltd, Western Australia
Moulded draught	1.250 m
Length overall	17.15 m
Beam	6.00 m
Engine	2 x Caterpillar C18 Diesels
Total power	1,298 kW
Crew	3

Miclyn 131

Port of Registry	Singapore
Builder	PT. Gulf Pacific Shipyard Batam, Indonesia
Year built	2000
Owners	Samson Maritime, Western Australia
Gross tonnage (GT)	540
Deadweight	1360
Length	40.32 m
Breadth	17.07 m
Depth	3.05 m

APPENDIX C : SOURCES AND SUBMISSIONS

Sources of Information

Master and crew of *Far Swan*

Skipper of *Global Supplier*

Farstad Shipping (Indian Pacific) Australia

Dampier Port Authority

Western Australia Department of Transport

References

Australian Maritime Safety Authority *Marine Orders Part 30 Prevention of collisions Issue 8,* Order No.5/2009, AMSA, Australia, 2009

National Marine Safety Committee *National Standard for Commercial Vessels Part C Design and Construction Section 7 Equipment Subsection 7C Navigation Equipment,* Edition 1.0 November 2008, NMSC, Australia, 2008

Department for Planning and Infrastructure, Government of Western Australia, *Western Australian Marine Act 1982*, WA, Australia, 1982

Department for Planning and Infrastructure, Government of Western Australia, *Equipment List & Survey Requirement for Class 2B Vessels under 25 metres in length and under 500 ton GRT, March 2005*, WA, Australia, 2005

Department for Planning and Infrastructure, Government of Western Australia, *Equipment List & Survey Requirement for Class 3B Vessels under 25 metres in length and under 500 ton GRT, March 2005*, WA, Australia, 2005

Dampier Port Authority *Port of Dampier Pilotage Directions* (Revision 1) of 4 September 2006, DPA, Australia, 2006

Reason, J. *The human contribution: Unsafe act, accidents and heroic recoveries.* Ashgate, UK, 2008

Submissions

Under Part 4, Division 2 (Investigation Reports), Section 26 of the Transport Safety Investigation Act 2003, the ATSB may provide a draft report, on a confidential basis, to any person whom the ATSB considers appropriate. Section 26 (1) (a) of the Act allows a person receiving a draft report to make submissions to the ATSB about the draft report.

A draft of this report was provided to *Far Swan*'s master, chief mate and lookout, *Global Supplier*'s skipper, Farstad Shipping (Indian Pacific) Australia (Farstad), the Dampier Port Authority (DPA), the Western Australia Department of Transport and the Australian Maritime Safety Authority (AMSA).

Submissions were received from *Far Swan*'s master and lookout, *Global Supplier*'s skipper, Farstad, DPA, the Western Australia Department of Transport and AMSA. The submissions were reviewed and where considered appropriate, the text of the report was amended accordingly.

Independent investigation into the collision between the Singaporean registered offshore supply vessel *Far Swan* and the barge *Miclyn 131* at Dampier, Western Australia, on 6 October 2010.