

Accident Report

Man Overboard
Formosa Thirteen

12 June 2006

Class B





Figure 1
Formosa Thirteen

Details of Vessel, Owner & Management, Classification, Navigational Equipment, Manning & Crew:

| | |
|-------------------------------|--|
| Ship Name: | <i>Formosa Thirteen</i> |
| Ship Type: | Oil and Chemical tanker |
| Port of Registry: | Monrovia Liberia |
| Flag: | Liberia |
| IMO No.: | 9272503 |
| Launched: | December 2004 |
| Delivered: | March 2005 |
| Construction Material: | Steel |
| Length Overall (m): | 179.88 |
| Maximum Breadth: | 32.2 |
| Gross Tonnage: | 28 131 |
| Net Tonnage: | 11 696 |
| Propulsion: | KOBE Diesel 6UEC60LA x 1 SET - 9267 kW |
| Accident Investigator: | Zoe Brangwin |

Owner Details

Formosa Plastics Marine Corporation, Hong Kong

Classification Society/ISM Certificate

Formosa Thirteen is classed with America Bureau of Shipping (ABS). She holds an ISM Certificate issued by Bureau Veritas on 16 August 2005 which expires on 11 July 2010.

Crew Details

The Master was a 46 year old Taiwanese national. The crew consisted of a Master and 21 crew of mixed Taiwanese and Chinese nationality.

Pilot Details

CentrePort Wellington Ltd employed the Pilot. The Pilot joined the then Wellington Harbour Board in 1977 as a Tug Master and became a Pilot in June 1982.

Victim's Details

Bai Yanlei, aged 23, was a Chinese national. He was an Ordinary Seaman and had been on board the vessel since her delivery in March 2005. Crewmembers described Mr Yanlei as a competent and hardworking deckhand. He was enthusiastic and always quick to volunteer for work. He had been close to being promoted to Able Seaman.

Mr Yanlei was in good health and he got on well with all crew on board.

At the time of the accident he was wearing overalls, dark blue over trousers and raincoat, hard hat and steel cap safety boots.

NARRATIVE

At 1515 hours on 12 June 2006, **Formosa Thirteen** departed the tanker berth at Seaview, Wellington Harbour, bound for Timaru.

The weather was a south/southwest wind, 40-50 knots with poor visibility. The significant swell height at the harbour entrance was about four metres.

The Pilot intended to disembark using the starboard side combination pilot and accommodation ladders that were located just abaft the mid point of the vessel, when south of Wellington Harbour entrance (See Figure 6 – Photograph showing view from the Pilot’s position on the bridge).

At 1551 hours, on advice from the pilot boat that it would not be possible for him to disembark outside the Harbour due to the heavy sea conditions, the Pilot decided he would carry on to Timaru with the vessel. The Pilot then prompted the Master to secure the pilot ladder, as he could not see any crew activity by the pilot ladder. When the Pilot was happy that the pilot ladder was being secured, he concentrated his attention on piloting the vessel.

At 1600 hours, the three seamen who were on watch, were directed by an instruction over the ship’s loud speaker system to secure the pilot ladder. The Bosun, who would normally supervise, was at the bow standing by the anchor.

There were two ordinary seaman at the pilot ladder Mr Yanlei and Deckhand 1. Deckhand 2 had left his cabin and was on his way to assist them. Deckhand 1 said to Mr Yanlei that he thought it was too dangerous to go down the accommodation ladder to unlash the base from the ship’s hull because of the rough sea conditions (See Figure 2 – Photograph showing gangway and lashing points). However Mr Yanlei said it was ok, and he would do it.



Figure 2
Gangway and lashing points

At 1608 hours, Mr Yanlei descended the accommodation ladder so as to undo a rope lashing that was attached between the bottom of the ladder and a cleat that was recessed in the ship's hull and used to hold the ladder against the hull (See Figures 2 & 3 – Photographs). He was wearing overalls and a dark blue raincoat, over trousers steel cap safety boots, gloves and hardhat. He was not wearing a lifejacket or harness. Deckhand 1 did not watch Mr Yanlei once he had started to descend the accommodation ladder.

Shortly afterwards, Deckhand 1 heard a loud bang. He rushed back to the top of the accommodation ladder and yelled out for Mr Yanlei. He could not see him and quickly realised he must have been washed away by the heavy seas. He immediately headed for the stern of the vessel yelling that there was a man overboard.

As Deckhand 1 reached the accommodation he ran into Deckhand 2 who was coming out of the accommodation. He told him what had happened and that he needed to tell the Master.

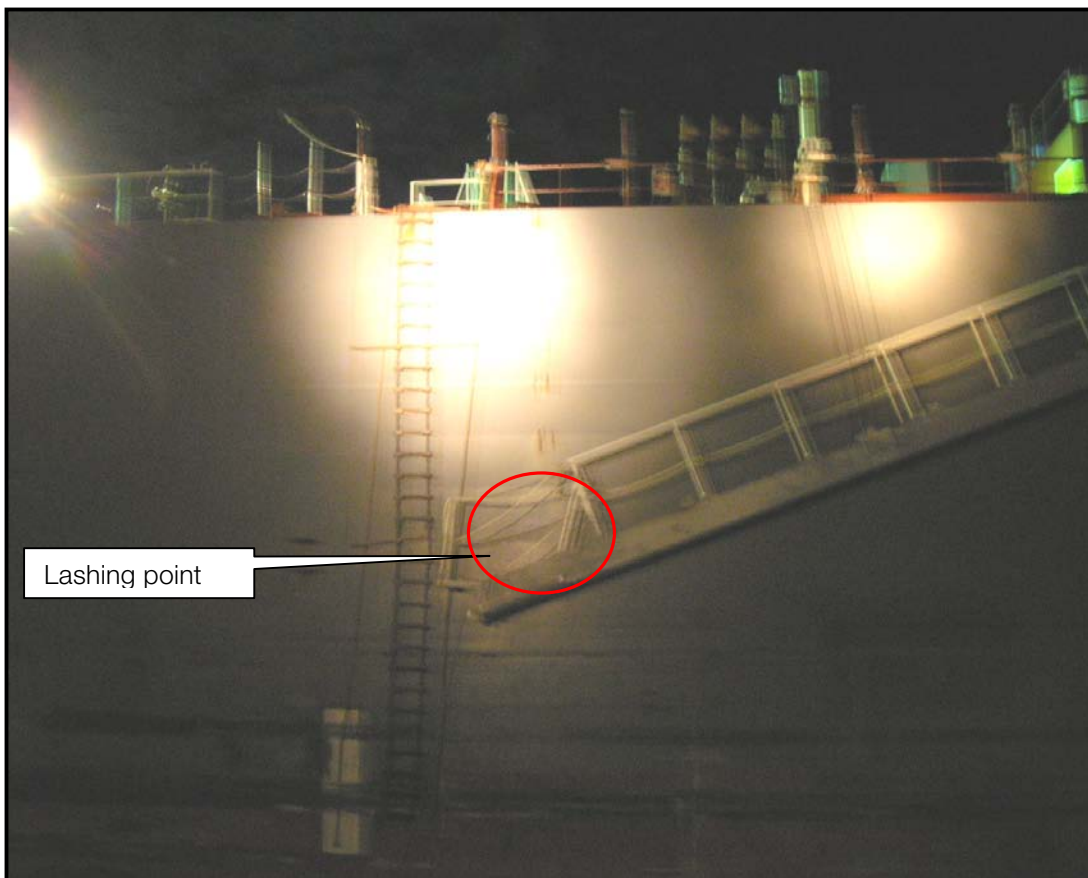


Figure 3
Combination accommodation ladder and pilot ladder.
Photograph taken by the Police the evening of the accident.

Deckhand 1 ran to the side of the vessel and threw a lifebuoy, with a light, into the water. It landed about 50-100 metres from Mr Yanlei who Deckhand 1 could just see in the water. He was unable to determine if Mr Yanlei was still moving.

Deckhand 2 ran up to the second level of accommodation to telephone the bridge, but found it was engaged.

At 1608 hours, the vessel was abeam of Point Dorset, steering 197°(T) at a speed of about 8.9 knots (See Figure 4). The Pilot observed Deckhand 1 by the starboard gangway, shouting and gesticulating to the bridge and to the stern. The Pilot quickly realised there was a man overboard. He looked astern and saw Mr Yanlei in the water about 50-100 metres astern of the vessel. He was waving with one arm and appeared to be riding quite high in the water. At about this time the man overboard alarm was sounded.

The Master immediately slowed the engine.

The Pilot radioed Wellington Harbour Radio on Channel 14 but got no response. He then called the Pilot boat **Tarakena** which was standing by off Seatoun Wharf.

At 1610 hours, the Pilot sent a MAYDAY call on VHF Channel 16. Wellington Harbour Radio responded immediately and initiated a formal search and rescue operation.

Formosa Thirteen was unable to turn around as she was in the channel and had limited room in which to manoeuvre. The vessel continued seawards and awaited instructions.

At 1620 hours, **Tarakena** arrived on scene and started searching for the missing crewmember.

At 1635 hours, a helicopter arrived on scene and also started searching.

At 1642 hours, **Formosa Thirteen** was instructed by the Police to re-enter the Harbour and proceed to anchor. The Police intended to board the vessel to carry out interviews of the crew. However, after the vessel was anchored in the harbour, it was decided that it was too hazardous for them to board, due to the weather.

Subsequently it was decided that the Pilot would come ashore. Another Pilot replaced him and took the vessel to Timaru.

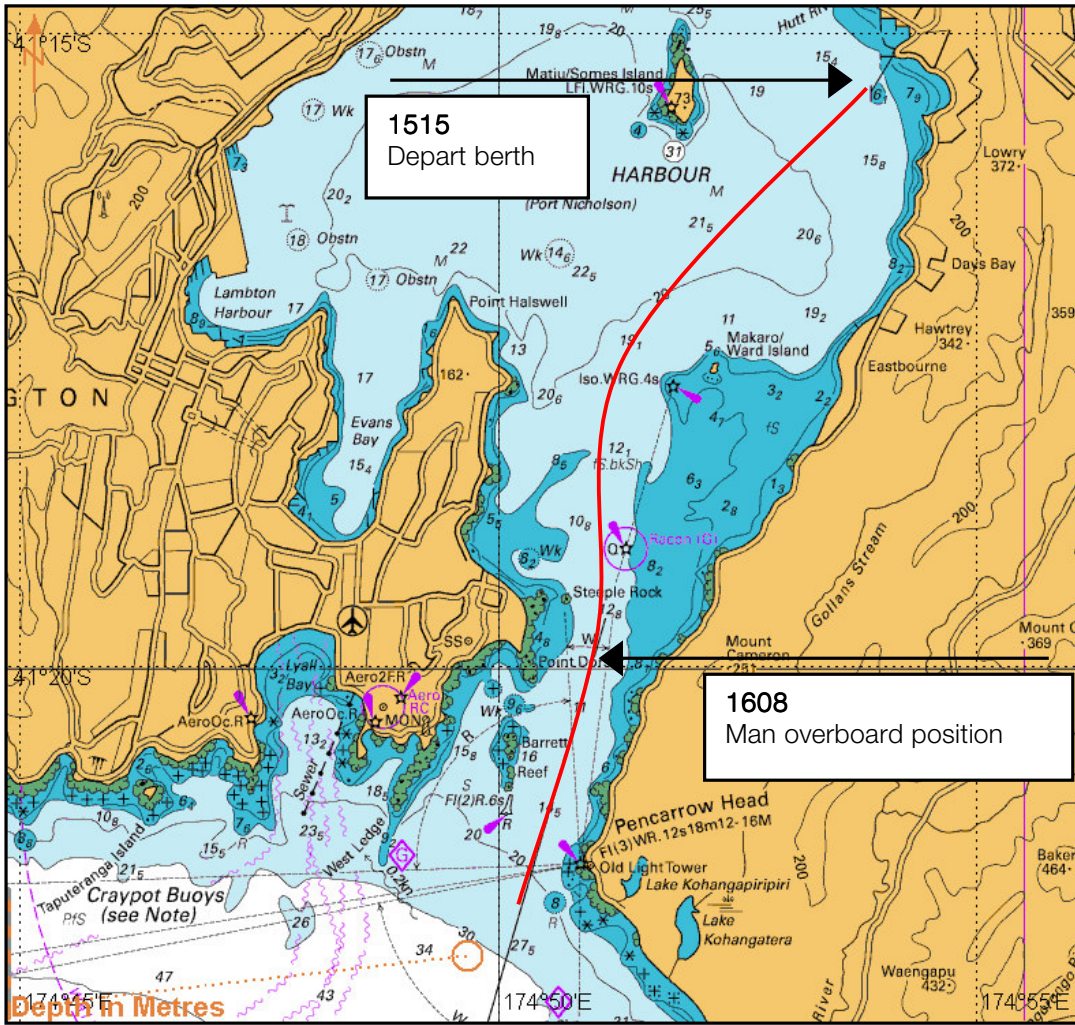


Figure 4
 Extract from LINZ Chart NZ 463 – Wellington Harbour – Showing approximate track of *Formosa Thirteen*

FINDINGS

Weather

The Pilot reported the weather conditions as follows: south/southwest, 40-50 knots with poor visibility and a swell at the Harbour entrance of about four metres.

The weather conditions observed by Beacon Hill at 1600 hours were as follows:

Wind southwest, 35-60 knots, visibility 10 miles, cloud/rain, barometer 980.7hPa, temp 6.9C, sea state moderate to rough, swell slight to moderate at the entrance to the Harbour.

The Bosun, who was on the forecastle, stated that spray from the waves was coming over the bow of the vessel as they departed Wellington Harbour.

New Zealand MetService forecasts were as follows:

Marine Weather Situation and Forecast issued at 1110hrs Monday 12-Jun-2006 by MetService

Situation:

A deep low moves southeast across the South Island during the day, while its associated front moving east over the North Island. Following the front and low, a strong disturbed southwest flow should cover the country this evening. Another front is expected to move up the country from the southwest on Friday.

GALE warning for COOK

Valid to midnight Tuesday for Wellington Harbour and the south coast from Sinclair Head to Baring Head.

Today: Northwest 25 knots gusting 35 knots becoming southerly 30 knots gusting 40 knots early afternoon, then easing to southwest 15 knots tonight. Rough sea easing to slight tonight. Fair visibility in showers turning to rain with poor visibility for a time this afternoon.

Forecast issued by meteorological service of New Zealand at 1238hrs 12-Jun-2006 valid until midnight 13-Jun-2006 North Island:

Sea Area COOK

GALE WARNING IN FORCE

Northwest 40 knots changing southerly 45 knots early afternoon then easing to southwest 25 knots tonight. Rising to southerly 35 knots for a time Tuesday morning and afternoon then tending northerly 10 knots at night. Sea becoming high for a time. Northerly swell 3 metres easing. Southerly swell rising to 3 metres. Poor visibility in rain developing this afternoon, clearing Tuesday afternoon.

MetService recorded the following observations at Wellington Airport:

| Time | Dir'n DegT | Speed Knots | MxGst Knots | Visibility Km or m | Weather | Temp DegC | DewPt DegC | Pressure hPa | Rain mm | RH % |
|-------|---------------|----------------|----------------|--------------------------|------------|--------------|---------------|-----------------|------------|---------|
| 14:00 | 200 | 23 | 38 | 3000 | Rain | 8.6 | 6.6 | 980.9 | 2.4 | 87 |
| 15:00 | 200 | 30 | 46 | 5000 | Light Rain | 8.6 | 6.6 | 982.1 | 0.8 | 87 |
| 16:00 | 200 | 35 | 47 | 5000 | Light Rain | 8.7 | 5.8 | 984.1 | Nil | 82 * |
| 17:00 | 200 | 33 | 46 | 15km | Rain | 8.9 | 4.7 | 985.8 | Nil | 75 |
| 18:00 | 190 | 31 | 43 | 15km | Light Rain | 8.7 | 4.5 | 987.4 | Nil | 75 |

* Approximate time of the man overboard

Procedure

The procedure of descending the accommodation ladder to undo the retaining lashing usually takes about one minute. Mr Yanlei had done this on many occasions and was very familiar with the task. According to Deckhand 1, Mr Yanlei showed no outward signs of being afraid to carry out this task.

The ship's ISM manual states that there should be a deck officer present supervising at all times when raising or lowering the accommodation ladder or pilot ladder. None was present on this occasion. The investigation revealed that it was common practice not to have an officer present at this time.

There were no procedures that working lifejackets and a harness should be used when descending the ladder whilst the vessel was underway.

The delayed order to raise the accommodation ladder, after it was decided that the Pilot would remain on board for the passage to Timaru, meant that the vessel was being increasingly subject to the force of the southerly gale as she proceeded southwards towards the harbour entrance. This had a direct bearing on the safety of Mr Yanlei, as he descended the accommodation ladder, particularly as he was not wearing the appropriate safety equipment.

On commenting on the draft report the vessel's shipping company stated, "*The requirement for personal safety equipment when working aloft and outboard has been included in the vessel's ISM manual since December 2005*". Although this procedure was in place it had not been followed. The list provided by the company included 'flotation device' for working over the side, however no working life jackets had been provided.

On commenting on the draft report the vessel's shipping company stated, "*A work permit for man aloft and outboard was established in May 2005*". During the investigation the investigators found no evidence of this procedure onboard the vessel.

Pilot Ladder

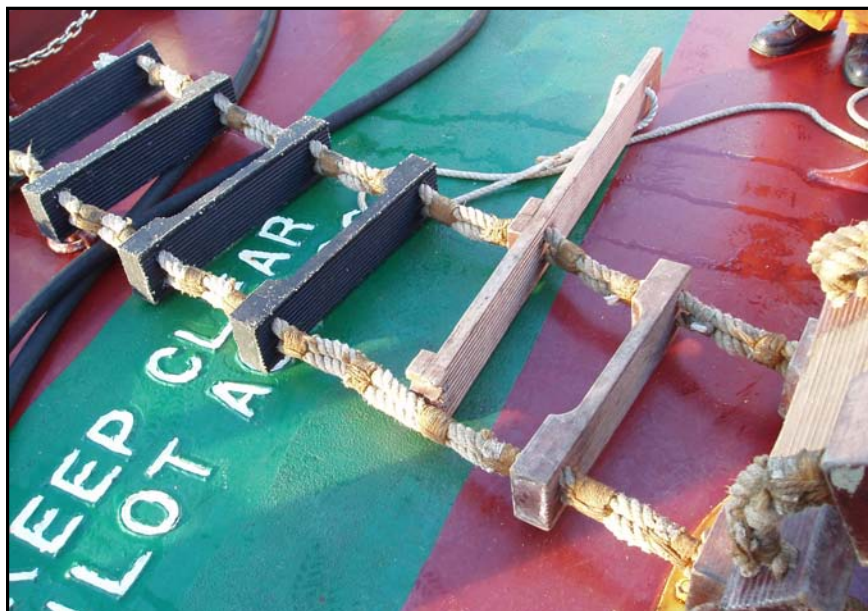


Figure 5
Broken rung from Starboard Pilot ladder

The fifth and the fourteenth rungs and spreaders of the pilot ladder were found to be broken when it was recovered. It is not known exactly when these were broken. They may have been broken by the action of the sea and waves as the vessel left Wellington.

View From The Bridge



Figure 6
View from the Pilot's position on the bridge

The combination accommodation and pilot ladder was visible from the starboard bridge wing. None of the bridge team checked to see whether it was safe to raise the accommodation ladder, when the order for this was given.

SAFETY RECOMMENDATIONS

1. It is recommended that the owner/operator provide working lifejackets that are compliant with SOLAS regulations to all of the vessels in the fleet.
2. It is recommended that the owner/operator include in the vessel's ISM manual a procedure to cover the requirement for safety harnesses to be worn when working over the ship's side and/or while working on deck in adverse weather conditions or at any time where risk of being washed overboard exists.
3. It is recommended that where combination ladders are in use the decision not to disembark due to weather conditions be made as soon as possible so the ladders can be retrieved in a safer environment.

ACTION TAKEN

Three working life jackets have been sent to each of the vessels in the Formosa fleet.