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ATSB TRANSPORT SAFETY REPORT
 Marine Occurrence Investigation No.268
 MO-2009-008
 Preliminary

Collision between *Silver Yang* and *Ella's Pink Lady* off Point Lookout, Queensland 9 September 2009

ABSTRACT

At 0151½¹ on 9 September 2009, in a position about 15 miles² east of Point Lookout on North Stradbroke Island, Queensland, the Australian registered, single-handed yacht *Ella's Pink Lady* collided with the Hong Kong registered bulk carrier *Silver Yang*.

At the time of the collision, *Silver Yang* was en-route to China and travelling at a speed of about 9 knots³ on a northerly heading. *Ella's Pink Lady* was under sail on a voyage from Mooloolaba, Queensland, to Sydney, New South Wales. The yacht was making good a course of 144°(T) and a speed of about 7 knots.

Ella's Pink Lady was dismasted as a result of the collision, but the skipper was able to cut the headsail free, retrieve the damaged rigging on board and motor the damaged yacht to Southport, Queensland.

The ATSB investigation is continuing.

FACTUAL INFORMATION

The information contained in this preliminary report is derived from the initial investigation of the occurrence. Readers are cautioned that there is the possibility that new evidence may become available during the course of the investigation

which may alter the circumstances as depicted in this report.

Silver Yang

Silver Yang [IMO 8108585] is a conventional bulk carrier with seven cargo holds located forward of the accommodation superstructure (Figure 1). At the time of the incident, the ship was owned by Li Chuan Shipping, Panama, managed by China Shipping Development, China, registered in Hong Kong and classed with the China Classification Society.

Figure 1: *Silver Yang*



The ship was built in 1982 in Copenhagen, Denmark. It has an overall length of 225.03 m, a moulded breadth of 32.31 m, a moulded depth of 18.01 m and a deadweight of 63,800 tonnes at its summer draught of 13.08 m.

Silver Yang's navigation bridge would have been equipped with navigational equipment consistent

- 1 All times referred to in this report are local time, Coordinated Universal Time (UTC) + 10 hours.
- 2 A nautical mile of 1852 m.
- 3 One knot, or one nautical mile per hour equals 1.852 kilometres per hour.

with SOLAS⁴ requirements. At the time of the release of this preliminary report, the type of equipment had not been determined. However, it would have included Automatic Radar Plotting Aid (ARPA) equipped radars, an auto-pilot, an Automatic Identification System (AIS) unit, at least one Global Positioning System (GPS) unit and at least one Very High Frequency (VHF) radio.

Propulsive power is provided by a B&W 5L80GFCA single acting, direct reversing, two-stroke diesel engine. The engine develops 9,268 kW and drives a fixed pitch propeller, giving the ship a service speed of about 12 knots.

At the time of the incident, *Silver Yang's* crew consisted of 27 Chinese nationals.

Ella's Pink Lady

Ella's Pink Lady is a Sparkman and Stephens (S&S) 34 sloop rigged yacht (Figure 2). At the time of the incident, it was privately owned and registered under the name *McIntyre Adventure*. The yacht had been loaned to its current skipper to enable her to attempt an unassisted, solo, round-the-world voyage. During the previous year, it had undergone an extensive refit, been painted in the livery of its major sponsor and re-named *Ella's Pink Lady*.

The yacht was built in 1984 and is constructed of glass-reinforced plastic (GRP). It has an overall length of 10.12 m, a beam of 3.07 m, a draught of 1.78 m and displaces about 4.2 tons. It carries a mainsail and furling headsail, with a combined maximum sail area of about 60 m², on an aluminium mast.

The yacht has an open cockpit area aft with inward facing bench seats on the port and starboard sides. Above the forward end of the cockpit is a solid canopy mounted on the cabin top. Access from the cockpit to the cabin is through an aft facing companionway. The cabin contains a bunk and galley to starboard, a toilet forward and a large storage bin and chart table to port.

Auxiliary propulsive power is supplied by a 22 kW Yanmar 3YN inboard diesel engine, which drives a single folding propeller.

The yacht was normally steered by a tiller. However, in preparation for its round-the-world voyage, it had been fitted with three auto-pilots; a tiller mounted auto-pilot, a Fleming wind vane and a linear hydraulic ram fitted directly onto the steering quadrant.

Ella's Pink Lady had been equipped to the International Sailing Federation 'Category O'⁵ standard. However, at the time of the incident, it had not been inspected to ensure that it met this standard.

Figure 2: *Ella's Pink Lady*



Port and starboard navigation sidelights (separate units) were mounted on the yacht's bow (pulpit) railing, about 1.5 m above the waterline. A stern light was also mounted at about the same height on the stern. A masthead mounted tri-colour navigation light was also fitted.

The navigation equipment on board the yacht included fixed and hand-held magnetic bearing compasses, a Navico NAIS-300 AIS unit, a Simrad radar, four GPS units, an Echomax x-band radar

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

5 Trans-oceanic races, including races which pass through areas in which air or sea temperatures are likely to be less than 5° Celsius other than temporarily, where yachts must be completely self-sufficient for very extended periods of time, capable of withstanding heavy storms and prepared to meet serious emergencies without the expectation of outside assistance.

enhancer, a Simrad NX40 Navstation (integrated chart-plotter/radar display with GPS and AIS inputs) and a laptop computer loaded with a C-Map back-up electronic charting system.

Communication equipment included two VHF radios, a high frequency (HF) radio, an Inmarsat-M satellite email/telephone unit and an Iridium satellite telephone.

At the time of the incident, *Ella's Pink Lady* was crewed only by its skipper.

The Incident

At 0320 on 6 September 2009, *Silver Yang* berthed in Newcastle, New South Wales, to load coal for export to Jingtang, China.

Cargo operations finished on the morning of 7 September and the ship departed its berth at 1300 with a harbour pilot on board. At 1340, after the pilot had disembarked, the master brought the ship around to a heading of about 065°(T) and commenced the voyage to Jingtang.

Over the following 36 hours, *Silver Yang's* voyage, northwards along Australia's east coast, went as planned.

At about 1000 on 8 September, *Ella's Pink Lady* departed from Mooloolaba, Queensland. The skipper was intending to clear the coastline as soon as possible and then set a course for Sydney, via Lord Howe Island. However, the wind was only light, so the skipper was unable to clear the coast as early as she had planned.

During the afternoon, the wind 'glassed right out'⁶ so the skipper started the engine and motored *Ella's Pink Lady* for several hours. By sunset, the yacht was off Cape Moreton. The wind had freshened from the west and the yacht was again under sail.

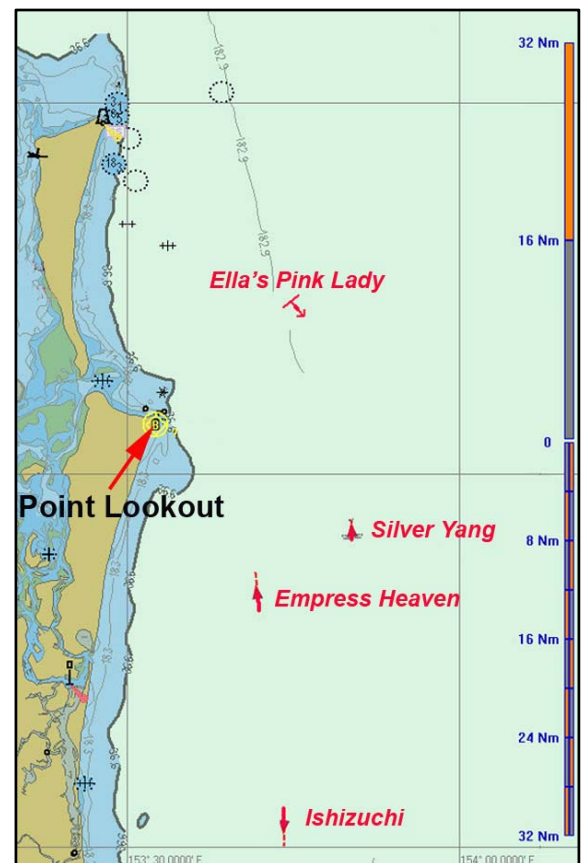
Ella's Pink Lady was now travelling at a speed of about 4 knots⁷ in conditions that the skipper described as 'nice and flat with perfect sailing conditions'. Visibility was good and a half moon was due to rise at 2056 and set at 0725 the following morning.

After sunset, the skipper reported that she had a catnap⁸ about every 2 hours. On each occasion, she checked the radar, which she had set on the 8 mile range, for any vessels in the area. She then set the radar inner and outer guard-rings⁹ at 2 miles and 4 miles respectively. Once she considered that it was safe to have a short sleep, she set her three alarm clocks to wake her about 5 minutes later and went to bed.

By 0030 on 9 September, *Ella's Pink Lady* was about 15 miles northeast of Point Lookout and making good a course of about 140°(T) at a speed of 4 knots (Figure 3).

Silver Yang was now about 17 miles east-southeast of Point Lookout, on a northerly heading and travelling at a speed of 8.7 knots.

Figure 3: AIS recorded image showing the relative positions of both vessels at 0030



6 The wind dropping and the sea surface becoming smooth.

7 All speeds referred to in this report are 'made good / over the ground'.

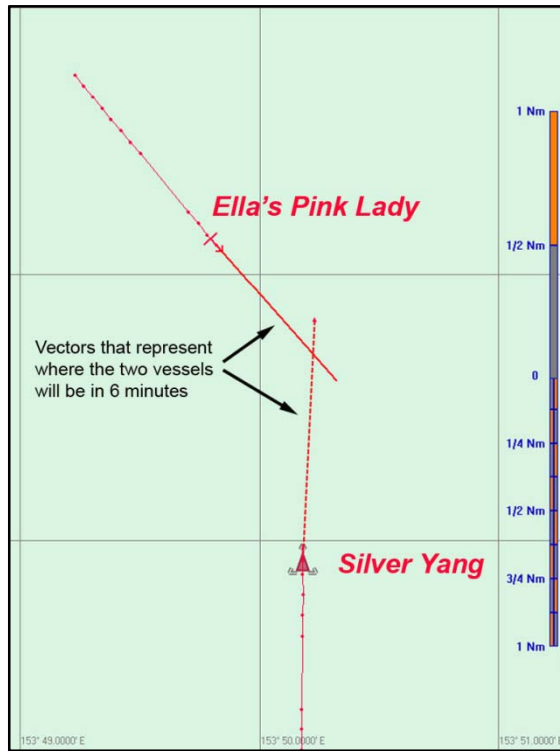
8 A short, light nap or doze.

9 A radar facility that allows the operator to set alarms that will be activated when a radar target crosses a defined range inward.

At about 0146, *Ella's Pink Lady's* skipper prepared for another catnap. The yacht was making good a course of 144°(T) at a speed of 7 knots. The skipper checked the radar and noted that there was a vessel about 6 miles off her starboard quarter¹⁰. She could not see it visually, but she monitored its progress on the radar for about 1 minute. Once she had determined that it did not present a collision risk, she set the radar guard-rings, set her alarm clocks and then went to bed again.

However, she had not detected *Silver Yang*, which was now about 1 mile to the south-southeast of her position (Figure 4).

Figure 4: AIS recorded image showing the relative positions of both vessels at 0146



At about 0125, *Silver Yang's* bridge watch keeper reported observing one green light to port, on a bearing of 345°(T) at a range of about 4 miles. He continued to monitor it and at 0148½, he altered the ship's heading by 10° to starboard, in an attempt to avoid *Ella's Pink Lady*. He continued to monitor the closing situation and at 0150, applied hard-to-starboard rudder in an attempt to avoid collision.

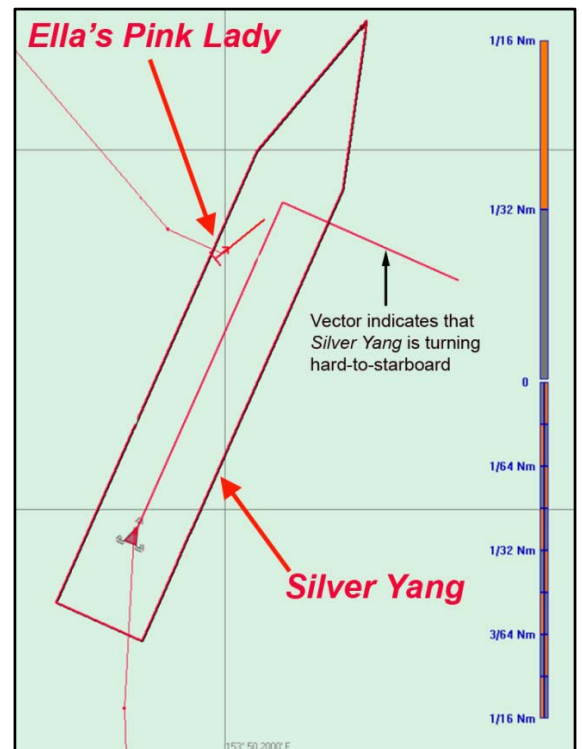
At 0150½, *Ella's Pink Lady's* bow collided with *Silver Yang's* port side mid section. The ship had come around to a heading of 024°(T), so the collision was almost square on (Figure 5). The impact pushed the yacht's bow to port and its starboard side scraped along part of the port side of the ship.

The collision woke *Ella's Pink Lady's* skipper. She climbed out of the cabin, grabbed the tiller and tried to steer the yacht. She looked upwards and thought that it was likely that the yacht's rigging would become entangled with the ship and dismast her vessel, so she returned to the cabin. A few seconds later, the mast came crashing down.

Immediately, following the collision, *Silver Yang's* watch keeper reportedly stopped the ship's main engine.

Once *Ella's Pink Lady* had cleared the ship's stern, the skipper assessed the damage to her yacht. She found no ingress of water and, although the yacht had been dismasted, the vessel appeared to be seaworthy.

Figure 5: AIS recorded image at 0150½ showing the collision, with *Silver Yang* to scale



Ella's Pink Lady's skipper called *Silver Yang* on VHF channel 16. At first, when she did not broadcast the ship's name, she received no reply.

¹⁰ The area between the starboard beam and right astern.

She checked the yacht's AIS unit to determine the ship's name, and then called again, broadcasting using its name 'Silver Yang'. On this occasion, she received a reply.

It was difficult for *Ella's Pink Lady's* skipper to understand *Silver Yang's* Chinese watch keeper because his spoken English was poor. However, over a series of short conversations, he confirmed that *Ella's Pink Lady* had been dismasted and that neither the yacht nor its crew needed any assistance. He then re-started the ship's main engine, returned it to its original heading and resumed the voyage.

Ella's Pink Lady's skipper used the yacht's satellite telephone to call her parents. She spoke to her father and told him what had happened. While she was talking to her father, her mother telephoned the Australian Rescue Coordination Centre (RCC) in Canberra and reported the collision.

Figure 6: *Ella's Pink Lady* motoring towards Southport



The RCC then telephoned *Ella's Pink Lady* directly to confirm what assistance the skipper required. She confirmed that she was fine, the yacht was seaworthy, and that when she had the mast and rigging on board and appropriately tied down, she would motor towards Southport, Queensland.

The RCC reported the incident to the Queensland water police and both the RCC and the police continued to monitor *Ella's Pink Lady's* progress.

At 0740, the Queensland water police vessel *D.A. Shean* departed Southport. At 0820, *D.A. Shean* rendezvoused with *Ella's Pink Lady* and began escorting the yacht towards Southport (Figure 6). By 1255, the two vessels berthed at the Queensland water police facilities in Southport.

Later that afternoon, *Ella's Pink Lady* was moved to a private jetty in Runaway Bay, Queensland.

INVESTIGATION ACTIVITIES

On 9 and 10 September 2009, investigators from the Australian Transport Safety Bureau (ATSB) attended *Ella's Pink Lady* while the vessel was berthed in Runaway Bay. The skipper was interviewed and she provided her account of the incident. Photographs of the vessel were taken and copies of relevant documents, including log books, charts and manuals, were obtained.

Since *Silver Yang* was en-route to China, the ATSB investigators were unable to attend the vessel. However, the Hong Kong Marine Department agreed to assist in the investigation by providing data from the ship's voyage data recorder (VDR), statements from the master and involved crew members, photographs, copies of relevant documents including; log books, charts, procedures and manuals. At the time that this preliminary report was published, this information had not yet been supplied to the ATSB.

Additional information has also been provided by Queensland water police, Maritime Safety Queensland (MSQ) and the Australian Maritime Safety Authority (AMSA).

The collection and analysis of a range of evidence is continuing. Based on the initial evidence obtained, the ATSB investigation will be focusing on several areas including:

- the electronic detectability of the yacht
- the lookout being kept on board both vessels
- adherence to the International Regulations for the Prevention of Collisions at Sea (COLREGS)
- collision risk assessment
- actions taken following the collision

- human factors issues associated with the incident.

ATSB investigators met with *Ella's Pink Lady's* skipper again on 9 October, to discuss the ongoing investigation. The meeting was held in Sydney, prior to the vessel's departure on the round-the-world voyage.