Mariners' Alerting and Reporting Scheme

MARS Report No 355 May 2022

MARS 202217

Collision while anchored

➔ A tanker was anchored in a congested port anchorage area. During the evening the wind changed direction and freshened to 20 knots. Under these new conditions, another vessel at anchor that had previously been on the port side at a distance of 0.18 miles was now on the bow at a distance of 0.13 miles.

The Officer of the Watch (OOW) immediately realised the increase in risk and advised the Master, who came to the bridge. The Master called the pilots to request a move to a safer position, but this request was not allowed. Soon, a gust of nearly 32 knots caused the vessel on the bow to begin dragging anchor towards the tanker. The Master sent some crew forward to let out additional anchor chain in an attempt to make room for the vessel dragging towards them. He also tried using the bow thruster to help avoid the oncoming vessel, but collision was now inevitable.

With the oncoming vessel now dragging anchor at about 1.2 knots, the crew at the bow were called back to prevent injuries in the case of collision. The impact was light and caused some scraped paint and a small indentation at the bow just above the starboard anchor.

Lesson Learned

- Collisions are possible even when both vessels are at anchor. A vigilant anchor watch is always advisable.
- In this case, the vessel that was struck had a vigilant anchor watch, but even that did not save them from a collision. Tight anchorages with vessels less than two cables from each other are fraught with such risks.
- Wind direction shifts in a crowded anchorage can change the risk scenario. What was once a safe situation can change into one of concern.

MARS 202218

Too little too early and too much too late leads to collision

As edited from the ATSB (Australia) report 339-MO-2018-002

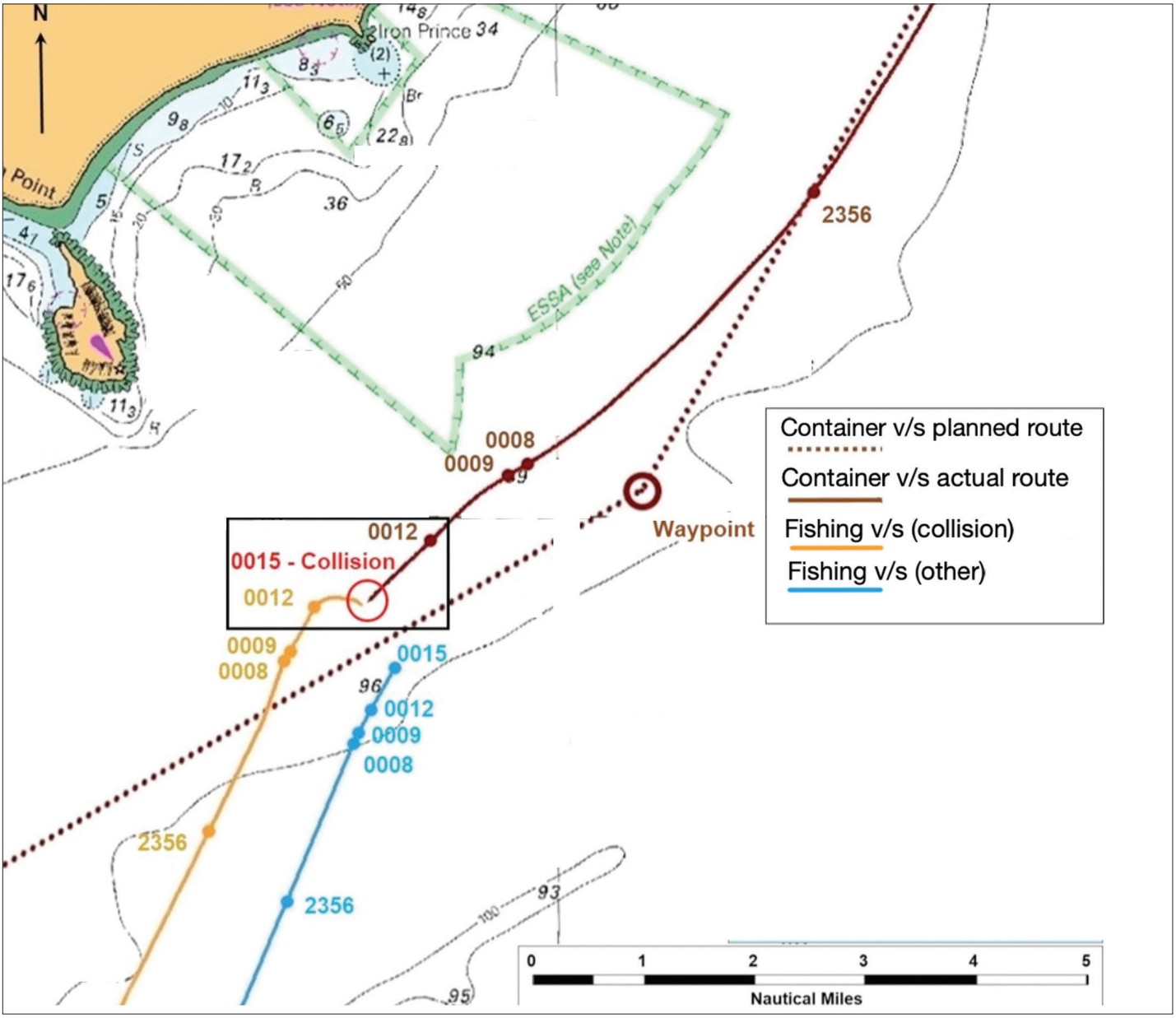
➔ Underway in darkness, the OOW on a medium sized fishing boat sighted the masthead lights and green sidelight of an approaching containership fine on the starboard bow. The ship was also detected on radar but was not acquired for tracking at that time.

Meanwhile on the container ship, the OOW visually sighted and later acquired on radar two approaching vessels on the starboard bow, one of which was the fishing vessel. The vessels were about 10nm from the container vessel. The OOW continued to monitor the two vessels, both visually and by radar, while making small adjustments to the heading to maintain the ship on the planned track.

At about 2356, and over the next 10 minutes, the OOW made a succession of small heading alterations that took the ship to starboard in a 'corner cutting' manoeuvre. The next planned course alteration would be to starboard and there was no danger in leaving the current course line.

Meanwhile, the watch had changed on the fishing vessel. The new OOW quickly acquired the container vessel on the radar. The ship was now about 6.5nm away on a south-westerly course with a speed of about 17.5 knots. When the container vessel was now about 4nm away, the fishing vessel's OOW walked the short distance to the trawler's bow to better assess the situation. He sighted the oncoming container vessel fine on the starboard bow with the ship's two masthead lights nearly in a line. He returned to the wheelhouse and continued to monitor the approaching ship visually and by radar while maintaining his vessel's course and speed.

By now, the container vessel was steady on the new course with a heading of 241 degrees with the fishing vessel fine on the ship's port bow. About a minute later, the OOW altered the ship's heading to port with the intention of passing between the two trawlers and increasing the CPA with the fishing vessel under review. Shortly after, the fishing vessel's OOW commenced a rapid turn to starboard at a distance of about 1nm from the container ship. In response, the container vessel's OOW altered the ship's heading to port by three degrees and flashed the ship's Aldis lamp followed by a long blast on the ship's whistle. The OOW then quickly changed the steering over from autopilot to hand steering and placed the wheel hard to port.



Notwithstanding all of these last minute manoeuvres, the two vessels collided, with the trawler's port bow impacting the container vessel's starboard side. As the trawler scraped down the container vessel's side, the skipper stopped the engine and the crew mustered in the wheelhouse. The trawler heeled over sharply to starboard and took on some water before it righted itself, passed the ship's stern and drifted away to the north-east.

Lessons learned

- Early and substantial action is the key to avoiding dangerous situations as above.
- Early and substantial action is not limited to course alterations. Both OOWs were concerned about the developing situation and each chose course alterations as the unique and sole solution. But, because some of these actions were not substantial enough or others too late, they actually contributed to the collision. Had either vessel slowed, the developing situation would have resolved itself.
- When in doubt, slow down.

MARS 202219

Improvised monkey's fist found to be dangerous

Monkey fist made of old fire hose filled with sand

➔ A vessel berthed at a terminal and some port personnel noticed that one of the monkey fists used on a heaving line was particularly heavy. The monkey fist was inspected, and it was discovered that although the outer casing was made from rope, the inner core was of compacted sand surrounding a large steel nut contained within a cotton casing. The total weight was 740g.

The vessel and company were advised and there was an internal investigation. The vessel had five other heaving lines with monkey fists on inventory. After testing with a metal detector no metal parts were found and all weighed less than 500g, which is an accepted maximum limit according to best practice and certain codes. It would appear a crewmember had made the monkey fist on his own initiative, and this escaped supervision or detection.

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The company took the initiative to have all monkey fists replaced by a sachet type, as illustrated. The sachets are made from old fire hoses, filled only with sand, and weigh about 400g. This format allows easy auditing to check for heavy (metallic) objects inside. Also, warnings were posted near mooring stations on the specifications of monkey fists, with the hope of maintaining awareness on board.

Lessons learned

- Safety can slip in many ways, sometimes even because of the best of intentions. Constant attention to detail and strong safety leadership are the key to keeping a safe course.

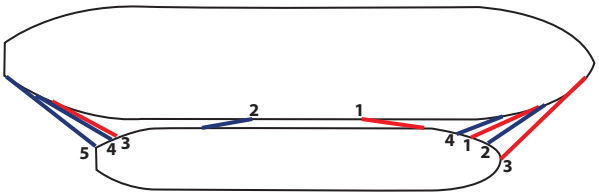
MARS 202220

STS transfer incident: spring line breaks

➔ Two tankers met at a specified ship-to-ship transfer (STS) area, and were secured together as shown in the diagram. Seas were smooth with a one metre swell and wind was very light (5 knots). Moderate rolling and pitching was noted. Loading commenced but at one point during loading the deck watch reported that a spring line had broken. The crew took immediate action and the failed line was replaced. Transfers continued without further incident.

The company investigation found that the vessel was equipped with two mooring systems – mooring wires fitted with tails, and mooring ropes. In this case, the vessel used mooring ropes. All were reported to be in excellent condition with a rating 10 on a scale of 1 to 10 where 10 is new, 9 excellent and 1 is for scrap.

The investigation found that excessive movement of the vessels in combination with a less than adequate arrangement of protective sleeves caused chafing damage on the mooring lines.



Lessons learned

- If wire ropes are available for such mooring arrangements they would be preferable to fibre ropes.
- A thorough mooring analysis and compatibility check should be performed before every STS operation.

MARS 202221

Tanker hits charted shoal while approaching berth

As edited from MAIB (UK) report 15/2021

➔ A chemical carrier was inbound for a port in good visibility and weather conditions. This was the first time the Master and OOW had entered this particular port.

In preparing the passage plan, slack water had been chosen as a time best suited to berth as the tidal stream would be minimal. Low water was predicted to be at 1515 with a height of 1.1 metres, and the plan was to arrive around this time. The next daylight slack water was just over 19 hours later at high tide with a height of 4.7 metres.

In the final approach, the OOW advised the Master of a 4.9 metre charted depth just north of the pier. Since the state of the tide was low at 1.1 metre and the vessel was drawing 6.2 metres aft, this meant they would touch bottom if they passed over this charted depth. The Master responded that the echo sounder was reading 7.0 metres of water so he was content to proceed with the berthing. As the vessel approached, now 50 metres north of the pier, there was a sudden shudder throughout the ship. The bow swung to the south and the vessel came to a stop. After several attempts to clear the vessel, they berthed under their own power with the rising tide.

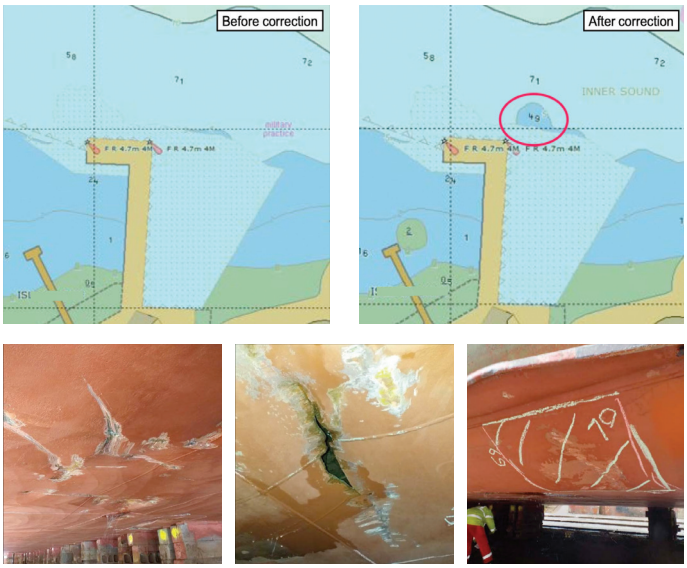
No.5 main ballast tank was experiencing an ingress of water, so the ballast pumps were started to control the flooding.

The investigation found that the 4.9m charted depth, 50m north of the pier, was brought to the attention of the Master while preparing the passage plan. Such a shoal would prevent the vessel from safely berthing at low water. The ENC from the on board ECDIS data was compared with the local survey chart and a photocopy extract of the Admiralty chart provided by the agent, neither of which showed the 4.9m feature. Reasoning that latter data was more recent, the Master directed the passage plan to be completed ignoring the 4.9m charted depth on the ENC.

As it transpired, neither the Master nor the officer had checked the update status of the ENC as part of the planning process. They were unaware that the 4.9m obstruction was a recent correction dated only eight days before the grounding. It was, in the end, more recent and accurate than the agent's pre-arrival information.

Lessons learned

- The safest passage plan is one which relies on the most accurate and recent navigation data. Make sure to check yours.
- Entering a new port (for the bridge team) with known strong tidal currents, without pilotage and with critical under keel clearance is a scenario that calls for extra care. Even discounting the fact that the Master believed the 4.9m depth was outdated, entering at high tide slack water would be a better choice than low tide slack water.



Vessel damage

Reader's comment

Several readers have commented on the 'Lesson learned' from MARS report 2022005. These readers are not in agreement with establishing VHF contact with another vessel to vanquish any bad assumptions on the actions of the other vessel. The lesson learned was written as;

"When in doubt and always when a very small CPA is detected, establish communications with the other vessel and ensure everyone knows what actions are to be taken."

The collision regulations are meant to be applied by all mariners and if applied correctly will normally result in good outcomes without VHF communication. However, there can be ambiguous situations or other instances where it is an added value to ensure you are not making a wrong assumption as to the actions of the other vessel. But, VHF communication should be done in good time and as a supplement to what the collision regulations require. Also, the word 'always' as written in the lesson learned is too categorical and readers should note that we stand corrected on that point.

Thank you to all our Nautical Affiliates for their continued support

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