



Mariners' Alerting and Reporting Scheme

MARS Report No 344 June 2021

MARS 202128

Look before you turn

As edited from MAIB (UK) report 7/2018

➔ A tanker was underway in darkness in a busy traffic separation scheme (TSS) zone with the Master at the con. An OOW and two ABs were also part of the bridge team. The Master and the OOW were each at a radar and the two ABs were both keeping a lookout or at the helm as required.

Meanwhile, a bulk carrier making about 16 knots was overtaking the tanker. The two vessels were now on a converging course at a range of 1.6nm. The tanker's Master set the engine to half ahead, giving a speed of about 13 knots, in order to increase the closest point of approach (CPA) to another vessel, a small general cargo carrier.

With the vessels now 1nm away from each other and still on a relatively steady bearing, the Master on the overtaking bulk carrier became concerned by the small CPA to the tanker. He asked the OOW to contact the tanker's bridge team via VHF to clarify their intentions. As the bulk carrier approached a narrowing of the traffic lane, the Master reduced the engine setting to half ahead. At about the same time, the tanker's Master also reduced speed and switched to manual steering with one of the ABs at the helm.

After the VHF conversation, the OOW on the bulk carrier relayed his understanding of the conversation to the Master, who had not listened to the call. The OOW explained that tanker's bridge team did not want to be overtaken on the starboard side. In fact, this was not what the tanker's team had communicated. On the contrary, the tanker's bridge team expected the bulk carrier to continue to pass on their starboard side. Relying on the OOW, the bulk carrier's Master decided to alter to port to pass down the tanker's port side. Having completed a trial manoeuvre on the ARPA, he instructed the helmsman to put the helm to port. The bulk carrier was now about seven cables from the tanker. The bulk carrier came around slowly to a heading of about 170° in a series of smaller manoeuvres that went unnoticed by the tanker's bridge team.

The bulk carrier's Master was now at the forward bridge windows on the starboard side of the bridge to monitor the tanker visually. The tanker's Master continued to monitor the small general cargo vessel ahead, which was now bearing fine on their port bow at a distance of 0.65nm. Concerned about the developing situation, the tanker's Master reduced the engine to dead slow ahead. He was under the impression that the bulk carrier would pass down their starboard side, and so decided the best way to increase sea room with the small general cargo vessel, even though it had already passed ahead, would be to take a full turn to port.

Without a visual check for sea room astern the tanker's Master ordered hard port helm to begin the full turn. He also increased the engine setting to slow ahead. The bulk carrier was now only 0.42nm off the tanker's port quarter.

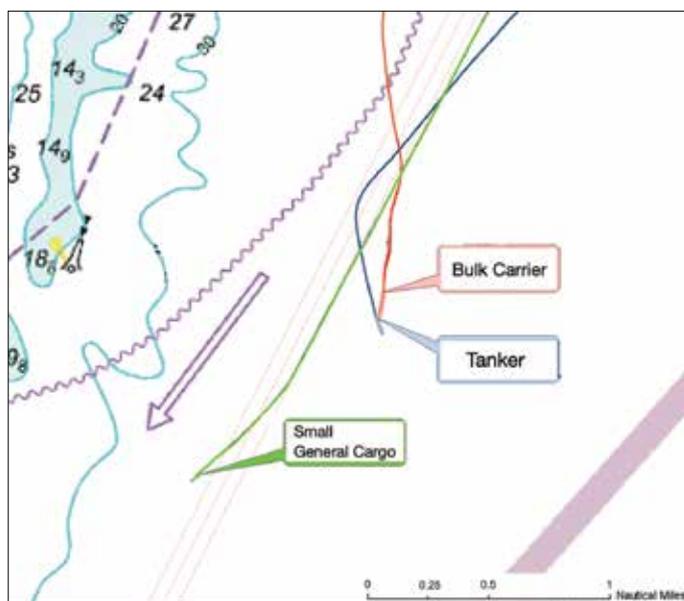
Soon, the tanker's lookout saw the bulk carrier, now close on their port quarter. He alerted the Master just as the OOW questioned the Master's intention to complete a full turn with the bulk carrier astern. The Master was surprised to see the bulk carrier so close, and reduced the engine setting to dead slow ahead while ordering the helmsman to stop the swing to port. The Master then ordered 10° of starboard helm

and then hard to starboard. He also increased the engine setting to half ahead to speed up the turn.

Meanwhile, the bulk carrier's Master was also surprised to see the tanker altering rapidly to port and across his vessel's bow. The two vessels were now just 655 metres apart when the tanker steadied on to a heading of 172°. Unsure of what the tanker's Master intended to do, the bulk carrier's Master ordered the helm hard to starboard. As the distance between the vessels continued to reduce, he changed his mind, first ordering the helm hard to port and then finally hard to starboard.

The vessels were now too close and a near parallel collision was inevitable. The general alarm was sounded on both vessels. After contact, the vessels remained immobile alongside each other for about an hour. Then, the tanker manoeuvred away. Neither vessel required assistance to make for a port of refuge.

The official investigation found, among other things, that the tanker Master's reaction times and decision-making ability were possibly reduced, as indicated by his omission to check for sea room before the port course alteration. The contributing factors that lead to this reduced ability were the time of day and possible fatigue of the Master. This was his first transit of this high traffic area, so mental loading may also have played a role.



Lessons learned

- The person with the con of a vessel should listen intently to any critical communication with other vessels, even if this task has been delegated to another bridge team member.
- Long-range scanning of vessel movements via radar is preferable to last minute VHF communication for collision avoidance.

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MARS 202129

Two many pilot boats

As edited from Dutch Safety Board report ‘Perception of pilotage’, January 2021

➔ In the early morning darkness a bulk carrier was outbound under pilotage. As the vessel approached the pilot disembarkation point the pilot tender made an approach to the bulk carrier to disembark the pilot. The operator of the pilot tender requested the bridge team of the bulk carrier to set a heading of 030° and to maintain a speed of 10 knots to make a lee. The bridge team of the bulk carrier carried out the request.

In the meantime, the captain of the pilot station mother ship (PSMS), which serves as a home base for on-duty pilots and pilot tender crew, but does not deliver pilots to vessels, wanted to reposition the vessel. He visually spotted the outbound bulk carrier and plotted a course to cross its bow. At 04.00, the mother ship was on a course of 300° at a speed of 8 knots. It was showing pilot lights and therefore recognisable as a pilot vessel. The captain then focused his attention on some administrative tasks. At that point, the bulk carrier was sailing on a heading of 045° at a speed of 10 knots.

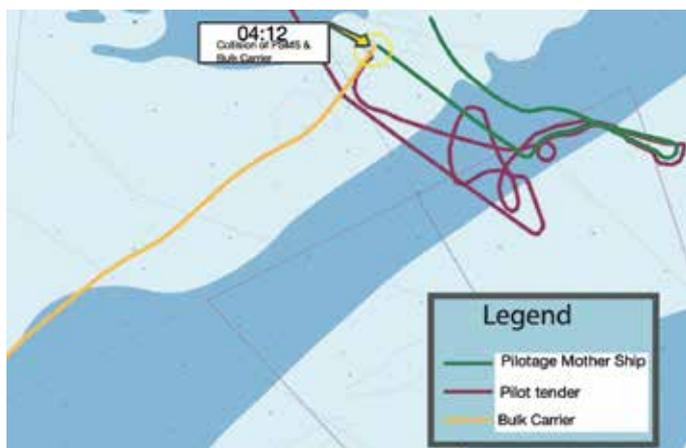
At 04.07, the pilot left the bridge of the bulk carrier and headed to the deck to disembark. The pilot disembarked on to the pilot tender at 04.11 and the pilot tender disengaged from the larger vessel, which was now turning to port, coming to 350° as per pilot’s advice.

At this time the mother ship continued on autopilot. The captain was still preoccupied with administrative tasks. At 04.12, the mother ship collided with the starboard bow of the bulk carrier. Several crew members suffered minor injuries; there were no injuries aboard the bulk carrier.

The official investigation mentioned that both the pilot and the crew of the bulk carrier assumed that the mother ship was involved in the pilotage operation. They therefore assumed, somewhat justifiably, that it would not hinder their movements.



Damaged PSMS



Lessons learned

- As mentioned in many past MARS lessons learned, darkness changes everything! It is hard to imagine this accident happening in daylight and good visibility. When in darkness, re-double your attention.
- As also mentioned in many past MARS lessons learned, being preoccupied with other tasks instead of navigating your vessel changes everything. Put distractions and other tasks away when navigating your ship.
- Making assumptions about the movements of other vessels, even in apparently clear-cut circumstances, can have negative consequences. In this case, the bulk carrier’s crew and pilot assumed the PSMS would stay clear, but at no time did they confirm this with the PSMS via VHF communication.

MARS 202130

MOB while rigging the pilot ladder

As edited from the official Marine Safety Investigation Unit (Transport Malta) report 04/2021

➔ A bulk carrier in ballast was making way at 7 knots in a traffic separation scheme (TSS). The pilot ladder was being prepared on the port (lee) side by the Chief Officer along with the bosun and three other crew. As the vessel exceeded the 9m height criterion, the pilot ladder had to be rigged in conjunction with the accommodation ladder, located abreast of cargo hold no. 4. Since it was dark, the overside floodlight was switched on to permit the crew on deck to work safely.

The pilot ladder was lowered over the ship’s side and the accommodation ladder was swung out and rigged. The bosun went down the accommodation ladder to the lower platform to lash the pilot ladder to the ship’s hull. The vessel was experiencing rough seas with winds gusting at 50 knots and a wave height of between 2m and 3m. There was reportedly no rolling or pitching, but the bosun was not wearing a lifejacket nor was he secured by a safety line.

He then returned to the main deck, collected another rope and again descended the accommodation ladder to fasten the ladder platform to the pilot ladder. Soon after, a loud yell was heard from below. The bosun was seen in the water and the man overboard (MOB) alarm was raised. It was now 01.45.

A lifebuoy with a self-igniting light was thrown overboard immediately. A second lifebuoy with light was also released. Upon hearing the MOB alert, the OOW rushed to the port bridge wing and released the bridge wing lifebuoy. He then pressed the event key on the ECDIS as a reference point (MOB) on the chart. Meanwhile, the Master reduced speed, informed local VTS on the VHF and requested permission to turn the vessel back for rescue operations.

The general alarm was sounded and a MOB was announced through the public address system. Lookouts were posted on each side of the vessel and the rest of the crew members were mustered at the muster station. By 02.00, the vessel was on a reciprocal course of the TSS. Three lighted buoys were sighted but the crew members could not find the victim. After some searching, the Master made a request to VTS to arrange for local search and rescue units on scene and their vessel to return to an anchorage area so as not hamper navigation of other vessels in the TSS.

At 03.15, the local Coast Guard began search and rescue operations at the site of the MOB position. However, despite the rescue efforts of the Coast Guard, the victim was not found.

Lessons learned

- Going down the accommodation ladder with neither lifevest nor safety line must have been based on similar, past, successful operations, which may have never been challenged on board. This ‘slippage’ in safety is a pernicious and common phenomenon.

- Always use your common sense to question current work practices. Just because the task has always been done a certain way does not mean it is safe. Working over the side while underway is particularly fraught with danger. Yet, mariners have little choice when rigging the pilot combination ladder. This task needs safety barriers such as wearing a safety harness and a lifevest.
- When there is a MOB situation, nothing is more important than finding the victim quickly. Other traffic in the area must give way, slow down or otherwise assist in the search.

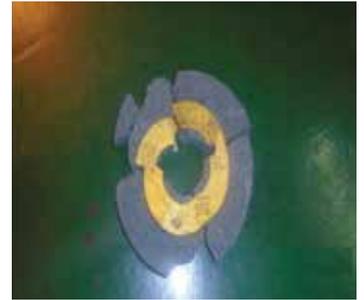
MARS 202131

Grinding wheel shatters causing injury

→ An electrician was assigned to repair an electrical deficiency in the grinder used for main engine exhaust valve maintenance. Following the repairs, the grinding stone shattered during final checks and testing. One of the pieces hit the electrician's forehead.

First aid was quickly provided on board and the victim was sent to a doctor ashore upon arrival. The electrician was fit for duty within a few days.

The company investigation revealed that the electrician had worn a safety helmet but it had not been secured with the strap. The flying projectiles had hit the helmet and dislodged it, allowing injury. A face shield had not been worn either.



Lessons learned

- Grinders turn at high speed and even if they have their own built-in shields, crew should always wear face protection when using them.
- Grinding wheels and discs can shatter – be aware of this and use PPE appropriately.

MARS – Mariners' Alerting and Reporting Scheme

Influence change and help seafarers learn to be safer

- Free database at www.nautinst.org/MARS
- Keyword searchable database
- Safety case studies
- Risk management
- Confidential
- No blame



