



MARS – Lessons Learned

MARS Report No 368 June 2023

MARS 202326

Collision – what collision?

As edited from TAIIB (Latvia) report 1-2020

➔ In daylight and good visibility, a 25 metre steel fishing vessel was engaged in fishing about 20nm offshore. With fishing gear set, it was making way at about two to three knots when the Master noticed a small cargo vessel approaching at about 13 knots and realised that a close quarters situation was developing. With the cargo vessel about 2nm away, the Master of the fishing vessel attempted to call the cargo vessel, but did not receive any answer.

Soon, with the distance between the vessels decreasing and no response from the cargo vessel, the fishing Master realised he must take avoiding action. He put the helm hard to port and increased engine power to full ahead, even though this put the fishing gear at risk of damage. Nonetheless, the cargo vessel's bow hit the aft superstructure of the fishing vessel, causing damage across an area of 1.5m².

The cargo vessel did not respond to further calls from the fishing vessel and kept its course and speed as if nothing had happened. The subsequent investigation by authorities found the following entry in the cargo vessel's logbook; 'small collision with fv'.



Collision damage to fishing vessel

Lessons learned

- Never leave the scene of a collision until confirmation has been received from all concerned that everything is under control and pertinent information from both vessels has been exchanged.
- While not specified in the official report, it can be assumed that the lone watch keeper on the cargo vessel was not keeping an effective lookout for other vessels. The course and speed of the cargo vessel never changed and the watch keeper never responded to the VHF calls from the fishing vessel. A power driven vessel underway must keep clear of a vessel engaged in fishing.

MARS 202327

Close quarters between ferries

As edited from MCIB (Ireland) report 317

➔ A ferry was inbound to a small port in daylight conditions with good visibility at a speed of 9.5 knots. A bridge team member called the port

Vessel Traffic Services (VTS) to inquire if another ferry, already in the port and due to depart, would in fact leave on the specified time. Port VTS responded that the ferry would depart in the next ten or 15 minutes and that it would be best if the approaching vessel held position outside the port until the outbound ferry left, given the constrained nature of the port. This information was given as a 'suggestion' and not as an instruction.

About 18 minutes later, port VTS called the inbound ferry to advise that the outbound ferry was singling up and would be leaving in the next minute or two. This was acknowledged by the inbound ferry. However, instead of holding position, they continued inbound at a reduced speed of about six knots. On the departing ferry, the bridge team were not monitoring traffic prior to departure; instead, they relied on information from VTS regarding the position of the inbound vessel. The OOW stated that the ECDIS and radar were checked only after all lines were clear and they had lifted off the berth. They were surprised to see the inbound ferry, now very close, and only quick manoeuvres and last-minute communication between the vessels helped avoid collision.

As it transpired, a relieving Master was bringing the inbound ferry into port as a training exercise under the supervision of the Master. Poor communication between the Master and the relieving Master contributed to the close quarters situation developing.



Lessons learned

As with most incidents and accidents, several contributing factors conspired to bring about the close quarters situation;

- The VTS only 'suggested' that the inbound ferry stay outside the port while the departing ferry was leaving. For unknown reasons the inbound ferry's bridge team decided to ignore this suggestion and entered the port anyway.
- The inbound ferry's bridge team had less than adequate communications with each other and with outside actors.
- The departing ferry's bridge team had less than adequate situational awareness of the port traffic situation and in particular the position of the incoming ferry.

Visit www.nautinst.org/MARS for online database

With or without a pilot, always ensure you have an accurate picture of the traffic situation before departure. In constrained waterways, it is easier to hold the berth while traffic passes than be obliged to manoeuvre.

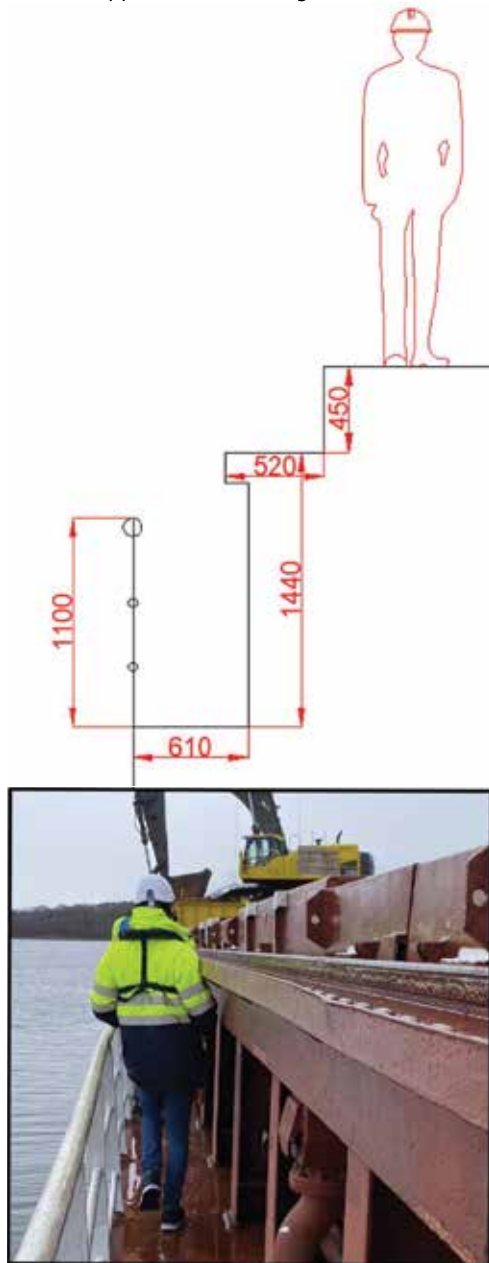
MARS 202328

Lax safety culture and bad design result in MOB fatality

As edited from NSIA (Norway) report Marine 2022/10

→ A small cargo vessel was loaded and underway in coastal waters in daylight. Wind and wave conditions were calm and the three deck crew were engaged in routine preparations for unloading cargo on arrival. These preparations entailed loosening the cleats that secured the hatches as well as the sea fastenings securing the deck mounted excavator. One deck crew had loosened the port strap attached to the excavator bucket and he then began to climb down to deck level.

He first climbed down onto the rail track, placing his right arm on the hatch deck for support. He then brought his left foot down, closer



to the railings, but his foot slipped and he fell across the railings and overboard.

None of the crew witnessed the fall at the time nor were they immediately aware of the accident; the actions of the victim were viewed later on the vessel's CCTV recording. One seaman was behind the excavator, and the other was on the starboard side of the main deck loosening hatch cleats.

About 15 minutes after the victim had fallen overboard, the two other deck crew realised the third man was possibly missing. A search of the vessel ensued and the Master was informed. Some 22 minutes after the victim had fallen overboard the vessel was swung around, a sea search commenced and shore authorities were notified. Search and Rescue (SAR) activities were begun, including a helicopter and other nearby vessels. Search and rescue operations continued until darkness but only one shoe and a pair of overalls belonging to the victim were found.

The investigation determined that it was not uncommon for the crew to access or descend from the hatch deck using the rail track and railings instead of the dedicated ladders – as the victim did in this case. This avoided having to walk all the way to the end of the hatch deck, then down the ladder and back again, thus saving time. Some of the crew stated that they considered this somewhat risky, but that they resolved the situation by being extra cautious while moving up or down. At the time of the accident, there were no SMS procedures that addressed fastening work or movement on the hatch deck. This work was considered a routine operation, so no risk assessment was undertaken.

The investigation also found, among other things, that the vessel's design still represents an inherent residual risk even though, following the accident, the company introduced a procedure to reduce the risk of falling overboard (i.e., only dedicated access routes shall be used to and from the hatch deck). The passageway along the main deck is narrow and the height of the railings is not sufficient to prevent the possibility of a fall from the hatch deck.

Lessons learned

- The shipping company plans to increase the height of some railings in the areas the deck crew habitually use to access and leave the hatch deck, other than the approved access areas. The measure is intended as additional security in the event that crew do not comply with the procedure of using the approved access area (see comment below).
 - The risks associated with 'routine tasks' can become normalised in individuals over time, resulting in the risk gradually being ignored or incorrectly perceived. Even routine tasks deserve a proper risk assessment and procedural guidance.
 - It is important that risk assessments be undertaken not only by management and senior officers, but also by the crew who perform the work. This will help gain 'buy-in' from crew, enhance their understanding of risk, and ensure effective implementation.
- **Editor's Note:** Readers may have noticed the inherent contradiction introduced by the company after the accident. On the one hand the new procedure specifies that only dedicated access routes and ladders shall be used to and from the hatch deck. Yet, on the other hand, it was decided to increase the height of the railings in some areas along the ship's side that are habitually used by crew to move up or down to prevent a fall in the event that procedures are breached.

A strong safety culture means procedures are followed and any deviations are reported or called-out on the spot by any and all, not just senior leaders on the ship. Simply put, talk the walk, then walk the talk. Introducing an admittedly well-meaning physical defence against falling overboard but simultaneously stipulating that only dedicated access routes are to be used sends a signal that procedures may be breached and such breaches are 'normal'. Talking out of both sides of your mouth seriously undermines trust, another fundamental element in a strong

safety culture. This situation may introduce conformity challenges to any and all procedures going forward.

While much has been written about safety culture over the years, interested readers may wish to peruse this *Seaways* article on the topic from some years back:

https://safeship.ca/uploads/3/4/4/9/34499158/safety_culture_pauldrouin.pdf

MARS 202329

Take 2: Lax safety culture and bad design result in MOB fatality

As edited from BMA (Bahamas) report published 4 December 2019

➔ On a passenger ship that was docked, five deck crew were window cleaning, a job they knew well and had done many times. The windows were on deck nine, 30m above the sea. To start, one crew connected his safety lines to the external securing rail and stepped outboard of the ship and onto the catwalk, followed by a second crew that did likewise. Meanwhile, three other members of the team assisted with moving, adjusting and connecting safety lanyards and strops and provided equipment to the two team members working outboard on the catwalk. Both crew members working over the side were provided with a full body harness and two energy absorbing lanyards with one hook connected to each lanyard. The procedure was to use the two-lanyard method when moving from point to point, so that one lanyard was always secured to an anchor point.

As the crew members progressed forward, they needed to undertake maintenance on windows in a 15m area without dedicated catwalk. To access this area, they connected their lanyards to the inboard handrail via a strop. They had to stand on top of the 'upper basket rail' which is designed to support and carry the weight of a maintenance basket and crew, but is not designed to be walked on. Attaching their harness to an improvised anchor point (the inboard handrail) via a strop was not considered unusual as it had been done on previous occasions. Suddenly, one of the crew fell backwards, clutching his strop and lanyard in one hand. Neither of his two lanyards were attached to an anchor point. He fell 30m and entered the water head first. He was seen to immediately start swimming to maintain buoyancy.

The alarm was immediately raised and a lifebuoy was thrown into the water from deck 10, followed shortly thereafter by two more from other decks. The victim was seen to make an attempt to swim towards the first lifebuoy, and then the second which was closer to him. Before reaching the second lifebuoy he was seen struggling with progressively slower strokes and some three minutes after his fall, he was no longer visible on the surface of the water.

Notwithstanding very quick action with rescue boats and even the onboard lifeguard swimming in the vicinity of the victim's last known position, the victim was only found by divers two hours later, deceased.

The official investigation found many discrepancies in the way the vessel's safety management system was executed. Among other things, the Permit to Work (PtW) and Job Safety Analysis (JSA) had been signed by the deck officer coming off watch, eight hours before the work began. Further, the officer signed a blank PtW and JSA without knowing fully the task to be conducted or the hazards presented. It appears the officer considered this 'normal' practice, and would do this on nearly all occasions when a PtW and JSA were required.

The victim was not wearing an approved flotation device, notwithstanding a procedure and PtW that specified wearing an approved flotation device when working outboard. It was accepted by all levels of the deck crew, from the Staff Captain to the Ordinary Seaman, that flotation devices were considered dangerous on account of the injuries that could be sustained on entering the water from any

height. Additionally, wearing a flotation device was seen to restrict the wearer's ability to move freely and was deemed very uncomfortable.

Further discrepancies included the lack of adequate external securing anchors and dedicated catwalks in the proximity of certain windows. This resulted in the deck crew having to connect to an improvised anchor point inside the frame of the window and walk on the 'upper basket rail'. This arrangement also shortened the available reach of each worker so a temporary solution using strops was necessary. The strop had to be looped inside itself to provide an anchor point, increasing the risk of confusing the secure end of the strop with the loose end.

Lessons learned

- Working overboard without wearing an appropriate flotation device is extremely hazardous. Compact floatation devices that inflate upon contact with water could be more appropriate for working at height than voluminous floatation devices that restrict movement and could cause injuries when falling from tens of metres.
- Adequate resources should be made available to ensure experienced personnel oversee the maintenance procedures, ensuring all safety procedures are implemented and verified.
- When working at height, appropriately designed structures and equipment shall be in place to support and secure any individual.

■ **Editor's Note:** Much as in the previous MARS report, having a procedure in place is one thing but following it can be quite another affair. Here we see several systemic failures of the company's Safety and Quality Management policy and procedures, such as signing off a blank PtW and JSA eight hours before the start of work, or the acceptance, at all levels of the deck department, of not wearing a floatation device when working outboard at height.

Contradictions of this sort are a strong signal that procedures can be bypassed and are not conducive to a strong safety culture.



15m section with no dedicated catwalk or secure anchor rail



Top view



Thank you to all our Nautical Affiliates for their continued support



ABC Maritime
www.abcmaritime.ch



A. R. Brink & Associates
www.arbrink.com



Blue Orange Wave
www.blueorangewave.com



BMT
www.bmt.org/surveys



Britannia P&I Club
www.britanniapandi.com



Chevron Shipping
www.chevron.com



Commissioners of Irish Lights
https://www.irishlights.ie/



Excelerate Technical Management
https://excelerateenergy.com/



Exmar
www.exmar.be



Finnish Ship's Officers' Union
https://seacommand.fi/



Fundacion Avante
https://fundavante.com



Gard
www.gard.no



The Gdynia Maritime School
https://www.morska.edu.pl/en



Green Bow Maritime
https://www.greenbowmaritime.com/



IAMI
http://iami.info



IMAT
https://www.imat2006.it/



IMCS
www.imcs-group.com



Iridium
www.iridium.com



KASI GROUP
www.kasimalaysia.com



Louis Dreyfus Armateurs
www.lda.fr



Marine Society & Sea Cadets
www.ms-sc.org



Maritime Training Services
https://www.maritimetraining.com



Marlins
https://marlins.co.uk



Martech Polar
http://martechpolar.com



Menezes & Associates
www.menezesandassociates.com



Metropolitan College
https://www.mitropolitiko.edu.gr/



Mintra
https://mintra.com/



MOL Group
https://www.mol.co.jp/en/



MSI
www.msiships.com



NorthStandard
https://north-standard.com/



NorthLink Ferries
www.northlinkferries.co.uk



Norwegian Hull Club
www.norclub.no



Ocean Technologies Group
https://oceantechnologiesgroup.com



Pacific Basin
https://www.pacificbasin.com



Pan Arab E-Navigation
https://pa-en.com/



The Port of London Authority
www.pla.co.uk



The PTC Group
http://ptc.com.ph



Seagull Maritime AS
www.seagull.no



SDT
www.sdtultrasound.com



Shipping Federation of Canada
http://www.shipfed.ca/



Skuld
www.skuld.com



SQLearn
https://www.sqllearn.com/



Steamship Mutual
www.steamshipmutual.com



STARGATE
https://www.stargatecrewing.ro/



The Swedish Club
www.swedishclub.com



Stolt Tankers
www.stolt-nielsen.com



Tsakos Group of Companies
https://www.tsakoshellas.gr/



UK P&I Club
www.ukpandi.com



Vertex Oil Spill Supply
www.vertexoilspill.com.br



Videotel
www.videotel.com



West of England P&I Club
www.westpandi.com



WAVES GROUP
www.waves-group.co.uk

Our Nautical Affiliates help us make a difference to the shipping community by ensuring that our MARS Scheme is available to the industry for free.
Find out more at: www.nautinst.org/affiliate