

Seaways

The International Journal of The Nautical Institute

Monitoring risk

The UK's National Maritime Information Centre **p14**

MLC 2006 in practice

Will it change crew employment? **p21**

Setting sail

Updating the sail endorsement scheme **p23**

Making drills count

How realistic should they be? **p34**

Change of command

Navigational competence seminars look to the future **p12**





Focus

Change of Command

“
Branches and individual members must start thinking now about the Institute's priorities for 2016-2020 so as to be ready to fully engage in the consultation about the Strategic Plan next year”

For those of you who were unable to make it to the AGM Event in Sydney, we are pleased to share with you the speeches and reports made there as well as a brief report on the Command Seminar held in conjunction with the AGM. As this was the first in the series of five Command Seminars on the theme of Navigational Competence, its conclusions have already been shared with the other four so that they can build on the input from Sydney (see pp 12-13). They will be held in London (16 Oct), Cyprus (7 Nov), Glasgow (10 Nov), and Manila (28 Nov) – see Diary p2 and website for details. In each case, sponsorship is enabling us to keep the cost of attendance low so as to encourage as high a turnout as possible by those involved in the control of sea-going ships, whether serving on board or ashore. The outcomes from these seminars will be used in the Institute's work to further improve the safety of operations and influence training methods into the future.

The AGM itself was very well attended by 80 members and saw the conclusion of Captain 'Krish' Krishnamurthi's two year presidency. His Address was as thoughtful as ever, reflective on his term of office and yet forward looking as one would expect of our youngest President, who will not be content to rest on his laurels (see pp 8-9). Indeed, he said as much to those retiring from Council in thanking them for a job well done, as there are many ways to contribute to the Institute's work through the governance structure, branch activities, publications, social and professional media and the IMO. A number of members were elected onto Council for the first time. The balance of sea-going and shore-based members is being maintained as per the Constitution, which states that at least 50% must be in active sea-going employment. This ensures that the practical focus of the Institute is maintained and is a key reason that our input to the IMO's work and other industry bodies is sought and respected. We look forward to welcoming them to their first meeting in December.

The AGM business concluded with the election of the new President, Captain Robert McCabe FNI, who is the Operations Director for the Commissioners

of Irish Lights. We are grateful to his employers for supporting him in his new role for the Institute. His Acceptance Address expanded on the theme of contributing to the work of the Institute and looked ahead to the next Strategic Plan which will cover the period 2016-2020 (see pp 10-11). He encouraged branches and individual members to start thinking now about the priorities for the Institute in that period so as to be ready to fully engage in the consultative process for the Plan next year. As he pointed out, input to previous consultations has been of good quality but not from as many members as is desirable. It is important that respondents to the survey are representative of the worldwide membership, and every branch should build a consultation meeting into their programme during the first half of next year.

MARS

A simple, yet crucial way that we can all contribute to safety and the work of the Institute is to contribute reports to the confidential Mariners' Alerting and Reporting Scheme (MARS) which we run for the benefit of the whole industry. There has been a steady decline in individual reports and recently companies have not been sharing their Safety Management System (SMS) reports as much as before (see p17). It would be heartening to think that this decline in reports is due to operations being considerably safer and a dearth of near misses or accidents. However, information from P&I Clubs showing rising claims indicates that is not the case. Ask any roomful of mariners if they have been involved in a near miss and all the hands will go up. The same malaise, which may be due to the overload of paperwork at sea and ashore, is afflicting the Confidential Hazardous Incident Reporting Programme (CHIRP) with which we are associated and we have set up a joint Ambassador project to promote both schemes. So, reflect on what you see happening in your operations or in your vicinity and send in a brief report to MARS and/or CHIRP. It will help you and others be safer, even to the extent of saving your life or that of a fellow seafarer. 🚢



p12



p23



p28



Mariners' Alerting and Reporting Scheme

MARS Report No. 262 August 2014

MARS ON THE ROCKS?

→ For more than 20 years, The Nautical Institute's Mariner's Alerting and Reporting Scheme, otherwise known as MARS, has steadfastly served the marine community with monthly reports of lessons learned from close calls, incidents and accidents. Not only are these monthly reports published in *Seaways* magazine for the benefit of NI members, but several marine industry publications regularly republish MARS reports for their readers. Additionally, MARS reports are available on the web in a searchable database (nautinst.org/mars); a useful tool for providing case studies for safety meetings and classroom exercises. Although the value of MARS has been proven and these reports appear to be greatly appreciated by the marine community, MARS is presently in critical shape – close to death. This is because we are simply not receiving enough reports.

As editor of MARS, one of my jobs is to scan the industry accident literature for interesting cases that can be summarised and re-packaged as a MARS report. But these 'official' reports are quite limited in number. The intent and scope of MARS is for mariners to report their own close calls, incidents and accidents to the MARS editor who in turn ensures confidentiality and, on publication, anonymity. The problem at present is there are so few reports submitted that MARS has become unsustainable in its present form. But this can change with your help.

Anyone can report a close call, incident or accident. Essentially, all that is needed is a short description of the event and any action taken to remedy the situation – in other words, the lessons learned. Don't worry if English is not your first language – we will edit your report to publication standards. And since a photo is worth 1,000 words, a photo or two are always welcome too. Although we require your name and that of the company/ship, these are only for the sake of verification and in case any clarifications are needed before publication. Neither your name, the ship nor company name will appear in the published MARS report. Copies of company reports are also welcome, perhaps sent by superintendents or designated persons ashore (DPAs). Reports can be made in any convenient method; by e-mail, via social media, through the MARS website or by letter. The goal is to share the lessons learned and hence help all readers expand and improve their own risk appreciation.

Don't let MARS be a casualty of indifference. Help others and help yourself by reporting to the MARS editor at mars@nautinst.org

MARS 201441

Booby hatch unsecured

→ Personal access to a hold through hatch covers is possible via special openings often called booby hatches. When a person wants to use them they usually have to hold the booby hatch as support for the first few steps as they enter or exit. An authority for a large port reports that there have been numerous cases where the booby hatch locking pin was not in place. This resulted in the booby hatch inadvertently moving on its hinge while the person was using the hatch; some injuries have resulted. Although no serious injuries are known to have happened, there is certainly a possibility of falling into the hold, which would result in grave consequences.



Ship's crew should ensure that the locking pins are always properly secured whenever the booby hatch is in the open position

MARS 201442

Thread mismatch impairs fire extinguisher

Edited from USCG Safety Alert 03-14

→ During a fire investigation onboard a vessel it was discovered that a portable carbon dioxide (CO₂) extinguisher had failed to properly discharge during the fire-fighting event. CO₂ only seeped from the neck of the extinguisher when it was used, rather than sprayed. The fire was subsequently extinguished using a dry-chemical fire extinguisher.

During examination it was found that the hose and discharge horn had been replaced. The end of the hose screws on to a diffuser on the side of the discharge valve/handle assembly of the extinguisher. The diffuser is a ported protrusion on the male end of a 90° fitting. On the side of the protrusion are orifices through which the CO₂ flows. The examination revealed that the spherical end of the protrusion, which contains no orifices, 'bottomed out' against the orifice in the connection fitting that leads to the hose and horn assembly. The flow of CO₂ was thus completely blocked.

It was further noted that the male threads of the diffuser were tapered US national pipe threads, while the female threads of the hose connection were straight. This thread mis-match likely allowed the hose connection to be tightened to a greater extent than intended on the diffuser threads. This permitted the spherical end of the diffuser to 'bottom out' against the orifice in the tube. This may have also resulted in the reported leakage from the neck of the extinguisher due to back pressure.



Visit www.nautinst.org/MARS for online database

There are newer types of diffusers in which the orifice follows the length of the protrusion and the end is not spherical. However, the issues regarding the tightening of the two components and the importance of ensuring proper lengths and compatibility of the threaded and machined surfaces remain. Binding or 'bottoming out' should not occur except at the threaded surfaces. Replacement parts should be as specified by the equipment manufacturer and servicing should always be done by qualified fire safety equipment technicians.

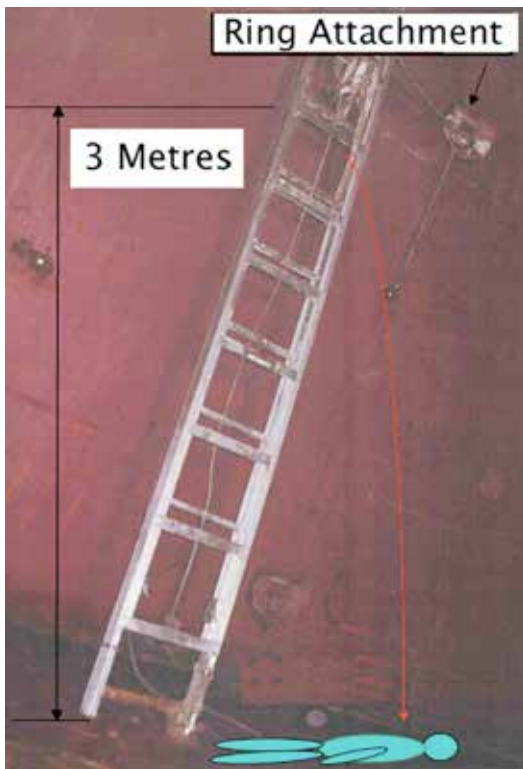
MARS 201443

Three metre fall causes death

Edited from official report from the Hong Kong SAR Marine Accident Investigation Section

→ While berthed and after discharging cargo, crew were instructed to clean the hold. As one rating climbed a portable ladder another rating steadied it. The rating climbing the ladder wore a safety helmet and a safety harness, but on the way up he was not attached to anything. He was headed up to the ring attachment to secure his harness. Once at the level of the ring, he attempted to fasten the lifeline, which was about one metre to his right. As he extended himself to attach the lifeline he lost his balance and fell to the tank top three metres below.

Within 30 minutes an ambulance had arrived and taken the victim to hospital. Unfortunately, eight days later the victim succumbed to his injuries and was pronounced dead.



- The investigation found the following:
- There was no evidence of fatigue in this accident.
 - The distance from the right handhold of the ladder to the centre of the metal ring was about one metre. The average hand reach of males of the victim's nationality is about 0.6 metre. Therefore, it was a risk for the rating to fasten his lifeline under this condition. The risk could have been reduced if the ladder was placed closer to the metal ring.

- The main contributing factor of the accident was the work attitude and safety consciousness of the victim. He should have stopped the operation and climbed down the ladder. The operation should only have resumed after the ladder had been properly aligned closer to the safety ring.

■ **Editor's note:** What an unfortunate outcome for such an ordinary task that should have been safe. Everyone just wants to get the job done, often without enough regard for their own safety. In this case the solution was so simple, yet the rating chose to attempt the manoeuvre nonetheless – overextending himself and losing his balance; possibly lulled into a false sense of security as he was not that high. But as witnessed here, three metres is enough to kill.

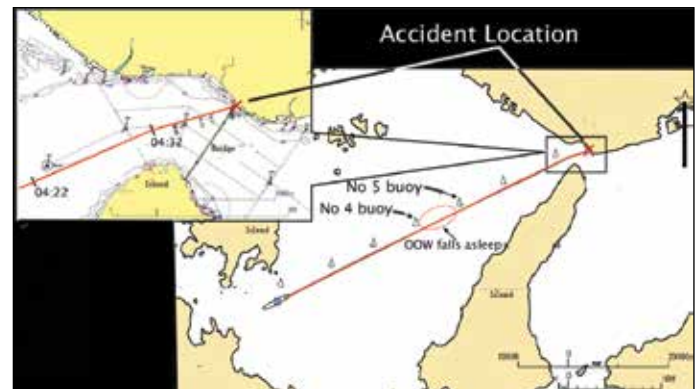
MARS 201444

Fatigue wins again as ship hits seawall at 15 knots

Edited from official report MA2014-1, Japan Transport Safety Board

→ In the early morning hours, but still in darkness, a small container ship was making way at about 15 knots on autopilot with the officer of the watch (OOW) as the sole watch-keeper on the bridge. The visibility was good and there was no traffic, so the Master had given the instruction for the OOW to be alone on the bridge while making way in darkness. A few hours into his watch the OOW began to feel drowsy, so he began walking briskly around the wheelhouse. He then sat in the chair in front of one of the radars, confident he would not fall asleep. Somewhere between buoys four and five as they made landfall he fell asleep.

About 40 to 50 minutes later, at approximately 04:40, he woke up abruptly when he was thrown out of the chair by the impact of a collision. The vessel had hit the sea wall on the northern side of a nearby bridge. The ship was not equipped with a bridge watch navigation alarm system (BWNAS) at the time of the accident, nor was it required to have one.



Lessons learned

- Had a proper lookout been assigned to assist the OOW it is unlikely the collision would have transpired.
- Had the OOW reported his drowsiness to the Master, alternative watch arrangements could have been made.

■ **Editor's note:** Although this ship was ostensibly operating under a three watch system, fatigue can affect anyone if proper 'sleep hygiene' is not practised. It has been demonstrated in numerous studies that the average person needs seven to eight hours of *continuous* sleep for it to be truly recuperative. Working while fatigued is equivalent to working while under the influence of alcohol. Although a BNWAS is a device that can help prevent accidents like this (and today this ship would be required to have one), the real solution is proper rest for all crew and a proper lookout.

MARS 201445

Watertight door fatality

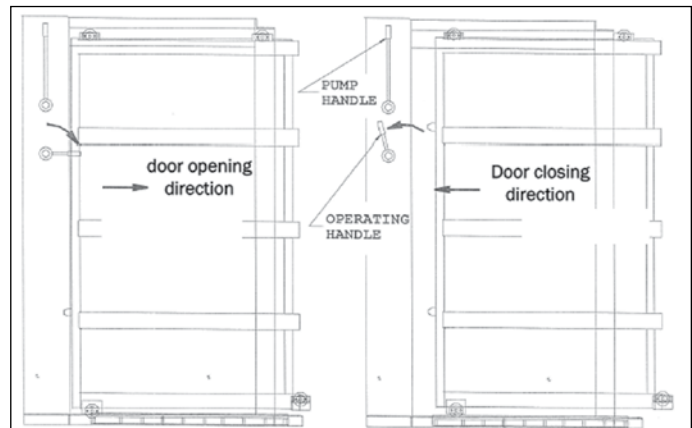
Edited from official report 09-202, Transport Accident Investigation Commission for New Zealand

→ While at berth, the crew of a small passenger ship were conducting a fire and emergency drill, which included closing and testing the hydraulically operated watertight doors. The Master closed the watertight doors remotely from the bridge. Some minutes later, the chief engineer opened the watertight door to the engine room, but for some reason he became trapped by the door as he passed through the doorway. He remained trapped for more than eight minutes before being found and freed. He was resuscitated but never regained consciousness and later died in hospital. The door closing pressure was later measured to be 1,650 kg.

The watertight doors were normally set in the local-control mode, which meant that they could not be remotely closed from the wheelhouse. At the time of the accident the doors were in the remote-close mode for the exercise, which meant they would automatically close when the user released the opening handle. The crew routinely passed through the watertight doors without fully opening them when the doors were in the local-control mode. This practice was probably also followed when the doors were in the remote-close mode. It is possible that the victim tried to pass through the door before it was fully open, and for some reason (such as releasing the handle) it began closing and trapped him.

The investigation found that, among other things:

- It was common practice on board not to fully open watertight doors before passing through. It is possible that the victim did not fully open the door on this occasion, which would have contributed to his becoming trapped.
- The doors were set to close with a speed that was twice the maximum allowable under the SOLAS regulations (which specify never less



than 20 seconds). This would likely have contributed to the victim becoming trapped.

- The door operating handle protruded farther inside the watertight doorway space than was necessary. This meant the victim was not able to free himself when the door closed on him.
- The watertight doors on board the vessel had not been maintained and tested in accordance with the manufacturer's instructions and did not meet the performance standards required by the IMO and the Flag State Administration.
- The audible door closing alarm was not working after the accident. If it was not working at the time of the accident, that could have contributed to the victim becoming trapped in the door.
- The safety management system on board the vessel did not deal in an appropriate way with the maintenance, testing and operation of the watertight doors, which were safety-critical apparatus that presented a known risk to the crew.

Lessons learned

- Always fully open a watertight door before passing through the doorway when the door is in the remote-close mode.
- The faster the door closes, the greater the risk.
- Under no circumstances should watertight doors be set to close faster than the maximum allowable speed.
- Ship operators should adopt specific procedures for operating watertight doors in both local-control and remote-close modes. The procedures should be compatible with the doors' purpose and design, and the frequency with which they are used.
- Legislation governing the design and use of watertight doors should be flexible enough to achieve appropriate procedures for the use of any watertight door in any mode.
- Poorly maintained watertight doors are dangerous. Shipboard planned maintenance systems should be designed and followed to ensure that watertight doors are maintained in accordance with manufacturers' instructions, and in accordance with good standard marine engineering practice.

MARS needs you!

Reports from mariners' experiences of incidents and near-misses are one of the most valuable tools the shipping industry has to help prevent such incidents in future. But The Nautical Institute can only share these incidents if they are reported to us in the first place. www.mars.nautinst.org

MARS: You can make a difference.

You can save a life, prevent injury and contribute to a more effective shipping community.

Everyone makes mistakes or has – or sees – near misses. By contributing reports to MARS, you can help others learn from your experiences. Reports concerning navigation, cargo, engineering, ISM management, mooring, leadership, design, training or any other aspect of operations are welcome, as are alerts and reports even when there has been no incident. The freely accessible database (<http://www.nautinst.org/mars/>) is fully searchable and can be used by the entire shipping community as a very effective risk assessment, loss prevention and work planning tool and also as a training aid.

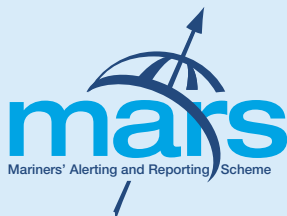
Reports will be carefully edited to preserve confidentiality or will remain unpublished if this is not possible.

Editor: Captain Paul Drouin AFNI

Email: mars@nautinst.org or MARS, c/o The Nautical Institute, 202 Lambeth Road, London SE1 7LQ, UK

The Nautical Institute gratefully acknowledges sponsorship provided by:

American Bureau of Shipping, AR Brink & Associates, Bahamas Maritime Authority, Britannia P&I Club, Class NK, Commissioners of Irish Lights, Constellation Marine Services, DNV, Gard, IHS Fairplay Safety at Sea International, Euroship Services Ltd, L-3 Marine Systems UK Ltd, Lairdsidde Maritime Centre, Norwegian Hull Club, MOL Tankship Management (Europe) Ltd, North of England P&I Club, Port of London Authority, Szkoła Morska w Gdyni Sp. z o.o., Shipowners Club, The Marine Society and Sea Cadets, The Swedish Club, UK Hydrographic Office, Videotel Marine International, West of England P&I Club.



- Confidential reporting scheme
- Free, searchable database of accidents and near misses
- Supports risk assessment
- By the mariner to protect the mariner

www.nautinst.org/mars



FREE

Alert!

- The International Human Element bulletin
- Subscribe for free
- Access videos & articles
- Use for training and safety briefings
- Operational HE solutions

www.he-alert.org

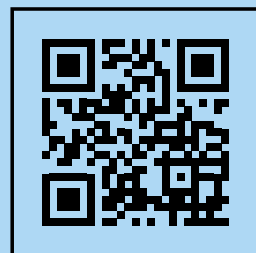


FREE



- Inspiring professionalism in marine navigators
- Read for free
- Access articles and accident case studies
- Share with friends and colleagues

www.nautinst.org/thenavigator



FREE