

May 2018

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Seaways

The International Journal of The Nautical Institute

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The Nautical Institute around the world

Annual report 2017 **p21**



Captain John Lloyd FNI Chief Executive

Focus

Agent for change

“

I am grateful to our members and Branches for their continued support in delivering important messages at a local and regional level.

”

As we rapidly approach our Annual General Meeting, you will see from the Agenda (p 29) that there are a number of important changes taking place in key appointments within the Committees and Officers of The Nautical Institute. I will reflect some more on the changes next month but for now kindly remember that the dates for Malta are rapidly approaching and if you are going to join us please book your places as soon as possible – today!

The event is well supported with amazing speakers, great sponsors and an exciting programme including dinner in the wonderful surroundings of the Maritime Museum in Valetta.

While people may change, our key focus on professionalism and being a 'positive agent for change' remains constant. I am delighted with the feedback and support we received for our Incident Investigation and Analysis pilot course that has helped us be ready for delivery next month. If you think a better understanding of key factors in this area would improve safety for those in your organisation then this is the course for you. See pages 8 and 9 for a more detailed look at what the course includes, and how to book your place.

We were also present in April during a very long week at the IMO. A great deal of debate concluded in a key commitment to reducing greenhouse gas emissions and the establishment of some challenging targets. My thanks to the IMO team for the regular updates on progress.

Our publications continue to receive strong support and our close engagement with professionalism with those operating in or near ice continues on a number of fronts. The launch of the latest edition of *Polar Ship Operations* is a key demonstration of this

commitment and we thank our President for his hard work in ensuring this key text remains filled with guidance on contemporary best practice.

The Ice Navigator qualification

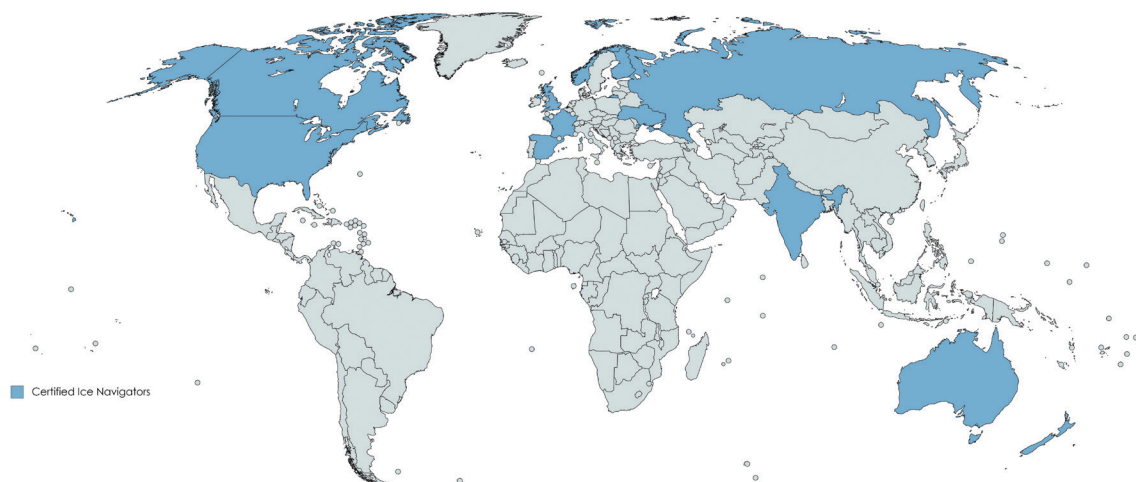
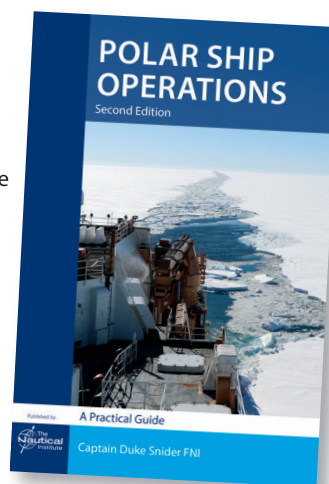
continues to grow. We now have officers in 12 different countries (see map below) recognised for their qualifications and experience – testimony to the relevance and international standing of this initiative from The Nautical Institute.

During May I will be supporting the work of the 'Protection of the Arctic Marine Environment' group that brings together stakeholders committed to guarding this important region while sharing best practice and other information.

Finally, I do hope you will enjoy reading the annual report on our activities throughout 2017 (p21-23). It has been another busy year on behalf of the membership and the global maritime community. I am grateful to you, our members, for your continued support and to our Branches and the Committees that guide them for helping to deliver important messages at a local and regional level.

My thanks also go to the Headquarters team here in London who make every effort to support you, and who have ensured a strong service through a period of considerable change.

I look forward to seeing many of you in Malta. If you would like to follow proceedings on my 'Twitter' account, please tune in at: [twitternautinstceo](https://twitter.com/nautinstceo)





Mariners' Alerting and Reporting Scheme

MARS Report No. 307 May 2018

MARS 201828

Floor plate clamp tripping hazard

→ Two engine room crew were assigned the job of dismantling and repositioning a pipe approximately 2m long and 6cm in diameter while the vessel was at sea. The pipe was located at the bottom platform of the engine room.

While shifting the dismantled pipe, one of the crew caught his foot on an unsecured, protruding floor grating clamp. He stumbled and his fingers got caught between the pipe flange and the corner plate securing the floor grating. Even though he was wearing gloves, the incident resulted in a fracture of the middle finger and a deep cut on the index finger.



Lessons learned

- Even the most mundane task can pose unsuspected risks if basic precautions are not taken. Tripping hazards should always be attended to in a timely fashion.
- Make a special effort to go over and around your vessel with fresh eyes; try to spot and eliminate tripping hazards.

MARS 201829

Spring-acting FRC painter clip fails

As edited from Marine Safety Forum Safety Alert 17-07

→ Three crew members were in the fast rescue craft (FRC). During recovery the forward painter quick release parted just as the craft was lifted from the water. The FRC then swung to starboard, causing the stern to come into contact with the ship. The jet guard struck the side of the ship and then rode up into the ship's rescue zone, allowing the jet itself to strike the side of the ship. The FRC bucket was cracked, as was the jet inside the bucket and the jet guard was slightly bent. The FRC was recovered with no injuries to the crew members.

The painter quick release mechanism had been in use for the past two years. A previous near miss had occurred where the clip had parted, but



subsequent visual inspections of the outside of the quick release did not discern problems inside the clip where the spring mechanism is housed.

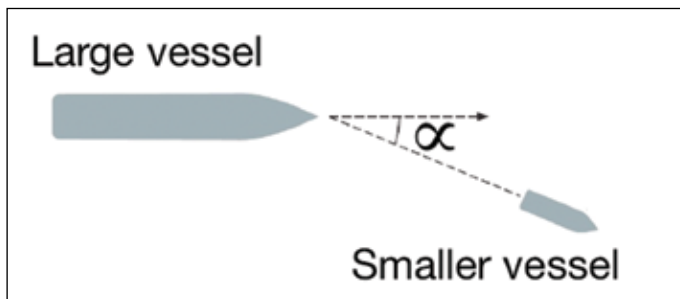
Lessons learned

- Mechanisms containing moving parts that are hidden from view but exposed to the elements are hard to maintain and verify. Whenever possible, they should be replaced with more reliable substitutes. In this case, the clips were replaced with a G-link type clip without a spring mechanism.

MARS 201830

Hydrodynamic effects create challenges

→ A laden tanker drawing 12.75m was inbound in a restricted waterway. It was being coned near the centre of the main channel at a speed of about 7.5 knots. On the starboard side, outside the main channel, was a secondary channel used by smaller vessels such as tugs and barges. The tanker's bridge team had observed, by radar, a tug pushing a barge in the secondary channel about 6 nautical miles ahead and they were due to overtake the tug in the near future. An agreement was reached between the pilot of the tanker and the tug Master. The customary arrangement is that the tug and barge assume an angle (α) with the channel as the larger ship overtakes in order to reduce hydrodynamic effects and retain manoeuvrability, as shown in the diagram below.



As the two vessels began to close, the tug and barge were seen to be at the limit between the secondary channel and the main channel (if not totally in the main channel), and the tug-barge combination had not taken the expected angle to reduce hydrodynamic effects. As the tanker approached, the tug Master reported difficulty steering. During the overtaking manoeuvre, the tug Master was unable to control his vessel and the barge. The units sheared to port and made contact with the stern of the tanker.

Lessons learned

- Overtaking is a challenge in narrow channels; it requires proper planning well in advance, which should include contingency plans.
- The intensity and effect of hydrodynamic forces cannot be accurately assessed due to the nature of the channels and confined waters.
- In overtaking situations the difference in speed between the two vessels should be as great as safety and prudence will allow. This will reduce the time the hydrodynamic forces are acting on the vessels and negate the known 'trapping effect'.

MARS 201831

Steel coil loading, dos and don'ts

As edited from UK P&I Club, Axis Ltd Correspondent's Note

➔ Some coils of wire rod have posed problems for proper stowage for the following reasons:

- Coil is relatively short in length: sometimes the length is equal to the coil diameter. This calls for extra care when stowing as the coil is unstable and may easily overturn.
- Some of these coils may have insufficient stiffness to retain their original shape in the course of cargo handling or when stored at port. The cylindrical form of the coils becomes skewed, with the windings shifted and inclined along the coil's axis instead of being perpendicular to the axis.

These characteristics can make it difficult to ensure a tight and uniform block stow when intact and deformed coils are loaded together.



Lessons learned

- Improperly stowed coils may shift during transit and put the vessel at risk. Unsafe stowage may also trigger a claim from the unloading stevedores.
- If coils are not loaded in a tight, uniform block stow, suspend loading and issue a protest. The stevedores must accept the Master's requirement to re-stow any shifted or collapsed coils.
- Sufficient timber dunnage to level the stow and fill the gaps where necessary should be the norm.
- Be aware and vigilant during stowage, and keep a constant watch on the operation.

■ **Editor's note:** For more examples of problematic stowage of steel coils, readers can refer to past MARS reports 201733, 200631 and 201132. The latter report concerns a discharging vessel that nearly capsized after badly stowed steel coils shifted. All MARS reports are available online at <https://www.nautinst.org/en/forums/mars/search-all-mars-reports.cfm> and can be searched using keywords, by range of dates or by year.

MARS 201832

Man overboard hazard goes unnoticed until deadly accident

Edited from official report RS2017:01e, Swedish Accident Investigation Authority

➔ A small container vessel was underway in a coastal area at about 16 knots. At mid-morning an engine room crew member informed the other duty crew that he was going to open the steam line to the aft fuel oil bunker tank. This was done in a compartment between cargo holds no 2 and 3 on the main deck, which was accessed via a ladder from a coaming catwalk.

A little while later another engine crew member went out on deck to check on the first man. He found the hatch open and the steam valve manoeuvred, but no trace of the crew member. Once back in the control room he called the bridge and asked for a PA system announcement to call for the crew member. The man's cabin was also visited but found to be empty.

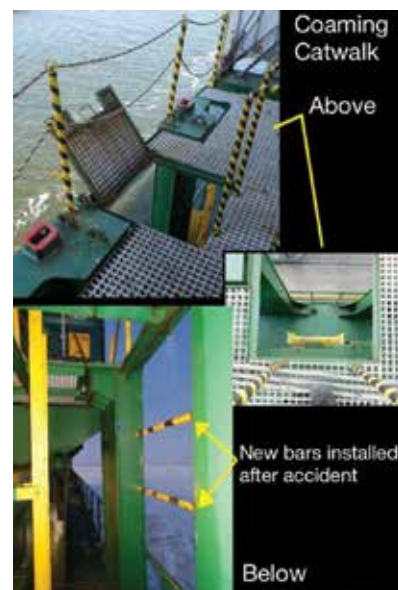
With the crew member apparently missing a ship search was initiated but he was still not found. The ship was turned around and a search pattern initiated some 90 minutes after the man was last seen. A VHF radio PAN PAN call was made and local SAR authorities contacted. The water was +2°; at this temperature a person who is not protected by a survival suit will suffer hypothermia and become unconscious within about 20 minutes. Extensive searching by several vessels and helicopters failed to find the missing man, who is presumed dead.



Lessons learned

- The 'falling overboard' hazard existed for some time without raising any red flags. It took this accident for people to realise the danger.
- Extra bars were installed in the opening to provide better protection from falling overboard if someone were to lose their grip on the ladder while ascending or descending.
- Hazards exist on every ship but often are not recognised as such. People tend to accept their environment as it is, without thinking critically about potential hazards.

● As with the tripping hazard in MARS 201828 above, make a special effort to go over and around your vessel with fresh eyes; try to spot and eliminate 'falling overboard' hazards.



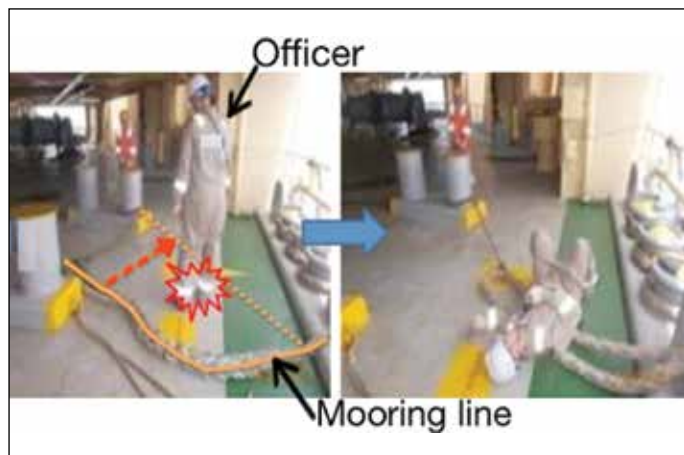
MARS 201833

Mooring line accident: watch where you are standing

→ A pure car carrier was departing port. After turning clear at the breakwater, the order to let go the aft tug line was given. The officer aft was holding the rope stopper and a crewman was holding the messenger line around the bollard to avoid excessive slacking off when letting go the tug line. Two other crew members removed the eye of the tug line from the bollard, and then the rope stopper was slowly released. Suddenly, the tug line came under tension and shifted the mooring line, hitting the legs of the officer and sending him to the deck. He injured his back and required an emergency medical evacuation.

Lessons learned

- Treat mooring lines with respect; always keep in mind that they can come under extreme tension at a moment's notice.
- Even though this was a bad accident, it could have been much worse. Fatalities due to mooring lines are, unfortunately, significant in the marine industry. Past statistics have quantified mooring accidents as the seventh most frequent cause of personal injuries but the third most expensive per claim (UK P&I Club LP News, January 2009).
- The crew member overseeing the mooring operation should not be involved in manipulating lines, stoppers or winches. Their job is to oversee the operation, keeping a watch for dangerous developing situations.



MARS 201834

Dangerous pilot boarding situation

→ A container ship was inbound with a heavy 3m swell near broadside, causing the vessel to roll heavily. As the pilot boat approached, the container vessel rolled sufficiently to flood the pilot boarding access portal twice. The pilot boat stood off until the container ship altered course sufficiently to stop the rolling and allow safe boarding.

Lessons learned

- Ensure your vessel is ready to accept the pilot in every way, including making a lee for the pilot boat and reducing vessel rolling to a minimum.
- Know your vessel. In this case, given the open pilot boarding access portal, the roll angle created a dangerous situation for the vessel's crew standing by to receive the pilot.
- Obviously, this situation is also extremely dangerous for the pilot and completely unacceptable.



Still images as seen on Twitter, #dangerousladders

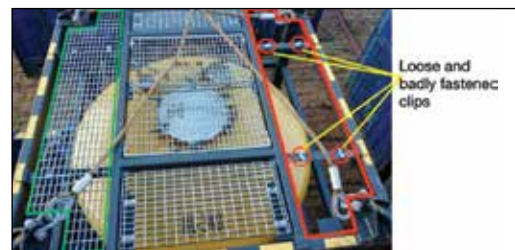
MARS 201835

Dropped object close call

Edited from Marine Safety Forum 17-12

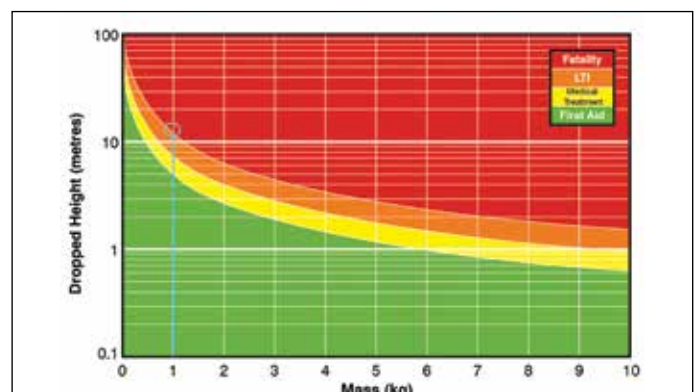
→ A rig supply vessel was under a rig. A tank was being repositioned on the aft deck, using the rig's crane. During the repositioning, the bottom of the tank made contact with the cargo rail, tilting and rocking it. This caused one of the top gratings to fall from a height of about 6m on to the vessel's deck. Two deck crew were some 15m forward from the dropped grating, which weighed 17kg. The potential consequence of being hit by a 17kg object falling 6 metres is lethal.

The gratings are intended to be fixed in place with four bolts and butterfly clips. On subsequent investigation, it was found that all four clips appeared slack on the side the grating fell from. One of the clips was also bent.



Lessons learned

- Always stand clear of lifted objects.
 - Check the load before lifting; is everything secure?
 - As the Drops Calculator* shows, even a mass as small as 1kg dropped from a height of about 12m can be lethal.
- * See the Dropped Objects Prevention Scheme at www.dropsonline.org
- The Drops Calculator has some important caveats:
- It is a guide, a cursory indication of a possible outcome
 - The calculator is best employed proactively during risk assessments/ task planning/time outs
 - Assumes blunt force trauma, so not compatible with sharp objects
 - Assumes full PPE is being worn
 - The height of an individual should not be subtracted
 - Never assume dropped objects will always strike the head.



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