

# Seaways

The International Journal of The Nautical Institute

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# Focus

## Promoting professionalism around the globe

“ I would like to thank all of our team in India for their hard work in getting the Chandigarh branch established and their ongoing efforts to ensure we have wide participation from members in the area ”

The last few weeks have been very busy for The Nautical Institute with key events in India, Poland and the United Kingdom. Through our branches and headquarters we have been highly visible delivering our service to our members and the maritime community and helping to improve our understanding of safety through conferences and other initiatives.

In Gdynia I was very pleased to support the Poland Branch in its provision of the biennial Transnav Conference (the 12th International Conference on Marine Navigation and Safety of Sea Transportation), which saw delegates from around the globe debating matters including fuel efficiency, safety of navigation, training innovation and research results. I congratulate the team from The Nautical Institute in all their hard work delivering the biggest and most international Transnav Conference to date and look forward to further growth in the future.

As well as a stimulating professional debate, the delegates received a very warm welcome to Poland, enjoyed tours of the training vessel and tall ship *Dar Młodzieży* and had the opportunity to engage with the next generation of seafarers about to embark on their initial training voyages.

In India we saw the launch of the India NW Branch of The Nautical Institute in Chandigarh. As our most ‘inland’ branch I would like to thank all of our team in India for their hard work in getting the branch established and their ongoing efforts to ensure we have wide participation from members in the area, rigorous technical debate and the opportunity to engage wider discussions by encouraging new members. My special thanks to Captain Kahlon and Captain Bhatia who were instrumental in leading this initiative.

Many of you will recall the ‘Alert!’ series that spanned 12 years of delivery of an amazing

publication focusing on the Human Element and its key contribution to maritime safety. The work was undertaken under the direction of Commodore David Squire CBE FNI as full term editor and I acknowledge his very special contribution to the project.

Every *Alert!* issue has now been compiled into a superb compendium and hard-bound for distribution to training centres and colleges, providing a life-time resource for the benefit of future generations of seafarers. I know many colleges still have the centre-fold pages on display delivering key messages to students and staff. The *Alert!* videos are still available through open access on our website.

This project would not have been possible without the support of the Lloyd’s Register Foundation and so, on behalf of the community we serve, a huge thank you from all of us at The Nautical Institute.

We have also delivered the latest in our Navigation Assessors courses, this time in Rotterdam and we have identified dates for the next courses to be held in Dublin, Limassol and Hong Kong. Please check out the details on page 5.

Our Book of the Month promotion continues, helping readers build up their own maritime libraries by offering a selection of our most popular publications at a special 40% discount. This month, we are promoting *Casualty Management Guidelines*. John Noble explains the background to this publication, and why it is so important, on page 24.

Through these and other works we strengthen the presence and reputation of The Nautical Institute doing what we do best – promulgating safer practices and developing better seafarers through our publications, engagement and participation. I look forward to hearing of your activities at a local and regional level and my thanks to those who have written in already. [sec@nautinst.org](mailto:sec@nautinst.org) is the address to use to get in touch. 🌐



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# Mariners' Alerting and Reporting Scheme

MARS Report No. 298 August 2017

MARS 201752

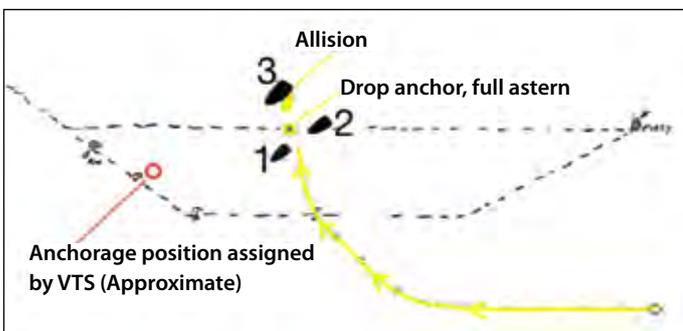
## Allision while anchoring

Edited from Transport Malta, official report 12-2016

➔ A loaded suezmax dry bulk carrier (yellow vessel and track in diagram below) was approaching anchorage in good visibility and calm conditions. On the bridge was a pilot who had the con, the Master, second mate, third mate, helmsman and a lookout. The chief mate, bosun and an ordinary seaman were on anchor station forward. An anchoring position was assigned to the vessel by Vessel Traffic Services (VTS), about 1.5nm west of three other vessels already at anchor.

At one point the pilot ordered 20° starboard helm and then hard to starboard. This brought the ship away from the track leading to the assigned anchorage position, and between vessels one and two and headed towards vessel three, all at anchor. A number of helm and engine movements were ordered and executed within a period of two minutes. Soon afterwards the pilot ordered the port anchor let go. With the anchor party holding on to six shackles in the water and the bulk carrier still doing five knots, they continued turning to starboard towards vessel three. As the distance between the two vessels decreased, the pilot ordered the engines full astern.

As an impending allision became obvious, the starboard anchor



Vessel at anchor



Vessel coming to anchorage

Damage to vessels

was also dropped to lessen the impact. Shortly afterwards the dry bulk carrier, still making 2.5 knots, made contact with anchored vessel three. Substantial damage was sustained by both vessels.

The official investigation revealed that essential information on the pilot's intended passage and anchoring operations was not discussed during the Master-pilot exchange. The alternate anchorage position chosen by the pilot was not challenged by the bridge team. The investigation also found that the plotted positions of the vessel varied sharply from true positions as shown by the AIS and VTS recorded track. This is indicative of inadequate monitoring and inaccurate situational awareness.

### Lesson learned

- Manoeuvring large vessels into crowded anchorages takes planning, skill and good teamwork.
- Always know the plan. If you observe a deviation, ask questions and/or make a challenge.
- Even with a pilot at the con, always accurately monitor your vessel's position and keep the pilot informed of the vessel's progress.

MARS 201753

## Collision while leaving anchorage

Edited from Dutch Safety Board official report, February 2017

➔ A general cargo vessel had to go to anchor near the arrival port, as the berth was unavailable. The winds were strong at force seven with gusts of force eight. Not long after anchoring in the northwestern corner of the anchorage, the vessel began to drag anchor under the influence of the strong winds and a current near two knots. The vessel exited the anchorage and was dragging its anchor into the nearby traffic lane. The Master weighed anchor and repositioned the vessel in the anchorage once again, this time in the southwestern corner, 0.8nm from a tanker already at anchor. This distance is typical for such a busy anchorage.

In the ensuing hours, each of these vessels dragged anchor in a northeast direction, becoming closer to each other. Eventually, the Master of the tanker decided it was prudent to heave anchor. Once the anchor was on board the vessel was swung to port towards the general cargo vessel with the intention of sailing clear. Because the tanker was in



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ballast and had hardly any speed, manoeuvring was hampered and the vessel's movement was greatly affected by the strong wind and current, now acting fully on the vessel's starboard side. The tanker was driven into the bow of the general cargo vessel - which was still anchored, but dragging - causing major damage to both vessels.

## Lessons learned

- Vessels proceeding at low speeds, especially those in ballast condition, are greatly affected by wind and current.
- By stemming forces acting on your vessel you can maintain better control at low speeds.



Damage to the general cargo vessel

## MARS 201754

### Steep stairs require both hands

Edited from Marine Safety Forum Safety Alert 16-23

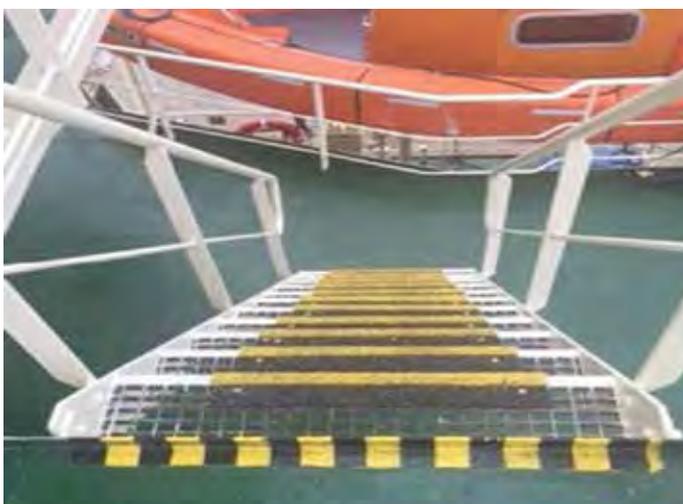
→ A crew member left the bridge and was making his way down the external stairway to the boat deck. During his descent he fell down the stairs to the deck below, fracturing his left forearm.

On investigation, it was determined that the stairs were in good condition and had been fitted with grips. The victim was wearing all appropriate PPE including his safety footwear, which was in good condition.

The victim stated he was using the 'trailing hand technique' while transiting the stairs, although he had a radio in one hand. There were no radio sling/holsters onboard.

## Lessons learned

- Even the best defences (in this case good PPE and stairs with grips) are not always sufficient to compensate for inadequate technique.
- Transiting steep stairs calls for using both hands on the railings; put yourself first!



## MARS 201755

### Never too junior to 'stop job'

Edited from Marine Safety Alert 16-25

→ A recently qualified crew member was on his first trip as 3rd engineer and had only a few days experience as the sole engineer of the watch (EOW). Keen to clear the outstanding planned maintenance, he asked the engine room cadet to complete the job of topping up the cooling system on one of the four main engines. This was a job the cadet had previously done, but only on an engine that was not running. In this instance, the engine was running and on-line.

The engine had both a lower and upper temperature header tank and both required topping up. As the cadet removed the cap from the upper temperature header tank, water at 90°C and 7 psi was released spraying across both of his forearms. First aid was quickly administered but the mishap resulted in 2nd degree burns to both of his arms. The vessel diverted to a nearby port and the cadet was released to the local hospital before he was repatriated home.



## Lessons learned

- When you are new to a job, don't hesitate to ask superiors for their input before undertaking a task.
- Before undertaking a task, do a running risk assessment. Ask yourself, 'What could go wrong?'
- Never carry out maintenance on running or standby machinery. Do the lock-out tag-out (LOTO) procedure first.
- All crew, irrespective of their rank, have the same authority and responsibility to stop a job if they are unsure of safety.

## MARS 201756

### Unconventional design contributes to loss of situational awareness

Edited from UK Marine Accident Investigation Branch official report 3/2017



Car carrier's unconventional wheelhouse

→ In darkness and under pilotage a car carrier was outbound in a river estuary behind another outbound vessel. The car carrier was to the north of the channel and of the intended track. The pilot informed the Master that he would try and manoeuvre the ship further to the south. At the time an approaching vessel, an inbound ro-ro ferry, was in clear sight. The pilot of the car carrier informed the Master that they would pass the ro-ro port to port.

When the two vessels were 2.8nm apart the car carrier was making 12kts and the ro-ro near 16kts; they would meet in six minutes. The ro-ro's Master and second officer were concerned that the car carrier remained on the northern side of the channel and did not appear to be altering course to the south. The VTS watch manager was also concerned; both he and the ro-ro's second officer called the car carrier in quick succession on VHF to inquire as to its intentions.



#### Five minutes before collision

As the distance between the two vessels diminished, now at 0.97nm, the ro-ro continued on a heading of 295° and the car carrier's pilot ordered to steer 115°.

The ro-ro's Master decided to reduce speed and put the telegraph to 'half ahead', which gave a speed through the water of approximately 9kts. At about the same time the car carrier's pilot ordered 'starboard 20'. As the car carrier's heading reached 125°, the pilot ordered midships, then 135°. Accordingly, the helmsman arrested the vessel's swing to starboard to steady the vessel as ordered. The car carrier's Master expressed concern over the developing situation and the pilot explained to him that both vessels were experiencing drift.

Shortly thereafter the ro-ro's bridge team realised that the car carrier was not turning to starboard as quickly as they expected and that emergency measures were needed. Full starboard helm was applied and the engine was set to full astern. Very shortly after, the car carrier's Master also realised emergency action was necessary – he shouted 'Go to starboard', followed by 'Midships' and then 'Hard to port'. Fourteen seconds later the two vessels collided port bow to port bow on headings of 288° and 163° respectively.



Car carrier damage

The official investigation found, among other things, that:

- The collision stemmed from the car carrier being set to the northern side of the channel by the wind and the tidal stream, followed by the distortion of its pilot's spatial awareness due to a 'relative motion illusion'.
- The car carrier pilot's view from the window he was using was 33° off the vessel's centreline axis, which contributed to the relative motion illusion. It deceived him into thinking that his view was the same as the vessel's direction of travel.
- The inward slope of the bridge window removed all objects from the car carrier pilot's peripheral vision. There were no forward visual clues such as a bow tip, and the illusion would have been compelling.
- The car carrier's bridge team did not challenge the pilot's actions in a timely manner despite concerns being expressed by the oncoming ro-ro vessel's team and the VTS.
- The car carrier's bridge team was over-reliant on the pilot; their lack of effective monitoring of the vessel's progress was evidence of ineffective bridge resource management.

#### Lessons learned

- When in pilotage waters do your own navigating to validate the pilot's actions and to keep your situational awareness at its peak.
- Keep the pilot apprised of any deviations from the planned track and the vessel's actual track.
- If your vessel has special ergonomic characteristics or particular manoeuvring considerations, make sure the pilot is well informed of these points and that they are taking them into consideration while under pilotage.

#### MARS 201757

### Incinerator burns

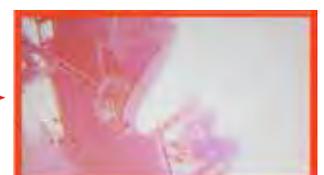
→ Two engine room crew members were tasked with loading the incinerator. Although the incinerator was not in operation at the time, it had recently been used and was still hot. One crew member opened the incinerator door and deposited some articles that contained oily waste into the incinerator. The oily waste ignited in a flash fire and the two crew members received severe burns to their faces. The victims were sent ashore for medical treatment.

#### Lessons learned

- Before opening the furnace door for either cleaning or putting in garbage and/or oily waste, it must be confirmed whether unburnt sludge and/or embers remain, using the sight glass and furnace temperature indicator. Never open the door if it is still hot or smouldering.
- Before opening the furnace door always wear proper PPE, as shown right. Anticipate the possibility of a flash fire. Proper PPE includes full face shield, long sleeves and heat resistant gloves.



Before



After

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