Keeping the coast clear
Marking hazards as they happen  p06

Expertise in ice
What makes a successful voyage  p04

Know your biases
Stopping mistakes at source  p12

Ballast water
Implementation timetable at a glance  p14

Ships and water
Dealing with a complex element  p21
Commitment to safety

London saw an especially busy week during the middle of September as the city hosted London International Shipping week. The event is well-named as it attracted participants, delegates, technical experts, shipping companies and manufacturers from around the globe. I was pleased to attend the Safety at Sea awards where members of our community were recognised for the hard work and commitment made in improving the safety of our mariners.

It was an especially proud moment to see one of our Past Presidents, Dr Phil Anderson, awarded a lifetime achievement award to honour his work in raising safety standards in shipping and we congratulate him on this well-deserved award.

I am also pleased to acknowledge and congratulate those Members and Fellows whose contribution to the industry was recognised recently by the award of The Merchant Navy Medal for Meritorious Service.

Our members make a huge contribution to safe and efficient operations around the globe and I encourage you all to share the benefits of membership with colleagues you meet and to help us promote high standards across the industry. One way we do this is by encouraging professional debate through our magazine The Navigator. In the forthcoming edition we will be focusing on the work of the marine pilot and the importance of good interaction between pilots and the bridge teams they engage with.

The key emphasis here is on ‘team’. It is important we recognise and support the special contribution that pilots make to ship safety and the safe conduct of our ships in and around our harbours.

Safe operations will of course be a key theme in our two remaining Command Seminars this year. I look forward to seeing members and guests in Cork on the 12th and 13th October and Limassol on 3rd November. The branches have put a huge amount of effort in preparing for these events. Please come along and support them, and meet the President and others from our Institute.

For those who were unable to attend, or would like to consolidate what they have learned from the seminars, our October Book of the Month, available at a 40% discount, is The Nautical Institute on Command (see pp 28-29). This is The Nautical Institute’s flagship publication, offering the opportunity to benefit from the experience of experts in every area of this complex and fascinating role.

This edition of Seaways also draws attention to those organisations who have adopted the NI Recognition service as a check on their procedures in preparing for the delivery of Professional Development Courses. We are very pleased to review these applications and to endorse those courses compliant with the requirements for formal Recognition.

I look forward to seeing many of you in Ireland and Cyprus.
Flawed departure plan gives bad results

A small tanker was manoeuvring to leave port without tug assistance. The departure manoeuvre began at twilight, with winds from the south of about 10 knots. The pilot, Master, OOW and helmsman were on the bridge. The departure plan, as discussed by the bridge team, was to let go aft and bring the forward spring lines under tension with the engine dead slow ahead and wheel hard to port, swinging the stern away from the berth to starboard. With the stern clear the engine was to be put astern and the vessel backed away from the berth, as shown in the simplified diagram below, steps 1 and 2. The vessel was equipped with a controllable-pitch left-handed-turning propeller. The berthed vessel forward was not seen as a hindrance.

On the first attempt, the wind, which was pressing the vessel on to the berth, brought the vessel's stern back close to the berth, nullifying the manoeuvre. It was agreed to moor the vessel again and make another attempt. As the vessel was closing the berth it had some speed astern. Ahead engine was applied but the vessel still bumped the fender astern. Then, because too much ahead power had been used, the vessel surged forward and came into contact with the vessel moored ahead, its port bow contacting the starboard aft quarter of the other vessel.

Lessons learned

- Although winds were light they nonetheless did not help the planned manoeuvre. When manoeuvring always look to use the elements to your favour. If this is not possible, consider the use of one or more tugs.
- The left-turning CP propeller, which will normally cant the stern to port irrespective of ahead or astern thrust applied, should have been an early indicator that carrying out this plan without tug assistance was not advisable.
- In dark conditions a person's visual acuity is not as sharp as in daytime. Missed visual cues while manoeuvring in tight quarters in darkness could contribute to less than adequate performance.

Over-reliance on loading computer tilts ship

A product tanker had been discharging cargo for about six hours. Around 1800 the OOW started loading segregated ballast; the vessel had about a metre of trim by the stern at the time. About two hours later the watch was relieved. The new OOW continued the ballasting operation using the loading computer. About 20 minutes later the deckhands advised by VHF that the vessel appeared to be down by the head. The OOW, looking at the numbers on the loading computer, disagreed, saying that the vessel still had trim by the stern. The deckhands challenged, reiterating the trim by the head.
After hearing the communication between the deckhands and OOW on the radio the Master went himself to check the draughts. It was quickly confirmed that the vessel was trimmed by the head. The OOWs had been relying only on the loading computer for their information. A brief investigation revealed that while the automatic reading function for the cargo and ballast tanks was recording the cargo tank levels, the computer had not been set up properly to record and update the ballast tank levels. The loading computer was displaying incorrect draught, trim and stress information.

Lessons learned

- Before each cargo operation, check your gear and instruments to ensure they are set up properly for the upcoming load or discharge. For loading computers in particular, make sure automatic gauge reading, if fitted, is set up to read all the tanks involved in the operation.
- When a crew member raises a concern about the operation, take a moment to investigate the concern to ensure all is well. In this instance, sharp attention by the deckhands prevented an embarrassing situation from developing into something worse.
- As often is said for navigation, do not rely on a single means or method for your information but ‘use all available means’. In this case, a simple double-check of the draught gauges against the loading computer calculations would have revealed a discrepancy.
- Look out of the window. In this case, the vessel’s trim was such that a look outside may well have been enough to confirm the situation.

Contributing reporter’s note:
Another common error with loading computers is not updating cargo tanks with the API and temperature of the cargo being carried in the space, which can also result in erroneous tank level readings.

MARS 201766

Work aloft without precautions proves fatal
Edited from the official Accident Investigation Board of Norway report Marine 2017-04

The loaded vessel was underway and rolling moderately in the swells. A crew member was performing maintenance on the free-fall lifeboat; a lashing turnbuckle for the lifeboat had corroded and the job involved rust removal and painting of the turnbuckle. No work permit had been issued for this job, since the work would take place at a height of just over one metre and in an area secured by railings.

While completing the turnbuckle job the crew member noticed the forward hook for the free-fall lifeboat needed lubrication. This job was at height so he asked another crew member to assist him by steadying a ladder he had already positioned on deck below the lifeboat to reach the hook. The height from the deck to the hook was 4.8 metres; the ladder was 5 metres long and was equipped with rubber feet at the bottom of each leg, but these were heavily worn.

Apart from the steadying effort of the assisting crew member, the ladder was not otherwise secured and was made more unstable because both feet were not in firm contact with the deck.

According to the assisting crew member, who had apparently voiced his concerns about the safety issues involved with the task, the other crew member insisted on continuing without a safety line or permit to work aloft. The assisting crew member held on to the lower part of the ladder while the other crew member climbed up. When the crew member had climbed part of the way up the ladder it suddenly slipped on the deck. The assisting crew member was unable to keep it steady, and the victim fell and ended up motionless on the deck next to the ladder.

The alarm was raised and first aid was administered to the victim. Two and a half hours later, before shore rescue could arrive, the victim stopped breathing. He was later pronounced dead.

Lessons learned

- Never work aloft without a work permit and without taking the proper precautions to prevent falling.
- If you are in doubt about safety insist on stopping the work and re-evaluate. Get a second opinion from your superiors.
- Use your equipment properly. Ensure that ladders are properly secured against tipping and the weight evenly distributed on the supporting legs.

MARS 201767

Dangers in plain sight

This photo was sent as an example of a hazardous situation without many details but as a picture is worth 1,000 words we would like to reproduce it here. While the source pipe is indicated ‘compressed air’ in black on the deck (yellow circle and arrow added here for clarity), this situation does present numerous safety issues.

Lessons learned

- Eliminate tripping hazards wherever possible; in this instance the unruly air conduit on deck is a serious tripping hazard.
- Protect potential energy sources, in this case the compressed air feed on deck, from damage.
MARS 201768

Safety harness is not the weak link
Edited from official report MO-2015-202 from the Transport Accident Investigation Commission of New Zealand

A container vessel was inbound to port and approaching the pilot boarding area. In preparation for the pilot some deck crew were preparing the accommodation ladder. Winds were relatively light at near 10 knots with a swell of about one metre. The bosun asked the deck trainee to fetch some buoyancy vests. When the trainee returned he saw the bosun had already removed the lashings and lowered the accommodation ladder to below the main deck level. The bosun had walked more than halfway down the ladder and was crouched down trying to lift the outboard handrail from its stowage position.

The deck trainee then saw the bosun lose his balance and fall into the sea. The bosun was wearing a safety harness and fall arrestor, but as his body weight came on the safety harness fall arrestor line, the wire to which the fall arrestor was attached parted. The deck trainee immediately called the bridge on his VHF to report the incident. Another crew member threw a lifebuoy overboard; the bosun was seen trying to swim an estimated 10-15 metres to the lifebuoy.

The Master stopped the engine and asked the pilot boat whether he should turn around or wait for the pilot. He was told to wait for the pilot, but instead of depositing the pilot on the vessel, the pilot boat continued to try to locate the victim. Fully 20 minutes later – 25 minutes after the man overboard (MOB) had occurred – the Master was told to turn and return to the MOB position.

Lessons learned
- When working overboard, always wear a lifejacket.
- Wire ropes coated in plastic, although they may appear a good idea, cannot be properly inspected for corrosion. Even a small failure of the plastic will allow salt water to enter the rope and corrosion to occur unseen.
- When a man overboard occurrence happens on your vessel all other considerations are secondary. You should execute your MOB procedure in the most timely manner possible.

MARS 201769

Dangers of an unsecured battery
Edited from Marine Safety Forum Safety Alert 17-04

The fire alarm sounded in the early morning hours during a period of adverse weather. The fire panel showed the alarm had been activated in the vessel battery locker. The crew mustered and the fire team assembled. Upon investigation it was discovered that small flames and sparks were coming from a spare battery that was stored in the battery locker on the top shelf.

The battery had been delivered during the previous port call and stored within the battery locker. It had been placed on a storage shelf without being secured and without protection on the battery terminals. During a period of heavy weather, vessel movements had caused the battery to tip onto its side and slide against the steel lining of the bulkhead. The bare battery terminals against the steel bulkhead caused the battery to short and consequently overheat. Once the battery had reached ignition temperature, the casing melted, setting off the fire alarm.

Lessons learned
- All stored batteries should be secured against movement.
- Battery terminals not in use should be protected with insulation material to prevent unwanted shorting.
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