

prioritising safe y

AJ Leow gets three experienced captains to share their thoughts and expertise on current standards, measures and trends in maritime safety

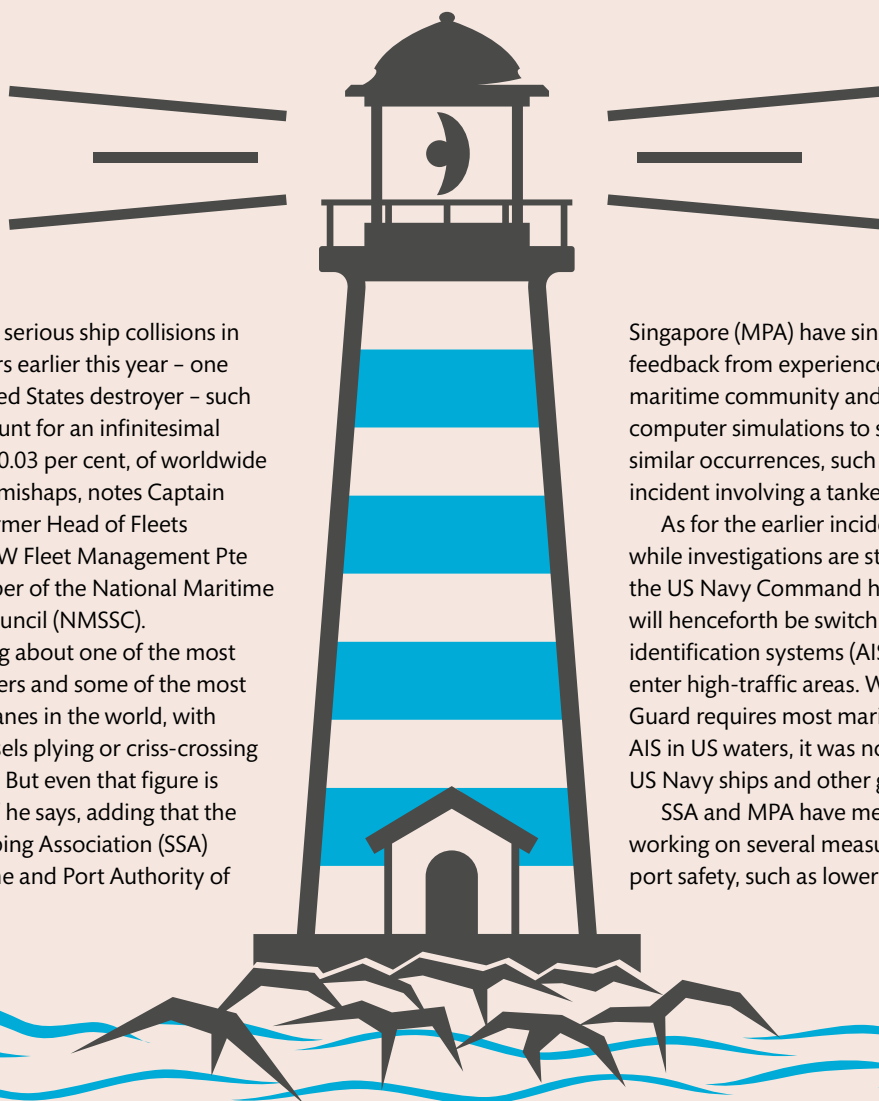
Despite the two serious ship collisions in Singapore waters earlier this year – one involving a United States destroyer – such incidences account for an infinitesimal fraction, or just 0.03 per cent, of worldwide marine-related mishaps, notes Captain Vibhas Garg, former Head of Fleets (Singapore) at BW Fleet Management Pte Ltd and a member of the National Maritime Safety at Sea Council (NMSSC).

“We’re talking about one of the most challenging waters and some of the most congested sea lanes in the world, with some 1,000 vessels plying or criss-crossing the waters here. But even that figure is not acceptable,” he says, adding that the Singapore Shipping Association (SSA) and the Maritime and Port Authority of

Singapore (MPA) have since been gathering feedback from experienced hands in the maritime community and have carried out computer simulations to study ways to avoid similar occurrences, such as the second incident involving a tanker and dredger.

As for the earlier incident on Aug 21, while investigations are still in progress, the US Navy Command has since said it will henceforth be switching on automatic identification systems (AIS) when its vessels enter high-traffic areas. While the US Coast Guard requires most maritime traffic to use AIS in US waters, it was not mandatory for US Navy ships and other government vessels.

SSA and MPA have meanwhile been working on several measures to improve port safety, such as lowering vessel density at



PORT & STARBOARD

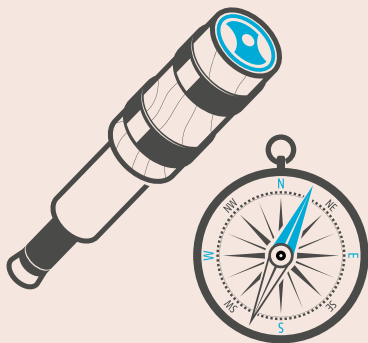


anchorages, and sequencing pilot boarding at the Eastern Petroleum Anchorage (AEPA).

Captain Atul Vatsa, Head of Compliance at Thome Ship Management, and a member of both the MPA-SSA Safety of Navigation Working Group and the NMSSC, says, "Boarding times for pilots are now given in advance to vessels. Also, a gap of a nautical mile (NM) has to be maintained between vessels when picking up a pilot."

Capt Garg adds, "We've split the EPA's Bravo point into two pilot-boarding points, with the sequencing of vessels at 15-minute intervals so that they don't criss-cross, to make the sea lanes a lot more safe." A 1NM distance is maintained at the Pilot Eastern Boarding Ground Bravo (PEBGB) and Pilot Eastern Boarding Ground Charlie (PEBGC).

He notes that technology and the issuance of more regulations has been a boon to maritime safety in the century since the Titanic era, which saw one in every 100 ships lost to collisions or grounding; that statistic is now one in 700. "Over the last eight years, collisions have dropped by 60 per cent, according to the Japan Transport Safety Board, and grounding incidents, by 70 per cent. Environmental pollution has also seen a sharp downward trend after the introduction of the International Safety Management Code and Guidelines by the International Maritime Organization in the 1990s."



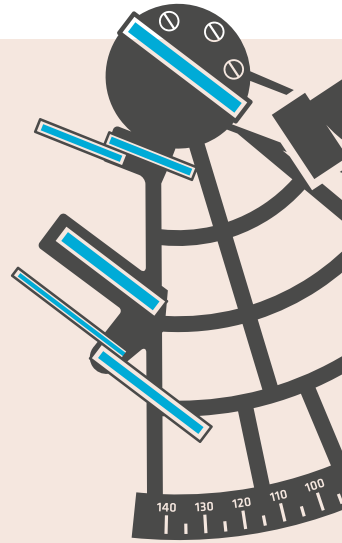
Captain Yves Vandeborn, Director of Loss Prevention at The Standard Club, however, notes that while there has been a worldwide decline in major incidents, the severity of individual incidents has increased. "Some would attribute the decline of incidents to higher-quality ship managers. Others would say that the economic downturn and higher number of laid-up ships mean that there are less major incidents. We believe it to be a combination of these factors and that more can still be done to further reduce regrettable incidents."

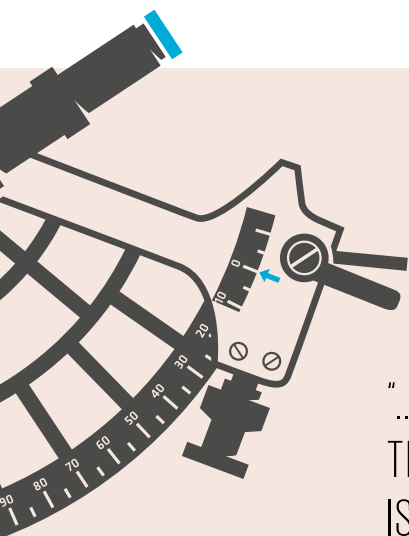
He emphasises that the key to ensuring safety at sea lies with adequate crew training. "Seafarers may be considered competent by the flag state upon receiving their Certificates of Competence, but they are not experts yet and require a long period of on-the-job training. Ship crews should build up resilience in various scenarios so that they feel confident to tackle the challenges they will encounter."

"It is no secret that most accidents are due to the human factor, as a result of mistakes or a series of small errors brought about by fatigue, stress or miscommunication between crew members," says Capt Vatsa. "The way to minimise these risks is with proper crew training, so that each seafarer is aware of his role on board, and can carry out his duties competently and safely."

One of the challenges, notes Capt Garg, is that the transient nature of the marine workforce can lead to a lack of a sense of belonging and ownership. This lack of continuity can impact the safety culture, which is why BW makes it a point to maintain a crew with seniority and experience, such as a Master and a Chief Engineer, on its vessels.

Capt Vandeborn adds that "it is rare for mechanical failure to be the cause of an incident. In most cases, the root cause is a human error, which is why we recently published *Being Human in Safety-critical Organisations*, which explains in





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CAPTAIN ATUL VATSA

detail how root-cause investigations should go further than merely pointing out human errors. It explains in great detail how humans make decisions and how to reduce the factors that lead to such errors.”

All three experts also caution against the over-reliance on technology. “Although electronic charts are wonderful aids, they should not be used to the exclusion of all other methods of navigation,” says Capt Vatsa. “Simply keeping watch to check for likely obstructions in the sea or other approaching vessels should not be underestimated.”

Capt Vandeborn adds, “In general, with navigational incidents, there is an over-reliance on a single electronic means of navigation. It is easy to think that because a computer tells you where you are, it must be correct, and we do not verify or cross-check with another means of navigation.

“We regularly find navigators discussing manoeuvres over very-high-frequency (VHF) radio communication, often in contradiction to the International Regulations for Preventing Collisions at Sea (COLREGs). It cannot be emphasised sufficiently that VHF should not be used as a tool

to avoid collisions. For example, it is much easier to determine whether or not there is a risk of collision by visually checking through a window and observing the relative bearing of a ship. We will always emphasise at our seminars the importance of cross-checking multiple means of navigation and simply looking out the window.”

Nevertheless, the trio notes that technology can be a great tool for communications and training, especially in the Internet age – even through social media channels such as WhatsApp, Facebook at Work, and YouTube.

“These are popular with the younger generation,” says Capt Garg, “and information shared on these platforms is quickly absorbed, which makes learning from incidents easier. We create videos and animations about noteworthy incidents and use them for educational purposes.”

“We use downloadable video clips on YouTube to spread our loss-prevention messages to our members and seafarers,” adds Capt Vandeborn. “There is also a real and increasing threat from cyber hacking, perhaps not yet to the extent that a ship’s navigation systems can be taken over, but certainly in ways that can pose a serious risk to the ship. We have produced a video that explains the most common means of cyber hacking, from phishing e-mails to the sharing of sensitive data on social media and the danger of plugging personal devices into sensitive equipment. We highly recommend that everyone watch the six-minute clip to be aware of the risks involved.”

