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Challenging the Cultural Status Quo



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Welcome to the second edition of Superyacht FEEDBACK. Judging by your comments and reaction to the first edition, you share our passion for addressing safety issues and promoting a proactive learning culture amongst your crewmates.

And did you spot the safety issue apparent in the main photo on the front page? Well done if you spotted that only one of the crew members working 'at height' cleaning the superstructure was wearing a safety harness. We will cover working at height in a future issue, because in this edition we want to talk about challenging the cultural status quo – specifically, challenging the safety culture.

In a sector that focuses on meeting the needs and wants of its guests, where reputation is

paramount and saying 'no' is difficult because of implicit 'authority gradients', how do we ensure that safety is not compromised?

This question appears in most of the reports in this edition, and the answer is to empower the team to constructively challenge – and more importantly, to be listened to – when safety is at risk. Whether it's challenging the master about speed of entry towards a crowded anchorage, or challenging your own assumptions about the safety of taking a 'short cut' to get the task done more quickly, developing a culture of 'constructive challenge' without fear of reprisal is not just essential – it's a life-saver.

Saying 'no' is difficult because of implicit 'authority gradients', how do we ensure that safety is not compromised?

M2090

A shortcut they'll remember for a long time

Initial Report

The yacht was moored alongside. There was a very high tide, and the swimming platform was at the level of the quay. On deck, a cleaning crew were scrubbing the teak swimming platform with a 2-part acid solution.

The chef went ashore for some provisions but realised he had forgotten something, so returned to the yacht. As he jumped from the quayside to the swimming platform, he slipped on the wet deck and twisted his ankle before falling into the water. The chef quickly recovered but had to take ten days off to allow his ankle to heal.

CHIRP Comment

Psychologically the chef would have felt inconvenienced in returning to the ship, so took a short-cut by stepping from the quayside to the swimming platform instead of using the gangway, which was longer, causing the injury. The chef's haste and focus on collecting the forgotten item were both distractions, and he either did not notice that the deck was wet or did not pause to consider that this could make it slippery to walk on.

Although the reporter does not say which side of the vessel the chef fell in from, unless they had slid the entire breadth of the vessel, they likely fell between the yacht and the quayside, where they could have suffered severe impact injuries or even crushing.

The superyacht industry is very focused on image and dislikes having areas of the yachts roped off while the teak decks are treated; as the stanchions are removed while the decks are treated, it is anyway often not possible to rope areas off. The gangway should always be the only safe means of access to and from a yacht.

The chef was unaware that the work was taking place. This should have been briefed to all the officers and crew at the daily work planning meeting.

Factors identified in this report

Time pressure: It is easy to put yourself under time pressure to meet an artificial target, but this also increases your risk of an accident.

Local practices: Jumping from the quayside is a bad habit and is fraught with risks due to the movement of the yacht, which can be unexpected. Don't do it!

Alerting: A morning meeting where the work activities are communicated to all officers and crew would have alerted the chef that the swimming platform area was not to be used. A warning sign should also be considered.

Distraction/Situational awareness: Be aware of your surroundings – even when in a hurry!



Take 5 before you start

- Practice scanning the environment and identifying things that may hurt you.
- Look for and recognise trip hazards, obstacles and other hazards.
- Now that the hazard has been registered in your mind, it is easy to control and avoid it.
- Continue scanning while performing a task; be aware of anything changing around you.
- If you find yourself drifting into "autopilot" STOP and take a look around you, refocus and continue to work.

M2091

Near miss approaching port

Initial report

Our reporter said, "I was woken up by my second officer, who had just anchored and finished his watch. He was distressed. He had the last navigation watch for arrival at around 0200, so as usual, the captain came to the bridge before arrival and then took over while the 2/O and lookout went to drop the anchor.

In this case, a guest and a bodyguard arrived on the bridge just after the captain, who became distracted during the handover due to the presence of the guest who stood at the helm.

The captain did not realise how close they were to the bay. The second officer realised that the boat was entering the bay too quickly but didn't feel he could warn the captain who was talking to the guest. He eventually warned him as the boat entered the bay at 14 knots, narrowly missed several anchored sailing boats and going aground."

CHIRP Comment

No matter how confident they might ordinarily be, many seafarers can find it challenging to speak up about an issue to someone senior. This is called the 'authority gradient' – the real or perceived difference in rank, experience, or social or cultural hierarchy. Pointing out an error is especially difficult in front of an 'audience', particularly if they are also perceived as 'senior' to ourselves.

Masters and senior officers can reduce the authority gradient by encouraging their team members to speak up – and praising them for doing so, even when the concerns are unfounded. The 2/O's distress suggests that the captain and the company had not fostered a culture of challenge and response on board. Developing a 'constructive challenge' mindset within the team has additional benefits, too: crew members become more confident, teams work more cohesively, problems identified earlier, and solutions are developed more creatively.

CHIRP and the advisory board members recommend that when guests board the vessel, they are informed during their safety briefing and familiarisation tour that during high-risk navigational phases of any passage, they should refrain from coming to the bridge or engine room. The master, who had arrived on the bridge with a guest, was distracted and not engaged with the navigation, including traffic and other hazards.

Clear communications are required concerning taking over the conn, and this was not evident. This indecision left nobody taking responsibility for the vessel's navigation, which fortuitously narrowly avoided collision and grounding. For the 2nd officer to be asked to leave the bridge to prepare the anchor long before it was required was bad practice. Another crew member could assist the lookout in preparing the anchor, and the officer attends to the anchor when the vessel has reached the anchorage position.

A very effective navigation risk control measure which would have reduced the vessel's speed as the vessel approaches the entrance to a port, anchorage,

berth or rendezvous point, is to annotate the passage plan with desired speeds so that the speed of the vessel is commensurate to the risks and allows the vessel to be stopped in a controlled manner.

Factors identified in this report

Communication: The actual or perceived 'gap' between the reporter and the captain could have led to a severe incident – collisions at 14 knots are likely to result in serious personal injury and significant hull, equipment or pollution damage.

Distractions: the master should make it clear to guests that during any port approaches or high-risk navigational areas, no guests should be on the bridge to maintain focus on safe navigation. This is in everyone's interest.

Culture: The 2/O distress suggests that the safety culture on board needed improvement. The master should set an example and highlight this incident as a start to change the safety culture on board and in the company. The company needs to be proactive here and support the master.

M2093

Near miss due to distractions

Initial Report

Three deck crew on a superyacht tender were engaged in taking guests for a swim at sunset off some Caribbean islands.

The average depth was 2-5 metres, and you get a lot of shifting sands. The helmsperson was looking back, talking to guests whilst drifting, with one guest standing on the stern looking into the water.

One crew member noticed the echo sounder at a shallow depth, almost touching and immediately told the helmsperson, who reacted quickly by accelerating away. The guest fell backwards into the water with a near miss to the props! Fortunately, no one was hurt, but it could have ended badly. It is unclear if prop guards were fitted.

CHIRP Comment

In taking immediate action to avoid grounding the vessel, the helmsperson did not assess (forgot?) to warn the guests that the tender would manoeuvre violently. The reporter did not state whether the helm checked that no one was in the water before coming astern, but this is an essential 'must do' every time – even in an emergency.

The helmsperson was distracted because they were talking to guests (a topic raised at the previous SYAB in report M1969). There is a natural tension between needing to concentrate on navigational safety and 'keeping your head out of the boat' and simultaneously being friendly and attentive to passengers and guests who do not appreciate the consequences of distracting the helm from their primary task. Good people skills are required to make the safety case with the passengers who may not always appreciate what you are trying to do.

Factors identified in this report

Safety culture: A proactive safety culture would have empowered the helmsperson to remind the guests that they needed to focus on safety. Is this the case on your vessel?

Distraction: Guests and passengers should be reminded as they embark not to distract the crew; this should be part of the safety culture on board.

Local practices: In general, vessels should go to anchor and turn off their means of propulsion before allowing anyone to enter the water. If this is not possible, then a prop guard should be fitted.

M2092

Near miss during lifting of a tender

Initial Report

While lifting a 9m tender into the garage, the forward lifting point gave way. Luckily, at this point, the tender was over the chocks and dropped about 30cm into position, causing only minor damage. A crew member was inside the tender but was not injured.

Lifting points were tested annually and visually inspected regularly, but due to the design, the underside of the lifting point was inaccessible, and any corrosion was not visible.

The lifting point was rebuilt and strengthened, and an inspection hatch was made. The vessel's SOPs were amended, so that crew members attach the crane hooks to the lifting points, exit the tender before it is lifted, and only enter the tender once in the water.

CHIRP Comment

The report is positive: many safety improvements were made, and the vessel is to be commended for its positive safety culture. The equipment's design hampered the inspection of the underside of the lifting equipment. Often, we dissuade ourselves from raising safety reports on poorly designed or installed equipment in the belief that they are 'too big to change' or 'it must be right – it was built that way'. But even naval architects sometimes get it wrong, and if it had been reported, it could have been rectified when next in refit. Do not be afraid to report and record concerns about design deficiencies. Organisational safety management systems operate on a cycle of continuous improvements, and ship designers will be only too glad to receive feedback so that improvements can be made.

Useful references that detail the examination and inspection regimes for lifting equipment include the UK MCA's MGN 332(M+F) Amendment 1 and the Cayman Island's Shipping Notice 04/2021. Additionally, UK MGN 560(M) sets out the SOLAS III/36 requirements for launching appliances; these must be adhered to if the tender is also classified as a lifeboat or rescue boat. Accompanying an inspector during a thorough examination is a good learning opportunity: watch what they check for and ask questions.



Factors identified in this report

Safety Culture: The swift rectification of these defects indicates a positive safety culture on board. On this vessel, the crew can be confident that their safety concerns will be listened to.

Alerting: If you see something wrong – speak up. Just because it was built that way does not mean it is correct!

Design: Readers are encouraged to be constantly vigilant to poor design and to feed this back to designers and architects who often do not have to work with the equipment they develop.

M2110

Lithium-ion Battery Fire

Initial Report

During recreational activities for the passengers, one E-foil jet ski stopped due to the battery running low while in use. It was decided to take the E-foil back to the yacht to replace the battery with a fully charged one.

The run-down battery was taken out and placed on the deck in the beach club and replaced with a fully charged one. 30 secs later, the used battery which had not been plugged in to commence charging, started smoking, and 3 secs later erupted into flames. The fire was extinguished in minutes using the installed hi-fog system and a fixed fire hose. The hi-fog automatically went off when two fire detector heads went into alarm.

A team wearing breathing apparatus went in after the flames were extinguished to retrieve the battery and ventilate the space before it was deemed safe to enter.

CHIRP Comment

The team handling the change of battery were very observant and acted swiftly to control the fire in its early stages, and the vessel should be praised for installing a hi-fog system and a fixed fire hose system as well as the response by the BA team. Clearly, there is a very good safety culture on board reinforced by good training of the members.

The leisure industry is using many more items of equipment that use lithium-ion batteries, so it is incumbent on all of us to better understand the hazards associated with their use.

Their unpredictable nature is a real cause for concern. CHIRP would like to understand in more detail why these batteries can be prone to spontaneous ignition and a thermal runaway reaction.

The thermal runaway occurs when the battery expels toxic gases, which ignite, rapidly increasing the temperature to a very high level.

It is thought that this can be brought about by the mechanical stress of the battery, heat stress or electrical stress, which can occur when overcharging the battery.

CHIRP feels that it is safe to say that good quality batteries which are properly looked after and taken out of service at the end of their life, should ensure that self-ignition is minimised or eliminated. CHIRP would welcome more reports on incidents involving lithium-ion battery fires.

Factors identified in this report

Culture: Excellent safety culture demonstrated by the boat crew – Does your organization have the same standards of equipment, training and response?

Local Practices: How thoroughly do you look at the procurement of batteries used to power your sports equipment? Do you have procedures for charging and disposal of the batteries?

Alerting: Are your members alerted to the potential hazards of lithium-ion battery incidents? Do you have a suitable training programme in place to mitigate the risks of a fire?



M2089

Tender capsize when towing inflatable places 4 in lethal danger

Initial report

A superyacht tender crewed by a driver and a spotter was towing two guests on an inflatable tow.

As a ferry passed close by the tender, its wake caused both guests to be thrown off the inflatable. The spotter informed the driver, who turned the tender, but a combination of the fast turn and the ferry's wake caused the tender to flip over. Neither the driver nor the spotter was wearing lifejackets, and the driver was not using a kill cord. Both crew members were thrown clear of the tender.

The driver noticed that the outboard engines were still running and dived under the upturned hull to turn them off. Fuel had leaked, and the area under the hull contained strong petrol fumes, which nearly caused the driver to lose consciousness. The driver also considered the situation a fire risk, isolated the batteries and turned off the engines before escaping from the upturned hull. However, the spotter, who had since gathered the guests onto the inflatable, had to assist the driver, who was struggling due to inhalation of toxic fumes.

The crew members then tried to right the tender but could not do so. They were not carrying any communications equipment, so they could not raise the parent vessel's attention until another vessel passed by

(about fifteen minutes after the accident) and radioed the parent vessel.

Unfamiliarity with the equipment onboard meant that it took a further fifteen minutes for the parent vessel to launch a second tender to come to their aid, by which time the guests and crew members had been in the water for thirty minutes.

The guests, crew and tender were recovered to the vessel, where the guests were treated for shock. No further medical assistance was required.

CHIRP Comment

This troubling report raises several 'red flags' about the poor safety culture on board this superyacht. Guests may not be aware of or appreciate the potential dangers of towed inflatables – but the crew should have been, and they should have led by example and worn their lifejackets, used the kill cord, and carried an emergency means of attracting attention. Some kill cords are designed to act as an interlock, so the boat will not start until the kill cord is fitted. *Readers may remember the 'Padstow' incident, where several people were killed or received life-changing injuries by being run over by their own boat.*

The crew must also be aware of their operational limits. Ferries typically follow a set route, so the tender likely passed close to the ferry rather than the other way around, as reported. A ferry operating at speed will produce a large wake and, if not anticipated, can cause towed sports equipment to capsize. The tender must have a spotter to provide adequate warning to mitigate the risks of large wakes and other nearby craft and floating objects.

CHIRP strongly recommends that guests wear a buoyancy aid. Despite some resistance to doing so, if a proper explanation that they are essential safety aids is provided to the guests, then it will be more likely that they will be worn – including with the crotch straps properly in place.

Once the boat had turned over, diving under the hull was also questionable because of the risk of becoming snagged on equipment and drowning. Most engines are gravity fed, and just left alone, the engine would have run out of fuel and stopped very quickly.

All fuel lost in an incident has an impact on the environment. The amount lost will be relatively small and will evaporate. However, the loss must be reported.

Factors identified in this report

Overconfidence/Complacency: Not using a kill cord or wearing a lifejacket demonstrates overconfidence – expect the unexpected. CHIRP believes that this should be a mandated requirement within your Safety Management System!

Communication: When operating at range out of sight of the superyacht, it is helpful to have a pre-arranged check-in periodicity, e.g., every 20-30 minutes. That way, if you cannot be reached, the parent vessel is alerted to a potential problem. Carrying a means of attracting attention must be a part of every tenders emergency response kit.

Situational awareness: Know where other vessels operate and how their movement or wake will affect your vessel or any towed inflatable. Be ready to move violently when encountering the wake or anticipate that riders might fall off the inflatable.

Yacht crew can contact the International Seafarers' Welfare and Assistance Network (ISWAN) via WhatsApp (+44 (0)7514 500153) for 24-hour help and support for issues such as bullying and harassment, unpaid wages, and mental health support. See www.seafarerswelfare.org

Guests may not be aware of or appreciate the potential dangers of towed inflatables – but the crew should have been, and they should have led by example

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