



► **LOSS PREVENTION**

Learning from Passenger  
Vessel Incidents



**SHIPOWNERS**

SECURITY FOR SMALL & SPECIALIST VESSELS

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The information and recommendations in this booklet are given in good faith and are meant to highlight best practices, good seamanship and common sense to reduce incidents that result in related claims. However, Members must take into consideration the guidance and regulatory requirements given by flag states and other governing authorities when formulating policy in line with the contents of this publication.

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# Chapter 1

## Introduction

Since 2004, when the Club produced the second edition of the *Passenger Claims* booklet, the number of passenger-related incidents has remained constant.

To assist Members in addressing the issues related to this type of incident, the booklet has been updated taking into account the Club's recent claims. The aim is to help Members reduce risk by highlighting current concerns and best practice. Although this document focuses on passenger vessels some of the information may be practical and appropriate for yachts and other vessel types which carry passengers.

It is a worldwide trend that claims are becoming more litigious, encouraged in many areas by the local legal system. As a direct result vessel operators have little choice but to pay more attention to issues of safety and ensure they have systems in place to try and mitigate claims.

Passenger vessels, by the very nature of their business, have many people on board, some of whom may be unfamiliar with the marine environment and vessel surroundings. It is therefore important that owners and operators of vessels carrying passengers develop and implement proper procedures covering all categories of passenger exposure. This will help to minimise the risk of injury and train their staff in dealing with the consequences of an accident occurring on board.

Being proactive and preventing potential claims is always far better than dealing with the aftermath and consequences. With approximately 58% of claims arising as a result of a slip or fall on board, and many of these cases due to the passenger being unfamiliar with the ship's motion, the importance of guiding passengers appropriately is reiterated.

Unfortunately, no matter what the circumstances of the events, a claimant's lawyer will almost always allege that the occurrence was the fault of the operator and will try to find evidence of perceived negligence, such as water on the deck and/or apparent poor lighting.

## Chapter 2

# ▶ Operational Factors

### **Your Vessel**

The Club is aware that many owners carry out frequent visits to their vessels. However, it is appreciated that it is difficult to view these vessels objectively when assessing from a risk prevention outlook to identify new hazards. When visiting a vessel it is recommended that the person involved attempts to view the vessel afresh and from a passenger's perspective. It is important to remember that passengers may not be familiar with the on board environment, and therefore what is considered obvious to a mariner may pose a hazard to a passenger.

Captains, as part of their daily routine, should be encouraged to conduct inspections of passenger areas. If feasible, it is suggested that Captains review each other's vessels within the fleet to gain a fresh perspective. Please see Annex 1 for a suggested audit form. The Club has suffered one claim where a passenger on board a Member's vessel sustained a fracture behind their knee when they encountered an uncovered hawse pipe while moving around the vessel. The cost of the claim was in excess of US\$ 330,000. The open hawse pipe had not been identified as a potential risk by the classification society and crew during recent inspections. Full details of this case is in Annex 2, Case Study 1.

The Club continues to experience a high number of passenger claims, many of these resulting in a slip, trip or fall. Simple measures, such as ensuring that all decks, stairways, toilet floors, gangways and other surfaces on which passengers tread have non-slip surfaces, even when wet, can effectively assist in the prevention of slip claims. When examining these areas it is important to remember that many people may come on board wearing footwear considered unsuitable (such as flip-flops) however, due to the nature of the operation, this is to be expected.

Tripping hazards have also been identified as a frequent cause of claims and over a two-year period the Club has paid US\$ 3,688,052 as a result. Areas that have been most hazardous in this respect are the tops and bottoms of stairways, door sills or abrupt changes in deck level. One of the most effective methods of dealing with these hazards, in the Club's experience, is to use colour to emphasise the change in level.



Large and strategically located warning notices also help in preventing accidents of this nature. However, it is important not to over-clutter an area with signs as this may confuse and prevent passengers from understanding the safety message.

The Club has seen incidents where the information posters have become so numerous that it has the adverse affect of informing passengers and leads to a muddled and confusing display.

## **The Operation and Passenger Care**

Good risk management requires operators to try and anticipate passenger behaviour. If the causes of potential claims can be identified, they can be addressed with an aim to prevent the incident from happening in the first place or controlled to reduce the likelihood of an incident arising.

Passengers board vessels for various reasons including commuting to work, sightseeing, embarking on a cruise or to carry out leisure activities such as fishing or snorkelling. Each of these activities has its own risks associated with it; from the commuter who is late and leaps on to the quay before the gangway is down, to the tourist boarding a vessel in flip-flops and tripping over part of the ship's structure. Passengers also may range in their physical ability and therefore company procedures must be in place to help a vessel's crew to handle such circumstances.

In this section we look at some potential risks and safety procedures to be implemented during various stages of the passenger journey.

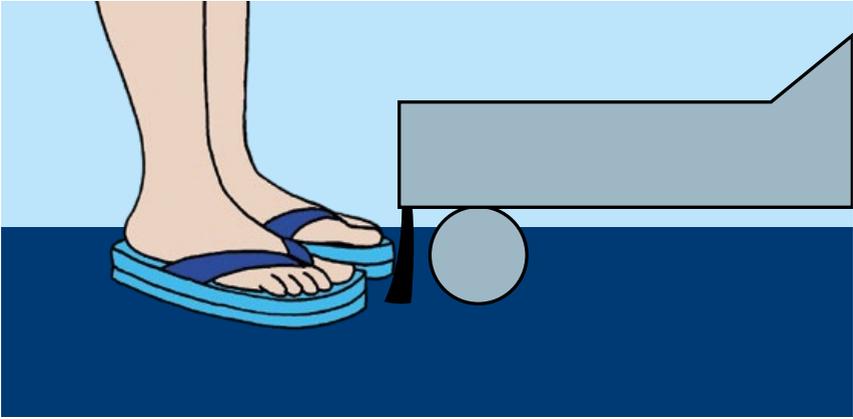
### *On arrival*

When embarking or disembarking a vessel, passengers need to be guided by the crew as they may be unfamiliar with this procedure.

Crew members who are aiding passengers should be attentive, offer guidance and give a helping hand. They should not be distracted by other tasks, conversations or use their mobile phones.

One common cause of personal injury incidents that the Club has been exposed to is when the gangway between the ship and shore has surged on the quayside due to the prevailing waves or a third party vessel's wash as it passes by. This risk is highlighted in Annex 2, Case Study 2.

To mitigate the re-occurrence of such incidents, one suggested measure is the fitting of brushes/rubber to the bottom edge on the gangway. This attachment would allow the passenger to notice the possible movement by touch on their feet before any injury is sustained, such as that shown in the following image.



### *On board*

Once passengers are on board, a safety announcement must be made prior to departure.

This announcement should contain important safety messages and any exceptional conditions expected to be encountered. Annex 3 contains suggestions for the minimum requirements for the initial safety announcement. Announcements should also be made to inform passengers of any changes in circumstances during the course of the voyage, such as a worsening of weather conditions.

Passenger safety cards and posters should also be exhibited throughout the passenger areas and put in seat pockets if possible.

These should reiterate:

1. The operator's safety procedures.
2. The location of emergency exits.
3. Location of safety equipment and how to operate it.

The Club has issued its own passenger safety poster which is available on the website and in hard copy on request. It can also be found in Annex 4 of this booklet.

### *Moving around a vessel*

When passengers transit between areas they are more prone to suffering an incident especially in adverse weather conditions. The Club has been notified of several cases as detailed below.

#### Change in light intensity

##### **Incident issue**

A passenger fell off a pontoon when moving from an illuminated gangway to the quayside due to the change in light intensity. This incident occurred during the night; however, a similar situation can easily develop during the day, especially when passengers who are wearing sunglasses move from a bright, sunny open deck into a dimly lit accommodation space. The combination of the change in light intensity, sunglasses and the eye's reaction time can often result in temporary blindness.



Conversely, bright sunlight and white paintwork can dazzle a passenger emerging from a dimly lit interior.

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##### **Mitigation measures**

These problems can be addressed to some extent by utilising high intensity lighting near accommodation entrances to avoid a variation in lighting intensity. The exception to this rule is access points which should be suitably lit to highlight any perceived risk.

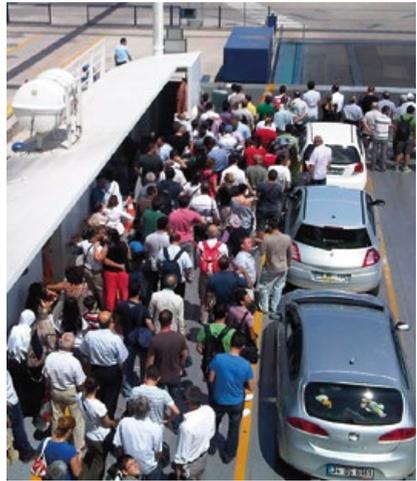
When taking proactive steps to try and prevent related incidents it is advisable to ensure that this danger is made clear to the passengers by displaying warnings.

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## Overcrowding

### **Incident issue**

Passengers find many aspects of the ship's operation extremely interesting and, if allowed, tend to crowd around any activity. We have seen many incidents where passengers have been allowed to get too close to mooring ropes and other potentially hazardous operations.



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### **Mitigation measures**

It is essential that passengers are kept at a safe distance from these activities. It is not enough simply to ask passengers to stand back. They may move back initially, but, as curiosity and the press of other passengers from behind increases, the crowd will inevitably creep forward into the danger area unless there is a physical barrier. Work areas must be cordoned off with a gate, rope or chain. Again, the instruction to remain distant from such crew-related activities should be included in on-board announcements.

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## Restricted areas

### Incident issue

Humans are naturally inquisitive and if an area is accessible a passenger is sure to enter, even if signs are in place to show this is not permitted.



### Mitigation measures

It is therefore imperative to ensure that restricted areas are locked and access only given to official employees with the appropriate access clearance.

## Spillage of hot drinks

### Incident issue

Another common claim that occurs on passenger vessels concerns burns to arms, hands and legs due to the spillage of hot beverages served on board.

### Mitigation measures

All operators that sell hot beverages should carry out a risk assessment to ensure that adequate preventative systems are in place. These are as simple as providing lids on containers holding the hot beverages when given to the customer, placing the condiments section close by and with ample surface for passengers to utilise and/or slightly lowering the temperature of the beverage.

## Alcohol consumption

### **Incident issue**

Excessive alcohol consumption can cause those under the influence to make decisions which are unsafe to themselves or those around them, such as deciding to jump from the side of a vessel, see Annex 2, Case Study 3.

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### **Mitigation measures**

Crew members should monitor passengers, follow Company procedures and report any unruly behaviour to the Captain immediately.

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## Automatic doors

### **Incident issue**

Weather deck doors fitted with powerful automatic spring closers can be a problem as the Club has seen passengers often lose their balance while trying to operate them. As these are exterior accesses they will have high door sills which often pose a problem to passengers who may trip over them. There is also a danger of children getting their fingers trapped in the door frame. In one case a young boy followed his dad through an automatically closing door and placed his hand on the hinge as he paused in the doorway. This resulted in the door closing on his hand which became badly bruised.

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### **Mitigation measures**

The danger of children getting their fingers trapped in the door frame of a closing door can be reduced by the fitting of protection devices. Additionally, an announcement that children should always be supervised by an adult should be made.

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## Heavy weather

### **Incident issue**

Passenger behaviour in heavy weather is a frequent source of accidents. Some passengers find the windy conditions exhilarating and we have seen a number of cases where passengers have been injured as a result of being on exposed weather decks, particularly the bow, in bad weather. The risk of accidents also increases within the accommodation when the weather deteriorates.

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### **Mitigation measures**

Crew should be alert to the associated dangers and should take steps to warn passengers of the risks as per the on-board procedures ensuring a general announcement is made on the vessel. If conditions deteriorate causing a significant hazard, the crew should not hesitate in restricting access to exposed areas.

Within the accommodation passengers should be advised to remain seated and discouraged from moving around unnecessarily. Consideration should also be given to restricting catering services to cold food and beverages if the vessel's motion becomes particularly violent.

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## Disembarking

### **Incident issue**

We have seen a number of cases where passengers, in a hurry to disembark, have crowded on the stairs while the vessel is docking. A slight error in the berthing manoeuvre has resulted in a jolt which has caused passengers on the stairs to lose their balance and lurch forward resulting in injuries.

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### **Mitigation measures**

It is imperative that instructions for passengers to remain seated until the vessel is alongside the dock are included in the pre-arrival announcement. This should be made at an appropriate time before berthing to ensure it has the best effect.

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It is important when setting procedures that consideration is given to all passengers, including those of reduced mobility and of differing ages; one example is the replacement of rails with closed in bulwarks for vessels carrying children, so as to avoid them climbing between bars.

All handrails must be adequate to aid those who may require extra assistance to manoeuvre around the vessel. It is particularly important that handrails extend sufficiently beyond the stairs to allow passengers to get both feet onto the level deck at both the top and the bottom of the stairwell without having to let go of the rail. Where possible stairways should be designed or subdivided to allow passengers to hold on to handrails on both sides while ascending or descending the stairway.

#### *In the event of an accident*

In all events it is important that crew members should be easily identifiable so as to avoid any confusion, especially in emergency situations. When an accident occurs it is important that the situation is handled with sympathy, empathy and efficiently while not admitting any liability/fault. Evidence should also be collected. If Members would like further information on what should be collated please do not hesitate to contact the Club.

### *Drills*

To best aid our Members in efficient incident management their crew must be fully appraised with on-board procedures and company requirements to handle/report an incident. This can be achieved through familiarisation training and when undertaken this should be logged. Drills for crew should include different case scenarios such as:

- trip and falls
- man overboard
- lost children
- crowd control
- trapped fingers
- burns from hot drinks
- fire
- damage to third party possessions
- abandon ship/evacuation.

All crew should be instructed to take immediate corrective action if unsafe practices are observed during drills. Measures should be taken to stop the drill immediately and a report made to both the vessel's and shore management. Safety forums that involve crew and shore staff should be held regularly so that safety ideas and observations can be exchanged, considered and shared among the fleet.

Once crew training has initially been held it is important to ensure that high standards are maintained on board the vessel at all times in between refresher training.

Since 2004, as stated at the beginning of this publication, we have seen passenger-related incidents remain constant. As a Club we are continually learning from new incidents and occurrences. This helps us to provide Members with proactive measures by highlighting pertinent lessons and best practices to avoid similar incidents. We hope this publication aids our Members to further mitigate against the risk of passenger incidents.

## Annex 1

# ▶ Passenger Vessel On board Audit Check List

	Yes	No
1. Are notices and safety signs posted and legible?	<input type="checkbox"/>	<input type="checkbox"/>
2. Are escape routes indicated and clear of obstructions?	<input type="checkbox"/>	<input type="checkbox"/>
3. Is safety equipment in place and operational (in particular lifebuoys and other easily moveable items)?	<input type="checkbox"/>	<input type="checkbox"/>
4. Are door closures fully operational?	<input type="checkbox"/>	<input type="checkbox"/>
5. Are steps, walkway obstacles and changes of height clearly identified?	<input type="checkbox"/>	<input type="checkbox"/>
6. Are passenger areas clear of obstructions along with tripping or slipping hazards?	<input type="checkbox"/>	<input type="checkbox"/>
7. Are gangways and other boarding arrangements in good condition and associated lighting operational?	<input type="checkbox"/>	<input type="checkbox"/>
8. Is access to vessel correctly rigged (e.g. gangway nets, lifebuoy) and manned during use?	<input type="checkbox"/>	<input type="checkbox"/>
9. Are non-slip materials on walkways effective?	<input type="checkbox"/>	<input type="checkbox"/>
10. Are 'no-go' areas cordoned off/locked & warning notices in place?	<input type="checkbox"/>	<input type="checkbox"/>
11. Is external passenger area lighting adequate?	<input type="checkbox"/>	<input type="checkbox"/>
12. Confirm safety announcements made and recorded in the log book	<input type="checkbox"/>	<input type="checkbox"/>
13. Is gallery clean and tidy (including gallery range exhaust filters)?	<input type="checkbox"/>	<input type="checkbox"/>
14. Are stairway handrails in place, non-slip and in good condition?	<input type="checkbox"/>	<input type="checkbox"/>
15. Is a passenger incident and accident book readily available and maintained?	<input type="checkbox"/>	<input type="checkbox"/>
16. Are officers and crew aware of Company requirements in the event of an incident or accident?	<input type="checkbox"/>	<input type="checkbox"/>

	<b>Yes</b>	<b>No</b>
17. Are instructions to the Master regarding action in the event of adverse weather available?	<input type="checkbox"/>	<input type="checkbox"/>
18. Are ship side rails/bulwards and gates in good condition (including associated stays, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>
19. Are hot drinks provided with lids?	<input type="checkbox"/>	<input type="checkbox"/>
20. Are there sufficient safety signs displayed around the vessel to inform passengers of pertinent safety information?	<input type="checkbox"/>	<input type="checkbox"/>
21. Are doors fitted with a step designed to have handrails adjacent to them to aid easy transit?	<input type="checkbox"/>	<input type="checkbox"/>
22. Are self-closing doors fitted with protection to avoid fingers becoming trapped by passengers passing through them?	<input type="checkbox"/>	<input type="checkbox"/>
23. Are procedures in place to stop passengers entering car decks when mezzanine decks/ramps are being operated?	<input type="checkbox"/>	<input type="checkbox"/>

## Annex 2

# ► Case Study 1 – Uncovered Hawse Pipe Leads to Expensive Passenger Trip

### The incident

The vessel in question is a Mississippi showboat steamer that carried out harbour cruises where passengers could enjoy meals and cabaret type entertainment. Passengers were actively encouraged to walk freely around the open decks, including the fore and aft decks, to enjoy the view as the cruise proceeded.



At approximately 9:15pm, one evening, it was brought to the attention of the ship's staff that one 57-year-old female passenger had sustained injuries to her leg after falling in the bow region of the vessel. Initially the injuries were not considered severe enough to land the passenger ashore immediately; in fact, she expressed a wish to watch the evening's entertainment on board. She was sent to the hospital by taxi once the vessel returned to the berth later that evening.

Initial medical opinion did not indicate any fractures to her leg, but specialists later discovered she had in fact suffered a fracture behind her knee.

### Observations

Situated in the bow area of the vessel was the anchor windlass and an associated hawse pipe which had not been provided with a cover (an oversight from the time the vessel was built), leaving it exposed. It is not clear whether the fall was caused by the passenger stepping into the open pipe or by catching her walking stick on it as she passed by. However, a contributing factor to this incident was the fact the opening was not covered or fenced off. Another factor was considered to be the inadequate lighting in the area with shadows masking the hazard.

People who are not familiar with a marine environment may not appreciate dangers that are readily apparent to a crew member. Bearing this in mind, all areas to which passengers are permitted access must be regularly assessed for potential hazards and suitable precautions taken to prevent accidents, even if this means limiting access to ship staff only.

### Root cause

Insufficient safety signs.

### Financial cost

The case was settled at US\$ 330,365.

## ▶ Case Study 2 – Passenger Injury on Access Ramp

### **The incident**

This incident arose on board a harbour ferry operating in smooth water. The harbour ferry was fitted with hydraulic ramps designed for the embarkation and disembarkation of passengers. The ramps had been lowered to enable passengers to board the vessel and having been positioned, hydraulics were 'locked'.



Shortly after passengers started to board, another vessel berthed in an adjacent wharf creating some wake. The combination of the wake and wave actions in the harbour caused the ferry to surge and roll. The movement resulted in the hydraulic ramp fitted to the ferry rising a few inches above the connecting hydraulic ramp fitted to the jetty. When the vessel rolled back a passenger's foot was trapped between the ramps.

### **Observations**

Surprisingly the claimant's lawyers did not argue that the ramp was unsafe because it did not hinge. Instead they concentrated on the fact that the wharf hand on duty had been preoccupied with tying up another vessel when the accident occurred and that the ramp was unattended. The claimant's lawyers alleged that had the crewman been at his place of duty he could have warned passengers of the danger and prevented them from boarding until it was safe to do so.

There were conflicting opinions about whether the presence of a company employee would have mitigated the risk of the incident. However, our lawyers advised that the simple fact the Member did not have an employee at the scene overseeing the boarding process would almost certainly have led the courts to the conclusion that our Member had not discharged their duty of care to the passenger. This illustrates the high standards that are expected from the operators of passenger vessels and the levels of care which they are expected to maintain.

### **Root cause**

Inadequate supervision.

### **Financial cost**

This claim was settled within the Member's deductible.

## ▶ Case Study 3 – One for the Water

### **The incident**

The Member's vessel was engaged on a wine and sightseeing tour. As the boat was leaving the jetty to return down river to her home berth, a passenger was seen to stand on the bow, step over the railings and jump into the water. The skipper was alerted and he immediately put the engines into neutral. Efforts were then made to manoeuvre the vessel to pick up the passenger. However, because of the configuration of the twin hulls the passenger went under the bow and between the hulls where she caught her legs in the propeller housing, causing the eventual amputation of both her feet.

### **Observations**

Lawyers acting for the passenger commenced proceedings alleging that she had fallen into the water as a result of insufficient guard railings and that her retrieval from the water was delayed for some 20 minutes while the Master negligently manoeuvred the vessel causing her injury. (It is important to note that the official investigation by the authorities exonerated the Master from any professional blame).

The Member asserted in defence that the passenger deliberately jumped into the water and was entirely responsible for her own injury. Witness evidence appeared to support the Member's position that the passenger jumped off the boat and also confirmed that she was apparently intoxicated at the time. Despite this evidence the Member bore the brunt of the responsibility of this incident despite the fact that it would appear the passenger acted of her own volition. This case proves that the courts hold the carrier liable in such circumstances. Members are responsible for ensuring that passengers are not permitted to board their vessel while under the apparent influence of alcohol or drugs, or to drink excessively while on board. If it is considered that the actions of passengers may put either themselves or others in danger, efforts must be made by the ship's crew to prevent such conduct getting out of hand. Prevention is better than cure!

### **Financial cost**

This claim was finally settled at US\$ 608,500

## ▶ Case Study 4 – Good Record Keeping would have Reduced Claim

### **The incident**

This accident happened to an elderly female passenger while disembarking from a tourist vessel operating off the west coast of Australia. As the passenger was disembarking she tripped with the result that she lost her balance and fell injuring her right knee on the jetty. The passenger claimed that the principal cause of the accident was inadequate lighting.

The first notice of a claim came in the form of a letter from a lawyer many months after the event. On investigation it was found that no contemporary records of the incident existed. The deck log could not be found, there was no accident report, nor was there an entry in the accident book. In addition, during the intervening period there had been staff changes, with the result that only one of the deck crew could be traced. From the evidence of this one witness we learnt that it was possible that the gangway was not in use at the time of this particular incident. Apparently it had been the practice of crew not to use the gangway if the state of the tide brought the deck of the vessel level with the jetty. In those circumstances the passengers were simply assisted across the narrow gap.

### **Observations**

The biggest problem the Club encountered in dealing with this case was simply a lack of information. In the words of the lawyers advising the Club 'in the light of... your Member's inability to refute the plaintiff's version of the events, we are of the opinion that you would probably be found liable.'

### **Root cause**

Inadequate access.

### **Financial cost**

The claim was finally settled for US\$ 13,000. However, Members should note that the costs incurred were mainly due to piecing together what had happened, which exceeded \$5,000.

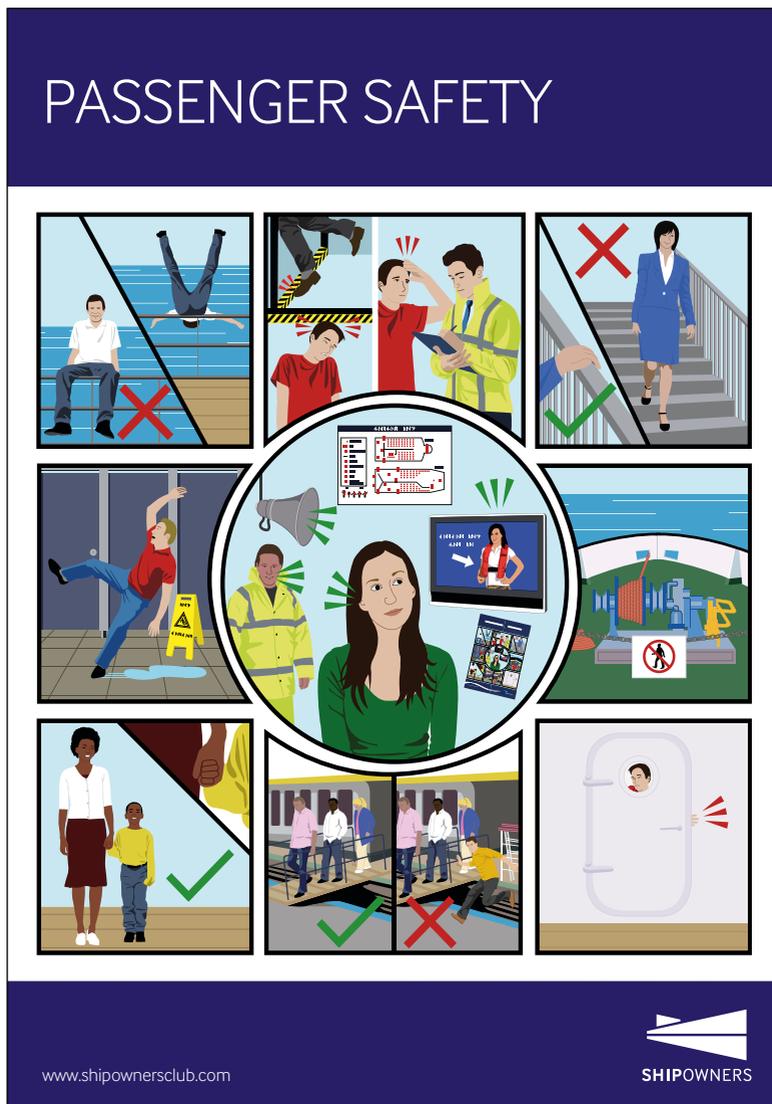
## Annex 3

# ► Suggested Contents of Safety Announcements

We would suggest that, as a minimum, the safety announcement should cover the following topics:

- Description of the emergency alarms and what to do upon hearing them.
- Location of life jackets – donning instructions – point out emergency exits if applicable – muster stations.
- Point out safety-related notices, safety cards and instructions as appropriate along with location of lifeboat/life rafts.
- Description of vessel – no-go areas (highlight dangers of entering them).
- Explain how to identify crew members.
- Emphasise the need to inform crew members when anything untoward is noticed or any accidents have taken place, no matter how small.
- Explain that care is to be taken when moving about vessel (rolling/pitching and obstacles, etc.).
- Highlight the necessity to constantly supervise young children.
- Detail smoking restrictions.
- Highlight the evident possibility and dangers of falling overboard.
- Advise on expected weather conditions.
- Detail any hazards that may be encountered with the particular cruise, e.g. heavy swells off headlands.
- Advise further announcements may be made if necessary, e.g. change of weather conditions.

# ▶ Passenger Safety Poster



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