Isle of Man
Ship Registry

2010
Summary Report of Casualties, Accidents and Incidents on Isle of Man Registered Vessels

Isle of Man Government
Department of Economic Development

Isle of Man Government
Reiltys Ellan Vannin

Published April 2011

Introduction

The Isle of Man Ship Registry (IOMSR) is committed to helping seafarers, managers, owners and operators concerned with all Manx vessels in achieving continued high standards of safety and pollution prevention.

Occasionally things go wrong. When they do the Master, Skipper or Operator is required by law to submit a report on what has occurred.

From these reports we can alert the shipping industry about areas and activities where any additional safety controls may be necessary and hopefully prevent similar occurrences from happening again.

We also aim to produce statistics based on report findings. Where any trends are identified we can also work with shipping companies and other organisations in an effort to reduce these occurrences on board Isle of Man vessels.

The reporting scheme is reliant upon Masters, Skippers or Operators reporting as accurately and in as timely a manner as possible. For submitting reports or if you have any questions then please contact us at either of the following:-

Isle of Man Ship Registry, Department of Economic Development,
St George's Court, Upper Church Street, Douglas, IM1 1EX, Isle of Man, British Isles

Tel +44 1624 688500
Fax +44 1624 688501
Email: marine.survey@gov.im
Website: www.iomshipregistry.com

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Front cover picture taken by an IOM Surveyor during an ISM Audit. Would you allow this as the safe means of access to your vessel?

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What is an Occurrence

Under the Regulations (MS Accident Reporting and Investigation - SD815/01) an 'occurrence' is either a **Casualty**, an **Accident** or an **Incident**. These are defined:-

Casualty

This means "any contingency which results in:-

(a) loss of life or major injury to any person on board, or the loss of any person from, a ship or a ship's boat;
(b) the loss or presumed loss of any ship or the abandonment of any ship or a ship suffers material damage;
(c) a ship goes aground, is disabled or is in collision;
(d) any loss of life or major injury, or serious harm to the environment, is caused by a ship;
(e) any major damage to the environment brought about by damage to a ship and caused by, or in connection with, the operation of the ship."

Accident

This means "any occurrence of the following type provided that it caused material damage to any ship or structure, or damage to the health of any person, or serious injury:-

(a) the fall of any person overboard;
(b) any fire or explosion resulting in material damage to a ship;
(c) the collapse or bursting of any pressure vessel, pipeline or valve or the accidental ignition of anything in a pipeline;
(d) the collapse or failure of any lifting equipment, access equipment, hatchcover, staging or bosun's chair or any associated load-bearing parts;
(e) the uncontrolled release or escape of any harmful substance or agent;
(f) any collapse of cargo, unintended movement of cargo sufficient to cause a list, or loss of cargo overboard;
(g) any snagging of fishing gear which results in the vessel heeling to a dangerous angle; or
(h) any contact by a person with loose asbestos fibre except when full protective clothing is worn."

Incident

This means "any occurrence, not being a casualty or an accident as a consequence of which the safety of a ship or any person is imperilled, or as a result of which material damage to any ship or structure or damage to the environment might be caused."

Incidents can also be referred to as 'Near Misses' or 'Near Accidents'. Vessel inspections by the IOMSR have shown that the type of incidents reported to technical managers range from 'minor incidents', eg a person forgetting to wear a safety helmet on deck, to 'major incidents', eg narrowly avoiding a swung load suspended from a lifting appliance. The IOMSR encourages the Master, Skipper or technical mangers to use their judgement in determining a 'minor incident' and a 'major incident'. All 'major incidents' should be reported to the IOMSR using the ARF Form. If there is any doubt then report to IOMSR.

Reporting Occurrences

Who has to Report

The Master, Skipper or Operator of any Manx Registered vessel wherever they may be.
The Master, Skipper or Operator of any foreign flagged vessel in Manx territorial waters.

A vessel means any description of watercraft ranging from Pleasure vessels, Fishing boats, Commercial Yachts, Passenger and Cargo vessels.

Occurrences on board ships in ports, with the exception of those involving stevedores or shore-based workers, are covered and must be reported. Occurrences involving shore-based workers should also be reported to the country's Health and Safety Department or equivalent body.

When to Report

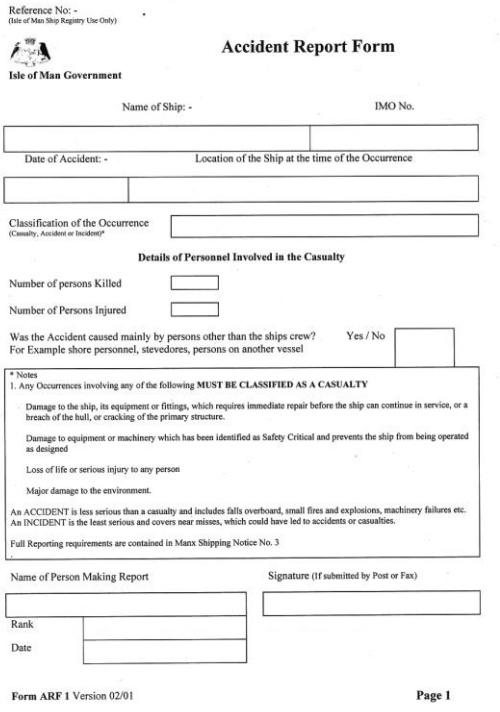
When a **CASUALTY** occurs the Master, Skipper or the operator must inform the IOMSR as soon as possible after becoming aware of the casualty and the Master or Skipper must send a report to the IOMSR as soon as is practicable by the quickest means available.

When any **ACCIDENT** occurs the Master, Skipper or the operator must inform the IOMSR as soon as is practicable and by the quickest means available. A report is required to be sent to the IOMSR no later than within 24 hours of the vessel's next arrival in port.

When an **INCIDENT** occurs the Master, Skipper or the operator must report the incident to the IOMSR before the vessel departs from the next port.

How to Report

Initial reports can be made directly by telephone, fax or email to the IOMSR. When the occurrence has been investigated on board the Master, Skipper or Operator should complete the Accident Report Form (ARF – see right) and forward it to the IOMSR by fax, email or mail. Any additional Report Forms used on board to document the occurrence may also be submitted to the IOMSR along with the completed ARF Form. It is recommended that a copy of the ARF is kept on board as a record.



Reference No: -
(Isle of Man Ship Registry Use Only)

Accident Report Form

Isle of Man Government

Name of Ship: - IMO No.

Date of Accident: - Location of the Ship at the time of the Occurrence

Classification of the Occurrence
(Casualty, Accident or Incident)*

Details of Personnel Involved in the Casualty

Number of persons Killed

Number of Persons Injured

Was the Accident caused mainly by persons other than the ships crew? Yes / No
For Example shore personnel, stevedores, persons on another vessel

* Notes
1. Any Occurrences involving any of the following **MUST BE CLASSIFIED AS A CASUALTY**

Damage to the ship, its equipment or fittings, which requires immediate repair before the ship can continue in service, or a breach of the hull, or cracking of the primary structure.

Damage to equipment or machinery which has been identified as Safety Critical and prevents the ship from being operated as designed

Loss of life or serious injury to any person

Major damage to the environment.

An ACCIDENT is less serious than a casualty and includes falls overboard, small fires and explosions, machinery failures etc.
An INCIDENT is the least serious and covers near misses, which could have led to accidents or casualties.

Full Reporting requirements are contained in Manx Shipping Notice No. 3

Name of Person Making Report Signature (If submitted by Post or Fax)

Rank

Date

Form ARF 1 Version 02/01 **Page 1**

Copies of the ARF Form are available on request from the IOMSR or available for download from the IOMSR website.

For vessels with an Official Log Book it is also recommended a brief statement is included in the narrative section.

When Reports are received the Department (IOM Department of Economic Development) decides whether or not an investigation is warranted. Not all Occurrences are investigated by the Department, this may be because:-

- It has been agreed that investigation is being conducted by another Investigation Authority; or

- The Shipboard Staff and/or Technical Managers have completed a thorough investigation and the underlying cause is clear.

Investigations are carried out in accordance with SOLAS Ch1 Reg 21 and using the guidance contained in IMO Resolutions A849(20) and A884(21). It is not the intention of these reports to apportion blame or economic liability.

The initial part of an investigation seeks to establish the causes and circumstances of what has happened, with a view to deciding whether or not any further investigation is warranted. This is called a 'preliminary examination'. When a preliminary examination is complete, the Department will decide if it is appropriate to conduct further investigation.

Where Occurrences are investigated a report is made. A provision is made for any person likely to be affected by a report to see the draft and comment on the facts and analysis therein before it is finalised. Sometimes due to the circumstances surrounding the investigation it is not always possible to publish the reports. Published reports are primarily for the benefit of all seafarers, managers and owners concerned with Manx vessels in the hope that lessons learnt may prevent similar occurrences from happening again. The names, addresses and any other details of anyone who has given evidence to an investigator are not disclosed unless a Court determines otherwise. Any reports published are available on the IOMSR website.

ISM Code Vessels
Where vessels comply with the International Safety Management (ISM) Code the Safety Management System (SMS) should include procedures for ensuring accidents and hazardous situations are reported to the Company (ISM9.1). The IOMSR will accept the vessel's reporting form in lieu of the ARF Form provided it contains at least all of the information contained on the ARF Form.

Where vessels have a Safety Officer on board as required by the Regulations (MS Safety Officials, General Duties & Protective Equipment - SD816/01) then the Safety Officer should be involved in the investigation on board. It is recommended that the SMS includes a procedure for reporting occurrences to IOMSR so there is no confusion.

Reports Published in 2010

None.
Historical reports can be found on the IOMSR website.

Investigations by IOMSR in 2010

Type of Vessel	**Nature of Casualty**
Offshore/Standby	Collision with Rig during manoeuvring in Heavy weather
Oil Tanker	Fatality and serious injuries when crew were exposed to toxic gas during tank cleaning/gas freeing operations
Bulk Carrier	Man overboard Fatality
Other Cargo Vessel	Fatality of a crew member following a mooring winch operation.

ARF Reports Received

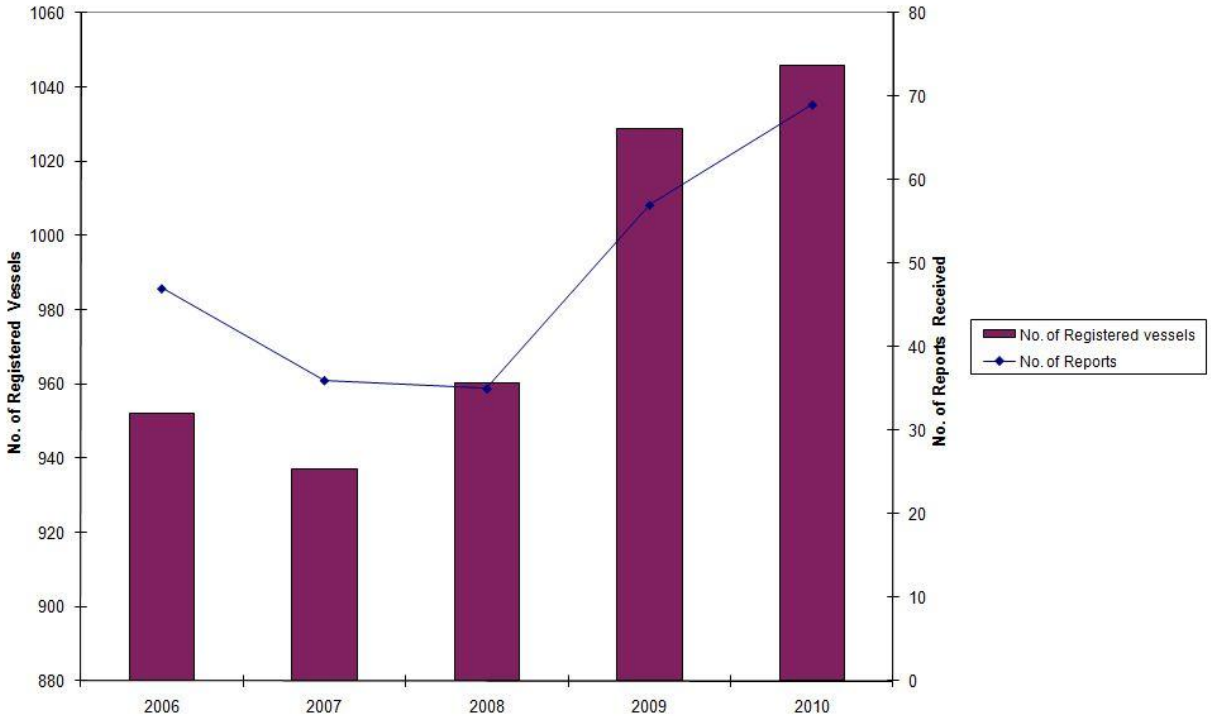
In 2010 the IOMSR received a total of 69 reported occurrences. There were no reported occurrences from foreign flagged vessels in Isle of Man territorial waters in 2010. The table below shows the number of reported occurrences by type in 2010 and the preceding 4 years.

	2006	2007	2008	2009	2010
Casualties	7	6	9	15	8
Accidents	33	29	25	26	49
Incidents	7	1	1	16	12
	47	**36**	**35**	**57**	**69**
Collision, foundering or Stranding	11	4	3	7	13
Fire	2	3	6	3	5
Explosion	-	-	1	-	-
Pleasure Vessel: Explosion, collapse or Bursting	-	-	-	-	-
Pipe Systems: Explosion Collapse or Bursting	1	-	-	3	1
Sudden uncontrolled Release of any substance from a system or pressure vessel	1	1	2	3	1
Accidental Ignition of Flammable material	-	-	1	-	-
Electrical Short Circuit or Overload	1	1	-	-	-
Failure of any Lifting device	-	1	1	3	2
Failure of any Access Equipment	-	-	-	-	-
Involving Access to or from the ship	4	1	1	2	1
Slips or Falls (same level)	5	4	4	3	7
Slips of Falls (different levels)	5	5	2	7	3
Involving mooring Ropes or Hawses	2	4	2	4	7
Involving Lifting Equipment	1	1	3	4	1
Exposure to hazardous or toxic substances	2	-	-	-	2
Man Overboard	-	1	-	2	5
Electric Shock	-	1	-	-	-
Violence to the person	-	-	2	-	-
Other	12	9	7	16	21
Total	**47**	**36**	**35**	**57**	**69**

The Table below compares Occurrences with the total Isle of Man registered fleet over 5 years.

Year	**2006**	**2007**	**2008**	**2009**	**2010**
Total Occurrences / Fleet Size	4.9%	3.8%	3.6%	5.5%	6.6%
Casualties / Fleet Size	0.7%	0.6%	0.9%	1.5%	0.8%
Accidents / Fleet Size	3.5%	3.1%	2.6%	2.5%	4.7%
Incidents / Fleet Size	0.7%	0.1%	0.1%	1.5%	1.1%

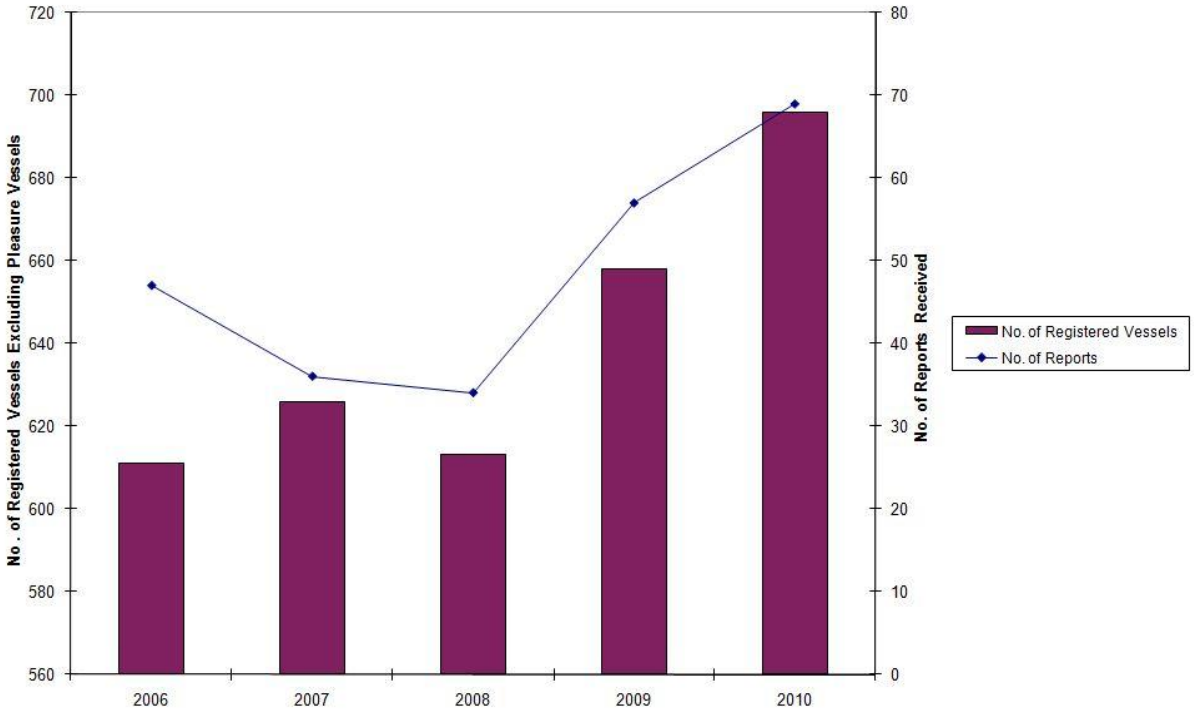
The following graph shows a comparison between the number of reports received and the number of all Isle of Man registered vessels over the last 5 years. Isle of Man registered vessels means Merchant Ships, Small Ships, Commercial Yachts, Pleasure Yachts, Fishing Vessels, and Demise Charter Ships. The total number of vessels on the Register each year is calculated as an average from the number of vessels per month as vessels register and deregister.



The Table below compares Occurrences with the fleet size (excluding Pleasure Vessels) over 5 years.

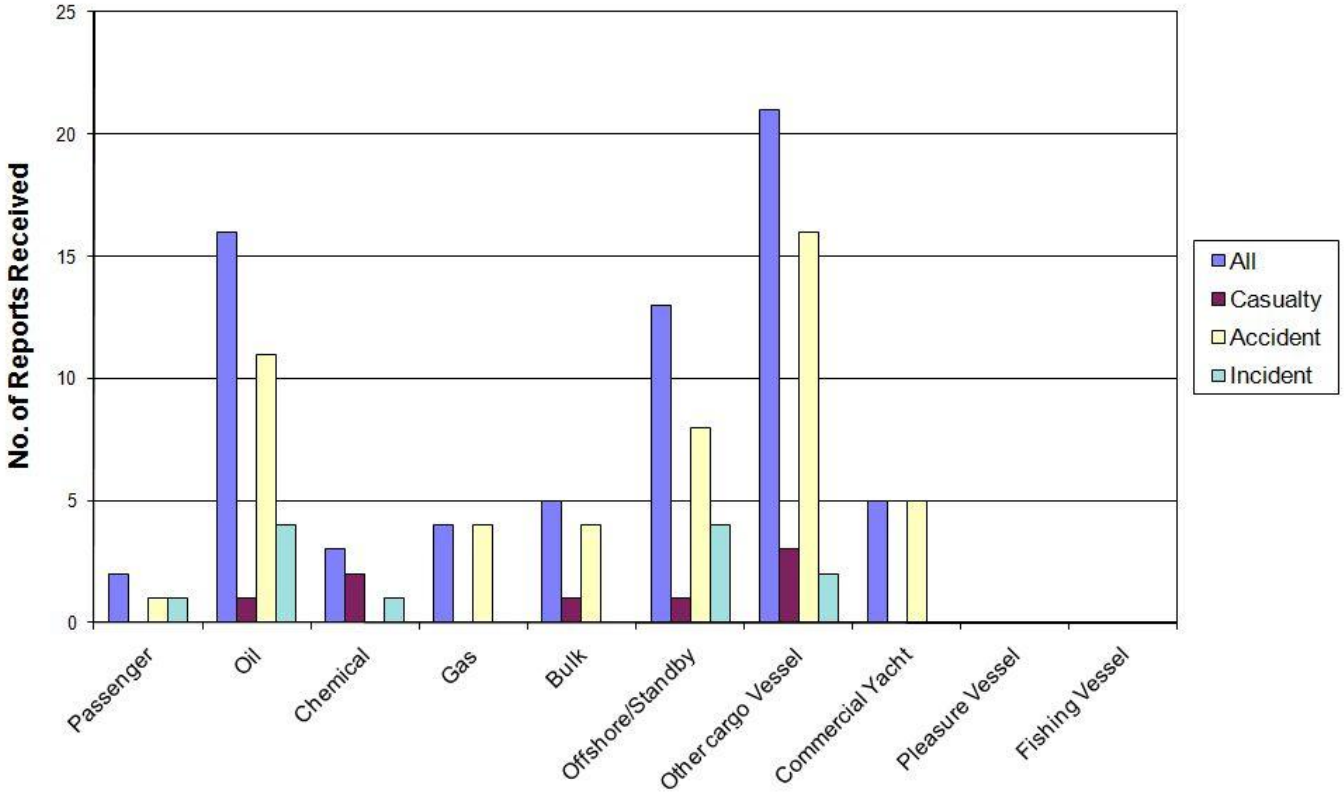
Year	2006	2007	2008	2009	2010
Total Occurrences / Fleet Size	7.7%	5.8%	5.5%	8.7%	9.9%
Casualties / Fleet Size	1.1%	1.0%	1.3%	2.3%	1.1%
Accidents / Fleet Size	5.4%	4.6%	4.1%	4.0%	7.0%
Incidents / Fleet Size	1.1%	0.2%	0.2%	2.4%	1.7%

The graph below compares the number of ARF Reports received with the number of Registered Vessels (excluding Pleasure Vessels) over a period of 5 years.



Analysis of ARF Reports Received in 2010

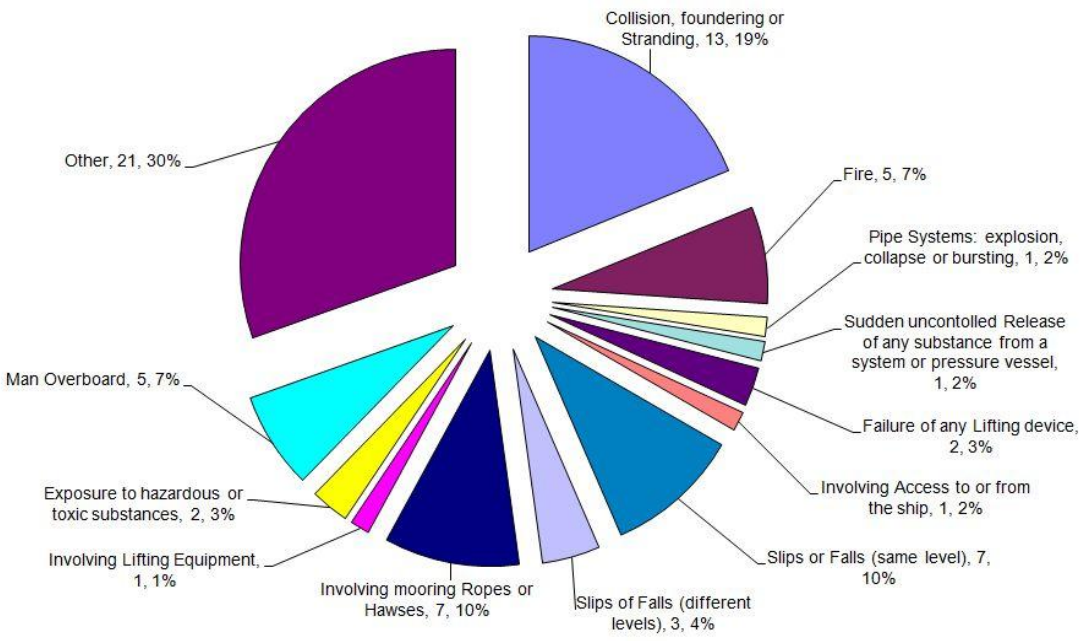
Number of ARF Reports Received in 2010 per Vessel Type



IOMSR Comment

The IOMSR recognises that the previous chart may not reflect the total number of incidents being recorded by vessels and reported to their technical managers using the vessel's own incident reporting procedure. The majority of incidents being reported to technical managers are therefore presumed to be very minor.

Type of Occurrences

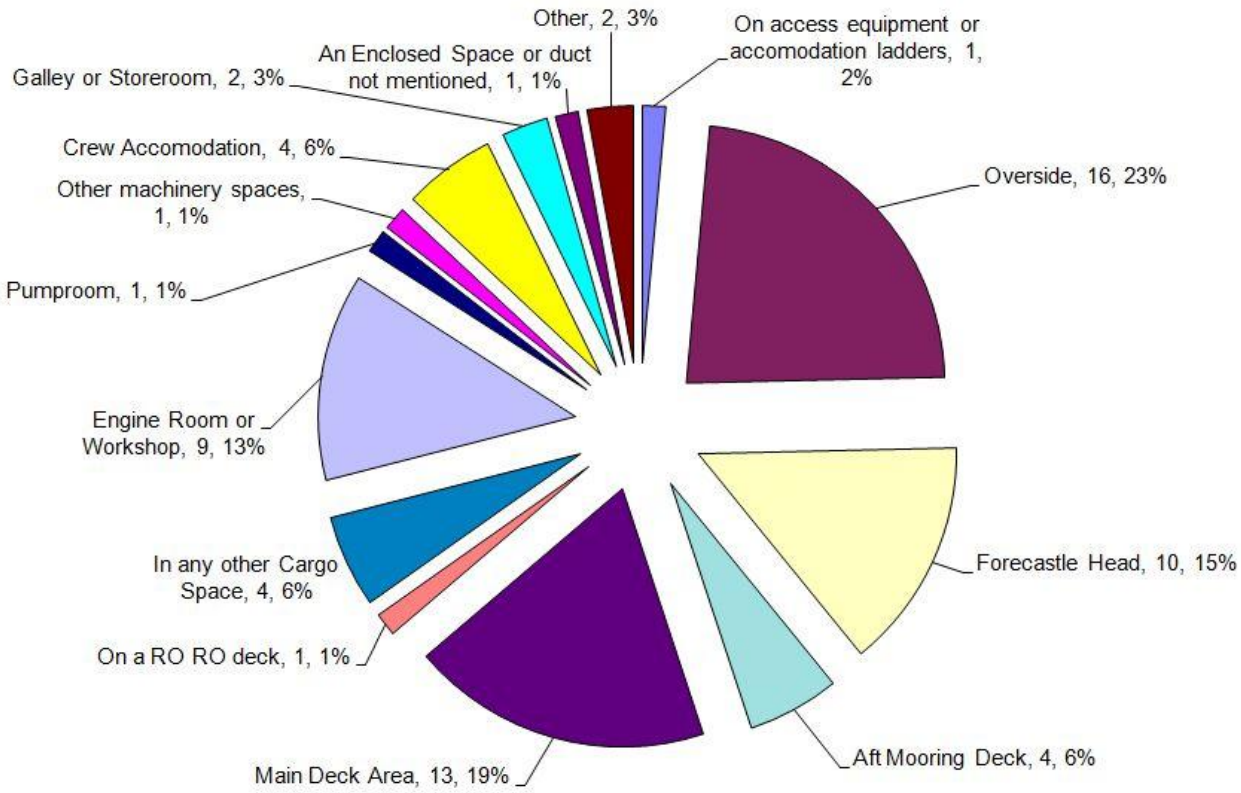


IOMSR Comment

The previous chart shows that in addition to the 'Other' category the majority of occurrences were slips/falls (same level), mooring ropes and collisions/groundings. The ARF Reports Received Table on page 6 shows the variation in the type of occurrences over the years.

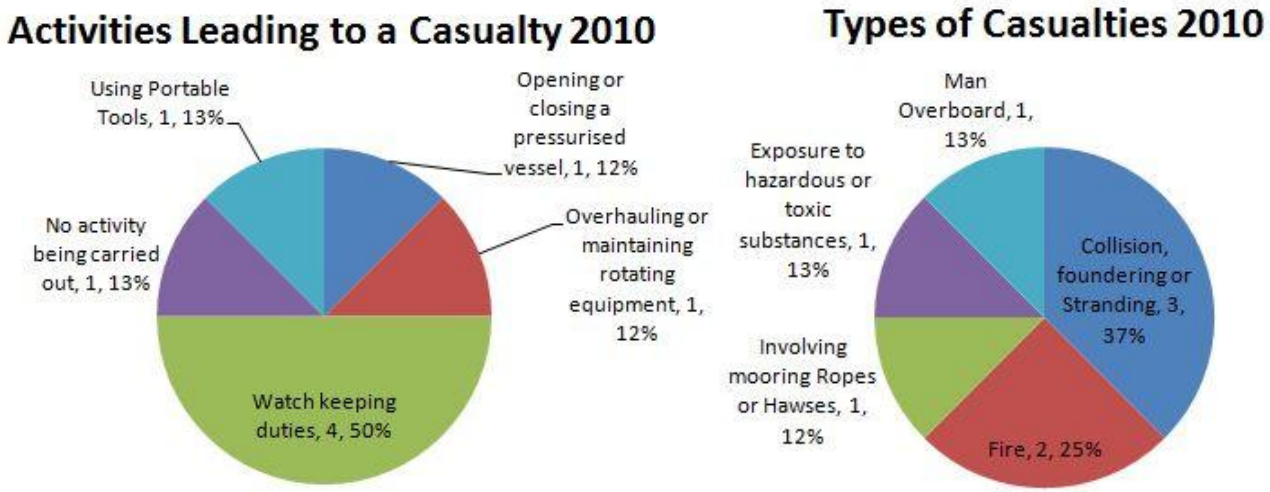
The 'Other' category includes occurrences such as general maintenance, medical illness, manual handling, stowaways and cargo shifting.

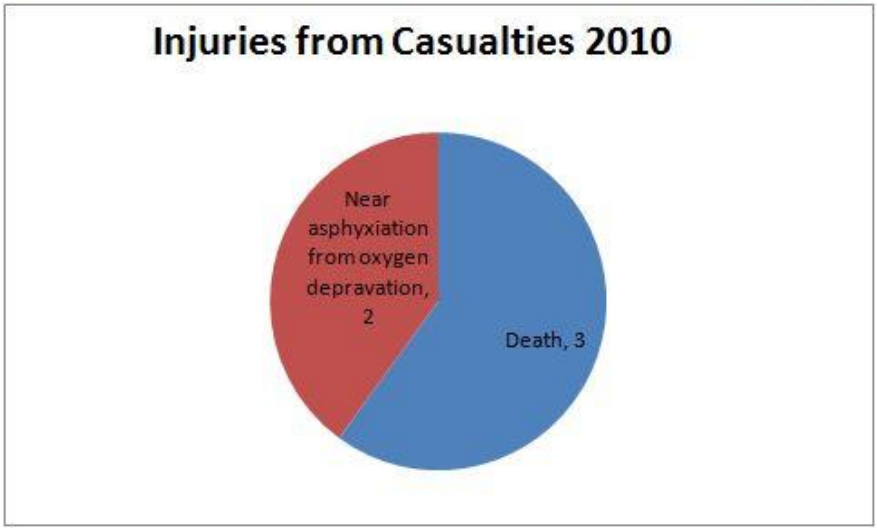
Place Where Occurrences Happened



Casualties in 2010

A total of 8 Casualties were reported in 2010. The 8 Casualty cases are outlined in the Charts below.





Brief Summary of All 8 Casualties in 2010

1 Offshore/Standby Vessel

A manoeuvring operation involving picking up a Permanent Chain Pennant wire resulted in the wire entangling in the port propeller and the vessel subsequently colliding with the rig leg for several hours during heavy weather.

- This case is the subject of an Isle of Man Casualty Investigation

2 Chemical Tanker

The vessel proceeded towards the terminal with pilot on board and 3 tugs assisting. The vessel turned in the fairway and approached the terminal. During the turning manoeuvre vessel grounded causing significant damage to the rudder assembly, effectively twisting the rudder 40 degrees. The grounding was unnoticed by the bridge team.

When attempting to berth alongside the terminal the vessels' stern touched shore installations, sustaining damage to the stern and causing damage to the shore installation. No personnel were injured and no oil spill occurred.

3 Oil Tanker

During tank cleaning/gas freeing operations three crew members were exposed to toxic gas. One crew member died at the scene and two crew members later recovered in hospital.

The design of the vessel meant crew members had to gain access to various cargo spaces through the pump room. Poor communication and poor organisation of work exposed the crew members to a toxic atmosphere for which they were not wearing appropriate PPE.

- This case is the subject of an Isle of Man Casualty Investigation

4 Bulk Carrier

This case involved a suspected suicide where the crew member was presumed lost overboard. A search of the vessel and search around the vessel's previous track failed to locate him and the search was called off when all hope of location was lost.

- This case is the subject of an Isle of Man Casualty Investigation

5 Other Cargo Ship

Whilst proceeding on passage excess smoke was noticed from the funnel as well as higher than normal exhaust gas temperatures. The Master deemed it unsafe to stop or safely divert to a nearby port and so the vessel proceeded on the current heading at reduced revs in poor weather conditions. The weather conditions later improved and after consulting the company superintendent the vessel was stopped where an injector unit was replaced and the vessel resumed the passage.

Later, an ER alarm sounded indicating a higher than normal and rapidly rising temperature on a different engine unit. After investigating the alarm the Ch Eng decided to discuss the situation with the Master when the fire alarm sounded where the unit was now on fire. The crew mustered and activated the quick closing fuel valves then closed all vents. On later inspection there was found significant damage to exhaust pipes. When attempting to restart the engine excessive vibration was felt and the engine stopped. It was then decided to have the vessel towed to port by a tug boat.

6 Chemical Tanker

When arriving at port the vessel anchored to await terminal readiness. After weighing anchor and embarking a local pilot the vessel proceeded to the port and grounded in the vicinity of the breakwater head. The vessel was able to be refloated without assistance and returned to anchorage thereafter. On later inspection significant structural damage was incurred as a result of the grounding. No personnel were injured and no oil spill occurred.

Significant failings in the bridge team management together with an intoxicated pilot failing to acknowledge local VTS advice contributed to the cause of the grounding.

7 Other Cargo Ship

A crew member was found on a mooring winch on the fo'c'sle deck. The crew member had been working on the fo'c'sle alone changing an old mooring line for a new one. The crew member was found under 3 turns of mooring line pressed against the mooring winch. When found the crew member was given immediate first aid and CPR but unfortunately died.

- This case is the subject of an Isle of Man Casualty Investigation

8 Other Cargo Ship

Whilst the vessel was in dry dock, the dockyard welders were cutting the deck plating. During the night the automatic fire alarms sounded when smoke was detected in the cargo hold. Smoke was observed on the main deck. After mustering the fire team reported a large fire raging out of the cargo hold. The fire was too large to be tackled by fire crews on board and the local fire brigade was called in. Non-essential personnel were evacuated and the remainder of the ships crew were evacuated when a large explosion was heard from the area of the cargo hold. The fire was eventually extinguished after several hours. The vessel suffered significant fire damage. Following an investigation by the company several improvements to the yard's Permit to Work system were suggested and have been implemented.

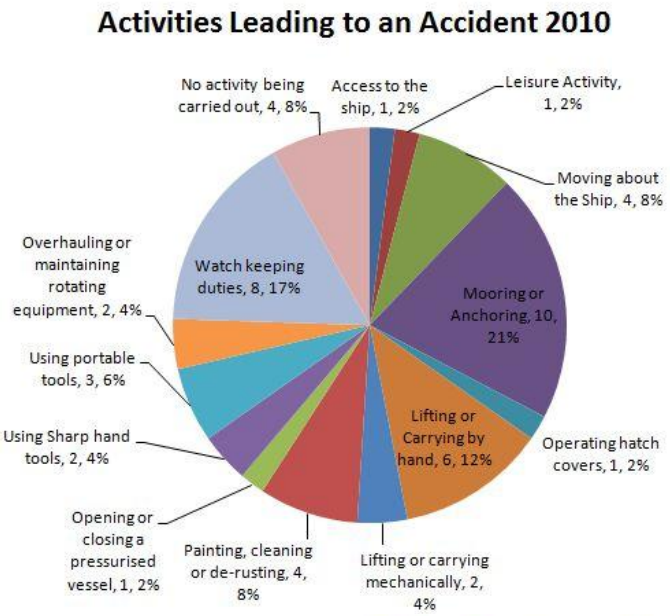
IOMSR Comment

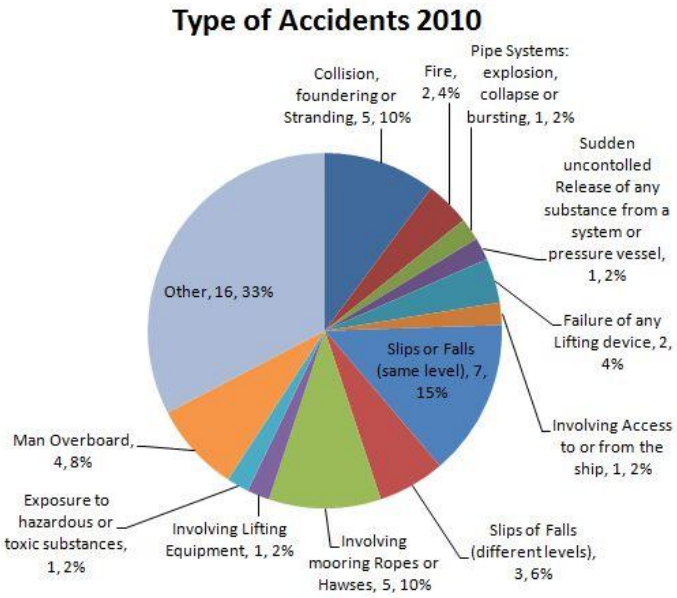
When accepting third party Permits to Work generated by bodies outside of the vessel, the Ship management team should verify that the third party Permit requirements and checks comply with at least the minimum requirements stated on the vessel's Permit to Work. Any additional checks should be agreed and implemented if the third party Permit is found lacking.

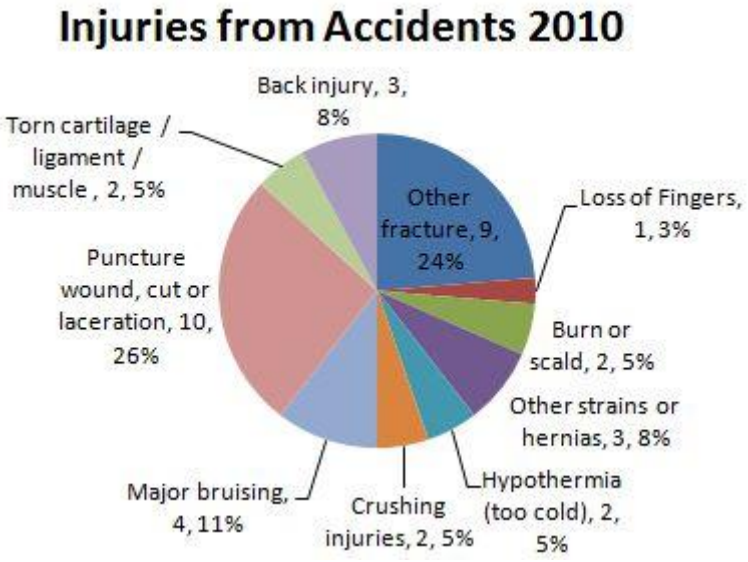
This case also highlights the importance of adequate fire patrol monitoring after hot work has been completed to monitor any hot spots and the potential of further ignition.

Accidents in 2010

A total of 49 accidents were reported in 2010. The 49 Accident cases are outlined in the Charts below.







IOMSR Comment

On some occasions more than one injury occurred during an accident. The majority of injuries from accidents are puncture wounds, cuts, lacerations and 'other fractures'. In the majority of these cases the cause was attributed to personal negligence.

The majority of injuries sustained follow the same trend as the previous year. This stresses the need for seafarers to be more careful, safe working practices are properly followed and equipment is in good working order.

Brief Summary of Some Selected Accidents in 2010

1 Other Cargo Ship

Whilst making repairs to the steering gear unit, the Chief Engineer had placed his foot on the rudder stopper. When adjusting his position his foot slipped and landed between the hydraulic jack and hydraulic jack stopper. At the same time his hand slipped and activated the local controls for the hydraulic steering unit. His foot became trapped and partially crushed resulting in fractures.

IOMSR Comment

When work allows it is prudent to turn off the power to such equipment. Adequate risk assessment and subsequent precautionary measures taken before maintenance work commences should mitigate the risk of crushing injuries as a result of large machinery moving in the vicinity of crewmembers.

2 Gas Carrier

The Chief Engineer and Electrician had mechanically lifted and transported an air compressor motor to the engine room workshop. After removing the armature (weight 100Kg) the electrician and chief engineer manually lifted the armature onto a table 1m high. During the lift the electrician twisted his body and used his knee to help lift the armature. Over the next couple of days the electrician felt minor pain in his lower back until the third day severe pain was felt. The electrician was sent to doctor on arrival at the next port.

IOMSR Comment

It is important that correct manual handling body positions are observed during manual lifting heavy objects. Where possible, portable lifting devices such as chain blocks should also be considered for lifting heavy objects.

3 Offshore/Standby Vessel

Whilst working on top of the main engine, the 2nd Engineer lost his balance, slipped and fell sideways off the engine and onto the bottom plates. No harness was worn as there were no fixing points to secure the harness on top of the engine. Handholds were available but were not being utilised.

IOMSR Comment

Where a crew member can physically fall from a height greater than 2m Working Aloft Permits to Work should be used. Such permits can be used inside as well as outside.

4 Other Cargo Ship

When unmooring the Master ordered the mooring lines to be singled up whilst the engine was running. An AB was also in the process of dismantling the gangway stanchions and raised the gangway to the horizontal position. When receiving the news the lines had been singled up the Master ordered let go all lines forward and aft. At this time the AB at the gangway was outboard of the ship's railing without wearing a harness precariously cutting a nylon strop with knife. The AB slipped and fell overboard into the water. The Master ordered lines not to be let go. The AB was eventually rescued and taken to hospital.

IOMSR Comment

In this case the AB was very fortunate he able to surface from the water and was able to be rescued. In 2009 an AB died whilst preparing a gangway in a similar manner, the AB fell

overboard but unfortunately was not able to surface. Whilst seafarers may consider it a 'normal' job stowing the gangway ready for sea, any job involving working outboard of the ship's rail is a dangerous job. Such jobs should be subject to a formal Risk Assessment and safety harnesses worn.

5 Oil Tanker

Whilst in dry dock the Chief Officer was inspecting a water ballast tank prior to repair work being carried out. Another Officer observing from the main deck observed shore workers and the chief officer running out of the tank followed by smoke. The alarm was raised and the Chief Officer was treated for smoke inhalation and burns by the shipyard doctor. An investigation concluded that a spark from the portable lighting ignited oil cargo that had penetrated the water tank from an adjacent cargo tank.

6 Commercial Yacht

Whilst the vessel was making way under sail a yacht rating was working on the main deck and positioned between the sheet and the bulwark. The sail flogged and the sheet pushed him over the rail and overboard. MOB procedures were carried out using an MOB lifebuoy with light/smoke float thrown overboard and spotters to keep track of the MOB. The sheets were furled and the vessel manoeuvred to the scene. A rescue swimmer was deployed to attend the MOB. The rescue swimmer and MOB were both successfully recovered to the vessel unharmed, given blankets and monitored.

IOMSR Comment

Yacht ratings should be aware of the dangers working in the vicinity of flogging sails.

Whilst the rescue operation proved successful the use of rescue swimmers is strongly discouraged by the IOMSR. There is always the likelihood of the vessel having to rescue the rescuer as well as the MOB. The risk to rescuer and MOB is exacerbated if the weather conditions are bad. Commercial yachts are required to have a MOB recovery system such as a rescue boat, or Jacob's cradle for example which are designed to prevent the rescuers from entering the water. These systems should be used and practiced instead of rescue swimmers.

Any yachts that use rescue swimmers are advised to review their emergency MOB procedures.

7 Other Cargo Ship

Whilst mooring the vessel was alongside with mooring lines made fast ashore. It was then decided to move the vessel 2m astern using the mooring lines. The aft springs and headlines were slackened and the order given to heave on the stern and forward spring line. The mooring officer forward turned his back to the mooring area when the forward spring parted at a bollard and snapped back hitting the mooring officer in the back of the leg causing major bruising.

IOMSR Comment

Such operations are best served with good communication between fore and aft mooring parties and bringing the weight on the lines gradually. Those crew in the vicinity of such operations should keep a careful eye on what is going on with the lines and position themselves accordingly.

8 Commercial Yacht

The chef suffered scalding when boiling water exploded from a pot after the lid was unsecured from the pot. The galley was under pressure to prepare food quickly after a last minute change of plans. The lid was secured to the pot whilst the water was boiling and significant pressure built up which was released when the securing between the lid and pot was removed.

9 Other Cargo Ship

The Chief Officer was observing cargo operation from the top of a hatch cover. When stepping between hatch covers over a small gap the Chief Officer slipped and severely cut his leg on the edge of a hatch cover. Excessive bleeding occurred from the shin bone area, first aid was given and a tourniquet was applied. An ambulance was called and the Chief Officer was treated in hospital.

10 Other Cargo Ship

The vessel was in port and the ship's crew cutting off stoppers from the 'tween deck using burning gear. Company procedures were reported to be complied for such an operation which included a fire extinguisher, fire hose and fire observer on hand. Smoke was noticed emerging from a wooden box wrapped in plastic film. Cutting was stopped and the alarm raised. The plastic covers soon ignited and an attempt was made to extinguish the fire using a portable extinguisher, however the extinguisher failed to operate. The fire quickly spread across the hold but was soon extinguished when crew with additional extinguishers arrived on scene shortly after.

IOMSR Comment

This case is very similar to 2 cases reported in 2009. It is very important that ship procedures for such work mitigate the risk of heat transfer and ignition as much as possible. Fire and heat retardant materials should also be considered for shielding the cargo from the burning.

A proper inspection of all portable fire fighting appliances should be carried out at frequent intervals and before special jobs where they are likely to be used to ensure they are fit for purpose.

11 Other Cargo Ship

Whilst on passage it was decided that a hatch cover should be opened. An OS was observing the wheels position and the bosun was operating the controls. The bosun could not see the OS from his position. As the hatch covers were moving along the rail, the OS's fingers became trapped under a moving hatch cover wheel. The OS suffered crushing injuries to his hand with the partial loss of one finger. The OS was given first aid taken to hospital on arrival at the next port the following day.

IOMSR Comment

Whilst opening and closing hatch covers may be considered a 'routine' job by seafarers, seafarers should be aware of the risk moving hatch covers pose and stand well clear. Seafarers should check each other to ensure everyone is standing well clear of large, heavy moving objects. Master's and Ship Operators should consider the opening of hatch covers for a Risk Assessment.

12 Offshore/Standby Vessel

During anchor handling operations whilst catching a buoy strops became jammed in the centre of the buoy. An AB's foot got caught by the rope used for catching the strops which had jammed in the buoy. The AB got dragged overboard by his foot over the stern roller and into the low temperature water. As he went over the stern roller the rope cleared from his foot and managed to push himself clear where he grabbed hold of the rope in the water and pulled himself to the buoy. He was able to hold onto the buoy until he was rescued.

An investigation found that the work vests proved ineffective as a buoyancy aid and the winter boiler suit the AB was wearing became very heavy while submerged in the water.

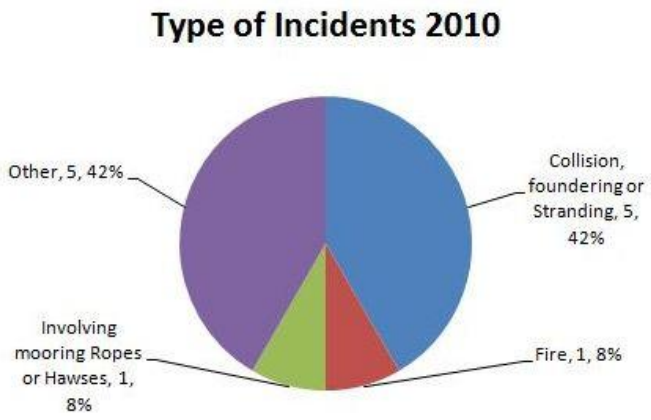
IOMSR Comment

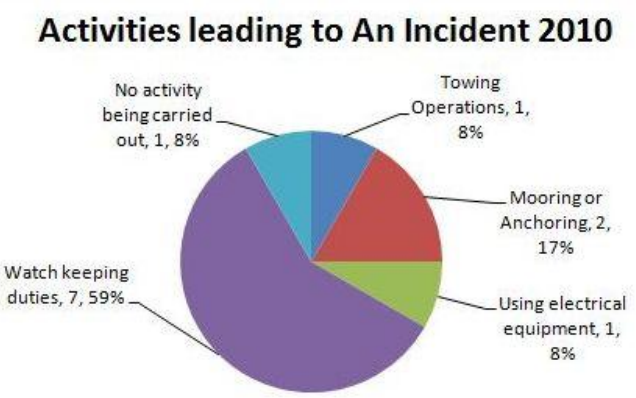
The AB was lucky to escape without serious injury or worse, drowning. This case highlights the importance that all crew should be aware of the movement of ropes and lines for such operations. Prior to the weight being taken up by the ropes crewmembers should stand well clear.

Master's and operators should consider how effective work vests are when working on deck and the effective buoyancy they provide when a crewman dressed in work clothing is immersed in water.

Incidents in 2010

A total of 12 incidents were reported in 2010. The 12 Incident cases are outlined in the Charts below.





Brief Summary of Some Selected Incidents in 2010

1. **Oil Tanker**

The oil tanker was drifting at night with her engines stopped. A fishing vessel manoeuvring in the vicinity of the oil tanker slowed down and stopped close to the oil tanker. The fishing vessel ignored Aldis lamp signals from the oil tanker. The fishing vessel became trapped under the curvature of the stern. Communication could not be established because there was no common language. With the fishing vessel trapped and continuously banging against the hull of the vessel the fishing vessel crew were transferred to another fishing boat. After attempts to free the fishing vessel using rudder wash and deballasting the aft peak tank failed the fishing vessel was eventually towed away by another fishing vessel.

2. **Oil Tanker**

Whilst at anchor the fire alarm activated when smoke was detected in the laundry. A small fire was discovered at an electrical clothes dryer. After isolating the laundry the fire was easily extinguished by the fire team using a portable extinguisher.

IOMSR Comment

Such equipment should be regularly checked to ensure dust and fluff is removed. Clothing should not be placed on such equipment where clothing is in contact with electrical connections or blocking air intakes and vents.

3. **Offshore/Standby vessel**

Whilst attempting to connect a bridle socket in bad weather a decision was made to abandon the operation as the operation and ship's manoeuvrability were becoming adversely affected by the weather. During the period of ensuring the deck crew were in a safe place and release of the gear the stern roller made contact with a rig's leg bumper. No damage to the rig or vessel was incurred.

4. **Offshore/Standby Vessel**

Shortly after taking to the blocks on a floating dry dock, a crack was noticed developing on the dry dock structure and the dock began to sag. The vessel then listed to starboard and trim by the head. The general alarm is sounded and the order was given to abandon ship. The list and trim of the vessel was observed to increase and the vessel bodily slid approximately 2m

forward. Part of the dock was deliberately sunk by the shore workers and the vessel was able to be refloated and towed to a lay-by berth.

5. Other Cargo Vessel

The vessel was at anchor off the Philippines when the vessel was boarded by thieves gaining access by the anchor cable. The thieves gained access to a locked deck store. The deck patrol spotted the thieves and alerted the Officer of the Watch who sounded the General alarm. The thieves then jumped over the side of the vessel where a waiting boat enabled their escape.

IOMSR Comment

This case highlights the importance of effectively implementing the Ships Security Plan. The deck patrol spotted the thieves in a short time after boarding and alerted the rest of the vessel whilst not endangering themselves. This case also highlights the need for effective hawse pipe covers to be secured on large diameter hawse pipes. Masters may also wish to consider leaving the anchor wash on in high risk areas as a deterrent against gaining access by the hawse pipe.

6. Chemical Tanker

Whilst the chemical tanker was at anchor an unnoticed fishing vessel collided with the vessel during the hours of darkness. The bridge team (OOW and AB engaged in cleaning duties) were not aware of the vessel until after the fishing vessel collided. The weather was good with good visibility. The fishing vessel was also a clear target on the vessel's radar throughout. Neither vessel took any action to avoid collision.

No damage to the vessel was sustained and only minor damage to the fishing vessel was incurred. No injuries or pollution resulted on both vessels. No information pertaining to the fishing vessel's actions was able to be obtained.

IOMSR Comment

Where vessels are at anchor lying idle for long periods of time there is a danger that watch officers become complacent about keeping an effective lookout and their attention is diverted to other tasks. It should be stressed that an effective lookout is required to be maintained at all times and watch officers aware of all the traffic movements in the vicinity of their vessel and make any necessary communication if there is cause for concern.

7. Other Cargo vessel

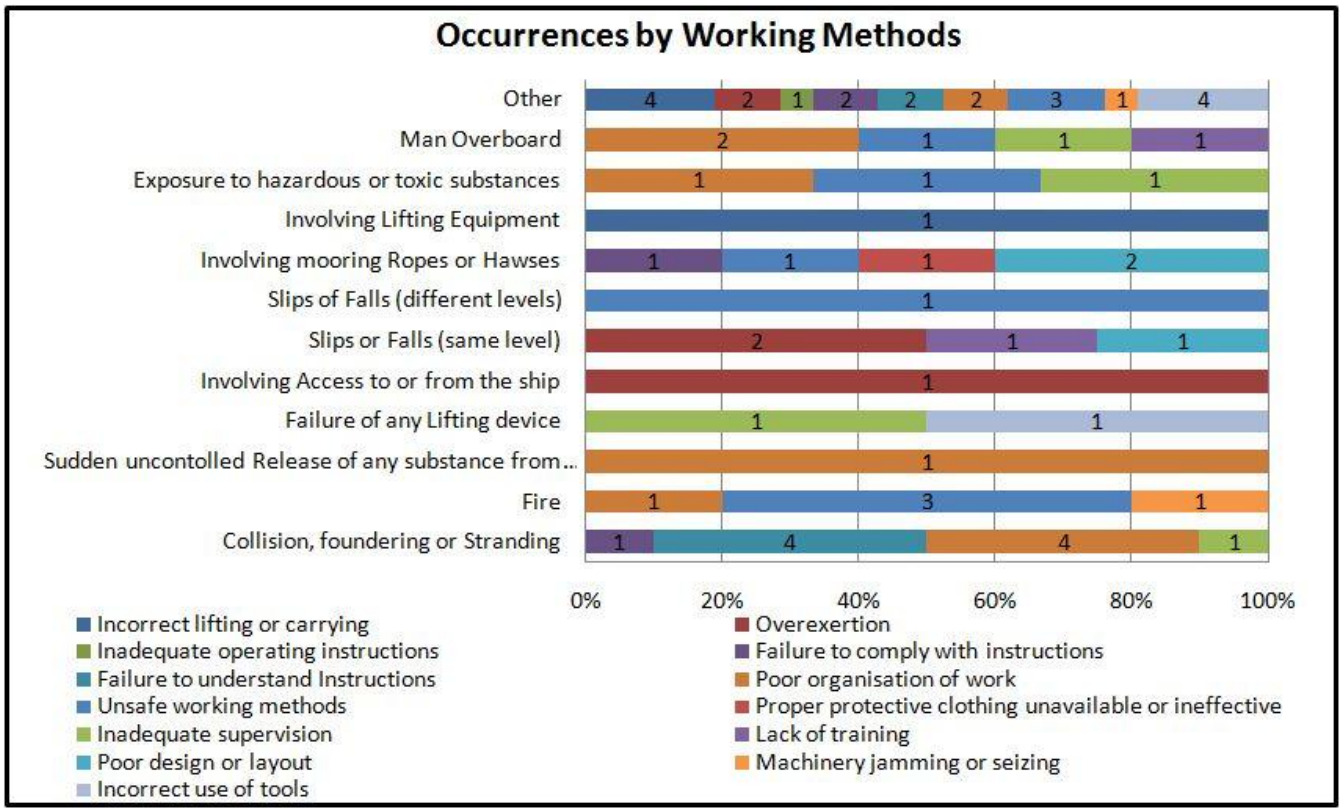
The vessel was departing a port in the Congo when stowaways were discovered. After completion of cargo operations the vessel was searched 3 times before the vessel departed. On 1 of the searches stowaways were discovered. After dropping off the local pilot at the pilot station another search was completed and no one was found. The following morning the vessel anchored at another port for bunkers. Prior to commencing bunkers the crew heard banging coming from a container stowed in a 'tween deck.

The crew gained access to the locked container and found 2 stowaways inside. The container was found to have a homemade internal partition to enable the concealment of people. An investigation concluded the stowaways hid inside the container for 4 days prior to loading on board the vessel and local port workers were also involved in their concealment.

Breakdown of Occurrences by Cause

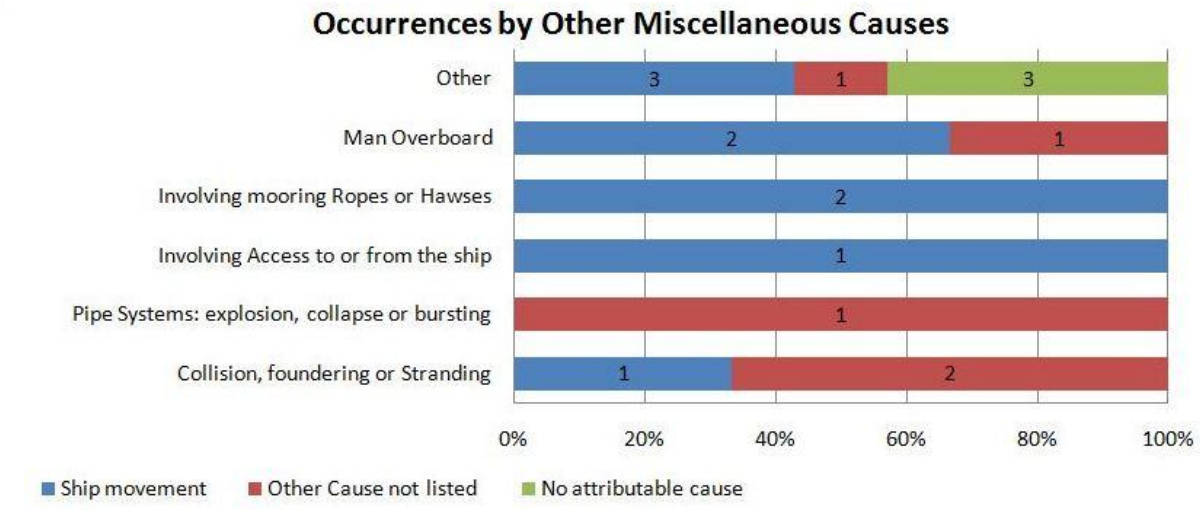
The following represents a breakdown of all the occurrences by cause divided into several categories represented on the ARF Form. Determination of the cause is following an investigation into the Occurrence by Ship's Staff, Company Investigators or an External Investigating body. **It is important to remember that an occurrence may be the result of several causes across different categories**.

Working Methods



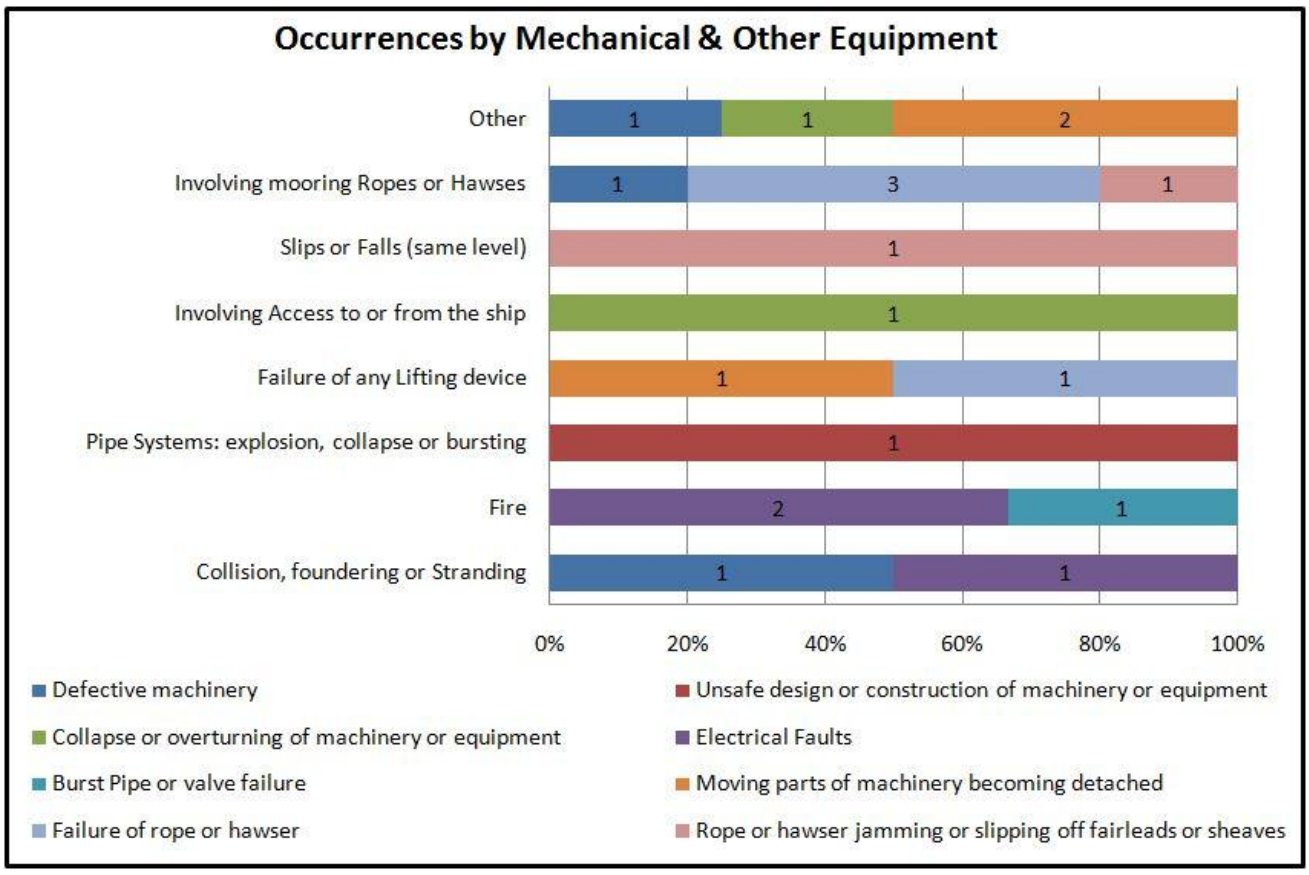
The chart above shows that the predominant working method cause has been attributed to poor organisation of work and unsafe working methods. This stresses the need for adequate safety procedures to be followed correctly which includes effective use of safety equipment. Seafarers should avoid taking shortcuts in order to get the job done quicker.

Other Miscellaneous Causes



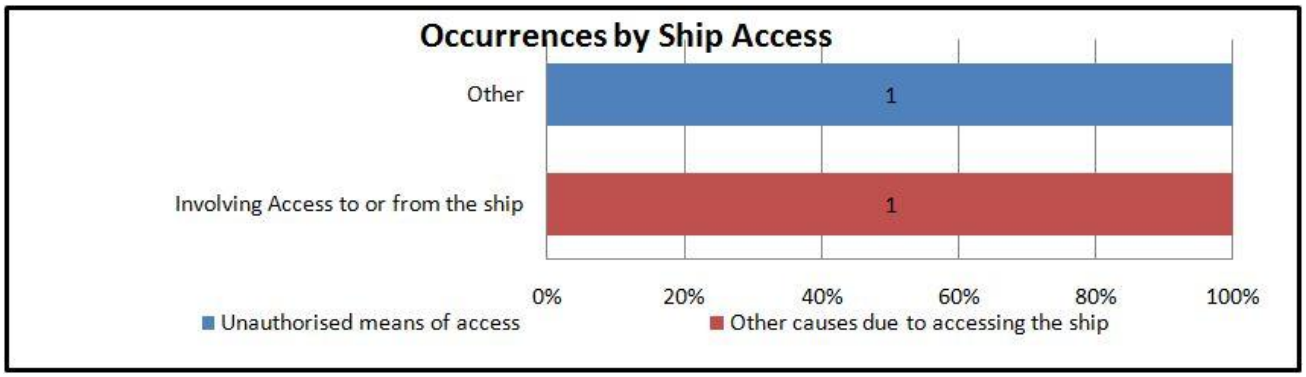
The previous chart shows that the predominant other miscellaneous cause has been attributed to the ship movement. Crew members should take into consideration the movement of the vessel when planning and carrying out work activities. If the movement of the vessel is too great the work activity should not be attempted or consideration should be given to manoeuvring the vessel to reduce the vessel's movement to an acceptable level.

Mechanical & Other Equipment



The chart above shows an approximately even spread with various mechanical, electrical, ropes and associated equipment malfunctioning. This stresses the need for effective inspection and maintenance to ensure they are in good condition and fit for purpose.

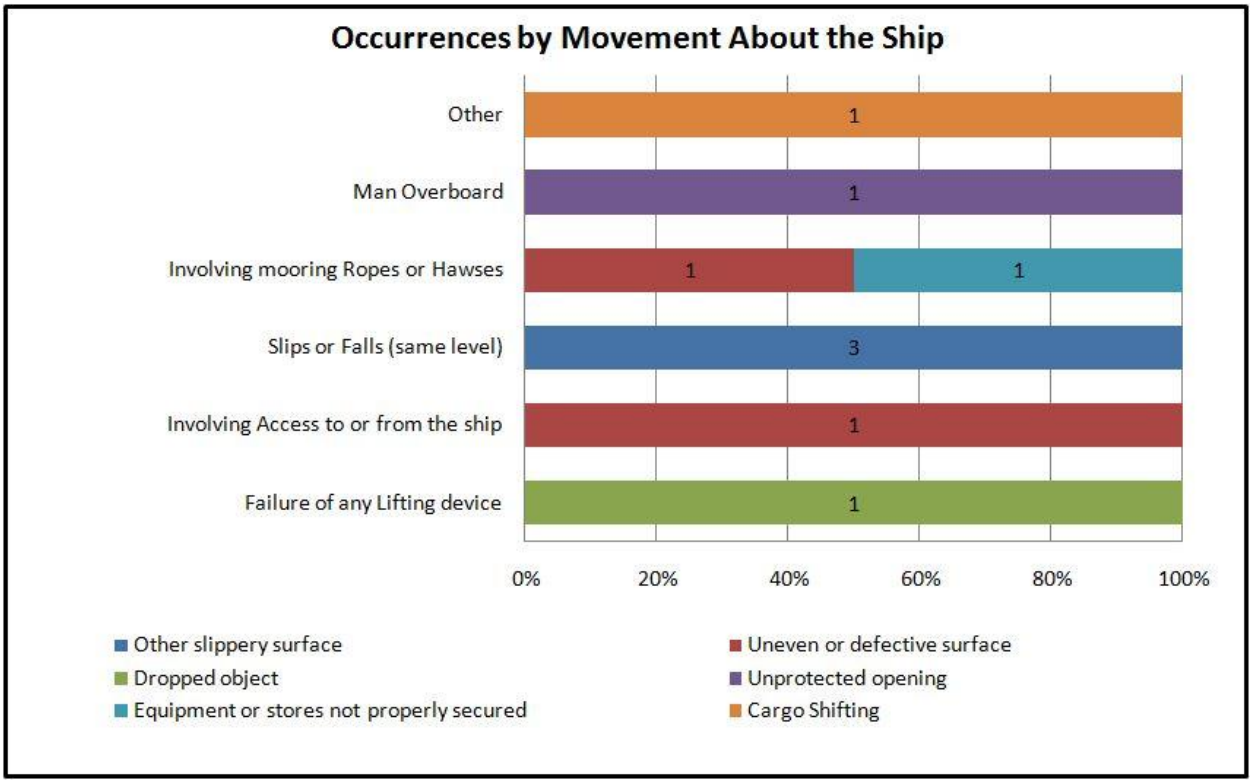
Ship Access



The Other occurrence in the chart above relates to unauthorised boarding of the vessel by thieves gaining access to vessel via the hawse pipe. It is recommended effective hawse pipe covers are secured as per the requirements of the Security Plan and in high risk areas.

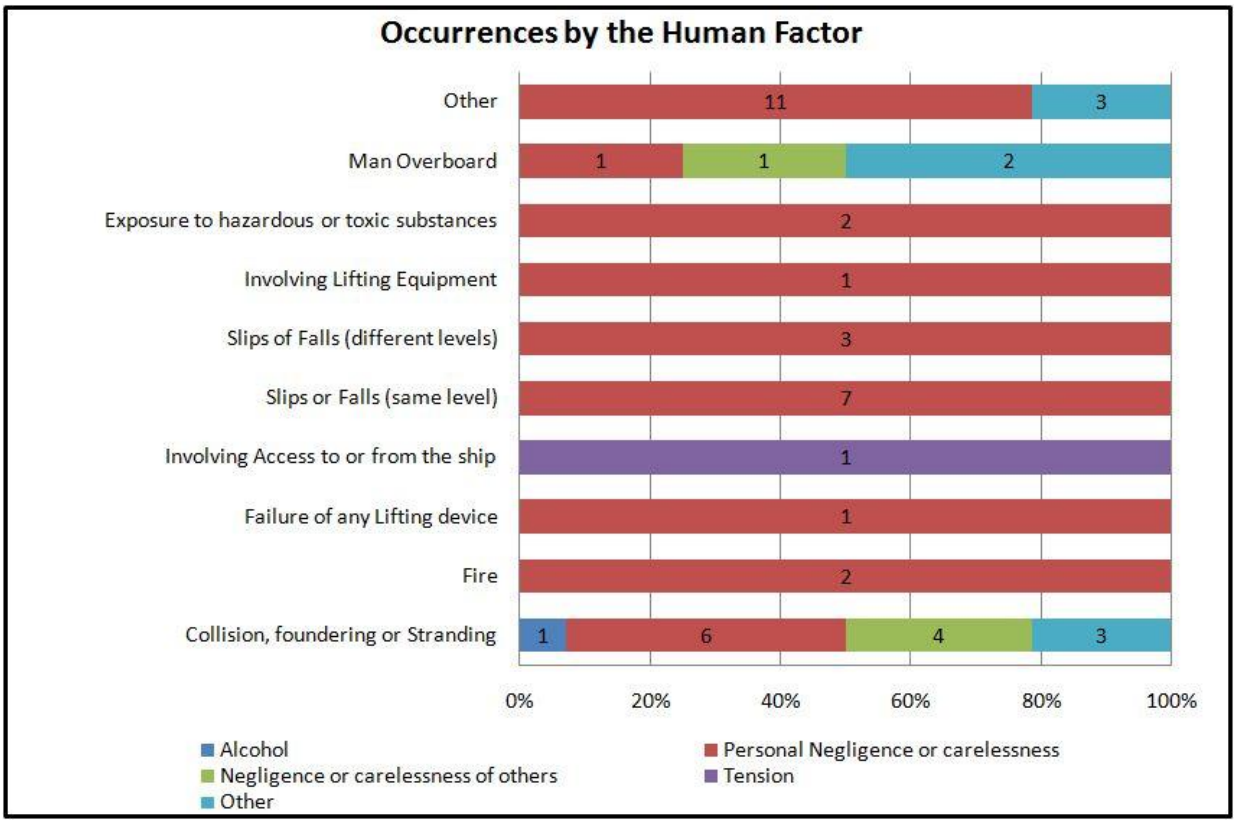
All personnel boarding the vessel for legitimate reasons are required by the Regulations to use the means of access provided. The Master is required to ensure that a Safe Means of access is provided to and from the vessel at all times and to ensure that it is maintained at all times. Everyone intending to board or leave the vessel should be strongly encouraged to use the safe means of access provided even if a short cut appears to be an 'easy' or shorter journey. Crew members joining the vessel from a launch boat are strongly encouraged to wear appropriate lifejackets and only consider the transfer under suitable conditions taking into account the weather conditions and vessel motion.

Movement About the Ship



The chart above shows that the predominant movement about the ship cause has been attributed to 'other' slippery surfaces. Where appropriate Masters should ensure that deck working areas have non-slip surfaces as much as possible. The can be achieved by either clearing/cleaning the deck or effective use of non-slip paint mixes. Crew members should also be aware of any associated risks of slipping when moving about the ship under various conditions.

Human Factor



The chart above shows the predominant human factor cause has been attributed to personal negligence or carelessness. By 'human factor' we mean the act or omission of a person to do something that leads to the occurrence happening. This stresses the need for adequate knowledge and training associated with the particular work activity, for the crew member to be made aware of any associated risks and for the crew member to pay attention to what they are doing.

Conclusion

Despite best efforts it is an unfortunate fact of life that occurrences will always happen. 2010 saw less Casualties and Incidents reported and a significant increase in the number of Accidents reported compared to the previous year.

Many of the ARFs received show that a large proportion of occurrences are attributed to the Human Factor whereby personal negligence and carelessness remains prevalent and therefore highlights the importance of effective care and attention. Occurrences involving slips and falls (same and different levels) features heavily each year, again highlighting the importance of effective care and attention.

2010 also saw a significant increase in the number of cases involving a 'man over board'. This is a worrying trend as there is very high risk of fatalities when seafarers accidentally falls into the sea. Masters and ship operators are strongly encouraged to ensure their procedures for any job involving the risk of man over board are adequate and strictly adhered to on board with appropriate personal protective equipment (PPE) being worn.

The number of collisions and groundings rose significantly emphasising the need for proper and effective application of the Collision Regulations (COLREGS). In particular, emphasis on keeping a good lookout is very important without distractions, taking timely and effective action to assess the risk of collision and early action being taken to avoid collision in accordance with the COLREGS. Some of the collisions and groundings that occurred in 2010 were in part the result of poor Bridge Team Management. Good team work and effective communication amongst the bridge team, which includes local pilots, is vitally important to the safe navigation of a vessel.

Seafarers should be aware of their own abilities and limitations and the limitations of the equipment they use. Seafarers should not attempt any work activity where they perceive the risks to be unacceptable. Should unacceptable risks present themselves, then the work should stop, the risks posed investigated and measures introduced to reduce the risks to an acceptable level. The use of Risk Assessments are particularly useful in this situation. If the vessel has an appointed Safety Officer then they should be informed and the circumstances investigated. It is important to remember that if the risks cannot be reduced to an acceptable level then the work activity should not go ahead. Should this occur, then specialist advice / help should be sought.

It is the responsibility of the Master or Skipper to ensure that all activities carried out on board are conducted safely, with an acceptable level of risk. Where vessels have technical managers ashore, then the technical managers should ensure that the Master or Skipper is given the necessary support and resources on board to determine the risk and to reduce the risk to an acceptable level.

Seafarers should not take any unnecessary risks with their safety in order to get the job done or take unsafe 'short cuts' in order to get the job done quicker. Safety on board a vessel should be everyone's concern. Seafarers should be able to observe and monitor their own safety effectively and where possible the safety of those around them.

Where a vessel has established safety procedures, it is important that these are observed correctly. Appropriate PPE should always be worn and used correctly. Any dedicated safety equipment should be regularly maintained and inspected before use. The Code of Safe Working Practices for Merchant Seaman is always a valuable reference source for most work activities

conducted on board and should be consulted frequently. Risk Assessments, Permits to Work and plain old common sense are all important factors in reducing the level of risk posed by work activities.

If you are in any doubt about the safety concerned with a particular work activity, stop and re-evaluate.

Additional Information

- Manx Shipping Notice No. 3
- Code of Safe Working Practices for Merchant Seaman
- Master's / Yacht Master's Handbook (available free on the IOMSR website)
- Merchant Shipping (Accident Reporting and Investigation) Regulations 2001 SD815/01 (available free on the IOMSR website)
- Isle of Man Ship Registry Website – www.iomshipregistry.com
- Contacting the Isle of Man Ship Registry – email marine.survey@gov.im

The information in this report can be provided in large print or on audio tape, on request.