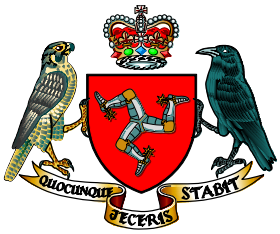
Isle of Man
Ship Registry

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

2014

Isle of Man Government
Department of Economic Development



Isle of Man Government
Reiltys Ellan Vannin

Published March 2015

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 technical manager 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 work with shipping companies and other organisations in an effort to reduce these occurrences on board Isle of Man vessels.

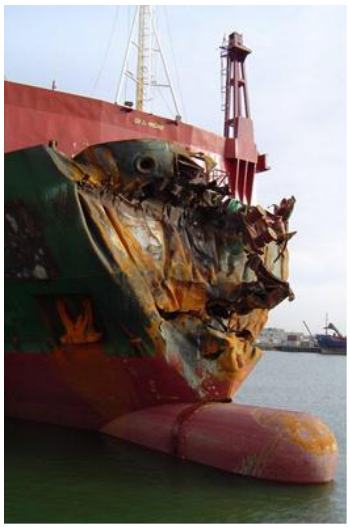
Only cases relating to occurrences involving shipboard operations are included in this report. This report does not include statistics relating to deaths from natural causes.

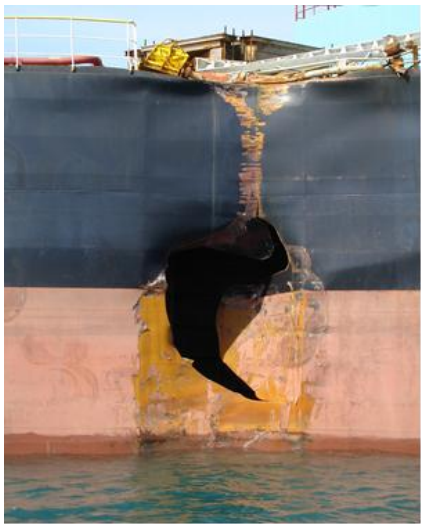
2014 saw a significant number of cases involving collisions (including contact with the quay or stationary vessels) and groundings. Numerous cases highlight groundings or collisions as a result of the vessel dragging its anchor. Occurrences involving slips and falls (same and different levels) feature heavily each year, again highlighting the importance of effective care and attention.

The reporting scheme is reliant upon masters, skippers or operators reporting as accurately and in as timely a manner as possible. To submit a report or if you have any questions then please contact us at:-

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





www.iomshipregistry.com

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1 What is an Occurrence?

An 'occurrence' is classed as either a **casualty**, **accident** or an **incident** in the Merchant Shipping Accident Reporting and Investigation Regulations (SD815/01). These are defined as follows:-

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, hatch cover, 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', e.g. a person forgetting to wear a safety helmet on deck, to 'major incidents', e.g. narrowly avoiding a swung load suspended from a lifting appliance. The IOMSR encourages the master, skipper or technical managers 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.

IMO Classification

The International Maritime Organisation (IMO) Casualty Investigation Code (IMO Resolution MSC 255(84)) defines occurrences as a Marine Incident, Marine Casualty or Very Serious Marine Casualty. Refer to chapter 5 of this report for information concerning cases reported to IOMSR classified as per the IMO Casualty Investigation Code.

2 Reporting Occurrences

2.1 Who has to Report

The master, skipper or technical manager of any Manx registered vessel wherever they may be.
The master, skipper or technical manager 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 ships and cargo vessels.

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

2.2 When to report

When a **CASUALTY** occurs the master, skipper or technical manager 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 technical manager must inform the IOMSR as soon as is practicable and by the quickest means available. A report must 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 technical manager must report the incident to the IOMSR before the vessel departs from the next port.

2.3 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. It is recommended that a copy of the ARF is kept on board as a record.

Reference No: -
(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 11/01/07 **Page 1**

The ARF is available on request from the IOMSR or available for download from the IOMSR website.
http://www.iomshipregistry.com/formsdocs/forms/

It is also recommended that a brief statement is included in the Official Log Book narrative section.

All reports received that are "Very Serious Marine Casualties" as defined by the IMO Casualty Code (refer to Chapter 5) are investigated. For all other reports received a decision is made whether or not an investigation is warranted.

Not all occurrences are investigated, 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 ChI Reg 21 and the IMO Casualty Investigation Code. 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. Whenever an occurrence is 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.

2.4 ISM Code Vessels

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

If vessels have a safety officer on board as required by the Merchant Shipping Safety Officials, General Duties & Protective Equipment Regulations (SD816/01) then the safety officer should be involved in the investigation on board.

2.5 Reports Published in 2014

None.

2.6 Investigations by IOMSR in 2014

Type of Vessel	Nature of Casualty
Bulk Carrier	Engineer's death in engine room workshop from electrocution whilst repairing a cargo light.
Bulk Carrier	Vessel dragged its anchor unbeknown to the officer of the watch and collided with another anchored vessel.

2.7 Investigations by external investigation body on Isle of Man vessels in 2014

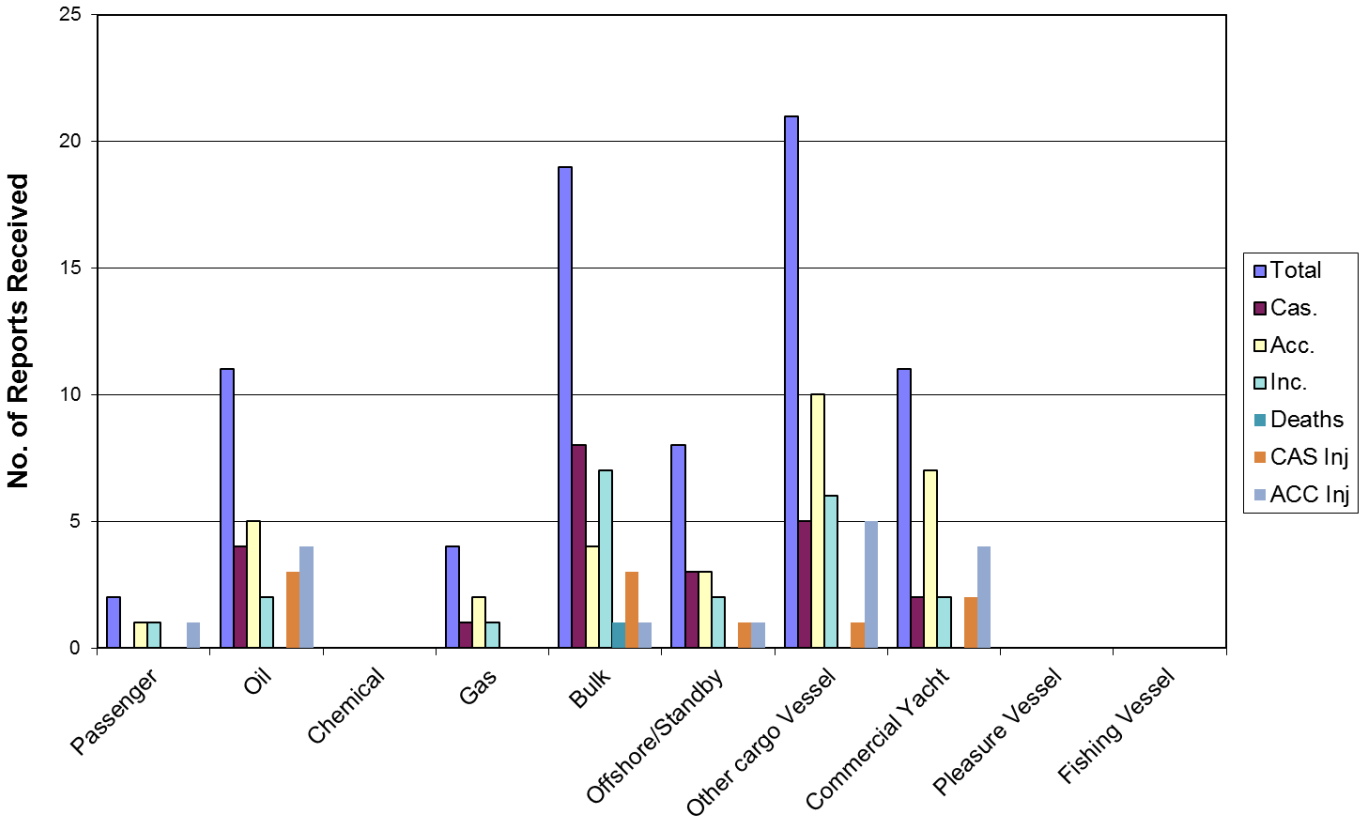
None.

3 ARF Reports Received in 2014

In 2014 IOMSR received a total of 76 ARF reports from Isle of Man registered vessels. The table below shows the number of reported occurrences by type in 2014 and the preceding 4 years including a breakdown per type of vessel for 2014.

Year	2010	2011	2012	2013	2014	2014									
Casualties	8	16	21	19	23										
Accidents	49	39	61	39	32										
Incidents	12	16	27	26	21										
	69	71	109	84	76	Passenger	Oil	Chemical	Gas	Bulk	Offshore / Standby	Other cargo Vessel	Commercial Yacht	Pleasure Vessel	Fishing Vessel
Collision, heavy contact, foundering or stranding	13	18	19	17	25										
Fire	5	7	6	6	7	1							1		
Explosion	-	-	1	-	-										
Pressure vessel: explosion, collapse or bursting	-	-	-	1	-										
Pipe systems: explosion collapse or bursting	1	1	2	1	1					1					
Sudden uncontrolled release of any substance from a system or pressure vessel	1	1	7	3	7					1	2	3	1		
Accidental ignition of flammable material	-	-	-	-	-										
Electrical short circuit or overload	-	-	-	1	2							1	1		
Failure of any lifting device	2	3	1	4	1							2	1		
Failure of any access equipment		-	2	-	1								1		
Involving access to or from the ship	1	2	2	-	-										
Slips or falls (same level)	7	5	12	5	7		3			2		1	1		
Slips or falls (different levels)	3	6	11	3	5		2					2	1		
Involving mooring ropes or hawses	7	2	5	8	6		1			2	1	1	1		
Involving lifting equipment	1	1	5	1	1	1									
Exposure to hazardous or toxic substances	2	2	1	1	-										
Man overboard	5	2	-	1	-										
Electric shock	-	1	-	-	1					1					
Violence to the person	-	1	2	1	-										
Other	1	1		-	1						1				
Moving about - no fall, no handling	3	7	8	3	-										
Moving about - manual handling	2	-	1	4	-										
Involving rescue boat/lifeboat/liferaft	1	1	2	3	2					2					
Drill - other than survival craft	-	-	-	-	-										
Cargo securing failure	1	-	-	2	1										
Maintenance - machinery	1	-	2	5	1		1						1		
Maintenance - other	4	2	5	1	3		1			1			1		
Navigation - COLREG infringement	-	-	-	1	1						1				
Navigation - machinery/equipment failure	2	4	9	5	1				1						
Illness	1	-	4	2	-										
Bunker operations	-	-	1	2	-										
Cargo operations	2	3	-	1	-									1	
Galley operations	-	-	-	2	1										
Mooring/anchoring operations	-	1	-	-	-										
Unauthorised boarding	2	-	-	-	-										
Leisure activity on board	1	-	1	-	1							1			
Total	69	71	109	84	76	2	11	0	4	19	8	21	11	0	0

The graph below represents reports received by IOMSR in 2014 - 23 casualty cases, 32 accident cases, 21 incident cases and includes 1 death case and 26 injury cases on different types of vessels.



NB More than one injury may have occurred in the same case. See section 4.3 for number of injuries or deaths based on individual people by rank.

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

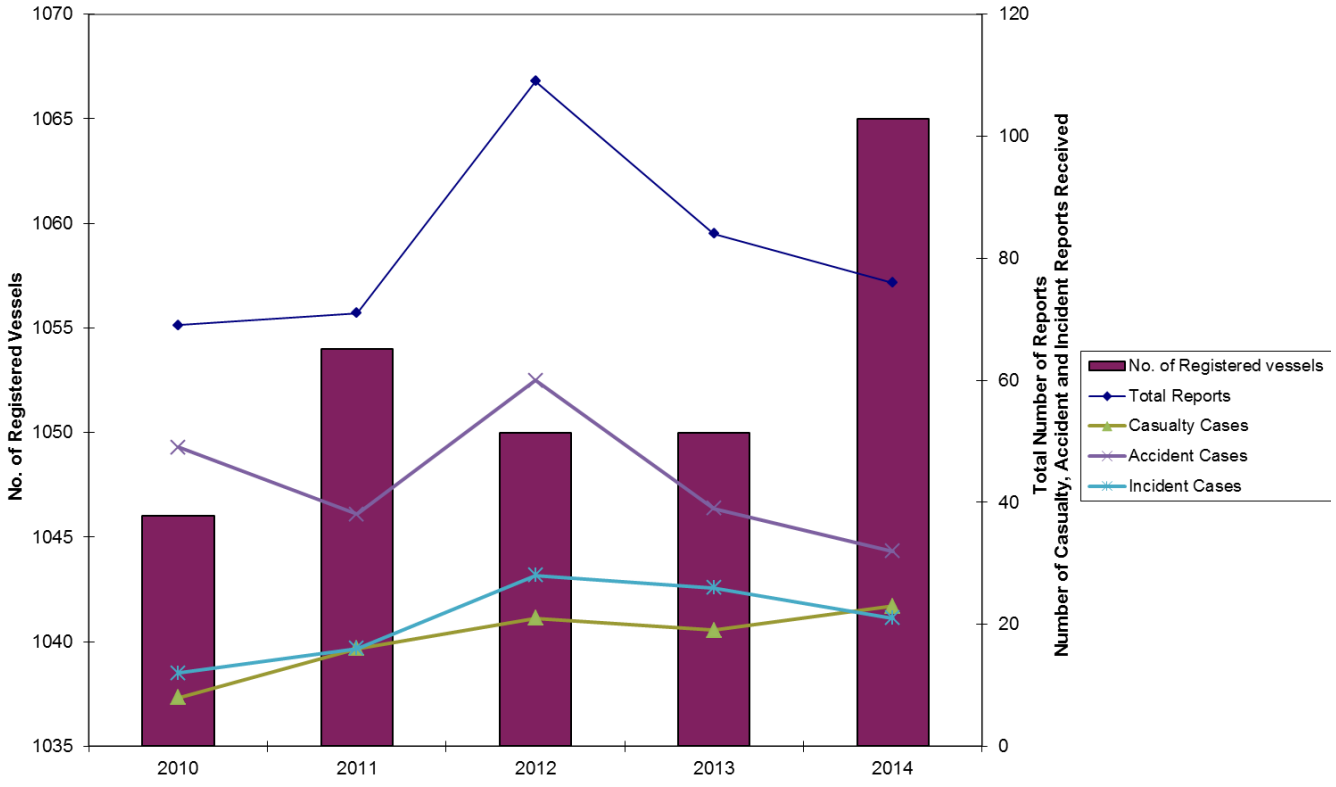
There were no reported occurrences from foreign flagged vessels in Isle of Man territorial waters in 2014.

3.1 ARF Fleet Comparison – Total Fleet

The table below shows occurrences as a percentage of the total Isle of Man registered fleet over 5 years. Isle of Man registered vessels include merchant ships, small ships, commercial yachts, pleasure vessels, fishing vessels, and demise ships.

Year	2010	2011	2012	2013	2014
Total Casualties / Fleet Size	0.8%	1.5%	2.0%	1.9%	2.2%
Casualties – death / Fleet Size	-	-	-	0.2%	0.1%
Casualties – injury / Fleet Size	-	-	-	0.9%	0.9%
Casualties – no injury / Fleet Size	-	-	-	0.8%	1.1%
Total Accidents / Fleet Size	4.7%	3.6%	5.7%	3.7%	3.0%
Accidents – injury / Fleet Size	-	-	-	2.4%	1.5%
Accidents – no injury / Fleet Size	-	-	-	1.3%	1.5%
Incidents / Fleet Size	1.1%	1.5%	2.7%	2.5%	2.0%
Total Occurrences / Fleet Size	**6.6%**	**6.6%**	**10.4%**	**8.0%**	**7.1%**

The graph below shows a comparison between the number of reports received and the number of all Isle of Man registered vessels over the last 5 years. The total number of vessels on the Register each year is calculated as an average from the total number of vessels each month.

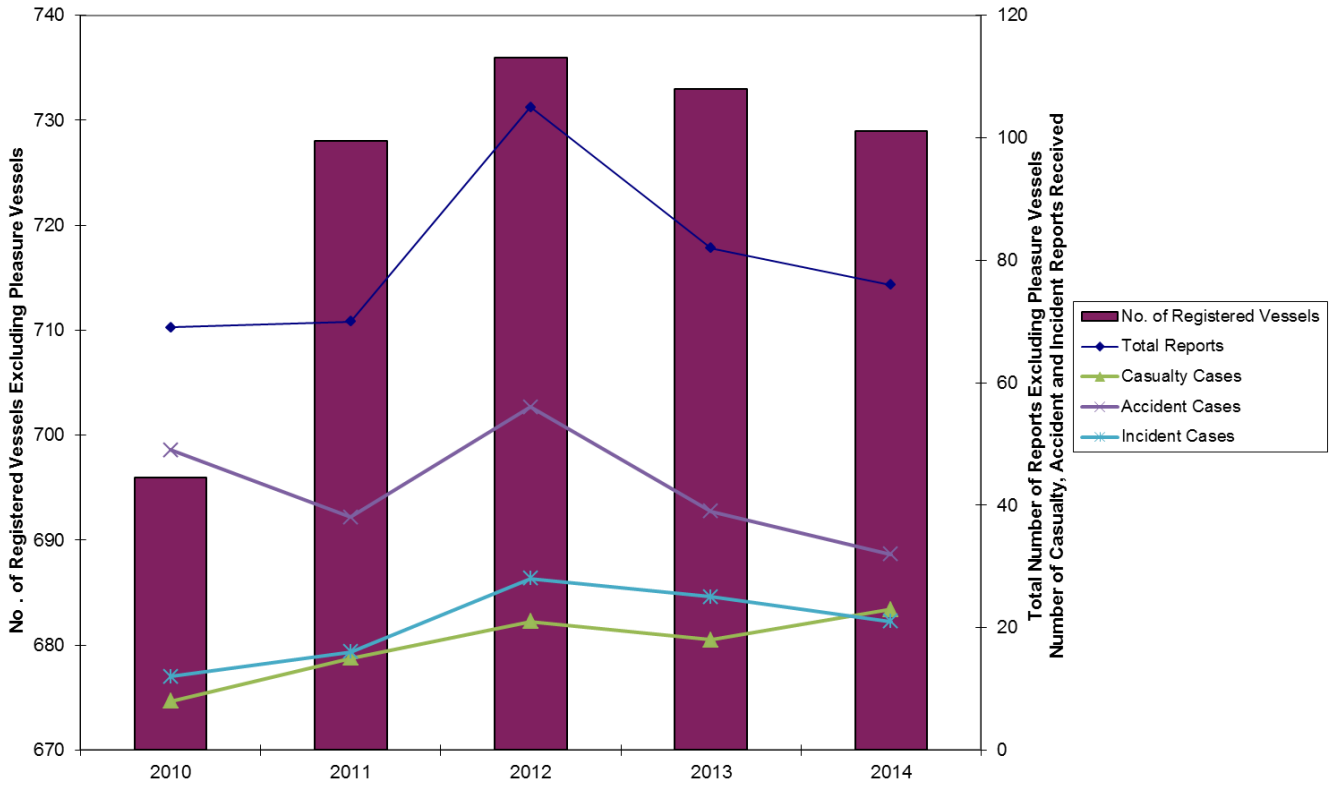


3.2 ARF Fleet Comparison – Total Fleet (Excluding Pleasure Vessels)

The table below shows occurrences with total Isle of Man registered fleet (excluding pleasure vessels) over 5 years.

Year	2010	2011	2012	2013	2014
Total Casualties / Fleet Size	1.1%	2.1%	2.9%	2.5%	3.2%
Casualties – death / Fleet Size	-	-	-	0.3%	0.1%
Casualties – injury / Fleet Size	-	-	-	1.2%	1.4%
Casualties – no injury / Fleet Size	-	-	-	1.0%	1.6%
Total Accidents / Fleet Size	7.0%	5.2%	7.6%	5.3%	4.4%
Accidents – injury / Fleet Size	-	-	-	3.4%	2.2%
Accidents – no injury / Fleet Size	-	-	-	1.9%	2.2%
Incidents / Fleet Size	1.7%	2.2%	3.8%	3.4%	2.9%
Total Occurrences / Fleet Size	**9.9%**	**9.5%**	**14.3%**	**11.2%**	**10.4%**

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.



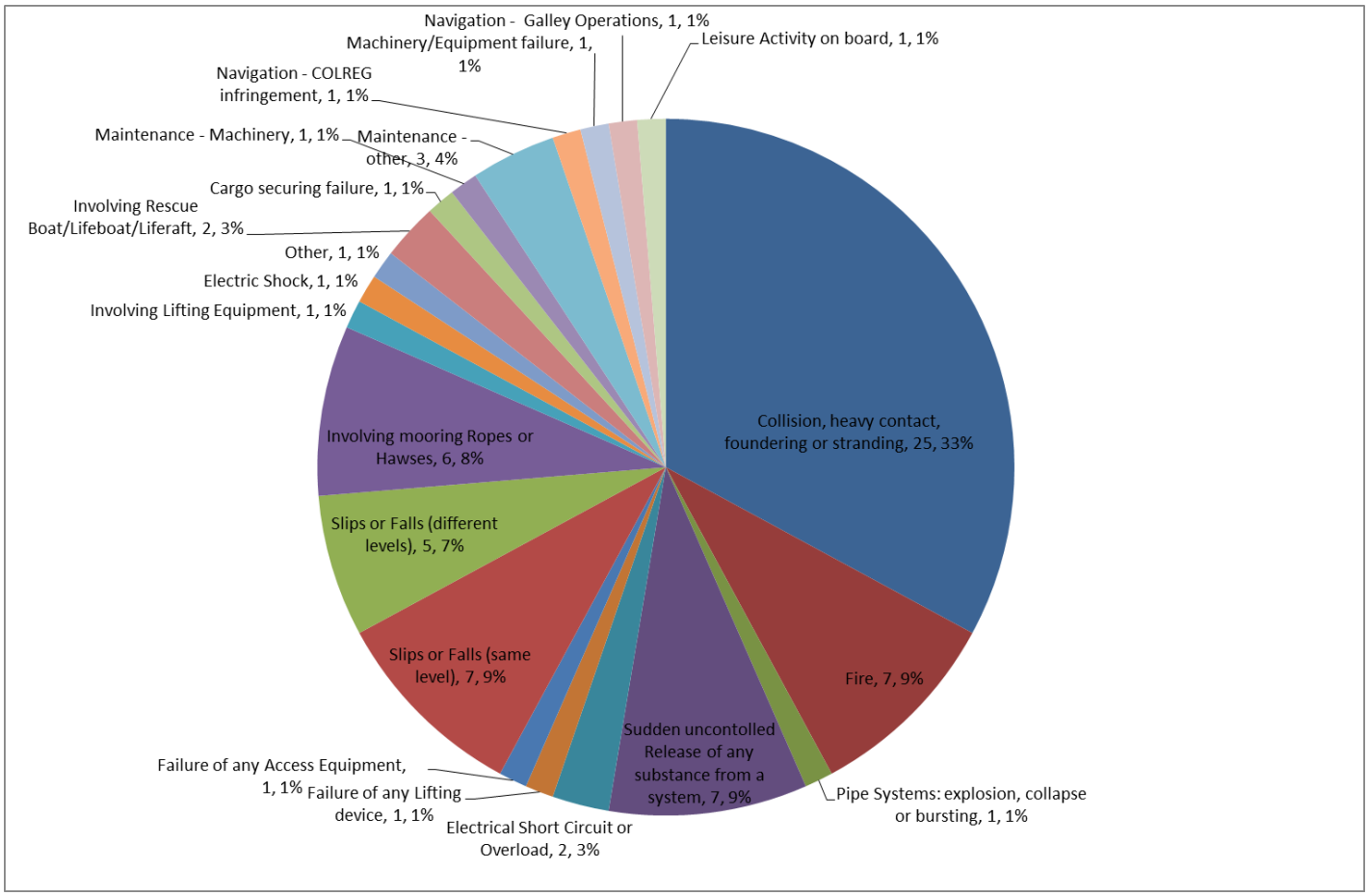
4 Analysis of ARF Reports Received in 2014

The table below summarises the condition the vessels were in at the time of the occurrence.

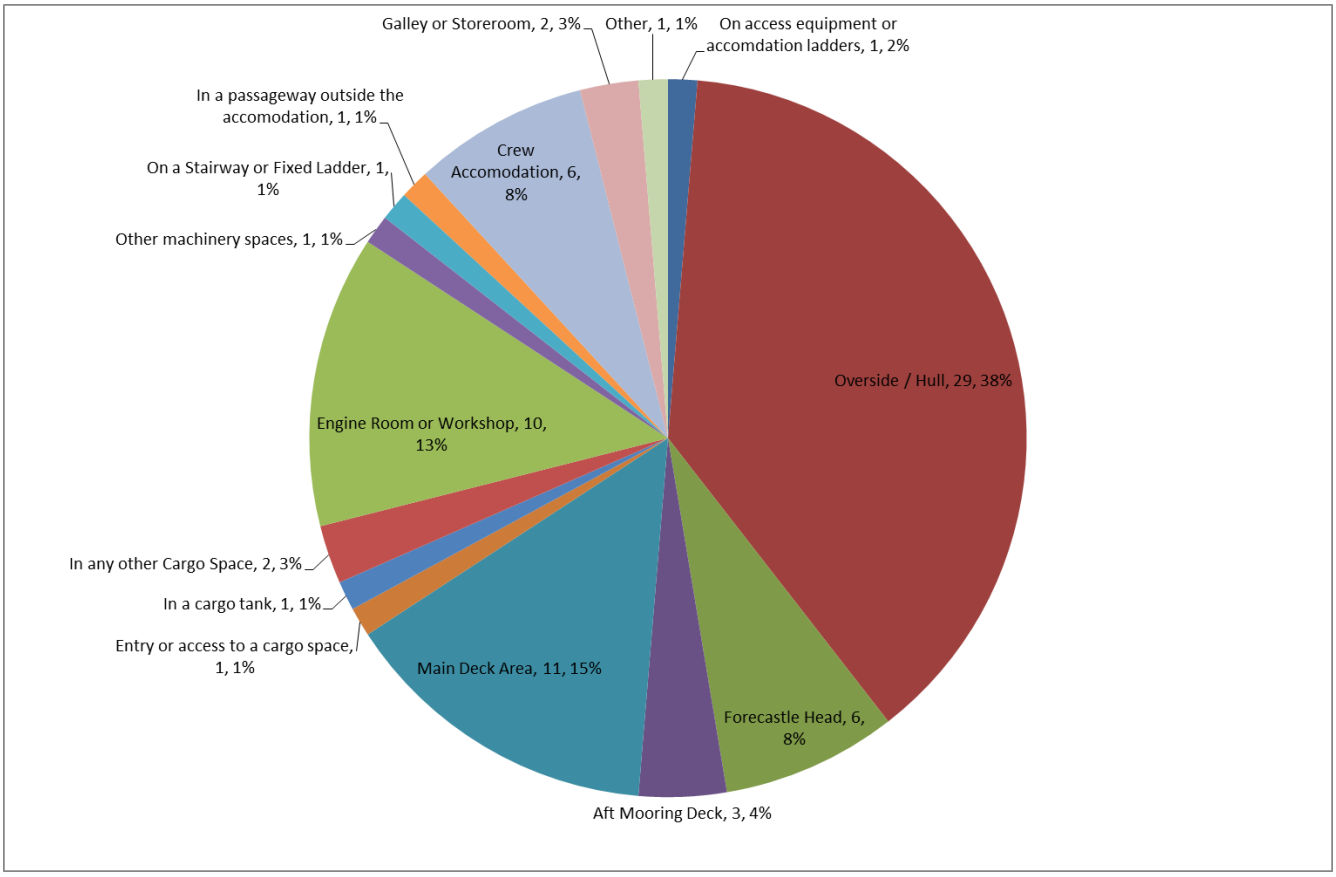
	Total Cases			Cases involving		
	Inc	Acc	Cas	Death**	Cas Injury*	Acc Injury*
Berthed to quay/in shipyard	4	14	5	0	2	10
At anchor/Anchoring/Weighing anchor	5	6	7	1	2	4
Mooring/Unmooring	2	2	3	0	2	1
Making way in port/Confined waters	5	4	1	0	0	0
Making way - open sea	5	6	7	0	4	1
Stopped - drifting/dynamic positioning	0	0	0	0	0	0
Total	**21**	**32**	**23**	**1**	**10**	**16**

*In some cases more than one person may have been injured in the same case.
** Where a case involves deaths and injuries, this is counted once under a death case.

4.1 Type of Occurrences



4.2 Place of Occurrences



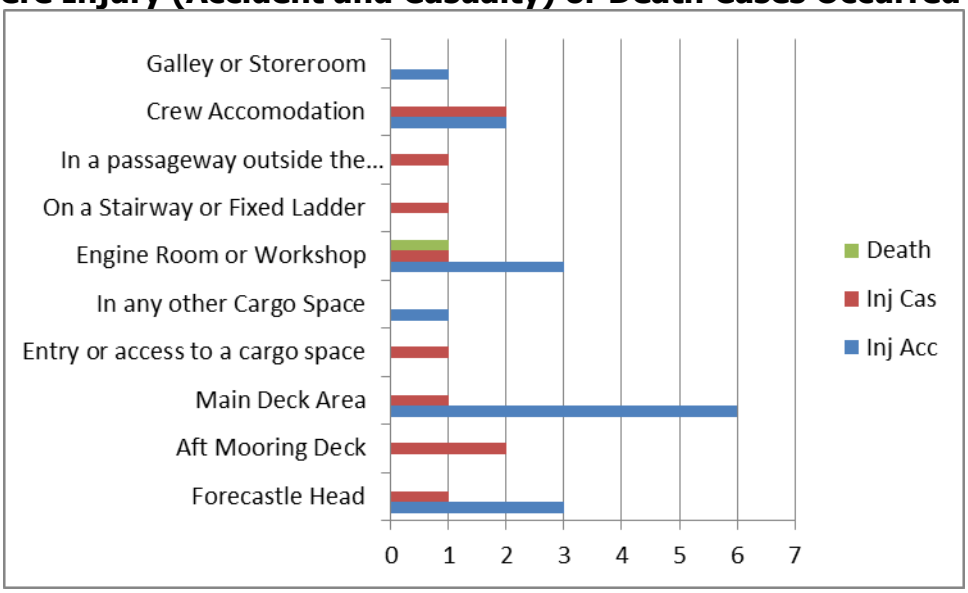
4.3 Number of Injuries and Deaths by Rank

Rank	Injury Accident	Injury Casualty	Death	Serious Injury*
Master	0	1	0	1
Ch. Off	3	0	0	
OOW Nav	2	1	0	1
Ch. Eng	0	1	0	1
2nd Eng	4	1	0	1
OOW Eng	0	1	1	1
Electrician	0	0	0	
Deck/Dual Rating	4	4	0	4
Eng Rating	0	0	0	
Deck/Eng Cadet	2	0	0	
Cook/Steward/Purser	1	0	0	
Passenger/Guest	0	0	0	
Visitor/Contractor	0	2	0	2
Total	**16**	**11**	**1**	**11**

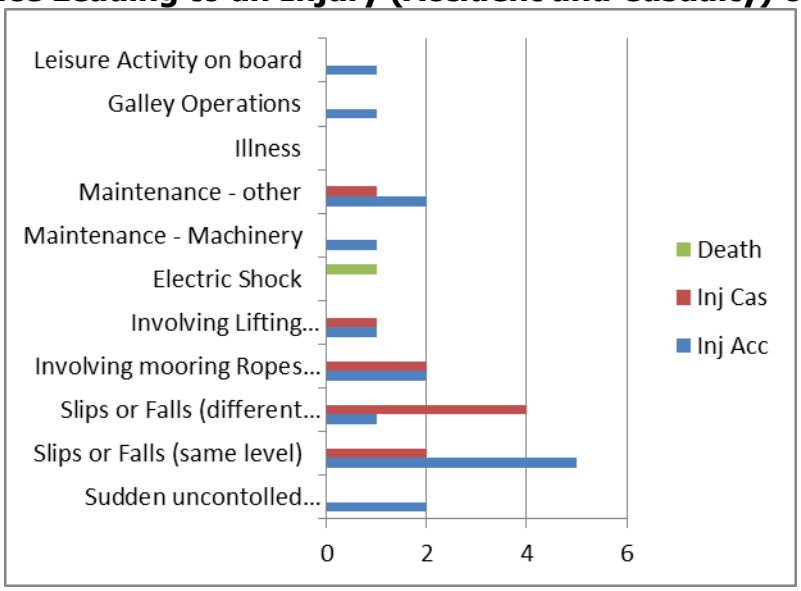
NB The above table represents individual people. In some cases more than one injury may have occurred in the same case.

*Serious injury as defined by IMO Casualty Investigation Code – see Chapter 5.2.

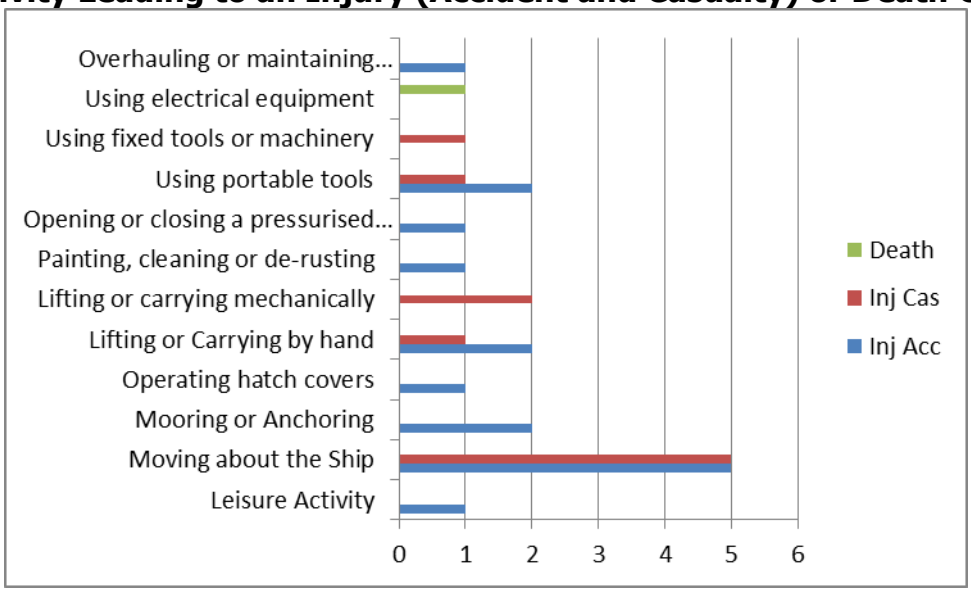
4.4 Places Where Injury (Accident and Casualty) or Death Cases Occurred



4.5 Type of Occurrence Leading to an Injury (Accident and Casualty) or Death Case



4.6 Type of Activity Leading to an Injury (Accident and Casualty) or Death Case



5 IMO Casualty Investigation Code

Reports received by IOMSR in 2014 have been classified in this chapter according to the International Maritime Organisation (IMO) Casualty Investigation Code.

5.1 IMO Casualty Investigation Code Definitions

A **marine incident** means an event, or sequence of events, other than a marine casualty, which has occurred directly in connection with the operations of a ship that endangered, or, if not corrected, would endanger the safety of the ship, its occupants or any other person or the environment. However, a marine incident does not include a deliberate act or omission, with the intention to cause harm to the safety of a ship, an individual or the environment.

A **marine casualty** means an event, or a sequence of events, that has resulted in any of the following which has occurred directly in connection with the operations of a ship:

.1 the death of, or *serious injury* to, a person;
.2 the loss of a person from a ship;
.3 the loss, presumed loss or abandonment of a ship;
.4 *material damage* to a ship;
.5 the stranding or disabling of a ship, or the involvement of a ship in a collision;
.6 material damage to marine infrastructure external to a ship, that could seriously endanger the safety of the ship, another ship or an individual; or
.7 severe damage to the environment, or the potential for severe damage to the environment, brought about by the damage of a ship or ships.

However, a marine casualty does not include a deliberate act or omission, with the intention to cause harm to the safety of a ship, an individual or the environment.

Serious injury means an injury which is sustained by a person, resulting in incapacitation where the person is unable to function normally for more than 72 hours, commencing within seven days from the date when the injury was suffered.

Material damage in relation to a marine casualty means:

1. damage that:
    a. significantly affects the structural integrity, performance or operational characteristics of marine infrastructure or a ship; and
    b. requires major repair or replacement of a major component or components; or
2. destruction of the marine infrastructure or ship.

A **very serious marine casualty** means a marine casualty involving the total loss of the ship or a death or *severe damage* to the environment. (NB this does not include death by natural causes). A marine safety investigation shall be conducted into every very serious marine casualty.

Severe damage to the environment means damage to the environment which, as evaluated by the State(s) affected, or the flag State, as appropriate, produces a major deleterious effect upon the environment.

5.2 Reported Cases Classified as per IMO Casualty Investigation Code

The following table represents the cases reported to IOMSR in 2014 classified as per the IMO Casualty Investigation Code for different vessel types.

	Passenger	Oil	Chem	Gas	Bulk	Offshore/ Standby	Other Cargo	Comm Yacht	PV	FV
Very Serious Marine Casualty:					**1**					
Death					1					
Severe Damage to Environment										
Loss of Ship										
Marine Casualty:		**4**		**1**	**7**	**3**	**5**	**2**		
Serious Injury		3			3	1	1	2		
Material Damage to Ship		1		1	2	2				
Stranding, Disabled, Collision					2		4			
Marine Incident:	**2**	**7**		**3**	**11**	**5**	**16**	**9**		

The following table represents the cases reported to IOMSR in 2014 classified as per the IMO Casualty Investigation Code.

Year	**2014**	**2014 Cases**
Number of Registered Vessels	1065	
Number of Reports Received	76	

Very Serious Marine Casualty Cases	Death	1	See Chapter 4.3 – by rank See Chapter 6.2 Case 13
	Severe Damage to Environment		
	Loss of Ship		
	Total Cases	**1**	

Marine Casualty Cases	Serious Injury	10	See Chapter 4.3 – by rank See Chapter 6.2 Cases 1, 2, 3, 4, 11, 12,14, 17, 20, 23
	Material Damage to Ship	6	See Chapter 6.2 Cases 5, 6, 7, 9, 10, 18
	Stranding, Disabled, Collision	6	See Chapter 6.2 Cases 8, 15, 16, 19, 21, 22
	Total Cases	**22**	

Marine Incident Cases	**Total Cases**	**53**	See selected cases in Chapters 7 and 8

The numbers of Marine Incident, Marine Casualty and Very Serious Marine Casualty cases are reported by IOMSR to the International Maritime Organisation annually.

6 Casualties in 2014

A total of 23 casualty cases* reported in 2014 are outlined below.

Casualties	Berthed/ Docked	At Anchor/ Anchoring/ Weighing Anchor	Mooring/ Unmooring	Making Way in Port/ Confined Waters	Making Way Open Sea	Drifting	Total
Passenger	0	0	0	0	0	0	**0**
Oil	1	0	1	0	2	0	**4**
Chem	0	0	0	0	0	0	**0**
Gas	0	0	0	0	1	0	**1**
Bulk	0	3	1	0	4	0	**8**
Offshore/Standby	2	0	1	0	0	0	**3**
Other cargo Vessel	1	3	0	1	0	0	**5**
Comm Yacht	1	1	0	0	0	0	**2**
Pleasure Vessel	0	0	0	0	0	0	**0**
Fishing Vessel	0	0	0	0	0	0	**0**
Total	**5**	**7**	**3**	**1**	**7**	0	**23**
Injury cases	**2**	**2**	**2**	0	**4**	0	**10**
Death cases	0	**1**	0	0	0	0	**1**

*In some cases more than person may have been injured in the same case.

6.1 Place of Injury (casualty) or Death by Rank (number of people)

	Forecastle Head	Aft Mooring Deck	Main Deck Area	Entry or access to a cargo space	Engine Room or Workshop	On a Stairway or Fixed Ladder	In a passageway outside the accommodation	Crew Accommodation	Total
Master	0	0	0	0	0	1	0	0	**1**
Ch. Off	0	0	0	0	0	0	0	0	**0**
OOW Nav	0	0	0	0	0	0	0	1	**1**
Ch. Eng	0	0	0	0	0	0	0	1	**1**
2nd Eng	0	0	0	0	0	0	1	0	**1**
OOW Eng	0	0	0	0	2	0	0	0	**2**
Electrician	0	0	0	0	0	0	0	0	**0**
Deck/Dual Rating	1	1	2	0	0	0	0	0	**4**
Eng Rating	0	0	0	0	0	0	0	0	**0**
Deck/Eng Cadet	0	0	0	0	0	0	0	0	**0**
Cook/Steward/Purser	0	0	0	0	0	0	0	0	**0**
Pax/Guest	0	0	0	0	0	0	0	0	**0**
Visitor/Contractor	0	1	0	1	0	0	0	0	**2**
Total	**1**	**2**	**3**	**1**	**2**	**1**	**1**	**3**	**12**

6.2 Brief Summary of All Casualty Cases in 2014

1 Commercial Yacht – Injury Case
The crew were involved launching the tender vessel whilst at anchor. With the tender boat suspended over the side rail a snatch block fixed to a bollard failed causing the rope to hit a crew member in the leg, breaking her leg.

2 Oil Tanker – Injury Case
An engineer was wearing gloves and using a strip of emery cloth to polish a shaft that was turning in a lathe in the engine room workshop where he severed 3 of his fingers. An investigation found the engineer was using a strip of emery cloth in an unsafe manner on a shaft rotating in a lathe.

3 Commercial Yacht – Injury Case
The chief engineer fell down some stairs breaking his wrist. Details of why he fell could not be established.

4 Offshore Vessel – Injury Case
Whilst preparing the extremity of an umbilical a wire sling was passed over an aft chute. A project contractor who was tending to the wire sling was stood with both feet in the bight. Another contractor told him to get out of the bight but the contractor removed only one foot from the bight. Seconds later the wire sling slipped very fast over the chute and the contractor's foot became trapped in the tightened bight and he fell to the deck. He suffered a fractured leg.

5 Oil Tanker
Whilst unmooring the pilot ordered 10% power on the tug's line attached to bitts on the poop deck. It was reported that an excessive load wad was applied by the tug to the line which resulted in the bitts being ripped out of the deck and the deck plating suffering significant damage.

6 Bulk Carrier
The vessel was making in open seas when the fire alarm was raised after a diesel generator caught fire in the engine room. The vessel was then stopped and drifting in blackout conditions. Engine room vents and dampers were closed and CO2 was injected into the engine room which successfully extinguished the fire.

7 Bulk Carrier
During a lifeboat drill the lifeboat was moved from the stowed position to the main deck level. As the lifeboat approached the main deck level a crew member attempted to apply the brake but could not do so. Additional crew members tried to help control the brake. By the time the brake was applied the lifeboat had reached the water and was being dragged along. The vessel was stopped and an inspection made where it was discovered the lifeboat had broken into several pieces, damaged beyond repair.

8 Bulk Carrier
Whist at anchor in strong wind conditions the vessel swung and collided with another vessel at anchor causing damage to both vessels' hulls.

9 Offshore Vessel
Whilst alongside in port the ship's crane was being used to load stores and equipment. During this operation the crane's hydraulic hose became caught around a bollard on the quay. As the crane continued to swing the hose ripped off the crane and spilled hydraulic oil into the dock water.

10 Offshore Vessel
Whilst in dry dock frames were being cut using oxy-acetylene in a ballast tank. During the cutting heat transferred to an adjacent store room igniting electrical stores and components. The fire was eventually extinguished by the ship's fire team. Heat and fire damaged the ship's cabling and structure.

11 Other Cargo Ship – Injury Case
Whilst the vessel was at anchor a crew member was walking down external stairs in the early morning where he slipped, fell down the stairs and broke his leg. The stairs were damp with the early morning dew.

12 Bulk Carrier – Injury Case
The vessel was making way through a known piracy area where 2 crew members were making rounds on the main deck. The crew members noticed a security light had come loose and attempted to fix it. As they were fixing the light a wave broke on the main deck washing the 2 crewmen down the deck and injuring them both.

13 Bulk Carrier – Death Case
An engineer officer was found in the engine room workshop under electrocution whilst gripping a cargo light he had been attempting to repair. The power was cut off and the engineer examined where it was determined he had died.

- This case was the subject of an Isle of Man Ship Registry investigation.

14 Bulk Carrier – Injury Case
Whilst removing a piece of sheet metal from a pile of sheet metal, the pile of sheet metal fell onto a crew member fracturing his leg.

15 Bulk Carrier
Whilst at anchor the officer of the watch was unaware the vessel was dragging its anchor. The vessel subsequently collided with another vessel at anchor. Both vessels suffered significant hull damage.

- This case was the subject of an Isle of Man Ship Registry investigation.

16 Other Cargo Ship
The vessel was approaching the berth with a pilot on board with tug-boats assisting. The pilot gave the forward and aft tug boats orders to counteract the vessel's swing. The forward tug failed to carry out the pilot's orders and the stern of the vessel was pushed heavily into the quayside cracking the vessel's hull.

17 Oil Tanker – Injury Case
Whilst in dry dock a subcontractor working in the engine room fell 4.5m from the upper platform though an opening in the floor plating that had been removed to allow access for machinery parts. The opening had safety rails in place on all sides except for one. One side of safety rails had previously been removed and not replaced following transport of machinery parts. No other safety measures had been put in place around the opening. The subcontractor suffered severe fractures to major bones in his body.

18 Gas Carrier
Whilst making way in open sea on a ballast voyage it was noticed during a routine inspection that a deepwell pump shaft had become stuck in position. The cargo tank was made gas free and on inspection several cracks were noticed in the longitudinal bulkheads. The remaining cargo tanks were made gas free and inspections made where more cracks were discovered.

19 Other Cargo Ship
The vessel was moored alongside conducting cargo operations when another vessel attempted to moor ahead of it in an adjacent berth and collided. Significant structural damage was sustained to the bow.

20 Bulk Carrier – Injury Case
Whilst making way in open seas, crew members under the supervision of the chief officer attempted to correct a section of anchor cable that had become twisted in the windlass. The crew were using a chain block and wire arrangement to move the cable with the aid of crowbars. As the anchor cable began to turn the chain block failed and the hook struck a crew member in the face causing him significant injury.

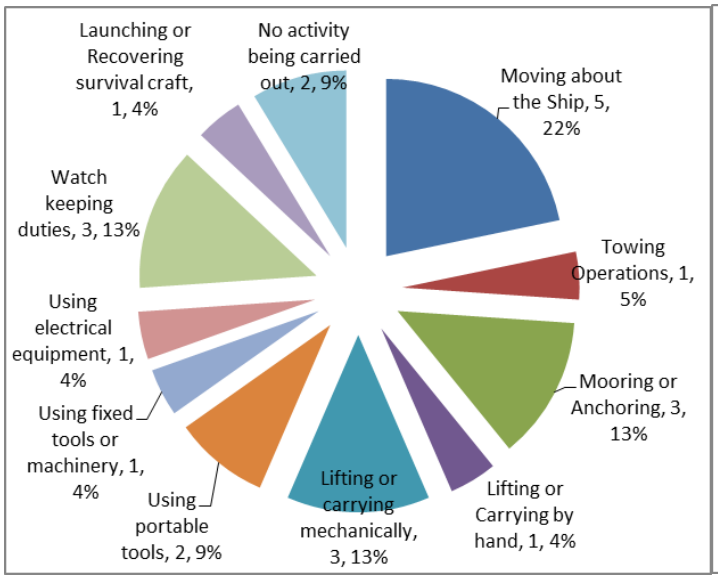
21 Other Cargo Ship
The vessel ran aground in a river at low tide causing damage to the hull.

22 Other Cargo Ship
The vessel dragged its anchor and collided with another vessel lying 1.5 cables astern. The vessel collided before the officer of the watch realised and the main engine started.

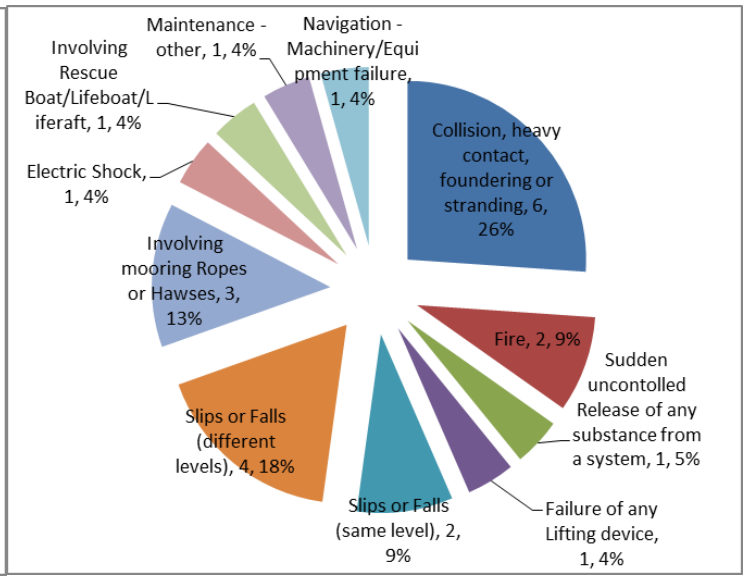
23 Oil Tanker – Injury Case
The vessel was involved in the rescue of crew of a pleasure vessel in bad weather. Whilst rushing to prepare equipment for the survivors a crew member fell down some stairs inside the accommodation when the ship rolled and dislocated his ankle.

6.3 Casualty Chart Representations

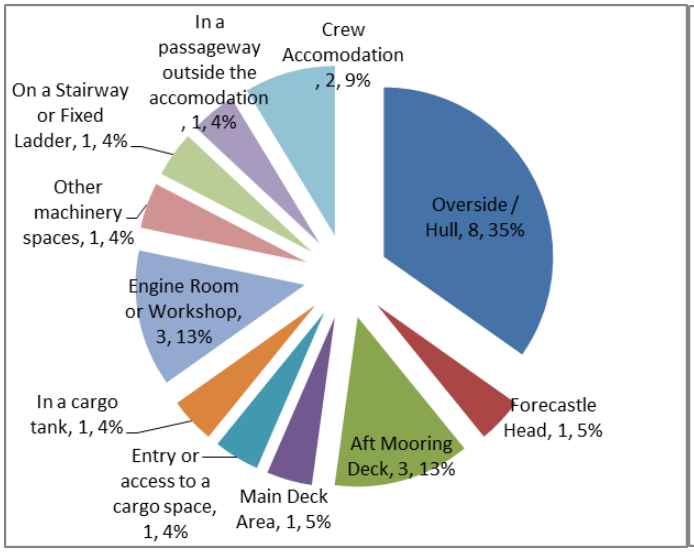
2014 Casualty Activities



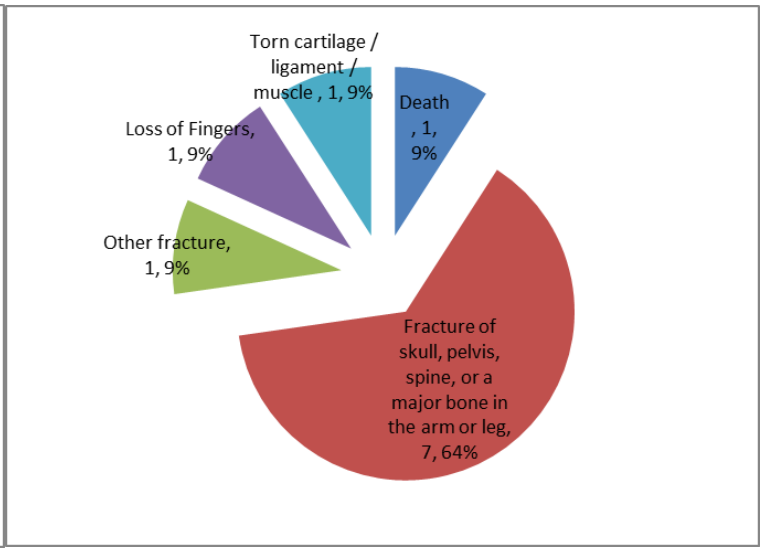
2014 Casualty Types



2014 Casualty Places



2014 Casualty Injuries



7 Accidents in 2014

A total of 32 accident cases* reported in 2014 are outlined below.

Accidents	Berthed/ Docked	At Anchor/ Anchoring/ Weighing Anchor	Mooring/ Unmooring	Making Way in Port/ Confined Waters	Making Way Open Sea	Drifting	Total
Passenger	1	0	0	0	0	0	**1**
Oil	1	2	1	0	1	0	**5**
Chem	0	0	0	0	0	0	**0**
Gas	0	0	0	1	1	0	**2**
Bulk	2	0	0	1	1	0	**4**
Offshore/Standby	1	1	0	0	1	0	**3**
Other cargo Vessel	6	3	0	0	1	0	**10**
Comm Yacht	3	0	1	2	1	0	**7**
Pleasure Vessel	0	0	0	0	0	0	**0**
Fishing Vessel	0	0	0	0	0	0	**0**
Total	**14**	**6**	**2**	**4**	**6**	**0**	**32**
Injury cases	**10**	**4**	**1**	0	**1**	0	**16**

*In some cases more than person may have been injured in the same case.

7.1 Place of Injury (accident) by Rank (number of people)

	Forecastle Head	Main Deck Area	In any other Cargo Space	Engine Room or Workshop	Crew Accommodation	Galley or Storeroom	Total
Master	0	0	0	0	0	0	**0**
Ch. Off	0	2	1	0	0	0	**3**
OOW Nav	0	1	0	0	1	0	**2**
Ch. Eng	0	0	0	0	0	0	**0**
2nd Eng	0	1	0	3	0	0	**4**
OOW Eng	0	0	0	0	0	0	**0**
Electrician	0	0	0	0	0	0	**0**
Deck/Dual Rating	3	1	0	0	0	0	**4**
Eng Rating	0	0	0	0	0	0	**0**
Deck/Eng Cadet	0	1	0	0	1	0	**2**
Cook/Steward/Purser	0	0	0	0	0	1	**1**
Pax/Guest	0	0	0	0	0	0	**0**
Visitor/Contractor	0	0	0	0	0	0	**0**
Total	**3**	**6**	**1**	**3**	**2**	**1**	**16**

7.2 Brief Summary of Selected Accident Cases in 2014

1 Other Cargo Ship

Whilst the vessel was alongside in port the engineer's alarm sounded in the early hours and he went to investigate in the engine room. The general alarm sounded shortly afterwards indicating a fire in the engineer's cabin. The fire team assembled, ventilation and power to the cabin was shut off and the fire soon extinguished. It was later determined the most likely cause of the fire was a short circuit of one of the numerous electrical items in the cabin.

2 Other Cargo Ship

The vessel was making way in open sea at night in bad weather with a deck cargo of logs. The vessel started to roll heavily and a noise was heard from the main deck. The deck cargo was viewed from the bridge with a search light where it was noticed cargo stanchions had bent over and part of the log cargo was lost overboard.

3 Offshore Vessel

The cook was preparing steaks in the galley. A gimbal frying pan had been left on for an hour when the cook added vegetable oil which soon ignited. The fire was quickly extinguished using a fire blanket.

4 Oil Tanker – Injury Case

A crew member had spilled some oil on the main deck and left to collect some cleaning equipment. In the meantime another crew member was walking along the deck, slipped on the oil, fell over and slightly injured himself.

5 Commercial Yacht – Injury Case

The crew chef was removing a hot pan from the oven using an oven glove when he accidently touched the pan with his other unprotected hand. He suffered burn injuries to his hand.

6 Commercial Yacht – Injury Case

An engineer was removing the cover of a deck wash pump for routine maintenance when the pressure inside forced the cover to shoot upwards injuring his arm.

7 Other Cargo Ship – Injury Case

Whilst the vessel was alongside in port the crew members were tending to the mooring lines in the changing tidal conditions. During this process another vessel passed by which caused one of the mooring lines to loosen, slip off a bollard, become tight again and struck a crew member in the ankle. The crew member suffered a small fracture to his ankle.

8 Other Cargo Ship

During bunkering operations a small amount of heavy fuel oil spilled onto the main deck. Some of the oil trickled down the ship's side through a scupper. An estimated 2 litres of oil entered the dock water.

9 Other Cargo Ship

The vessel was alongside in port conducting cargo operations where the crew were welding stoppers and D-rings to secure cargo. Some of the crew noticed smoke emerging from a lower 'tween deck cargo hold. The alarm was sounded and the fire team were assembled but the seat of the fire could not be located easily. After consulting the local fire brigade the hold was sealed and

injected with CO2. It was later found that part of a plastic cover and lashing straps on top of steel pipe cargo were burnt.

10 Oil Tanker – Injury Case
During routine maintenance work on an air receiver a crew member was using a large pipe wrench when it slipped and hit his hand. The crew member suffered minor fractures to his hand.

11 Commercial Yacht – Injury Case
A crew member was walking barefoot on the deck carrying stores. When he entered the store room he slipped over on a wet deck and injured himself.

12 Gas Carrier
Vessel was approaching the intended berth with a pilot and tug boats assisting. As the vessel was abeam of another vessel a strong gust of wind caused the bow to suddenly swing. The bow thruster was increased and the anchor let go but the vessel continued to swing and made contact with another berthed vessel causing damage.

13 Gas Carrier
The vessel was departing port and overtaking another vessel in a traffic separation scheme. The officer of the watch arrived on bridge for change of watch and appraised himself of the vessel in the vicinity. Once the watch handover was complete the officer of the watch proceeded to occupy himself with bridge paper work and inserting navigation hazards into the ECDIS whilst also instructing a cadet. Navigation alarms had been deactivated for port departure. With the officer of the watch distracted and not keeping a proper look out the vessel had a minor collision with another vessel causing damage.

14 Other Cargo Ship – Injury Case
A cadet was using an air hose to remove dust on the main deck prior to painting. He left the hose unattended with the air on and stared to walk away. The hose swung quickly under its own force and hit the cadet in the eye.

15 Other Cargo Ship – Injury Case
A crew member was exercising in the ship's gym with a set of weights. When the ship rolled he lost his balance and hit himself in the face with the weights causing a severe laceration.

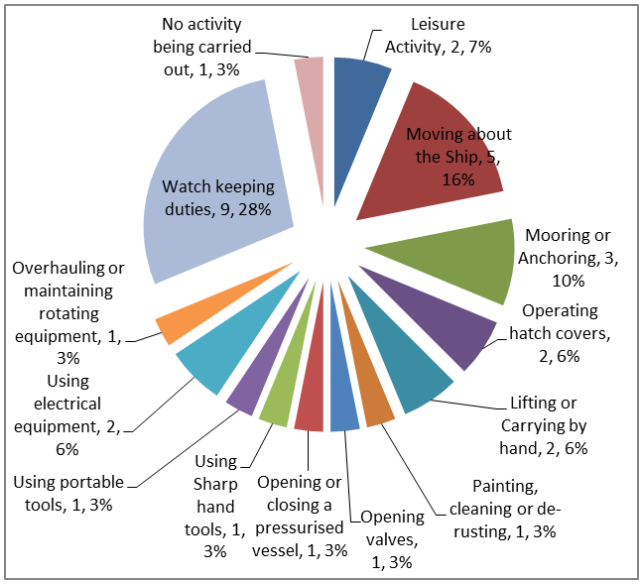
16 Offshore Vessel – Injury Case
An engineer was crouched beside a turbo charger performing a routine oil change. When he stood up his overall pocket caught a water vent cock allowing hot water to escape and spray on his leg. He suffered burns to his leg as a result.

17 Bulk Carrier – Injury Case
Two crewmen were repairing anchor pins to an anchor chain stopper. When one of the crewmen removed the temporary pin, the weight of the anchor chain stopper suddenly caused it to flip and fall to the deck. The crewman kept holding on to it to prevent the fall but the chain stopper was too heavy. As a result, his three middle fingers got crushed between the deck and the anchor chain stopper.

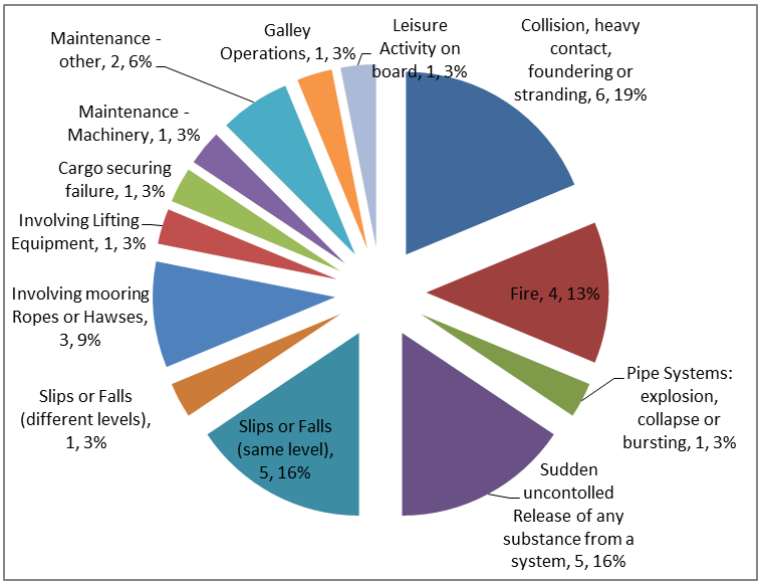
18 Passenger Vessel – Injury Case
An engineer trapped his fingers between a hatch cover and hatch cover frame in the engine room when closing the hatch cover. He suffered deep cuts and fractures to his fingers as a result.

7.3 Accident Chart Representations

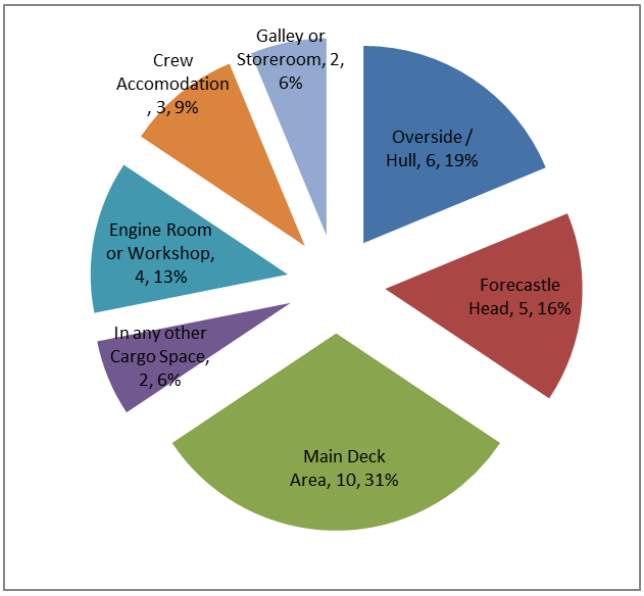
2014 Accident Activities



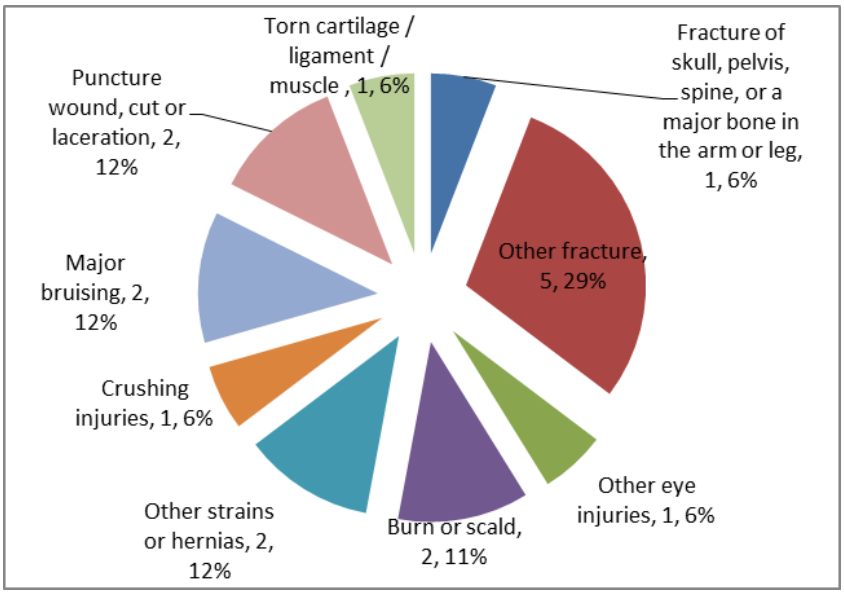
2014 Accident Types



2014 Accident Places



2014 Accident Injuries



8 Incidents in 2014

A total of 21 incident cases reported in 2014 are outlined below.

Incidents	Berthed/ Docked	At Anchor/ Anchoring/ Weighing Anchor	Mooring/ Unmooring	Making Way in Port/ Confined Waters	Making Way Open Sea	Drifting	Total
Passenger	1	0	0	0	0	0	**1**
Oil	0	0	0	1	1	0	**2**
Chem	0	0	0	0	0	0	**0**
Gas	0	0	0	1	0	0	**1**
Bulk	0	5	0	0	2	0	**7**
Offshore/Standby	0	0	0	1	1	0	**2**
Other cargo Vessel	1	0	2	2	1	0	**6**
Comm Yacht	2	0	0	0	0	0	**2**
Pleasure Vessel	0	0	0	0	0	0	**0**
Fishing Vessel	0	0	0	0	0	0	**0**
Total	**4**	**5**	**2**	**5**	**5**	**0**	**21**

8.1 Brief Summary of Selected Incident Cases in 2014

1 Oil Tanker

Whilst making way in a fairway channel the vessel had a minor collision with a fishing boat which had suddenly altered course towards the vessel unexpectedly.

2 Bulk Carrier

Whilst making way in open sea the vessel was in a minor collision with a fishing boat which had suddenly altered course towards the vessel at the last minute. All attempts to signal and communicate with the fishing vessel failed.

3 Other Cargo Ship

Whilst approaching the berth the main switchboard breakers tripped and the vessel suffered a complete blackout and loss of propulsion. The vessel operated on the emergency generator until the generators could be restarted.

4 Bulk Carrier

When attempting to recover a lifeboat following a drill, the lifeboat release hooks malfunctioned and could not be reset. The lifeboat crew boarded the vessel by the embarkation ladder and the lifeboat recovered using fall preventer devices and chain blocks.

5 Commercial Yacht

The crew noticed the smell of burning through the ventilation system. On investigation it was noted that a multi-socket power adaptor was overheating and melting the plastic.

6 Gas Carrier

The vessel was making way up river under pilotage when it was overtaking a barge under tow on its port side. As the vessel was level with the barge the barge veered course and made contact with the vessel's hull. No damage was sustained.

7 Offshore Vessel
Whilst making way in a fairway channel the vessel was in a near miss with a fishing boat which had suddenly altered course towards the vessel unexpectedly. All attempts to signal and communicate with the fishing vessel failed.

8 Other Cargo Ship
Whilst berthing in strong winds the forward spring line parted and the bow started to swing to the quay. The bow thruster did not adequately compensate for the swing and the vessel made contact with some bollards on the quay. No damage was incurred.

9 Other Cargo Ship
During cargo discharge operations the vessel listed. The echo sounder still indicated water beneath the keel however the trim of vessel by the stern meant the vessel sat on the bottom at the stern section. Soundings also indicated the chart datum depth did not correspond.

10 Bulk Carrier
Whilst at anchor the vessel dragged her anchor in a strong current before the main engine was started to counteract the drag. This continued a further 4 times before the vessel touched bottom after dragging anchor and the engine eventually set at full ahead.

11 Bulk Carrier
Whilst approaching an anchorage area a fishing vessel was sighted to be moving towards the vessel. Despite efforts to avoid collision the fishing vessel and vessel had a glancing blow. No damage was sustained.

12 Bulk Carrier
The vessel anchored in a designated anchorage area where two floating cranes moored to the vessel prior to commencing cargo operations. A short while later the vessel dragged its anchor and touched bottom. No damage, pollution or injury was incurred.

13 Oil Tanker
The vessel was making way in a fairway channel and was being overtaken by a barge very close range. The pilot expressed his concern to the overtaking barge which took no action. The vessel's ability to manoeuvre was hampered by other vessel traffic. When the barge was alongside the vessel the interaction between the vessels caused the barge's bow to swing into the hull of the vessel. Very minor indentation damage was incurred to the vessel's hull.

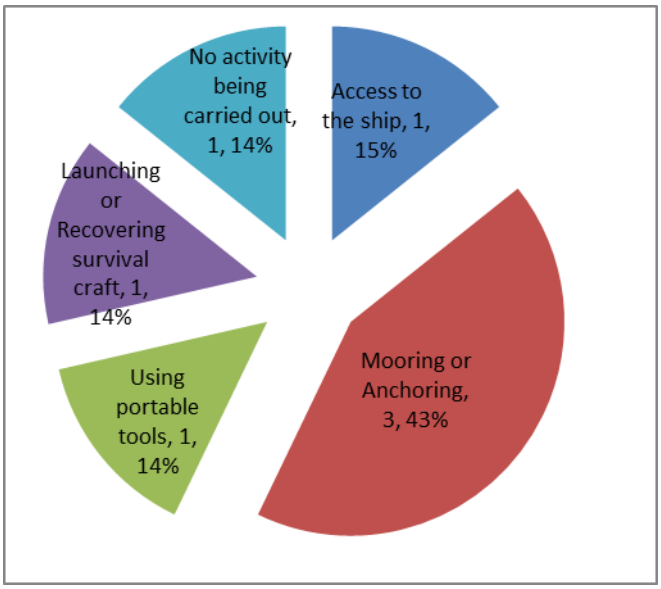
14 Other Cargo Ship
Whilst departing the berth in strong wind conditions the vessel was holding station parallel to the quay under engine power. As the vessel attempted to manoeuvre clear of another moored vessel the wind caused the stern to make contact with the other vessel. Very minor damage was incurred to the vessel's hull.

15 Bulk Carrier
Vessel was lying at anchor when it was struck by another vessel dragging its anchor. The vessel managed to deploy fenders prior to collision to minimise the effect of collision.

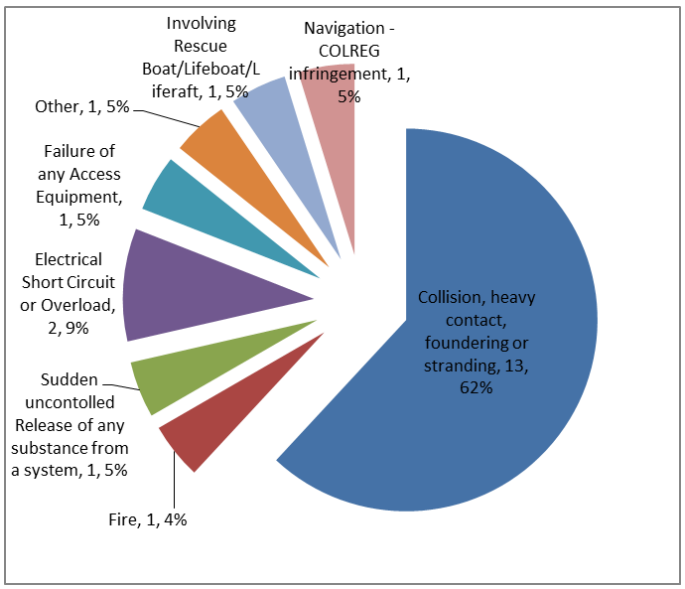
16 Other Cargo Ship
Whilst departing the berth in strong wind conditions the vessel made contact with another moored vessel after letting go the tug boats. No damage was incurred.

8.2 Incident Chart Representations

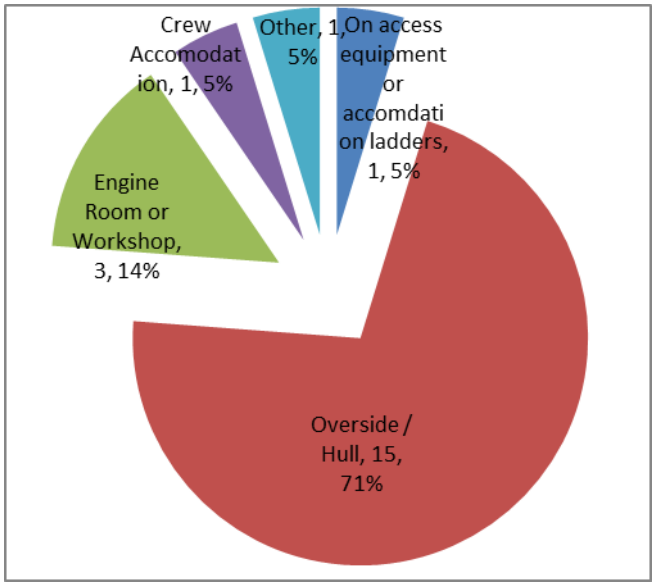
2014 Incident Activities



2014 Incident Types



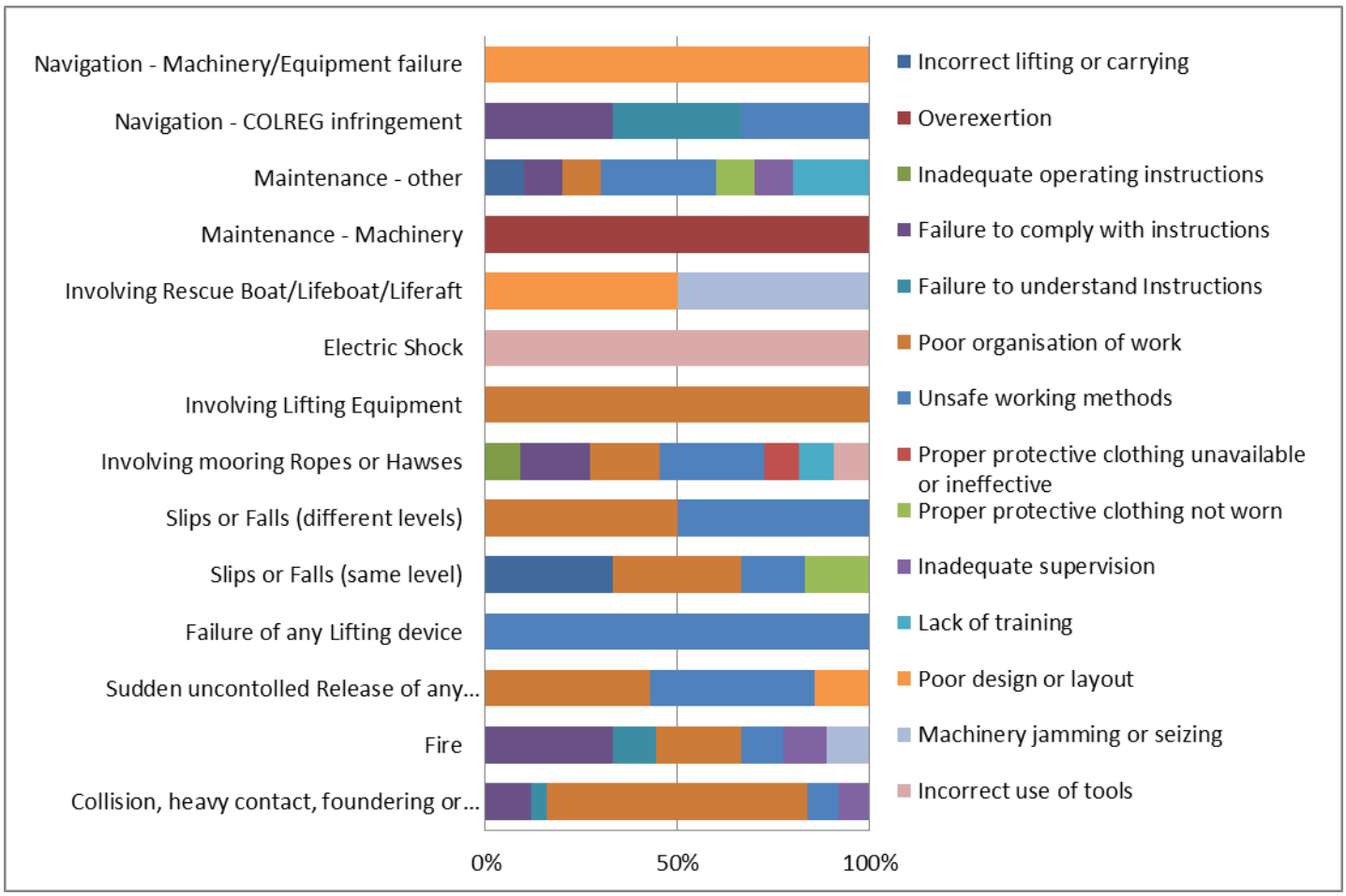
2014 Incident Places



9 Breakdown of Occurrences in 2014 by Cause

The following charts represent 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**.

9.1 Occurrences by Working Method



The chart above shows that the predominant working method cause has been attributed to "poor organisation of work" and "unsafe working methods". Seafarers should avoid taking shortcuts in order to get the job done more quickly. This highlights the importance of effective work planning and risk assessment. A seafarer should not feel they must put themselves in a dangerous situation to complete the job or to save a few minutes of time. Stop and re-evaluate!

"Poor organisation of work" stresses the need for effective planning and execution with good communication. Where poor organisation of work led to a collision or grounding this highlights the need for effective bridge team management.

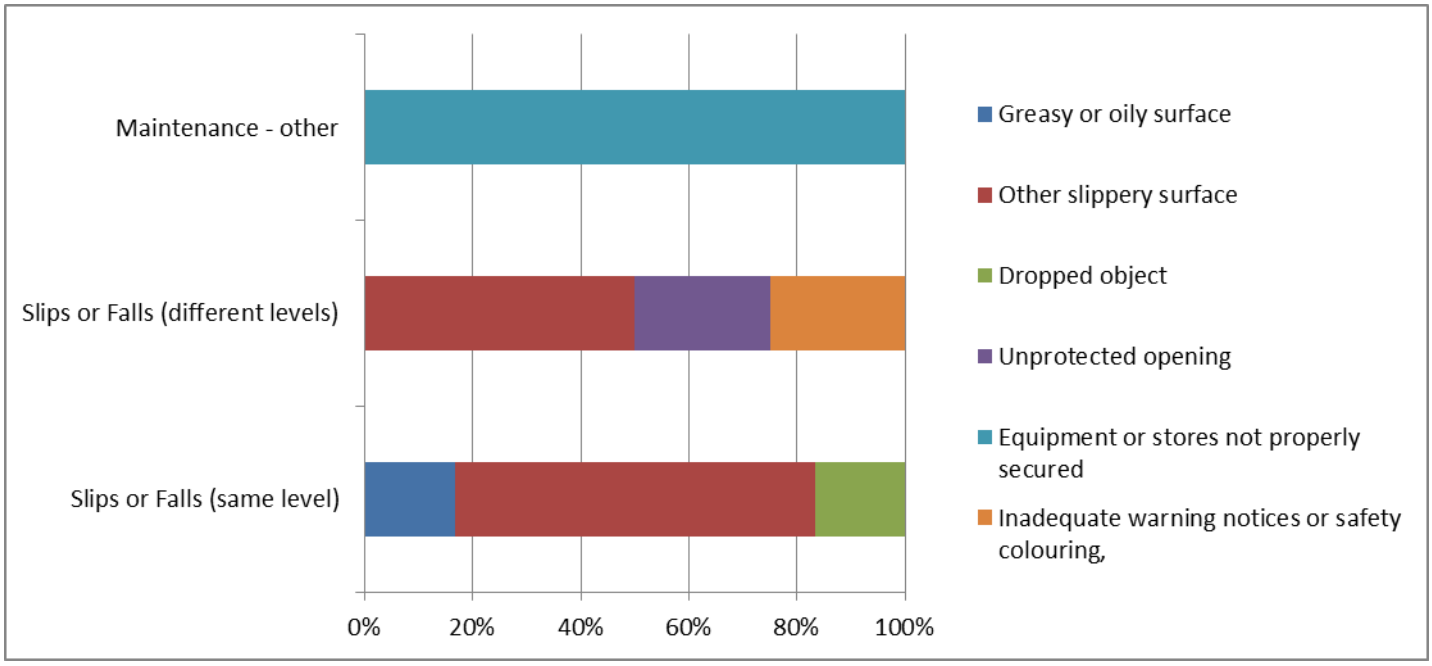
9.2 Occurrences by Ship Access

None reported in 2014.

All personnel boarding a vessel 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 the vessel at all times and to ensure that it is maintained in a safe condition. Everyone intending to board or leave the vessel should be strongly encouraged by the ship's staff to use the safe means of access provided even if a shortcut appears to be an easier 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 and vessel motion.

9.3 Occurrences by Movement About the Ship

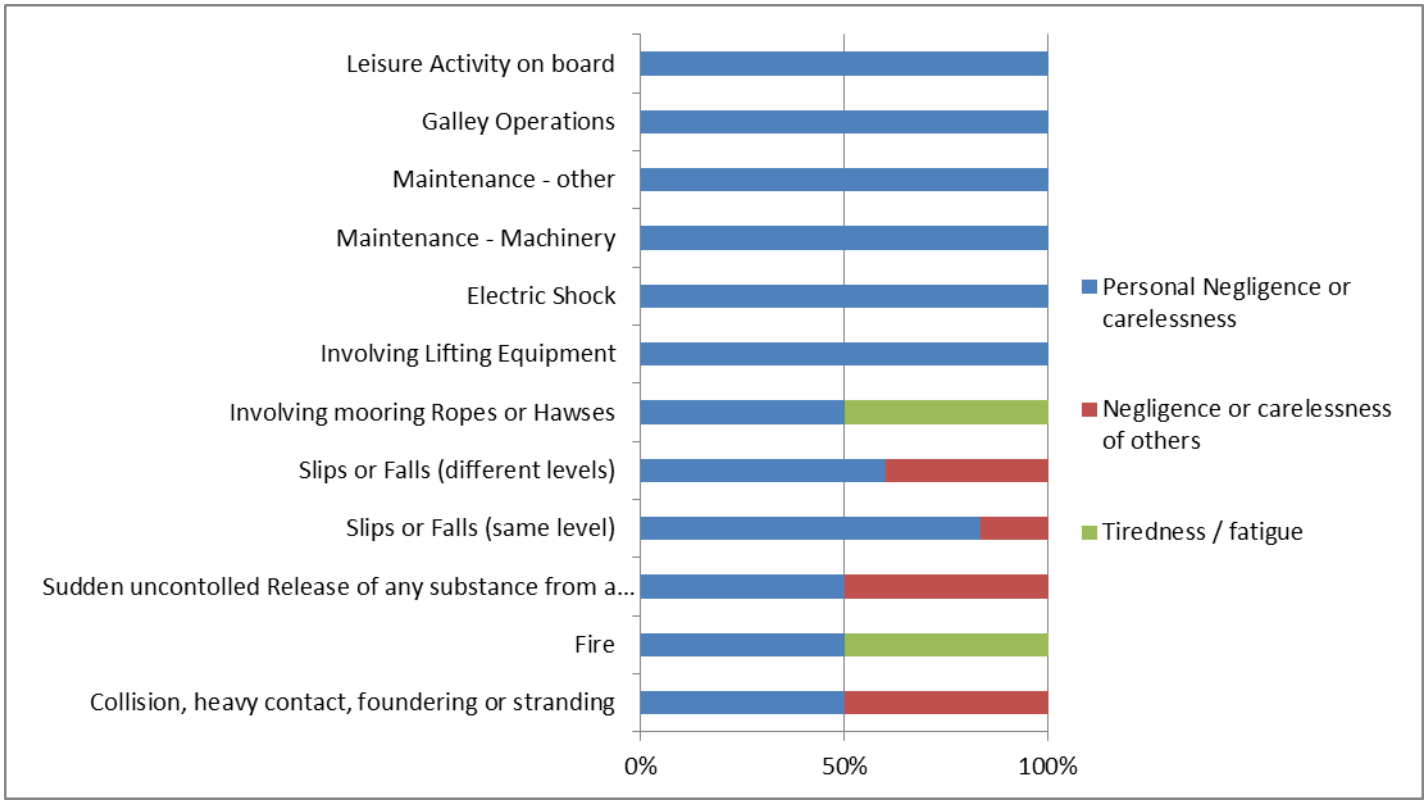


The chart above shows a variety of causes associated with moving about the vessel. Slips and falls on slippery surfaces are still a predominant cause of injuries. Crew members should be aware of any associated risks of slipping when moving about the ship under various conditions.

Where appropriate masters should ensure that deck working areas have non-slip surfaces. This can be achieved by either clearing/cleaning the deck, placing non-slip mats or use of non-slip paint mixes.

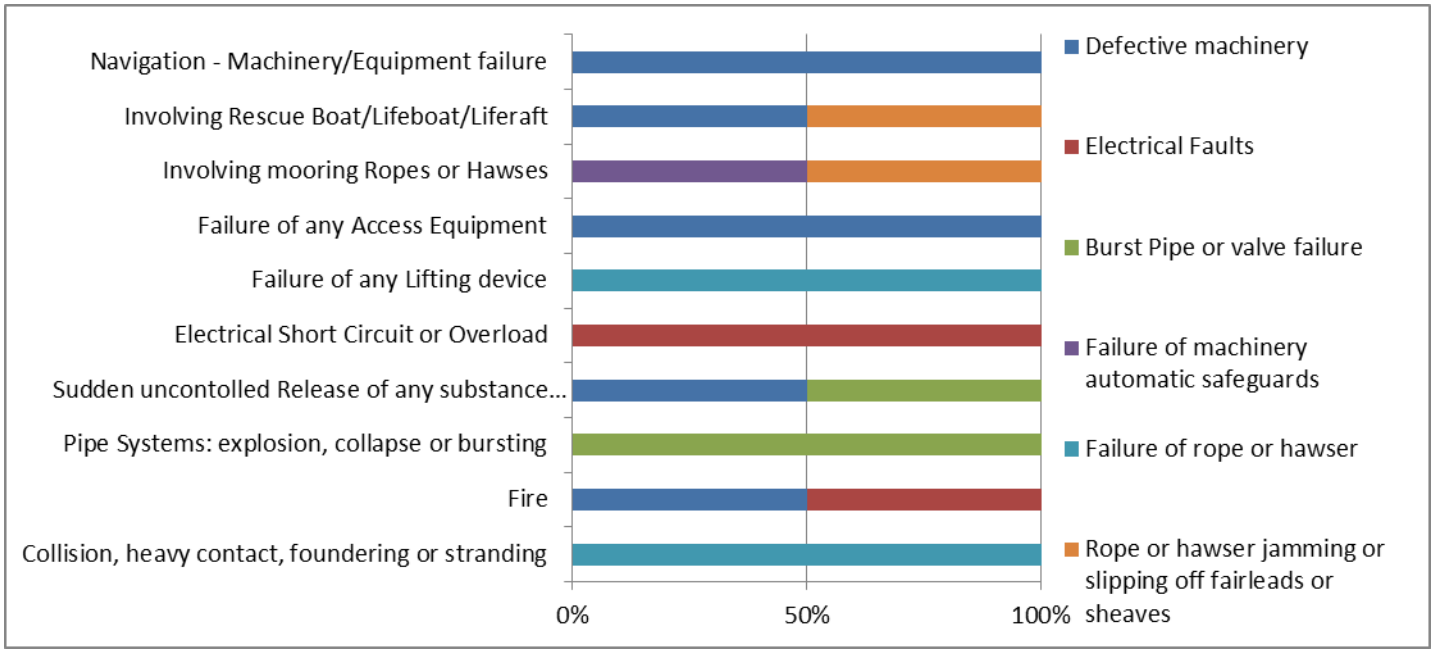
Injuries sustained through unprotected openings can be avoided by effective barriers, signs and communication.

9.4 Occurrences by Human Factor



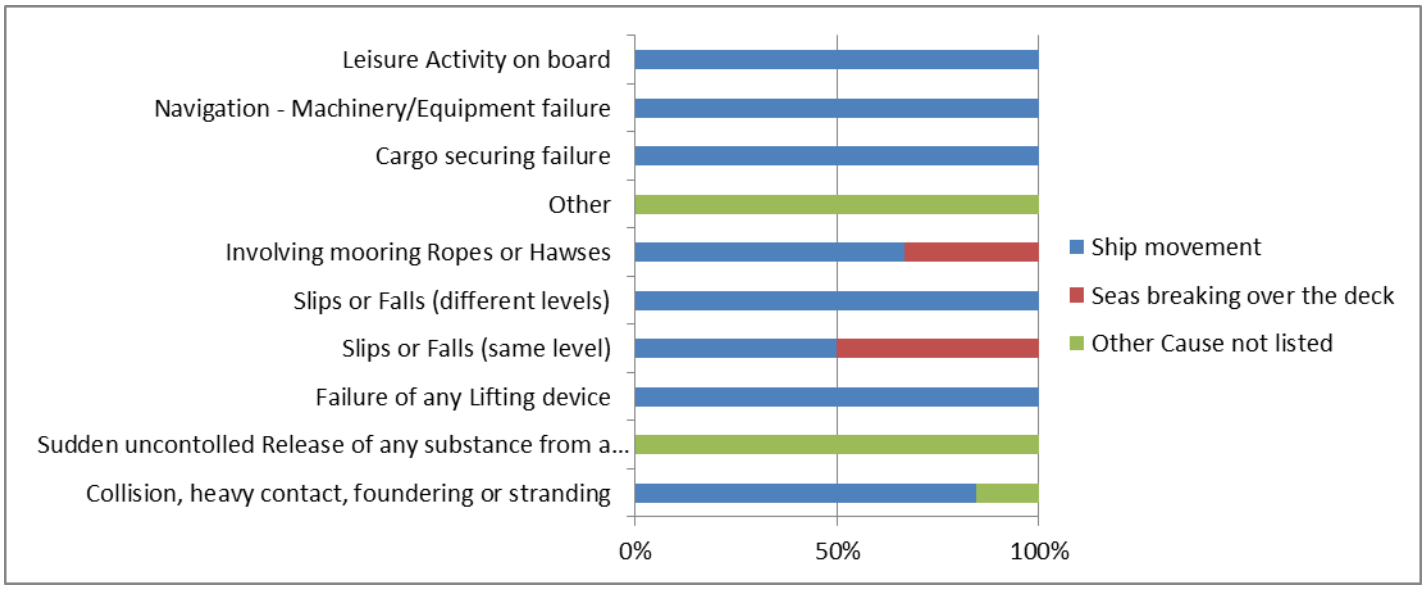
The chart above shows the predominant human factor cause has been attributed to "personal negligence or carelessness". By "human factor" we mean the act or omission of a person to do something that leads to the occurrence happening. This stresses the need for adequate knowledge and training associated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

9.5 Occurrences by Mechanical & Other Equipment



The previous chart shows a variety of causes associated with mechanical and other equipment. Defective machinery and equipment failure stresses the need for effective inspection and maintenance to ensure they are in good condition and fit for purpose.

9.6 Occurrences by Other Miscellaneous Causes



The chart above shows the predominant "other miscellaneous cause" has been attributed to "ship movement". Crew members should take into consideration the movement of the vessel in the prevailing sea and tidal conditions 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.

The "other causes not listed" involved inaccurate charted depth, uncharted underwater obstructions, fuel oil leaking from a tank through the hull into the dock water and suspicious activity from a small craft in a piracy area.

10 Conclusion

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) feature heavily each year, again highlighting the importance of effective care and attention.

2014 saw a significant number of cases involving collisions (including contact with the quay or stationary vessels) and groundings. Numerous cases highlight groundings or collisions as a result of the vessel dragging its anchor. Occurrences involving slips and falls (same and different levels) feature heavily each year, again highlighting the importance of effective care and attention.

Cases involving anchoring highlight the need for an effective anchor plan taking into consideration depth of water, weather and tidal conditions, nature of seabed, holding power of the anchor and the effect of additional vessels moored alongside, e.g. barges, whilst at anchor. Proper provisions should be made by the master to adequately monitor the vessel's anchor position so that the vessel's swing, proximity of other vessels and dragging anchor can be detected in good time.

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 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 not commence until the risks are investigated and measures introduced to reduce the risks to an acceptable level. Risk assessments are designed to be used for this purpose. If the vessel has an appointed safety officer then he or she 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 should be sought.

Seafarers should not take any unnecessary risks with their safety in order to get the job done or take unsafe shortcuts in order to get the job done more quickly. 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 personal protective equipment (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 Seamen 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 003 – Accident Reporting
- Maritime Labour Notice 4.3E
- Code of Safe Working Practices for Merchant Seamen published by the UK Maritime and Coastguard Agency
- 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 Isle of Man Ship Registry welcomes any feedback concerning this report. If you have comments or suggestions for future reports please contact the Isle of Man Ship Registry at the email address above.

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