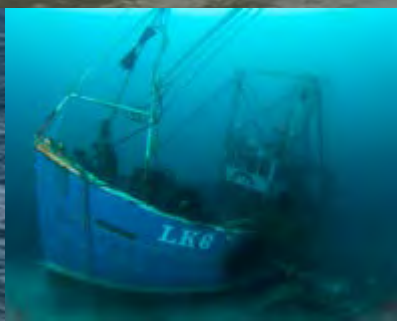
ANNUAL REPORT

2015



MAIB
MARINE ACCIDENT INVESTIGATION BRANCH

This Annual Report is posted on our website: www.gov.uk/maib

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JULY 2016

MAIB ANNUAL REPORT 2015

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MAIB
accident
Recommendation
investigation
report
vessel
required
team
year
UK
lost
fishing
Inspector
Coastguard
subsequently
merchant
marine
awareness
complete
Department
compared
day
lives
deployed
per
number
sank
ensure
stakeholders
require
Arniston
Service
port
occasions
period
draft
implemented
March
particularly
crew
Navy
deploy
syllabus
week
carrier
small
annual
scallop
charges
Transport
foreign
Seven
February
Cemfjord
rejected
working
Southampton
Safety
July
four
resulted
Prosecution
completed
gt
JMT
staff
Agency
Chief
quick
respond
dredger
industry
government
fatal
accepted
months
business
published
investigate
Branch
page
aged
increased
succession
associated
Five
interviews
average
reported
commercial
Maritime
deployments
January
eight
flagged
registered
HOEGH OSAKA
SINGAPORE

CHIEF INSPECTOR'S REPORT

It is encouraging to note that only 1057 accidents were reported to the MAIB in 2015 compared to 1270 in 2014. Also, the number of investigations started in 2015 (28) was less than in 2014 (31). One might think that these trends should have resulted in a reduced workload for the Branch. However, the omens for a particularly busy year were evident from as early as 3 January when the Cyprus registered cement carrier *Cemfjord* sank in the Pentland Firth with the loss of her entire 8-man crew and, on the same day, the pure car carrier *Hoegh Osaka* took a large list and subsequently grounded when departing from the port of Southampton. While a significant number of the available inspectorate was needed to respond to these two accidents, 3 days later a further team was deployed, this time to Spain to investigate a fatal accident involving the UK registered tug *GPS Battler*.

February saw three deployments in quick succession between 10 and 18 February, which included the need for an MAIB team to travel to the United Arab Emirates to investigate a collision between the UK registered container ship *Ever Smart* and a Marshall Islands registered tanker. March and April were quieter periods, when MAIB teams were required to deploy on only four occasions, including to respond to the reported snagging of the fishing vessel *Karen*'s nets by a Royal Navy submarine – an investigation that has not yet been completed more than 15 months after the accident because of the Navy's initial reluctance to co-operate fully with the MAIB. There followed four deployments in quick succession between 2 and 18 May and then a quiet period until 9 July when the scallop dredger *JMT* sank off Plymouth with the loss of two lives. The MAIB subsequently raised the vessel so that its stability could be properly evaluated as part of its investigation.

Shipping is a 24/7 business and accidents can happen at any time. Therefore, the Branch's duty roster is structured to ensure that it is always able to deploy investigation teams 365 days a year. The need for this was emphasised in the 5 weeks between 29 July and 5 September, at the height of the summer vacation season, when MAIB teams deployed on seven occasions. There were then no deployments until 4 October when two separate accidents on fishing vessels on the same day required teams to deploy to Scotland. Thereafter MAIB teams deployed on three further occasions before the year end.

Typically, an MAIB team will spend between 2 days and a week on site collecting perishable evidence and conducting interviews. Further research, follow-up meetings and interviews with stakeholders will then be required before analysis of the causes and circumstances of an accident can be completed and a draft report produced. The MAIB's QA procedures are robust and, in addition to the scrutiny provided by the statutory period of consultation, the report is reviewed by various members of MAIB staff at least 11 times before it is finally published.

Twenty-nine investigation reports, two Safety Digests and a Safety Bulletin were published in 2015.

A higher than usual staff turnover between 2013 and 2014 resulted in a number of new recruits joining the Branch during that period. It takes around 18 months for a new inspector to be trained to the standards required by the Branch. One of the consequences of this is that the time taken to complete investigations

has increased. The resources required to investigate any marine accident will also be dependent on the complexity of the investigation, with timescales being significantly extended by the need to employ external contractors or other factors such as the impact of concurrent criminal prosecutions. For example, the MAIB's investigation of a fatal accident that occurred on board the motor cruiser *Arniston* (published January 2015) took 21.5 months to complete following a request by the Crown Prosecution Service to delay publication of the draft report. However, it took MAIB inspectors only 5.2 months to investigate and publish the report into a fatal accident involving a Fletcher speedboat. The median time taken to complete investigations in 2015 was 11.6 months.

For the sixth year in succession no UK merchant vessels of >100gt were lost. The size of the UK fleet has increased and so the overall accident rate for UK merchant vessels >100gt has fallen to 85 per 1000 vessels from 88 per 1000 vessels in 2014. Two crew lost their lives on UK merchant vessels >100gt during 2015. Only one UK small vessel (<100gt) was lost in 2015 compared with six in 2014.

Thirteen commercial fishing vessels were lost in 2015 compared with 12 in 2014. The average age of the boats lost was 34 years; 62% of these were small vessels under 15 metres (loa). An average of 17 commercial fishing vessels per year have been lost during the last 10 years.

Seven fishermen lost their lives in 2015 compared with eight lives lost in 2014.

Five foreign flagged vessels were lost when trading in UK waters. There were 12 reported deaths of crew working on foreign flagged vessels which include the eight seafarers who were lost when the *Cemfjord* capsized.

Recommendations

Seventy-one recommendations were issued during 2015 to 79 addressees. However, one recommendation was subsequently withdrawn. 83.5s% of the recommendations were accepted, compared with 88.8% in 2014.

Five recommendations were rejected:

- Recommendation 102/2015 (MAIB Report 2/2015 – *Arniston* – page 17) called for the Department for Business, Innovation and Skills to seek changes to the Recreational Craft Directive that would require new vessels at the first point of sale to be fitted with carbon monoxide monitors.
- Recommendation 116/2015 (MAIB Report 7/2015 – *Millennium Diamond* – page 23) called on the Maritime and Coastguard Agency to incorporate in the existing Boatmaster's Licence syllabus an awareness of the dangers of distraction and the speed with which unsafe conditions can develop when navigating on inland waterways.
- Recommendation 129/2015 (MAIB Report 12/2015 – *Ronan Orla* – page 30) called on the Maritime and Coastguard Agency to require owners of under 24m fishing vessels to submit their annual self-certification declarations to the Agency.
- In the same report, Recommendation 130/2015 (page 31) called on the Sea Fish Industry Authority to include the hazards and increased risks associated with lone working and single-handed operations in its syllabus for safety awareness training.
- Recommendation 164/2015 (MAIB Report 28/2015 – *Alexandra 1*/*Eversmart* – page 48) called on DP World, the operator of the port of Jebel Ali, to take a range of actions designed to improve the effectiveness of its vessel traffic and pilotage services.

That four of the five recommendations were rejected by government and industry stakeholders, with whom extensive discussions had been held to ensure the recommendations were proportionate and achievable, is particularly disappointing.

Seven recommendations were partially accepted.

Of the 273 recommendations that had been accepted, but had not been implemented between 2004 and 2014, 82.8% were reported to be fully implemented at the time this report was published.

FINANCE

The annual report deals principally with the calendar year 2015. However, for ease of reference, the figures below are for the financial year 2015/16, which ended on 31 March 2015. The MAIB's funding from the Department for Transport is provided on this basis, and this complies with the Government's business planning programme.

£ 000s	2015/16 Budget	2015/16 Outturn
Costs – Pay	2 803	2 739
Costs – Non Pay	1 185	1 283
Totals	**3 988**	**4 022**

The unplanned salvage costs incurred when raising the scallop dredger *JMT*, which sank off Rame Head, Cornwall in July 2015 resulted in a Non-Pay overspend.

In May 2015, the MAIB moved to new accommodation at Spring Place in Southampton. The building is owned by the Department for Transport and the future saving in office rental charges is worth around £400k per annum to the Exchequer. However, for accounting purposes the MAIB is required to pay rent and other associated charges to its new landlord, the Maritime and Coastguard Agency.

Steve Clinch
Chief Inspector of Marine Accidents

PART 1: 2015 OVERVIEW

CHIEF INSPECTOR'S REPORT

PART 1
2015 OVERVIEW

PART 2
REPORTS AND RECOMMENDATIONS

PART 3
STATISTICS

ANNEX
GLOSSARY
RESOURCES

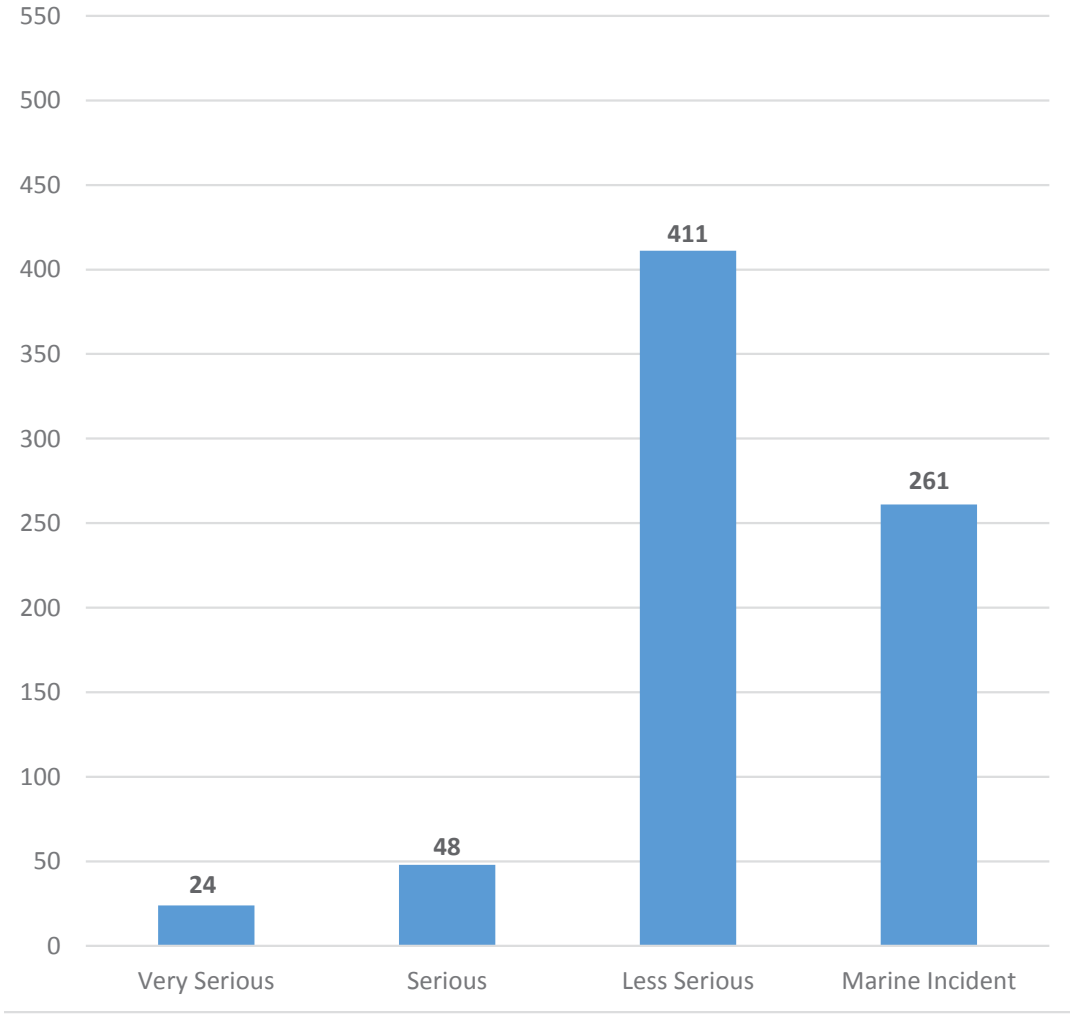
2015: OVERVIEW OF CASUALTY REPORTS TO MAIB

In 2015 1057 accidents (casualties and incidents[1]) to UK vessels or in UK coastal waters were reported to MAIB, these involved 1 194 vessels.

46 of these accidents involved only non-commercial vessels, 447 were occupational accidents that did not involve any actual or potential casualty to a vessel.

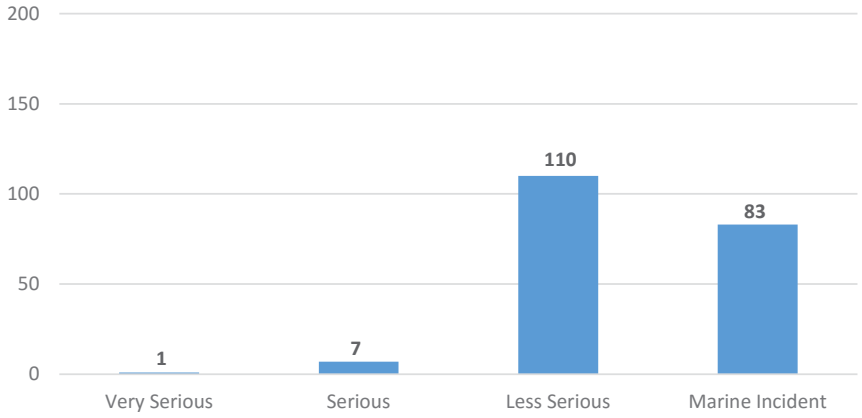
There were 646 accidents involving 744 commercial vessels that involved actual or potential casualties to vessels. These are broken down in the following overview:

UK occurrences: commercial vessels

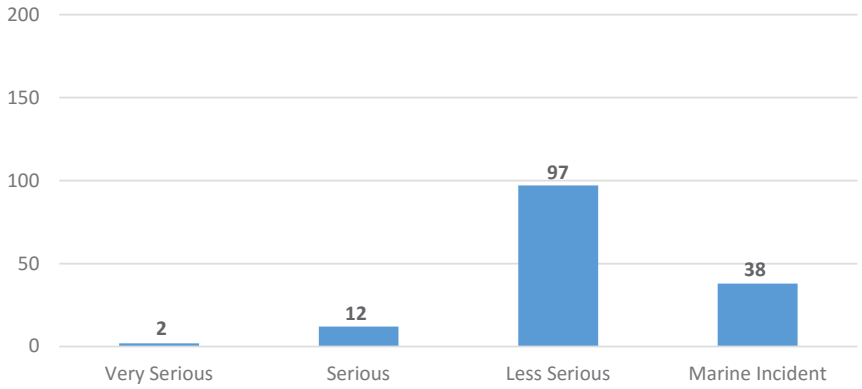


[1] As defined in supporting documentation published to accompany Annual Report 2014 and available on the MAIB website: https://www.gov.uk/government/publications/maib-annual-report-for-2014

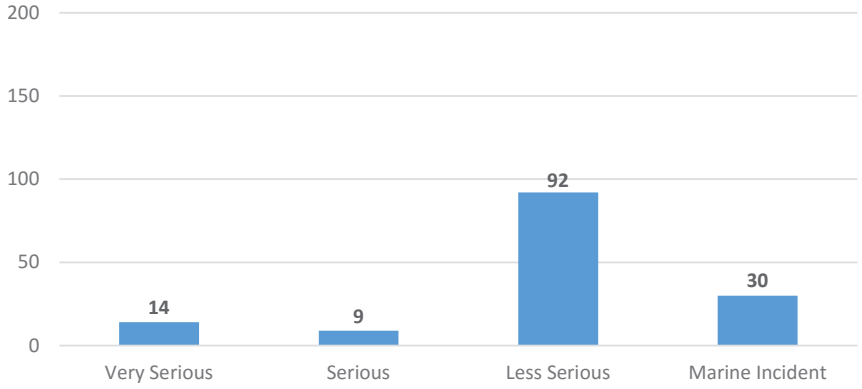
UK merchant vessels of 100gt or more



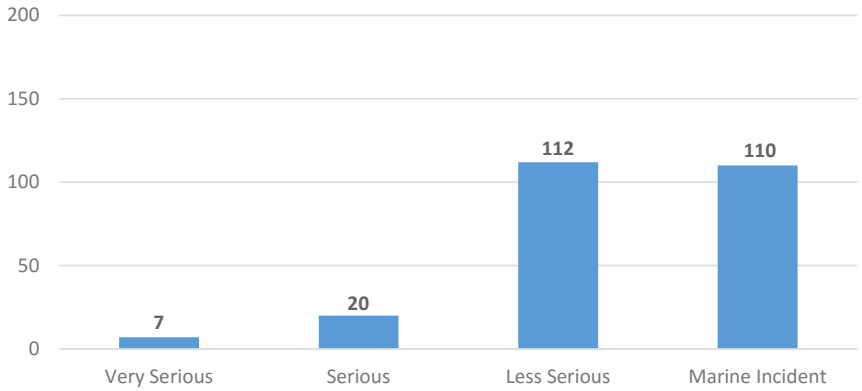
UK merchant vessels of under 100gt (excluding fishing)



UK fishing vessels



Non UK commercial vessels - in UK 12 mile waters



2015: SUMMARY OF INVESTIGATIONS STARTED

Date of occurrence	Occurrence details
3 Jan	The Cyprus registered cement carrier *Cemfjord* capsized and sank in the Pentland Firth, with the loss of all eight lives.
3 Jan	The Singapore registered vehicle carrier *Hoegh Osaka* listed, flooded and grounded on the Bramble Bank in the Solent.
6 Jan	A crewmember from the tug *GPS Battler* fell from the quay and drowned while awaiting access to the vessel in Marin, Spain.
10 Feb	A crewmember from the stern trawler *Beryl* fell overboard during shooting operations 21nm WNW of Shetland and was unable to be recovered before he died.
12 Feb	The container ship *Ever Smart* and the Marshall Islands registered tanker *Alexandra 1* collided off Jebel Ali, United Arab Emirates.
18 Feb	The general cargo vessel *Lysblink Seaways* grounded on the Ardnamurchan peninsula near Kilchoan on the west coast of Scotland.
2 Mar	A crewmember from the Marshall Islands registered gas tanker *Zarga* was seriously injured when a mooring line parted in Milford Haven.
30 Mar	The mooring launch *Asterix* girted and capsized during ship handling operations at Fawley oil terminal, Southampton Water.
15 Apr	There was a collision between a dived Royal Navy submarine and the fishing vessel *Karen* in the Irish Sea.
30 Apr	The skipper of the workboat *Carol Anne* was killed when the crane which had been mounted to the deck of the vessel collapsed. The accident occurred in Loch Spelve, Isle of Mull.

Date of occurrence	Occurrence details
2 May	A teenage girl drowned after a Fletcher 155 speedboat capsized in Tor Bay, Devon.
5 May	The Bahamas registered passenger ship *Hamburg* grounded in the Sound of Mull on the west coast of Scotland.
13 May	The racing powerboat *Vector 40R* capsized and made contact with a navigational buoy at high speed in Southampton Water resulting in serious injuries to one of the four crew.
18 May	The twin-rig prawn trawler *Kairos* capsized and foundered in heavy seas 70nm west of the Isles of Scilly. The crew abandoned to a liferaft and were rescued.
9 Jul	The scallop dredger *JMT* capsized and sank with the loss of two lives 3.8nm SW of Rame Head, Cornwall.
9 Jul	The skipper of the stern trawler *Enterprise* fell overboard and drowned in rough weather in the North Sea.
29 Jul	The fishing vessels *Silver Dee* and *Good Intent* collided in the Irish Sea. The *Silver Dee* flooded and her crew evacuated to the *Good Intent* before their vessel sank.
3 Aug	A shoreworker sustained fatal injuries at Ilfracombe, Devon after falling between the passenger ship *Oldenburg* and the quayside.
17 Aug	A crewmember of the stern trawler *Aquarius* fell overboard and drowned off Aberdeen.
18 Aug	A fire in the engine room of the dredger *Arco Avon* caused fatal burns to the 3rd engineer when the vessel was 12 nautical miles off Great Yarmouth.
24 Aug	The scallop dredger *St Apollo* grounded and subsequently capsized in the Sound of Mull. The five crew abandoned to a liferaft and were rescued.

Date of occurrence	Occurrence details
29 Aug	There was a collision between the Cypriot registered general cargo ship *Daroja* and a St Kitts and Nevis registered bunker tanker *Erin Wood* off Peterhead, Aberdeenshire. *Erin Wood* was damaged and towed to Peterhead.
5 Sept	A watchleader on the round-the-world racing yacht *CV21* was fatally injured while on deck as the vessel was 123nm WNW of Porto, Portugal.
4 Oct	A crewmember fell overboard and died from the creeler *Annie T* while shooting creels in the Sound of Mingulay, Barra in the Outer Hebrides.
4 Oct	A fire on the prawn trawler *Karinya* in the Moray Firth resulted in the crew abandoning to a liferaft and the vessel foundering.
9 Nov	A passenger on the cruise ship *Pacific Dawn*, which was on passage in the Coral Sea, South Pacific, drowned in the swimming pool.
3 Dec	The vehicle carrier *City of Rotterdam* and the ro-ro ferry *Primula Seaways* collided in the approaches to the Humber resulting in damage to both vessels.
29 Dec	A crewmember on the tug *Svitzer Moira* was killed during mooring operations at Portbury Dock, Bristol.

PART 2: RECOMMENDATIONS AND PUBLICATIONS

INVESTIGATIONS PUBLISHED IN 2015 INCLUDING RECOMMENDATIONS ISSUED

The following pages list the accident investigation reports and safety bulletins published by the MAIB during 2015. Where the MAIB has issued safety recommendations following an investigation, the current status of the recommendation and any applicable comments made by the MAIB accompany the entry*.

Recommendations from previous years that remain open are also included on the following pages.

For details of abbreviations, acronyms and terms used in this section please refer to the Glossary on page 105.

Background

Recommendations are a key element of MAIB investigations. They are issued to promulgate the lessons from accidents investigated by the MAIB, with the aim of improving the safety of life at sea and the avoidance of future accidents. The issue of a recommendation shall in no case create a presumption of blame or liability.

Following an investigation the MAIB will, normally, make a number of recommendations. These will be contained within the published report but will also be addressed in writing to the individuals or senior executives of organisations concerned. Urgent safety recommendations may also be made in Safety Bulletins that can be published at any stage of an investigation.

Recommendations are made to a variety of addressees who might have been involved in, or have an interest in, the accident. These may range from those organisations which have a wider role in the maritime community such as the Department for Transport (DfT), the Maritime and Coastguard Agency (MCA) or an international organisation, through to commercial operators and vessel owners/operators.

It is required by the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012 that the person or organisation to whom a recommendation is addressed, consider the recommendation, and reply to the Chief Inspector within 30 days on the plans to implement the recommendation or, if it is not going to be implemented, provide an explanation as to why not. The Regulations also require the Chief Inspector "*to inform the Secretary of State of those matters*" annually, and to make the matters publicly available. This Annual Report to the Secretary of State for Transport fulfils this requirement.

***Status as of 1 June 2016.**

RECOMMENDATION RESPONSE STATISTICS 2015

71 recommendations were issued to **79** addressees in 2015. 1 recommendation was made to multiple recipients and is not included in the following statistics. The percentage of all recommendations that are either ***accepted and implemented*** or ***accepted yet to be implemented*** is **83.5%**.

Year	Total*	Accepted Action		Partially Accepted	Rejected	No Response Received
		Implemented	Yet to be Implemented			
2015	**79†**	33	33	7	5	0

†**1** recommendation has since been withdrawn by the MAIB

RECOMMENDATION RESPONSE STATISTICS 2004 TO 2014

The following table shows the equivalent status of recommendations issued in 2004 to 2014 as published in the MAIB's previous Annual Reports.

Year	Total*	Accepted Action		Partially Accepted	Rejected	No Response Received
		Implemented	Yet to be Implemented			
2014	**63†**	38	18	2	1	3
2013	**90†**	56	31	1	1	-
2012	**54**	41	10	-	1	2
2011	**57**	33	21	2	-	1
2010	**50**	36	14	-	-	-
2009	**117**	74	29	7	-	7
2008	**110**	71	31	5	-	3
2007	**136**	109	23	1	1	2
2006	**139**	103	30	3	3	-
2005	**140**	122	14	1	1	2
2004	**171**	93	52	11	11	4

†**2** recommendations have since been withdrawn by the MAIB, the first was issued in 2013 and the second in 2014.

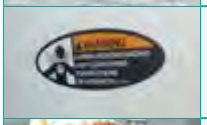
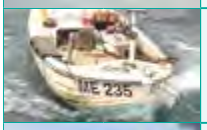
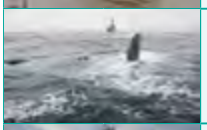
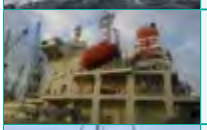
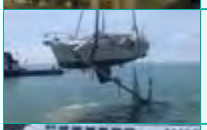
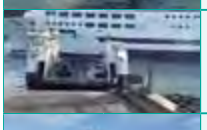
Of the **273** recommendations listed as ***accepted – yet to be implemented*** (at time of publication of relevant annual report):

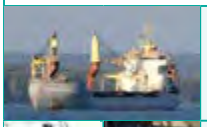
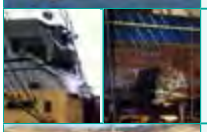
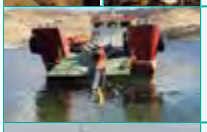
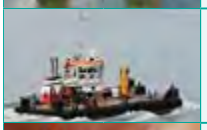
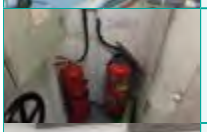
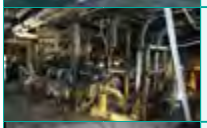
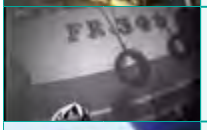
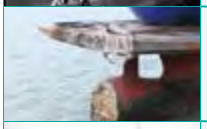
82.8% have now been ***fully implemented***

17.2% remain ***planned to be implemented***.

***Total number of addressees**

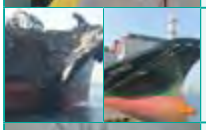
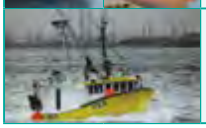
SUMMARY OF 2015 PUBLICATIONS AND RECOMMENDATIONS ISSUED

	Vessel name(s)	Category	Publication date (2015)	Page
	*Barnacle III*	Very Serious Marine Casualty	08 January	16
	*Arniston*	Very Serious Marine Casualty	16 January	16
	*Water-rail*	Marine Incident	29 January	19
	*ECC Topaz*	Very Serious Marine Casualty	11 February	20
	*Diamond*	Very Serious Marine Casualty	11 February	21
	*Wanderer II*	Less Serious Marine Casualty	12 February	21
	*Millennium Diamond*	Less Serious Marine Casualty	05 March	23
	*Cheeki Rafiki*	Very Serious Marine Casualty	29 April	24
	*Nagato Reefer*	Less Serious Marine Casualty	07 May	27
	*Shoreway/Orca*	Very Serious Marine Casualty	20 May	28
	*Barfleur/ Bramblebush Bay*	Serious Marine Casualty	21 May	29
	*Ronan Orla*	Very Serious Marine Casualty	04 June	30
	*Millennium Time / Redoubt*	Serious Marine Casualty	17 June	31
	*Sea Breeze*	Very Serious Marine Casualty	24 June	33
	*Zarga* (Safety Bulletin)	Serious Marine Casualty	08 July	34

	Vessel name(s)	Category	Publication date (2015)	Page
	*Vectis Eagle*	Serious Marine Casualty	09 July	34
	*Margriet/Orakai*	Serious Marine Casualty	09 July	35
	*Carol Anne*	Very Serious Marine Casualty	n/a, recommendation issued pre-publication by letter①	36
	*GPS Battler* (two incidents)	Very Serious Marine Casualties	04 August	37
	*Commodore Clipper*	Serious Marine Casualty	06 August	38
	*Sapphire Princess*	Very Serious Marine Casualty	21 August	39
	*Dieppe Seaways*	Less Serious Marine Casualty	07 October	40
	Unnamed speedboat (Fletcher 155)	Very Serious Marine Casualty	08 October	41
	*CV21*	Very Serious Marine Casualty	n/a, recommendation issued pre-publication by letter②	42
	*Pride of Canterbury*	Serious Marine Casualty	29 October	42
	*Ocean Way*	Very Serious Marine Casualty	18 November	43
	*Dover Seaways*	Serious Marine Casualty	19 November	44
	*Lysblink Seaways*	Very Serious Marine Casualty	19 November	44
	*Beryl*	Very Serious Marine Casualty	02 December	45

① *Carol Anne* investigation report published on 9 June 2016.

② *CV21* under investigation.

	Vessel name(s)	Category	Publication date (2015)	Page
	*Norjan*	Less Serious Marine Casualty	03 December	47
	*Alexandra 1/ Eversmart*	Serious Marine Casualty	09 December	48
	*Stella Maris*	Very Serious Marine Casualty	10 December	49

Barnacle III

Report number: 1/2015

Fishing vessel | Accident date: 13/05/2014

Fatal person overboard while west of Tanera Beg, Scotland

Safety Issues

- Additional risks from change of shooting method not assessed
- Insufficient separation of operator from running gear
- No personal flotation device worn

Nº	Recommendation(s) to:	Vessel owner/skipper
101	Take action as follows: 1. Be guided by the contents of the advice on potting safety contained in the extant publications e.g. *Potting Safety Assessment* by Seafish and the MCA's *Fishermen's Safety Guide*. 2. Carry out a thorough written risk assessment of all systems of work employed on *Barnacle III*, including a re-assessment of risks posed to crew members when working two fleets of creels on deck. 3. Routinely review the risk assessment and ensure appropriate control measures are implemented.	

Appropriate action implemented

Arniston

Report number: 2/2015

Motor cruiser | Accident date: 01/04/2013

Carbon monoxide poisoning with two fatalities on Windermere

Safety Issues

- The use of portable petrol-driven engines inside a boat
- The incorrect installation of a fossil-fuelled appliance
- The absence of working carbon monoxide alarms in habitable spaces

Nº	Recommendation(s) to:	Department for Business, Innovation and Skills (BIS)
102	Explore, through the RCD framework, ways of ensuring that new vessels have a means of detecting toxic gases, particularly carbon monoxide, in habitable spaces, and alerting occupants to their presence.	

Rejected

BIS comment:
This case is far from typical in so far as the carbon monoxide detectors had been disconnected and the owner had modified the motor cruiser by installing the petrol generator set that was the source of the carbon monoxide. The scope for any formal action under the RCD therefore seems to be limited. Further, we have not received any evidence for future action by other Member States. Therefore there would need to be significant new evidence to have any chance of making a change.

MAIB comment:
It is disappointing that, despite positive messages during meetings with officials, that BIS has chosen not to pursue the requirement, where relevant, for new RCD compliant vessels to be fitted with CO detectors at first point of sale.

Nº	Recommendation(s) to:	Multiple Organisations[2]
M103	Build on current initiatives by engaging with other relevant organisations to conduct a co-ordinated and focused campaign designed to raise the awareness of the leisure boating community of the dangers of CO and the importance of fitting carbon monoxide alarms. Efforts should be focused on, inter alia: • Raising awareness of the likely sources of carbon monoxide. • The dangers of using inappropriate or poorly installed fossil-fuel burning equipment. • The early symptoms of carbon monoxide poisoning.	

No response required

[2] The Boat Safety Scheme, Maritime and Coastguard Agency, Royal Yachting Association, British Marine Federation, Council of Gas Detection and Environmental Monitoring and the Association of Inland Navigation Authorities.

Nº	Recommendation(s) to:	The Boat Safety Scheme
104	Encourage its boat examiners, during the course of periodic boat examinations, to explain to boat users, where present, the risk of carbon monoxide poisoning; highlight the potential sources of carbon monoxide; and promote the use of carbon monoxide alarms.	

Appropriate action planned

2016 SEPTEMBER 30

Nº	Recommendation(s) to:	The Lake District National Park Authority
105	Adopt the Boat Safety Scheme as a means of improving safety on inland waterways for which the Lake District National Park Authority holds statutory responsibility.	

Partially accepted - closed

MAIB comment:
The Lake District National Park Authority (LDPNA) considered the recommendation contained within the report and decided:

▸ Not to implement the MAIB recommendation to introduce the Boat Safety Scheme on all navigable lakes, but to introduce a compulsory requirement that all boat owners using or stowing powered boats on LDNPA property have valid third party liability insurance sufficient to cover the risks outlined in the MAIB report,

and

▸To undertake a promotion campaign to raise awareness of carbon monoxide poisoning and general care and maintenance of vessels.

Water-rail

Report number: 3/2015

Fishing vessel | Accident date: 20/05/2014

Disappearance and rescue of a small fishing boat in the North Sea

Safety Issues

- Insufficient passage planning
- Crew not sufficiently trained
- Insufficient safety equipment

Nº	Recommendation(s) to:	Vessel owner/skipper

106 Improve the safe operation of any similar vessel he may own in the future by:

- Attending a navigation training course.
- Ensuring that safety equipment is carried and crew are trained in accordance with MSN 1813(F), the MCA Code of Practice for the Safety of Small Fishing Vessels.
- Applying additional safety measures recommended in MGN 502(F), the updated Code of Practice, specifically: carriage of an EPIRB/PLB and DSC VHF radio as well as wearing of PFDs on deck.

Partially accepted - closed

MAIB comment:
While the Skipper has largely accepted and implemented the recommendation, it is disappointing that he has chosen not to attend a navigation refresher course given the shortcomings in navigation evident during this accident.

ECC Topaz

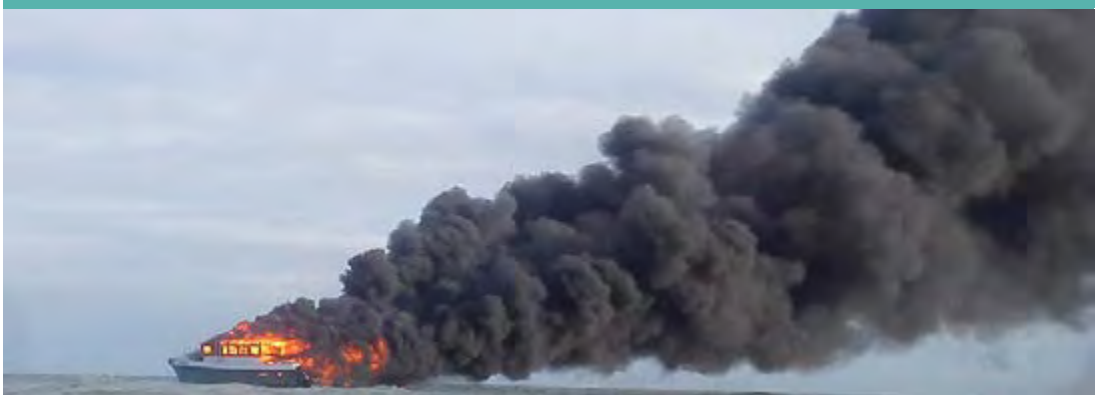
Report number: 4/2015

Catamaran | Accident date: 14/01/2014

Fire and subsequent foundering while conducting engine trials off the east coast of England

Safety Issues

- Maximum continuous temperature rating of the exhaust pipes recommended by the heater manufacturer was 350°C. Exhaust temperature measured at the heater outlet was 440°C
- An oil-fired heater was not categorised as an item of machinery
- The annual service of the air heater as per the heater manufacturer's Recommended Service Schedule was not carried out



Nº	Recommendation(s) to:	Eberspächer (UK) Ltd
107	Investigate the discrepancy between the temperature rating of the exhaust pipe supplied with their air heaters and the actual temperature of the exhaust gas.	

Appropriate action implemented

Nº	Recommendation(s) to:	Blyth Workcats Ltd
108	Ensure, while vessels are under construction in their yard, that any modifications to equipment fitted are authorised and approved by the relevant equipment manufacturer.	

Appropriate action implemented

Diamond

Report number: 5/2015

Fishing vessel | Accident date: 25/03/2014

Foundering with the loss of a crew member in the West Burra Firth, Shetland

Safety Issues

- Skipper had a lack of navigation/system knowledge
- No crew training, specifically sea survival
- Inaccessible lifejackets
- Rapid sinking of vessel
- Inadequate clothing/thermal protection
- Use of illegal and controlled drugs

► No recommendations have been issued as a consequence of this investigation ◄

Wanderer II

Report number: 6/2015

Fishing vessel | Accident date: 19/11/2013

Serious injury to a crew member while 1 mile south-east of Wiay Island, Outer Hebrides

Safety Issues

- Inadequate training
- Inappropriate communications between parties resulting in assumptions being made regarding competencies and abilities
- Excess turns on whipping drum for weight of load being lifted
- Recognition of excess turns and ability to cope with their effects

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
109	Review and amend MGN 415 to include guidance on the safe operation of winch whipping drums.	

Appropriate action planned — 2016 DECEMBER 31

110 In developing the revised Code of Safe Working Practice for the Construction and Use of 15 metre length overall to less than 24 metres registered length Fishing Vessels, ensure that the safe operation of winches is properly considered, including that:

- Hauling and hoisting gear shall be controlled by a dedicated winch operator;
- The winch operator shall give exclusive attention to that task and not carry out any other tasks while operating the equipment;
- Appropriate safety devices, including emergency stop facilities, are within easy reach of personnel using the equipment.

Such provision should be applied to all vessels constructed, and all existing vessels that are substantially structurally or technically modified, from the date the revised Code is introduced.

Appropriate action planned 

Nº	Recommendation(s) to:	Fishing Industry Safety Group (FISG)

111 Publicise the dangers of fishing vessel deck machinery and promote safe working practices by the production and promulgation of multi-media training aimed at deckhands.

Appropriate action implemented

Nº	Recommendation(s) to:	Vessel owner/skipper

112 Improve the safety of deck operations by:

- Emphasising the need for crew members to communicate explicitly with each other in the event of any change to routine operations.
- Ensuring that winch controls are permanently manned when the winch is operating under power.

Appropriate action implemented

113 Consolidate recent modifications to the vessel's operation as a consequence of this accident by:

- Reviewing and updating the vessel's risk assessment safety folder.
- Ensuring the risk assessment is shared and discussed with crew members regularly.

Appropriate action implemented

Millennium Diamond

Report number: 7/2015

Passenger vessel | Accident date: 06/06/2014

Contact with Tower Bridge, River Thames

Safety Issues

- Distraction
- Ergonomics of wheelhouse equipment
- Notification procedures of berth closures to river users

Nº	Recommendation(s) to:	City Cruises plc

114 Is recommended to:

- Complete the intended actions listed in its investigation report in a timely manner.
- Undertake a thorough review of the wheelhouse equipment layout on *Millennium Diamond* to ensure its use does not create distraction and prevent its officers from conning the vessel safely.

Appropriate action implemented

Nº	Recommendation(s) to:	Port of London Authority

115 Promote the inclusion of potential holding areas in the port passage plans of commercial vessels operating in the Thames that may be used in the event of temporary pier closures.

Appropriate action implemented

Nº	Recommendation(s) to:	Maritime and Coastguard Agency

116 Include in the Boatmasters' Licence generic syllabus a requirement for candidates to demonstrate an awareness of the risks of distraction and the speed with which unsafe conditions can develop on inland waterways and in harbours.

Rejected

MCA comment:
The facts of the case, as evident from the investigation report, seem to indicate a basic failure to maintain a proper lookout at all times. This fundamental element of "the ordinary practice of seamen" is already adequately covered in all training syllabuses leading to the award of deck officer licences and certificates.

MAIB comment:
While acknowledging that a proper lookout is required at all times, it is disappointing that the opportunity has not been taken to emphasise the speed with which dangerous situations can develop in the sometimes congested areas of inland waters and harbours.

Cheeki Rafiki

Report number: 8/2015

Sailing yacht | Accident date: 16/05/2014

Loss of a yacht and its four crew in the Atlantic Ocean, approximately 720 miles east-south-east of Nova Scotia, Canada

Safety Issues

- Possible matrix detachment
- Early warning of keel detachment requires regular inspection
- Contingency planning and careful routing can significantly reduce risk

Nº	Recommendation(s) to:	British Marine Federation[3]
117	Co-operate with certifying authorities, manufacturers and repairers with the aim of developing best practice industry-wide guidance on the inspection and repair of yachts where a GRP matrix and hull have been bonded together.	

Appropriate action planned

Nº	Recommendation(s) to:	British Marine Federation[3]/ Chantiers Bénéteau SA
118	In collaboration propose to the International Organization for Standardization that the requirements for '*information connected with the risk of flooding*' and 'other information' detailed in ISO 10240 (Small craft - Owner's manual) be enhanced to include: • The keel area as a potential source of water ingress on vessels where the keel has been attached to the hull. • Guidance on the action to be taken in responding to flooding events. • Warning of the potential consequences of running aground, and the need to carry out an inspection following any grounding incident, taking into account the danger of potential unseen damage, particularly where a GRP matrix and hull are bonded together.	

British Marine: Appropriate action planned

Chantiers Bénéteau SA: Appropriate action implemented

[3] British Marine Federation now known as British Marine.

Nº	Recommendation(s) to: Maritime and Coastguard Agency

119	Issue operational guidance to owners, operators and managers of small commercial sailing vessels, including:
	• The circumstances in which a small vessel is required to comply with the provisions of the SCV Code and those in which it is exempt from compliance.
	• Management responsibilities and best practice with regard to:
	  • vessel structural inspection and planned maintenance by competent personnel, particularly prior to long ocean passages,
	  • passage planning and execution, including weather routing,
	  • the provision of appropriate lifesaving equipment, including liferafts, EPIRBs and PLBs, and the extent to which they should be float-free and/or readily available, and
	  • the provision of onboard procedures, including the action to be taken on discovering water ingress.
	• The need for an inspection following any grounding, taking into account the danger of potential unseen damage, particularly where a GRP matrix and hull have been bonded together.
	Appropriate action planned 

120	Include in the SCV Code a requirement that vessels operating commercially under ISAF OSR should undergo a full inspection to the extent otherwise required for vessels complying with the SCV Code. Appropriate action planned 

Nº	Recommendation(s) to: Royal Yachting Association
121	Issue advice to owners and skippers of pleasure yachts, and to the yachting community in general, that: • Raises awareness of the potential consequences of running aground, and the need to carry out an inspection following any grounding incident, taking into account the danger of potential unseen damage, particularly where a GRP matrix and hull have been bonded together. • Highlights the benefits of regular inspections of a vessel's structure, the carriage of qualified persons on board, float-free lifesaving equipment, and the carriage of PLBs. Appropriate action implemented 

122 Require its approved training centres providing the ISAF Offshore Safety Course to follow the ISAF Model Training Course Offshore Personal Survival syllabus.

Appropriate action implemented

Nº	Recommendation(s) to:	International Sailing Federation[4]

123 Issue advice to owners and skippers of pleasure yachts, and to the yachting community in general, that:

- Raises awareness of the potential consequences of running aground, and the need to carry out an inspection following any grounding incident, taking into account the danger of potential unseen damage, particularly where a GRP matrix and hull have been bonded together.
- Highlights the benefits of regular inspections of a vessel's structure, the carriage of qualified persons on board, float-free lifesaving equipment, and the carriage of PLBs.

Appropriate action implemented

[4] International Sailing Federation now known as World Sailing.

Nagato Reefer

Report number: 9/2015

Cargo vessel | Accident date: 09/04/2014

Accidental release of a lifeboat in the Port of Southampton

Safety Issues

- Crew training and competence
- Maintenance standards of LSA
- Record keeping – records did not match activity
- Communications
- Use of English on board
- Standard of English used by managers
- Inaccurate ship's safety committee minutes

Nº	Recommendation(s) to:	Kyokuyo Company Limited
124	At the highest management level, take urgent action to devise and implement a plan designed to realise a substantial improvement in the safety culture throughout its fleet and shore-based management. Such a plan should ensure, inter alia: • Its vessels' crews are properly trained in onboard emergency response, and specifically the correct operation of the lifeboats and their associated launching and recovery systems. • That all its vessels' logs and records provide a true reflection of activities conducted. • That all accidents and incidents are accurately recorded; the findings of investigations are reviewed at the relevant level; and appropriate actions are taken to help prevent a recurrence. **Inappropriate action planned - closed**	

MAIB comment:
Kyokuyo Company Limited reports that it has instructed the masters of its managed fleet to carry out more frequent and in-depth crew training and that this training will be evaluated during company audits. However, the investigation showed evidence of falsification of records and a lack of competence both on board the vessel and more widely within the company, neither of which have been addressed. Without recognition that the causal factors of this accident in fact extend to the shore based managers at the highest level, the risk of similar accidents occurring within its fleet remains high.

Shoreway/Orca

Report number: **10/2015**

Dredger/Yacht | Accident date: 08/06/2014

Collision 7 miles off the coast of Felixstowe resulting in one fatality

Safety Issues

- Inadequate lookout on both vessels
- Large blind sector on *Shoreway* had not been properly assessed
- Assumption made on the leisure vessel that commercial vessel would always keep clear
- Leisure sailors need to be particularly aware of closing speeds between their own vessels and other vessels

Nº	Recommendation(s) to:	Boskalis Westminster Shipping B.V.
125	Conduct a full review of its fleet's safety management systems and take action to ensure that any issues identified are fully addressed. This review should include inter alia: • Bridge watchkeeping procedures • Any obstructions affecting bridge visibility • Procedures for lone watchkeeping (which should also take into account the requirements of SYS-NEQ-1[5] where appropriate) • Scope of Master's standing orders • The effectiveness of its Voyage Data Recorders.	

Appropriate action implemented

[5] A notation issued by Bureau Veritas, which required the conditions under which a vessel could operate with a lone watchkeeper to be clearly defined in the company's SMS.

Barfleur/ Bramblebush Bay

Report number: **11/2015**

Passenger ferry/Chain ferry | Accident date: 16/07/2014

Contact by passenger ferry with the chain of chain ferry in Poole, Dorset

Safety Issues

- Unnecessary squat, wash and interaction caused by high speed
- Deficient passage planning and monitoring

Nº	Recommendation(s) to:	Brittany Ferries

126 Review and revise bridge procedures to ensure that for port entry:

- Bridge team members are fully aware of their respective roles.
- The passage plan includes port entry and aspects to be considered in differing tidal, traffic and weather conditions.
- A pre-arrival briefing is conducted covering the passage plan and the master's specific requirements.
- The bridge navigational equipment is used to full effect.

Appropriate action implemented

127 Provide clear instructions to ensure VDR data is saved and verified following an accident or marine incident.

Appropriate action implemented

Nº	Recommendation(s) to:	Poole Harbour Commissioners

128 Specify that the speed limit contained in the Poole Pilotage Plan refers to speed through the water.

Appropriate action implemented

Ronan Orla

Report number:	**12/2015**	
Fishing vessel	Accident date:	30/03/2015

Fatal accident 3 miles north-east of Porth Dinllaen, north Wales

Safety Issues

- The vessel and its equipment had not been adequately maintained, and its winch was in a dangerously poor condition
- The winch had not been fitted with the safety devices required by UK legislation and recommended by the International Maritime Organization, the Maritime and Coastguard Agency and industry bodies
- It was unsafe to operate the vessel as a scallop dredger single-handedly

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
129	Amend Marine Guidance Note 502(F) The Code of Practice for the Safety of Small Fishing Vessels to require owners of under 24m fishing vessels to submit copies of their annual self-certification declarations to the regulators.	

Rejected

MCA comment:
MCA rejected this recommendation on the grounds that the focus of the 10 year Fishing Vessel Strategy is to encourage fishermen to take on more responsibility for their safety. By requiring them to send in their annual self-certification forms to the MCA, this allows fishermen to abdicate their responsibility for safety, transferring it to the MCA and runs counter to the Strategy.

MAIB comment:
MGN 502 requires vessel owners to carry out an annual safety inspection and to sign a self certification declaration confirming that their vessel complies with the Code, which is expected to become regulation in October 2016. The requirement to submit copies of the owner's completed self-certification forms to the MCA is a practical and proportionate way of ensuring skippers are not abdicating their responsibilities for safety.

Nº	Recommendation(s) to:	Sea Fish Industry Authority
130	Include the additional hazards and increased risks associated with lone working and single-handed operations in its safety awareness training course syllabus.	

Rejected

Seafish comment:
Seafish has rejected this recommendation on the grounds that the hazards of single-handed operations are already adequately covered on the Safety Awareness Course.

MAIB comment:
MAIB does not agree that the specific additional hazards of single-handed operations are adequately covered in the guidance or training currently given to fishermen.

Millennium Time/ Redoubt

Report number: 13/2015

Passenger vessel/Motor tug | Accident date: 17/07/2014

Collision on the Kings Reach, River Thames, London

Safety Issues

- The effectiveness of steering systems
- The absence of rudder indication
- 'Grandfather rights' afforded to existing vessels
- Hydrodynamic interaction in a busy and congested river environment
- The lack of effective supervision of the helmsman
- The inaccuracy of the passenger count

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
131	Assess the steering arrangements on board domestic passenger vessels with non-powered steering and, where deemed to be beneficial and pragmatic, require these vessels to have rudder angle indication in the wheelhouse.	

Appropriate action planned — 2016 JUNE 30

132 Prioritise and resource its proposed legislation designed to limit the application of superseded regulations to existing domestic passenger vessels in safety-critical areas so that the legislation is introduced as quickly as possible.

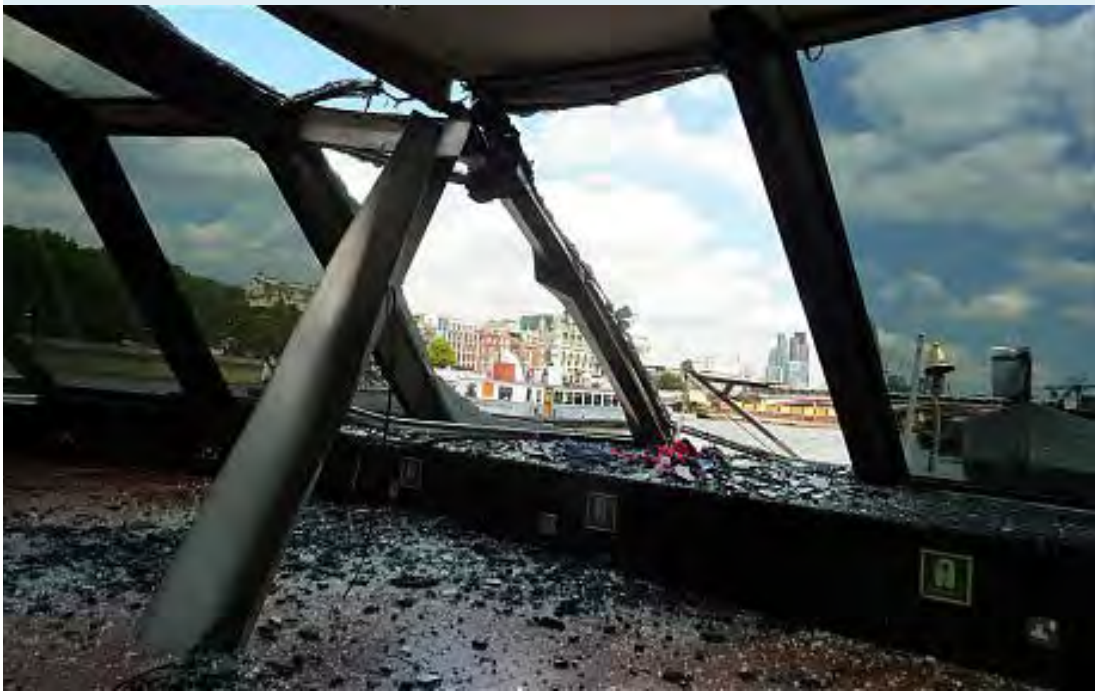
Partially accepted - closed

MCA comment:
This is considered complete - we have resourced the passenger shipping team and have given the task high priority. Nothing in the recommendation requires the MCA to provide regular progress reports to MAIB nor was any particular outcome sought nor agreed with MAIB.

MAIB comment:
Notwithstanding the MCA's comments, the proposed legislation has yet to be progressed and, until it does, the fact that some vessels may continue to operate to outdated safety standards remains of serious concern.

No	Recommendation(s) to:	Maritime and Coastguard Agency/ Port of London Authority/Transport for London/Passenger Boat Association
133	Work together to explore the use of technology to improve the accuracy of the passenger count on board passenger vessels on the River Thames.	MCA, PLA, TfL and PBA: Appropriate action planned - ongoing

Nº	Recommendation(s) to:	Port of London Authority
134	Monitor traffic flow and density in the King's Reach and canvass river users in order to fully assess the impact of the Coin Street moorings on the navigable water available to vessels operating in the area.	Appropriate action implemented



Nº	Recommendation(s) to:	City Cruises Plc
135	Take action to improve the safe operation of its vessels by addressing the recommendations made by the Port of London Authority in its investigation report, but also focusing on: • The advantages of having additional boatmasters' licence holders on board • The problems inherent in masters giving commentaries while their vessel is underway • Compliance with company instructions • Wheelhouse ergonomics • The importance of accurate passenger numbers • Crew training records • The management of passengers in an emergency	

Appropriate action planned

2016 DECEMBER 31

Sea Breeze

Report number: 14/2015

Cargo vessel | Accident date: 09/03/2014

Flooding and abandonment 11.6nm off Lizard Point, Cornwall

Safety Issues

- The Master was not aware that work was taking place and no permit to work had been issued
- A risk assessment and basic contingency preparations had not been completed prior to work commencing
- No onboard training or drills had been completed
- An absence of any safety culture both on board and within Shipmar

Nº	Recommendation(s) to:	Shipmar Co. Ltd.
136	Conduct a full review of its fleet's safety management systems and take action to ensure that any issues identified are fully addressed. This review should include, inter alia: • The maintenance of accurate records relating to ISM and SOLAS compliance • The use of planned maintenance systems • Crew training and emergency preparedness • The use of permits to work and risk assessments	

Appropriate action implemented

Nº	Recommendation(s) to:	Lloyd's Register
137	Amend its Marine Survey Procedures Manual to include a need for the actuator mechanisms for ships' side valves to be fully function tested during surveys and, should this give cause for concern, require the system to be stripped and internally inspected.	
		Appropriate action implemented
138	Propose to the International Association of Classification Societies that its requirements should be amended to require the actuator mechanism of ship's side valves to be fully function tested during special survey once all the work associated with the valve has been completed. Should the function test give cause for concern, the actuator should be stripped and inspected.	
		Appropriate action implemented

Zarga

Safety Bulletin number: **1/2015**

LNG tanker | Accident date: 02/03/2015

Mooring line failure alongside South Hook LNG terminal, Milford Haven resulting in serious injury to a deck officer

Safety Issues

- Snap back of the mooring line was not considered a major concern due to the low elasticity of the line. However, the line was connected to a high elasticity pennant, or tail. When the line failed, the energy absorbed by the tail under load caused the mooring line to snap back and cause a severe injury to the deck officer

► No recommendations have been issued as a consequence of this bulletin ◄

Vectis Eagle

Report number: 15/2015

Cargo vessel | Accident date: 30/11/2014

Grounding at Gijon, Spain

Safety Issues

- Master/pilot information exchange
- Passage plan monitoring by master
- Emergency response

Nº	Recommendation(s) to:	Carisbrooke Shipping Ltd
139	Bring to the attention of its crews the circumstances of this accident, highlighting the lessons learned, including the importance of, inter alia: • The master/pilot information exchange and challenging pilots when necessary • The support provided to masters on the bridge during pilotage • Ensuring that information on the voyage data recorder is saved following every accident and incident • Honesty in reporting accidents and incidents	

Appropriate action implemented

Margriet/Orakai

Report number: 16/2015

Fishing vessel/Chemical tanker | Accident date: 21/12/2015

Collision at North Hinder Junction, North Sea

Safety Issues

- The absence from the bridge of the OOW
- Ineffective lookout

Nº	Recommendation(s) to:	Kafish B.V.
140	Take action to improve the standards of watchkeeping on its vessels, taking into account the importance of, inter alia: • Keeping a proper and effective lookout by all available means • Determining the risk of collision • Checking that intended courses are clear before altering • The additional risks associated with fishing in or near traffic separation schemes and other areas of potential high traffic density.	

Appropriate action implemented

No	Recommendation(s) to:	South End Tanker Management B.V.
141	Reiterate to its fleet that an officer of the watch should not leave the bridge unless relieved by another qualified officer.	

Appropriate action implemented

Carol Anne

Recommendation issued pre-publication by letter

Workboat | Accident date: 30/04/2015

Collapse of crane on workboat at Loch Spelve, Isle of Mull, Scotland with one fatality

Safety Issues

- The crane was supplied and fitted with the incorrect size of tie bolts
- The locknuts supplied were of a lower grade than indicated by their markings
- The statutory examination and testing of the crane failed to identify a number of deficiencies
- The manufacturer or distributor did not supply any installation guidance

Nº	Recommendation(s) to:	Atlas Cranes UK Ltd
136	Take action to ensure that: • All Atlas 170.2 cranes supplied in the UK have been installed using fastenings of the diameter, grade and number of fastenings as promulgated by Atlas GmbH. • The M24 nylon insert lock nuts supplied are of the same grade or higher than their associated studs. • The operators of all other Atlas crane installations in the UK, for which Atlas UK has supplied fastenings, are made aware of the potential that the nuts that have been supplied may be of an insufficient grade.	

Appropriate action planned

Update requested
NO DATE GIVEN

GPS Battler

Report number: 17/2015

Workboat

Accident dates: 13/08/2014 & 06/01/2015

Combined report connected with the operation of the workboat GPS Battler off Almeria, Spain and in Marin, Spain resulting in two fatalities

Safety Issues

- Alcohol consumption
- The inability to recover a person from the water

Nº	Recommendation(s) to:	GPS Marine Contractors Ltd
143	Closely monitor crews' compliance with its safety management system to ensure that the control actions it has already taken, particularly with regard to its stated 'zero tolerance' policy on the consumption of alcohol, have been effective.	

Appropriate action implemented

Commodore Clipper

Report number: 18/2015

Ro-ro passenger ferry | Accident date: 14/07/2014

Grounding and flooding in the approaches to St Peter Port, Guernsey

Safety Issues

- Insufficient passage planning
- Complacency from the repetitive nature of the schedule
- ECDIS was not used effectively in coastal navigation
- Significant navigational risk was not identified in audits and inspections
- The Port Authority did not have a plan for safe conduct of navigation in its pilotage area

Nº	Recommendation(s) to:	Condor Marine Services Ltd

144 Continue to improve the standard of passage planning by its bridge teams through implementing measures to ensure that:

- Proper account is taken of all factors affecting draught and available depth of water; in particular, an assessment of how such factors affect the width of safe water available.
- Use of ECDIS safety features is improved, including adjustment of the safety contour relevant to the local conditions and observation of all alarms.

Partially accepted - open

Condor Marine Services Ltd comment:
Taking the single ECDIS (and principal means of navigation), out of navigational mode to activate audible alarms once clear of pilotage waters and again to deactivate them prior to entering pilotage waters has been extensively discussed internally and is still considered undesirable. This gives us the option to either mute for the entire passage or activate for the entire passage. Given the coastal nature of the routes being followed for port approaches, our conclusion is that the former is preferred (at least until there are amendments to the system to reduce the number of audible alarms) as it is felt that the audible alarms cause unnecessary distraction to concentration in confined waters. The use of this and the performance of bridge teams with specific regard to alarm management is something we continue to monitor closely and do not consider closed. We also continue to liaise with Flag on this, and await further developments in the functionality of ECDIS equipment.

MAIB response:
Condor Marine Services Ltd's partial acceptance of the recommendation with respect to the use of safety features and alarms appears to be indicative of a wider problem. Evidence from other investigations indicates that large sections of the industry appear to have little faith in the utility and fidelity of the alarm features in current ECDIS systems. The alarms are consequently being muted or disabled when the vessels are in pilotage waters due to the distraction the alarms are causing.

Nº	Recommendation(s) to:	Government of Guernsey
145	Improve the standard of vessel traffic services within the Guernsey Ordnance statutory pilotage area by implementation of an information level service to shipping as guided by the applicable elements of the Maritime and Coastguard Agency's Marine Guidance Note 401.	

Appropriate action planned

146	Implement measures designed to provide assurance that, post-qualification, its Special Pilotage Licence holders continue to demonstrate the required level of proficiency when conducting acts of pilotage.	

Appropriate action planned

Sapphire Princess

Report number: 19/2015

Passenger vessel | Accident date: 07/08/2014

Fatal drowning of a passenger in ship's pool while in East China Sea

Safety Issues

- No dedicated pool attendant
- Lack of first aid training
- No documented risk assessment for swimming pool safety

Nº	Recommendation(s) to:	Princess Cruise Lines Ltd
147	Improve safety in the use of ships' swimming pools throughout its fleet by: 1. Carrying out a suitable and sufficient risk assessment relating to the use of ships' swimming pools in compliance with The Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997, and then formally documenting it. 2. Ensuring that the requirements of The Merchant Shipping (Standards of Training, Certification and Watchkeeping) Regulations 2015 are met through approved familiarisation training or sufficient onboard information and instruction for its hotel staff (including stewards, shop staff, hairdressers and entertainers) to carry out the tasks listed in section 2.1 of MSN 1865 (M). Particular attention should be given to compliance with the requirement for ships' staff to be able to take immediate action upon encountering an accident or other medical emergency before seeking further medical assistance on board.	

Appropriate action implemented

Dieppe Seaways

Report number: 20/2015

Ro-ro passenger vessel | Accident date: 01/05/2014

Fire on the approach to, and subsequently alongside, the Port of Dover, UK

Safety Issues

- Lack of detailed maintenance records to enable inspection focus on high risk areas
- Lack of ship/shore firefighting co-ordination

Nº	Recommendation(s) to:	Prozess-Wärmeträgertechnik GmbH
148	Investigate alternative methods of securing the refractory insulation support plate on PWT DW III thermal oil heaters.	

Appropriate action implemented

Nº	Recommendation(s) to:	Det Norske Veritas Germanischer Lloyd
149	Provide guidance to its surveyors on: • Previous incidents involving PWT DW III thermal oil heaters; and • Appropriate and effective methods for examining welded connections on thermal oil heater coils, to reinforce its existing recommendation for hydraulic pressure testing where coils are not accessible for visual external inspection.	

Appropriate action planned — 2016 JULY 31

Nº	Recommendation(s) to:	Kent Fire and Rescue Service
150	With regard to shipboard fire-fighting: • Emphasise to its firefighters the available guidance provided in GRA5.8[6] and the Fire and Rescue Manual with regard to backdraught conditions with particular emphasis on the need to conduct a thorough situational risk assessment before developing an entry plan. • Issue guidance to FRS OIC on the need to liaise effectively with the ship's master, recognising that the ship's master is responsible for the safety of the ship and its crew. • Provide more specific shipboard fire-fighting training to exercise combined command and control, and enhance risk perception in respect of ship construction and associated hazards.	

Appropriate action implemented

[6] Fire and Rescue Service operational guidance (General Risk Assessment (GRA)5.8 - flashover, backdraught and fire gas ignitions)

Nº	Recommendation(s) to:	Det Norske Veritas Germanischer Lloyd /DFDS A/S
151	Review the suitability of dry powder as a fixed fire-extinguishing medium for use in thermal oil heater furnaces.	

Det Norske Veritas Germanischer Lloyd: Appropriate action implemented

Withdrawn

MAIB comment:
The recommendation to DFDS A/S has been withdrawn as the vessel has been returned to its owners Stena Line.

Unnamed speedboat

Report number: 21/2015

Fletcher 155 speedboat | Accident date: 02/05/2015

Capsize off Tor Bay with one fatality

Safety Issues

- Capsize after encountering large wave
- Weather, tidal and sea conditions not fully investigated before setting out
- Loose fitting buoyancy aid snagged on mooring cleat

► No recommendations have been issued as a consequence of this investigation ◄

CV21

Recommendation issued pre-publication by letter

Racing yacht | Accident date: 05/09/2015

Fatal injury to crew member on commercial yacht during a race

Safety Issues

- The adequacy of the preventer arrangements on Clipper 70's and the user's understanding of the limitations of HMPE ropes
- Recognition of the 'danger zone' on Clipper's vessels

Nº	Recommendation(s) to:	Clipper Ventures plc
152	Remove the current HMPE preventer strops from service by the 2015/2016 Clipper Ventures Round the World fleet, with immediate effect.	

Appropriate action implemented

Pride of Canterbury

Report number: 22/2015

Ro-ro passenger ferry | Accident date: 07/08/2014

Main engine room fire while berthing in Calais, France

Safety Issues

- Potential for whole CPP system to experience high pressure not considered
- Lack of alarm to immediately indicate high pressure in system
- Lack of effective joint shield to contain oil spray leak

Nº	Recommendation(s) to:	Lloyd's Register
153	To propose to IACS that a unified requirement regarding controllable pitch propeller alarm and safeguards is developed, that includes a hydraulic system high pressure alarm, in addition to the low pressure, high temperature and low supply tank level alarms already required under Lloyd's Register Rules and Regulations.	

Appropriate action implemented

Ocean Way

Report number: 23/2015

Fishing vessel | Accident date: 02/11/2014

Capsize and foundering 100 miles north-east of Tynemouth resulting in three fatalities

Safety Issues

- Vessel running before a heavy following sea and broaching
- Reduced freeing port capacity
- EPIRB was not fitted with GNSS

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
154	Take action to ensure that the EPIRBs required to be carried on UK registered fishing vessels are equipped with integral GNSS receivers.	

Appropriate action planned — 2016 DECEMBER 31

MCA comment:
Impact Assessment cleared by Regulatory Policy Committee, the code will go to Reducing Regulations Committee and Minister after European Referendum.

Dover Seaways

Report number: 24/2015

Ro-ro passenger vessel | Accident date: 09/11/2014

Contact with the South Breakwater, Dover

Safety Issues

- Lack of emergency planning
- Inadequate system knowledge
- Maintenance procedures not wholly within SMS - lack of shore oversight
- Training and familiarisation inadequate (bridge)
- No crew and passenger warnings prior to collision

Nº	Recommendation(s) to:	DFDS A/S
155	Take steps to improve its vessels' crews' responses to emergency situations by, inter alia: • Including simulated ship systems failures in its bridge resource management training, and • Ensuring that its standard operating procedures prioritise the need for passengers and crew to be provided with a timely warning, especially when impact is imminent, so that the risk of injuries can be reduced.	

Appropriate action planned

Lysblink Seaways

Report number: 25/2015

Ro-ro passenger vessel | Accident date: 02/11/2014

Grounding near Kilchoan, West Scotland

Safety Issues

- Alcohol use - ISM requirements not followed on board
- No lookouts posted during hours of darkness
- Bridge navigational watch alarm system not in use
- SMS compliance less than satisfactory

► No recommendations have been issued as a consequence of this investigation ◄

Beryl

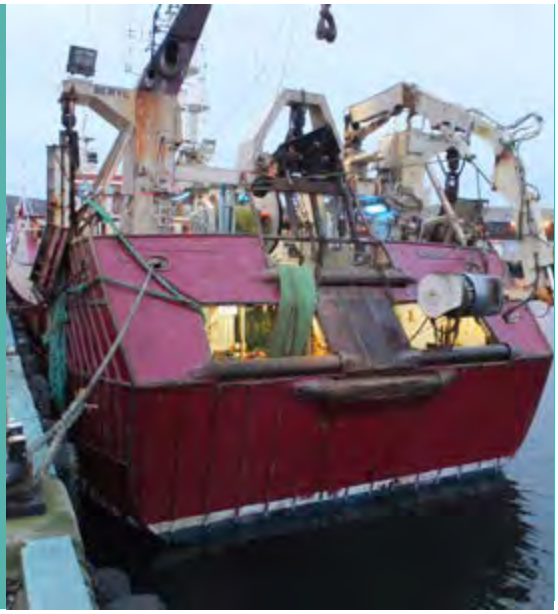
Report number: 26/2015

Fishing vessel | Accident date: 10/02/2015

Fatal person overboard west of the Shetlands Islands

Safety Issues

- The by-passing of control measures identified through risk assessment
- The inability to recover a person overboard
- The failure to complete any practical manoverboard drills
- The increased risk when shooting and hauling fishing gear
- The delay in requesting assistance
- Crew putting themselves in hazardous positions to rescue others without taking sufficient precautions



Nº	Recommendation(s) to:	Maritime and Coastguard Agency/ Scottish Fishermen's Federation/ National Federation of Fishermen's Organisations/ Sea Fish Industry Authority

156 Through membership of the Fishing Industry Safety Group, collectively explore ways of:

- Ensuring fishermen conduct regular emergency drills as required by statute.
- Procuring rescue dummies which could be made available to the owners/skippers of fishing vessels to facilitate realistic manoverboard drills.
- Using the results of onboard risk assessments to promote behavioural change and develop robust safety cultures.

MCA: Appropriate action planned — 2016 DECEMBER 31

NFFO: Appropriate action planned — 2016 SEPTEMBER 30

Seafish: Appropriate action planned — 2016 OCTOBER 31

SFF: Partially accepted - closed

MAIB comment:
While Scottish Fishermens Federation's engagement is promoting safety and, specifically, the conduct of drills, it is disappointing that this has not included the promotion of 'rescue dummies'. Reports from those that regularly use 'rescue dummies' to practice manoverboard recovery is that it more accurately replicates a real recovery situation and so properly tests onboard equipment procedures and training.

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
157	Strengthen and enforce its policy regarding manoverboard drills on board fishing vessels by ensuring that during surveys: • The witnessed drills are realistic, and practice recovery procedures as well as initial actions. • Owners are instructed to have sufficient crew available • The frequency of manoverboard drills conducted is similar to other emergency drills.	

Appropriate action planned

Nº	Recommendation(s) to:	Sea Fish Industry Authority
158	Conduct research into the manoverboard recovery systems suitable for use on board fishing vessels and promulgate advice on the systems to the fishing industry regarding their suitability, capabilities and limitations.	

Appropriate action planned

Nº	Recommendation(s) to:	JCJM Ltd
159	Take steps to improve the safe operation of its vessels and to ensure that its crews are fully prepared to deal with emergency situations, taking into account, inter alia: • The implementation and adherence to control measures identified during the risk assessment process • The importance of developing safe systems of work and following best practice • The development of manoverboard plans and procedures • The benefits of regular and realistic manoverboard drills incorporating the use of the manoverboard recovery system • The importance of alerting the coastguard and other vessels as soon as possible.	

Appropriate action implemented

Norjan

Report number: 27/2015

Cargo vessel | Accident date: 18/06/2014

Chief officer's fall from a hatch cover at Southampton

Safety Issues

- No safe system of work for cargo operations
- Inadequate risk assessment for cargo operations
- Inadequate risk assessment for working at height on hatch top
- Inadequate control of cargo operations
- Inadequate familiarisation and training
- Inadequate crew supervision

Nº	Recommendation(s) to:	Reederei Erwin Strahlmann GmbH & Co. KG

160 Implement the applicable additional requirements for ships equipped to carry containers in the amendments contained in Annex 14 of the CSS Code.

Appropriate action planned — 2016 JUNE 30

161 Apply, as far as is reasonably practicable, the principles of a cargo safe access plan to its non-standardised cargo stowage and securing operations.

Appropriate action planned — 2016 JUNE 30

162 Provide work at height awareness training for its crews.

Appropriate action implemented

Nº	Recommendation(s) to:	Peters & May Ltd

163 Review its risk assessments and amend its standard operating procedures to ensure that the safety issues discussed in this report are addressed; in particular:

- Increased focus on the information exchange process
- Clarification of roles and responsibilities

- The formulation of task-specific cargo safe access plans
- The risk of working in close proximity to unprotected deck edges

Appropriate action implemented

Alexandra 1/Eversmart Report number: 28/2015

Oil tanker/Container vessel | Accident date: 11/02/2014

Collision off Jebel Ali, United Arab Emirates

Safety Issues

- Lack of emergency planning
- Inadequate system knowledge
- Maintenance procedures not wholly within SMS - lack of shore oversight
- Inadequate bridge training and familiarisation
- No crew and passenger warnings prior to collision

Nº	Recommendation(s) to: DP World UAE Region
164	Take action to improve the effectiveness of its vessel traffic and pilotage services, taking into account the circumstances of this accident, with particular emphasis placed on: • Ensuring the effective promulgation of passing arrangements • Improving pilot and VTSO liaison • Establishing more robust criteria and procedures for pilot disembarkation • Careful evaluation of the benefits of providing VTS operators with VTS training • Establishing a regime of regular emergency drills to test the port's ability to respond to developing situations and enhance the experience and training provided to key personnel • Specifying clear requirements on the use of AIS for vessels operating within the port limits and approaches to Jebel Ali.

Rejected

MAIB comment:
The Port of Jebel Ali position has been noted. No further follow up is intended as the port is outside MAIB jurisdiction.

Stella Maris

Report number: 29/2015

Fishing vessel | Accident date: 28/07/2014

Capsize and foundering 14 miles east of Sunderland

Safety Issues

- Funding for modifications provided by the MMO without proper assessment of the likely impacts on vessels' stability
- No lifejacket was worn by its crew when working on deck
- The provision of a liferaft almost certainly saved the lives of the crew

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
165	Introduce intact stability criteria for all new and significantly modified decked fishing vessels of under 15m in length.	

Appropriate action planned — 2020 DECEMBER 31

166 Revise as necessary and re-issue its guidance to fishing vessel owners and skippers on the application to fishing vessels of:

- The Merchant Shipping (Provision and Use of Work Equipment) Regulations 2006, and
- The Merchant Shipping (Lifting Operations and Lifting Equipment Regulations 2006.

Appropriate action planned — 2017 JANUARY 31

Nº	Recommendation(s) to:	Sea Fish Industry Authority
167	Amend its construction standards for new registered vessels to increase the angle at which downflooding occurs by reviewing the placement of ventilation ducts in or adjacent to the bulwarks.	

Appropriate action planned — 2017 SEPTEMBER 30

Nº	Recommendation(s) to:	Marine Management Organisation

168 Mandate stability verification for current and future European Commission-funded projects involving decked vessels undergoing significant modifications that might impact on their stability.

Appropriate action planned — 2016 OCTOBER 31

169 Include vessel stability verification as an eligible safety related undertaking for attracting grant aid from European Commission fund schemes.

Appropriate action planned — 2016 OCTOBER 31

170 Require scale drawings, machinery installation details, winch power information and all other relevant details of proposed structural modifications to vessels to be included in all applications for assistance from future European Commission funded schemes.

Appropriate action planned — 2016 OCTOBER 31

MAIB comment:
Procedures have been agreed between the MCA and the MMO that applicants would need to have MCA approval for modifications (including drawings etc. where necessary) before submitting their applications to the MMO. Revised procedure to be rolled out during autumn 2016

Nº	Recommendation(s) to:	Maritime and Coastguard Agency/ Marine Management Organisation

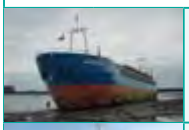
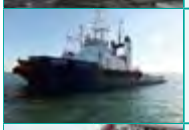
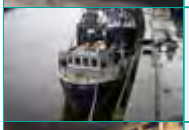
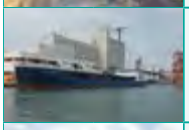
171 Work together to ensure European Commission funded modifications are fully reviewed for their impact on vessel stability and safety by agreeing the remit of such reviews and setting realistic target times to enable such co-operation.

MCA: Appropriate action planned[7] — 2016 DECEMBER 31

MMO: Appropriate action planned[7] — 2016 OCTOBER 31

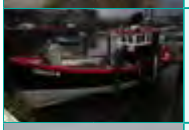
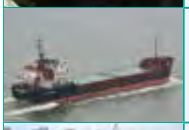
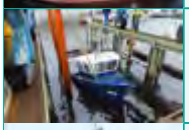
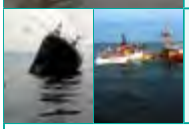
[7] See MAIB comment for recommendation 2015/170.

PROGRESS OF RECOMMENDATIONS FROM PREVIOUS YEARS

Vessel name		Publication date	Page
2014 RECOMMENDATIONS - PROGRESS REPORT			54
	*Danio*	2 April 2014	54
	*Christos XXII*	10 April 2014	54
	*CMA CGM Florida/Chou Shan*	1 May 2014	55
	*Eshcol*	11 June 2014	56
	*Corona Seaways*	3 July 2014	56
	*Celtic Carrier*	16 July 2014	57
	*Millennium Time/Redoubt*	n/a, recommendation issued pre-publication by letter③	58
	*Ovit*	11 September 2014	58
	*Wacker Quacker 1/Cleopatra*	17 December 2014	59

Vessel name	Publication date	Page

③ *Millennium Time/Redoubt* investigation report published on 17 June 2015.

2013 RECOMMENDATIONS - PROGRESS REPORT			61
	*St Amant*	9 January 2013	61
	*Heather Anne*	10 January 2013	62
	*Purbeck Isle*	2 May 2013	64
	*Alexander Tvardovskiy/UKD Bluefin/Wilson Hawk*	31 May 2013	64
	*Sarah Jayne*	13 June 2013	66
	*Vixen*	20 June 2013	66
	*Arklow Meadow*	3 October 2013	67
	*Amber*	24 October 2013	68
	*Audacious/Chloe T* (Combined Report)	19 December 2013	68
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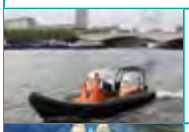
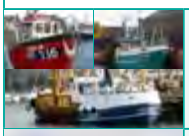
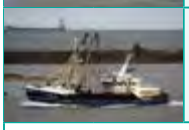
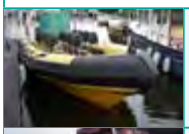
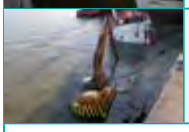
	*Karin Schepers*	17 May 2012	70

Vessel name		Publication date	Page
	*Tombarra* (parts A and B)	19 July 2012	70
2011 RECOMMENDATIONS - PROGRESS REPORT			72
	Delta 8.5m RIB	27 January 2012	72
	Princes Club	20 July 2012	72
2010 RECOMMENDATIONS - PROGRESS REPORT			73
	*Korenbloem/Optik/ Osprey III*	19 May 2010	73
	*Bro Arthur*	19 August 2010	73
	*Olivia Jean*	26 August 2010	75
2009 RECOMMENDATIONS - PROGRESS REPORT			76
	*Celtic Pioneer*	21 May 2009	76
	*Abigail H*	1 July 2009	76
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	Fishing Vessel Safety Study 1992 to 2006	28 November 2008	77
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2014 RECOMMENDATIONS - PROGRESS REPORT

Danio

	Report number:	**8/2014**
General cargo vessel	Accident date:	16/03/2013

Grounding off Longstone, Farne Islands, England

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
110	Working closely with the European Commission and EU member states, make a proposal to the International Maritime Organization that all vessels engaged in short sea trades be required to carry a minimum of two watchkeepers in addition to the master.	

Appropriate action planned — 30 NOVEMBER 2017

Christos XXII

	Report number:	**10/2014**
Tug	Accident date:	13/01/2013

Collision between tug and its tow *Emsstrom* off Hope's Nose, Tor Bay, England

Nº	Recommendation(s) to:	Christos XXII Spanopoulos Tugs
112	Develop a crisis response management cell and associated procedures to provide support to ships' staff in crisis situations.	

Appropriate action implemented

CMA CGM Florida/ Chou Shan

Report number: **11/2014**

Container vessel/Bulk carrier | Accident date: 19/03/2013

Collision between container vessel *CMA CGM Florida* and the bulk carrier *Chou Shan* in open water 140 miles east of Shanghai

Nº	Recommendation(s) to:	International Chamber of Shipping
116	Update its Bridge Procedures Guide to highlight the danger of limiting overall situational awareness through over-reliance on radar functions that focus on and prioritise AIS target CPA and TCPA.	

Appropriate action implemented

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
117	Update Appendix IV of MGN 324 (M+F) to: • Acknowledge the growing trend of integrating AIS data with radar systems. • Acknowledge the increased availability and use of radar functions that focus on and prioritise targets for collision avoidance on the basis of AIS target CPA and TCPA rather than radar target tracking information. • Warn of the danger of limiting situational awareness through over reliance on radar functions that focus on and prioritise AIS target CPA and TCPA.	

Appropriate action planned — 2017 OCTOBER 31

Eshcol	Report number:	14/2014
Fishing vessel	Accident date:	15/01/2014

Carbon monoxide poisoning on board fishing vessel in Whitby, resulting in two fatalities

Nº	Recommendation(s) to:	Maritime and Coastguard Agency

120 At the earliest opportunity, include in the Code of Practice for the Safety of Small Fishing Vessels a requirement for a carbon monoxide detector to be fitted in the accommodation on all vessels.

Appropriate action planned — 2016 OCTOBER 31

121 In developing a Code of Practice for the Safety of Small Fishing Vessels based on the Small Commercial Vessel and Pilot Boat Code, and in implementing the requirements of International Labour Organization Convention C188 in national regulations (when in force), take into account the circumstances of this accident, including, inter alia:

- The disparity in the requirements for Liquid Petroleum Gas installations on board small fishing vessels and other small commercial craft and larger fishing vessels.
- The need for suitable accommodation to be provided when crew are expected or required to stay on board overnight.
- The operating patterns of small fishing vessels and the need to protect fishermen from fatigue.

Appropriate action planned — 2017 SEPTEMBER 30

Corona Seaways

Report number: 17/2014

Ro-ro cargo vessel | Accident date: 04/12/2013

Fire on the main deck of ro-ro cargo ferry in the Kattegat, Scandinavia

Nº	Recommendation(s) to: Ellingsen Ship Management AB
127	Review its onboard documentation and the 'Unsafe Cargo' notice to take into account DFDS A/S's revised procedures for the carriage of used and unregistered vehicles: • 'Information to Car Carriers' dated 28 January 2014. • 'Information to Unregistered Second Hand Segment' dated 28 January 2014. **Appropriate action implemented**
128	Take appropriate action to: • Ensure that cargo deck ventilation fans are run in accordance with current regulations. • Investigate why the CO_2 fire-extinguishing system apparently failed to discharge the allotted quantity of CO_2 as designed. **Appropriate action implemented**

Celtic Carrier

Report number: 18/2014

General cargo vessel | Accident date: 26/04/2013

Fire on board general cargo vessel 24 miles west of Cape Trafalgar, Spain

Nº	Recommendation(s) to: Maritime and Coastguard Agency
134	Review its application of the Alternative Compliance Scheme to ensure that ships within the scheme are compliant with the eligibility criteria. **Appropriate action implemented**

Millennium Time/Redoubt

Recommendation issued pre-publication by letter

Passenger vessel/Tug | Accident date: 17/07/2014

Collision between passenger vessel and tug on the Thames

Nº	Recommendation(s) to: Maritime and Coastguard Agency
136	Require City Cruises to demonstrate that suitable and sufficient control measures are in place to ensure the safe navigation of the M2 river liners, taking into account, inter alia: • the difficulty in steering the vessels • the ergonomics of the wheelhouse • the numbers of passengers carried • the traffic density and the proximity of navigational dangers on the Thames **Appropriate action implemented**

Ovit

Report number: 24/2014

Chemical tanker | Accident date: 18/09/2013

Grounding of oil/chemical tanker in the Dover Strait

Nº	Recommendation(s) to: Maritime and Coastguard Agency
139	Forward a submission to the IMO Navigation, Communication and Search and Rescue Sub-committee, promoting the concept of carrying out annual performance checks on all ECDIS systems fitted to ships and in use as the primary means of navigation. **Rejected**

MCA comment:
It has been decided that the above recommendation will not be forwarded as there are already in place a number of procedures relating to the said information. Specifically, that ECDIS, being part of a ship's Safety Equipment Certificate (SEC) or Passenger Ship Safety Certificate (PSSC), would be annually surveyed for continued performance of both of the aforementioned safety certificates. It would, therefore, make annual performance checks redundant.

MAIB comment:
The MAIB has noted the above comment.

Nº	Recommendation(s) to: Maritime and Coastguard Agency
140	Monitor the measures adopted to improve the quality of the VTS services provided by Dover Coastguard to ensure that vessel safety is not compromised, taking into account the importance of sufficient qualified operators being available. **Appropriate action implemented**

Nº	Recommendation(s) to:	Transport Malta in co-operation with the Maritime and Coastguard Agency
141	Propose to the Paris Memorandum of Understanding Committee that a Concentrated Inspection Campaign be conducted of ECDIS-fitted ships to establish the standards of system knowledge among navigators using a list of pre-defined questions.	

Appropriate action planned, progress is ongoing

Nº	Recommendation(s) to:	International Chamber of Shipping/ Oil Companies International Marine Forum
142	In conjunction with ECDIS experts, develop and promulgate a set of focused questions for use by surveyors and auditors when conducting audits and inspections on ECDIS fitted ships.	

ICS and OCIMF: Appropriate action planned

OCIMF: Appropriate action planned

Wacker Quacker 1/ Cleopatra

Report number: 32/2014

Amphibious passenger vehicles — Accident dates: 15/06/2013 & 29/09/2013

Combined report on the investigations of the sinking and abandonment of the DUKW amphibious passenger vehicle *Wacker Quacker 1* in Salthouse Dock, Liverpool and the fire and abandonment of the DUKW amphibious passenger vehicle *Cleopatra* on the River Thames, London

Nº	Recommendation(s) to:	Maritime and Coastguard Agency/ Driver and Vehicle Standards Agency
153	Identify single points of contact for amphibious vehicle issues and put processes in place to allow them to work together, in consultation with the industry, to explore potential cross agency synergies, identify regulatory conflicts and agree a coherent approach to the survey and certification of new and existing amphibious passenger vehicles.	

MCA: Appropriate action planned

DVSA: Appropriate action implemented

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
154	Provide amphibious vehicle survey guidance and instructions to its surveyors.	
		Appropriate action planned 
155	Work with industry to develop an amphibious vehicle operators' code of practice.	
		Appropriate action planned 
156	Ensure that measures to reduce the risk of passenger entrapment and improve the levels of passenger survivability are included in its proposed technical standard for amphibious passenger vehicles.	
		Appropriate action planned 
157	Require existing DUKW operators, which may choose to rely on the insertion of buoyancy foam to meet the required damaged survivability standards, to demonstrate through risk based analysis that the foam does not adversely affect the safe operation of the vehicles.	
		Appropriate action planned 

Nº	Recommendation(s) to:	London Duck Tours Ltd
158	Use the safety lessons identified in this report to take further action to ensure, as far as is reasonably practicable, its vehicles, crew and passengers are best prepared to deal with emergency situations. In particular, attention should be given to: • The readiness and use of PFDs: the practicalities of the current arrangements should be reviewed and consideration given to requiring all passengers to wear PFDs whenever DUKWs are waterborne. • Establishing appropriate and achievable emergency procedures: these should include the marshalling of passengers, alerting potential responders and abandonment. • Development of effective training drills. • Engine compartment shut-down and fire-fighting. • Lowering the risk of passenger and crew entrapment: assess in particular whether the current canopy arrangements are appropriate.	
		Appropriate action planned, progress is ongoing

2013 RECOMMENDATIONS - PROGRESS REPORT

St Amant

Report number: 1/2013

Scallop dredger | Accident date: 13/01/2012

Loss of a crewman from fishing vessel off the coast of north-west Wales

No	Recommendation(s) to: Maritime and Coastguard Agency
2013/102	Ensure that its current policy of reviewing and deleting exemptions granted to fishing vessels that pre-date current regulatory requirements is applied robustly. As part of this process, the ambiguity between its Instructions to Surveyors and the 15-24m Code regarding the ongoing acceptance of standard exemptions should be resolved. Appropriate action planned 2016 OCTOBER 31
2013/103	Provide guidance to the owners and skippers of fishing vessels which operate at sea for more than 24 hours on appropriate accommodation standards. The guidance should also recommend consideration of hygiene and sanitation facilities in a vessel's risk assessments, and the application of appropriate control measures. Appropriate action planned 2016 JUNE 30
2013/105	Improve the management of fishing vessel surveys and inspections by ensuring that: • Existing survey and inspection procedures and guidance are reviewed to improve the clarity of the guidance and ensure that it is consistent throughout. • There is an effective and readily accessible system to record and provide information to surveyors on the status of all identified deficiencies. • Existing instructions requiring a photographic record of a vessel's principal features are followed. Appropriate action planned 2016 DECEMBER 31

Heather Anne

Report number: 2/2013

Ring netter | Accident date: 20/12/2011

Capsize and foundering resulting in the loss of one crewman in Gerrans Bay, Cornwall

Nº	Recommendation(s) to: Maritime and Coastguard Agency
2013/106	Revise MGN 427 (F) in order to provide clearer and more comprehensive guidance to surveyors and fishermen on the methods available to assess small fishing vessel stability, taking into account, inter alia: • The limitations of the alternatives to a full stability assessment. • The suitability of the alternative stability assessments for small fishing vessels. • A vessel's stability is dependent on several factors including her upright GM, freeboard and hull form. • The need for skippers to be aware of the maximum loading of their vessels and the benefits of a freeboard mark. • The impact of vessel modifications. • Owners' and skippers' awareness of stability considerations while fishing. Appropriate action planned 
2013/107	Expedite its development and promulgation of alternative small fishing vessel stability standards, which will ensure that all new fishing vessels under 15m (L) are subject to appropriate stability assessments, and which will eventually be included in the standards based on the Small Commercial Vessel and Pilot Boat Code scheduled for introduction in 2016. Withdrawn
MAIB comment:	**Recommendation withdrawn as overtaken by the Stella Maris recommendation 2015/165.**
2013/108	Specify the improvement in safety culture/behavioural change that it is seeking with respect to the voluntary wearing of personal flotation devices by individuals working on the decks of fishing vessels, and the timescale within which it is to be achieved; and Make arrangements to rapidly introduce the compulsory wearing of personal flotation devices on the working decks of fishing vessels if the sought after changes are not delivered. Partially accepted[8] - Action planned 

[8] Refer to page 18 of 2013 MAIB Annual Report for MCA and MAIB comments: www.gov.uk/government/uploads/system/uploads/attachment_data/file/359941/MAIB_Annual_Report_2013.pdf

Nº	Recommendation(s) to:	Maritime and Coastguard Agency/ Marine Management Organisation
2013/109	Work together to link the funding provided for modifications to small fishing vessels with a full assessment of the impact such modifications will have on such vessels' stability, particularly where the proposed modifications will substantially alter the method of fishing to be undertaken.	

MCA: Appropriate action planned — 2016 DECEMBER 31

MMO: Appropriate action planned — 2016 DECEMBER 31

Nº	Recommendation(s) to:	Maritime and Coastguard Agency/ Marine Management Organisation/ Cornish Fish Producers Organisation
2013/110	Work together to arrange trials of the 'Wolfson' mark on board a selection of Cornish fishing vessels under 15m (L) in order to gather sufficient data to enable the MCA to provide clear evidence on the mark's practicality, accuracy and usefulness.	
	MCA: Withdrawn - overtaken by the JMT recommendation 2016/130	
	MMO: Withdrawn - overtaken by the Stella Maris recommendation 2015/167	
	CFPO: Withdrawn - overtaken by the JMT recommendation 2016/134	

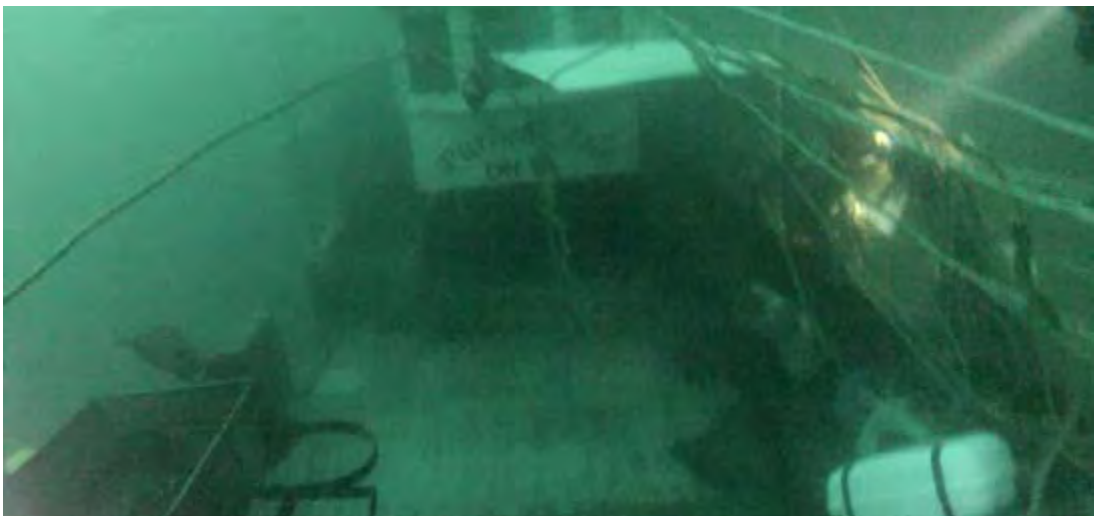
Purbeck Isle

Report number: 7/2013

Fishing vessel | Accident date: 17/05/2012

Foundering of fishing vessel 9 miles south of Portland Bill, England with the loss of three lives

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
2013/203	Take action to implement Recommendation 2008/173, issued in the MAIB's 1992-2006 Fishing Vessel Safety Study, specifically by: • Introducing a requirement for all fishing vessels of <15m (L) overall to carry EPIRBS. • Ensuring that the *Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997* apply in respect of all fishermen on board fishing vessels, irrespective of their contractual status.	
		Appropriate action planned 2016 OCTOBER 31
2013/204	Align its hull survey requirements for fishing vessels of <15m (L) overall with those applied to workboats under the *Harmonised Small Commercial Vessels Code*.	
		Appropriate action planned 2020 DECEMBER 31



Alexander Tvardovskiy/UKD Bluefin/Wilson Hawk

Report number: **10/2013**

Dry cargo vessel/Trailing suction hopper dredger/General cargo vessel

Accident date: 01/08/2012

Collision in the port of Immingham

Nº	Recommendation(s) to:	International Chamber of Shipping
2013/211	At the next revision of its Bridge Procedures Guide, emphasise the importance of port pilots being notified of all defects which affect a vessel's manoeuvrability, and the potential consequences of failing to do so.	

Appropriate action implemented

Sarah Jayne

Report number:	**13/2013**	
Fishing vessel	Accident date:	11/09/2012

Capsize and foundering of fishing vessel 6nm east of Berry Head, Brixham resulting in the loss of one life

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
2013/213	As part of its intended development of new standards for small fishing vessels, review and include additional design and operational requirements as necessary to ensure that a vessel engaged in bulk fishing remains seaworthy throughout its intended loading procedure. Specific hazards that should be addressed include: • The increased risk of capsize from swamping if freeing ports are closed. • The risk of downflooding if flush deck scuttles and fish hold hatch covers are opened at sea.	

Appropriate action planned 2016 DECEMBER 31

Vixen

Report number:	**16/2013**	
Passenger ferry	Accident date:	19/09/2012

Foundering in Ardlui Marina, Loch Lomond

Nº	Recommendation(s) to:	Stirling Council/ West Dunbartonshire Council
2013/216	Take action to: • Establish a boat licensing system for inland waters falling under the Council's area of responsibility and which adopts the Inland Waters Small Passenger Boat Code as the standard applied for small passenger boats carrying fewer than 12 passengers on its categorised waters. • Require such boats to be regularly surveyed by a competent person employed by a Certifying Authority or similar organisation as may be recommended by the Maritime and Coastguard Agency.	

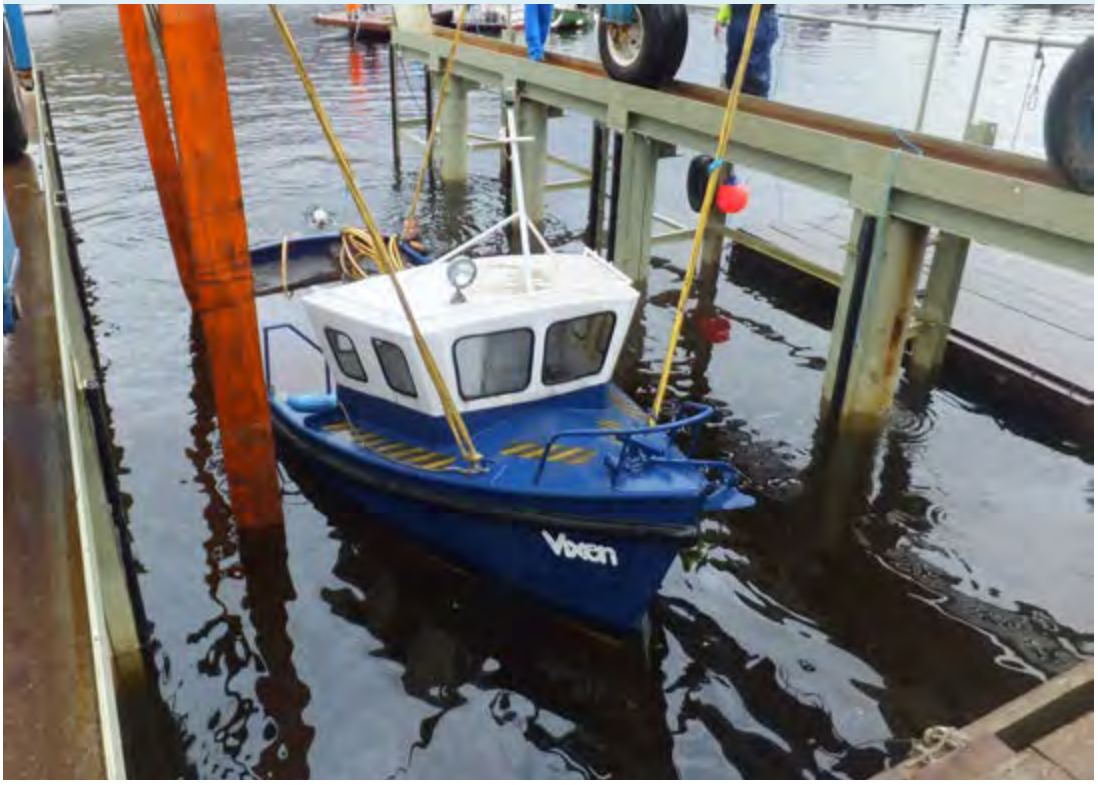
Stirling Council: Appropriate action planned, ongoing

West Dunbartonshire Council: Appropriate action planned, ongoing

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
2013/217	Advise and work with the Argyll and Bute Council, the Stirling Council, the West Dunbartonshire Council and appropriate Certifying Authorities to: • Use the Inland Waters Small Passenger Boat Code as a basis for establishing robust licensing schemes on Loch Lomond.	

- Facilitate the effective survey of small passenger boats operating on Loch Lomond in accordance with the requirements of the Civic Government Act and the Inland Waters Small Passenger Boat Code.

Appropriate action implemented



Arklow Meadow

Report number: **21/2013**

General cargo vessel | Accident date: 05/12/2012

Release of phosphine gas during cargo discharge, Warrenpoint, Northern Ireland

№	Recommendation(s) to: Maritime and Coastguard Agency
2013/225	In consultation with the Health and Safety Executive, the Port Skills and Safety Organisation, and other industry bodies as appropriate, review, consolidate and reissue the guidance provided to UK stakeholders on the loading, carriage and discharge of fumigated cargoes to highlight the importance of: • The potential for a fumigant to remain active due to factors such as temperature, relative humidity, voyage length, and fumigant method. • The retention of suitably trained and qualified fumigators at both the load and discharge ports. • Ships' crews being aware of their responsibilities. • UK port authorities having robust procedures and contingency plans when receiving vessels with fumigated cargoes.

Appropriate action planned

Update requested
NO DATE GIVEN

Nº	Recommendation(s) to:	UK Marine Ports Group/ British Ports Association
2013/226	Through its Marine and Pilotage Working Group, develop a revision of the Guide to Good Practice on Port Marine Operations to reflect the revised guidance to be issued by the MCA, and in the meantime ensure that ports are aware of: • The potential dangers posed by fumigants. • The importance of suitably qualified fumigators certifying, where applicable, that the cargo can be safely discharged and that all fumigant has been removed and safely disposed of. • The importance of developing procedures and emergency plans to cover the inadvertent or unexpected release of fumigant from a fumigated cargo.	

UKMPG: Appropriate action planned — 2016 DECEMBER 31

BPA: Appropriate action planned — 2016 DECEMBER 31

Amber

Report number: 22/2013

Bulk carrier — Accident date: 15/11/2012

Contact and grounding at Gravesend Reach, River Thames

Nº	Recommendation(s) to:	International Chamber of Shipping
2013/232	Include in the review of the Bridge Procedures Guide a reference to: • The need for bridge teams to be sufficiently resourced to provide assistance to embarked pilots through the operation of the vessel's navigational equipment when required. • The need to compare the engine power of a vessel with that of the assisting tug(s), and for this to be discussed during the pilot/master exchange.	

Appropriate action implemented

Audacious/Chloe T

Report[9] number: 27/2013

Fishing vessels

Accident dates: 10/8/2012 & 01/09 2012

Flooding and foundering of fishing vessel *Audacious* 45 miles east of Aberdeen on 10 August 2012

◀▶

Flooding and foundering of fishing vessel *Chloe T* 17 miles south west of Bolt Head, Devon on 1 September 2012

Nº	Recommendation(s) to: Maritime and Coastguard Agency
2013/249	Review the conduct of its surveys and inspections of fishing vessels in order to ensure that: • The scope is credible and that it can be achieved in practice. • The whole scope is routinely applied. • Records are accurate and complete. Appropriate action planned 2016 OCTOBER 31
2013/250	Implement a robust system to manage the scheduling of surveys and inspections on fishing vessels. Such a system should be capable of readily identifying vessels that are overdue for any surveys or inspections. Appropriate action planned 2016 OCTOBER 31

[9] Due to similarities between the accidents MAIB took the decision to publish its findings as a combined report.

2012 RECOMMENDATIONS - PROGRESS REPORT

Karin Schepers

	Report number	**10/2012**
Container vessel	Accident date:	03/08/2011

Grounding at Pendeen, Cornwall, UK

Nº	Recommendation(s) to: Maritime and Coastguard Agency
2012/115	Assess the desirability of, and, where appropriate, develop operational guidelines for using Automatic Identification Systems (AIS) data to monitor marine traffic movements. Special consideration should be given to using AIS data to monitor marine traffic movement in areas of high traffic concentrations, including traffic separation schemes, where there is limited or no radar coverage.

Appropriate action planned

Tombarra

	Report number:	**19A ◊ 19B/2012**
Car carrier	Accident date:	07/02/2011

Fatality to a rescue boat crewman, Royal Portbury Docks, Bristol

Report Part A - The weight of the rescue boat

Nº	Recommendation(s) to: Maritime and Coastguard Agency
2012/129	Submit to the IMO a proposal to mandate a maximum height of the davit head used in conjunction with rescue boats and survival craft fitted on board both cargo and passenger ships, based upon: • Recognition of the severe difficulties faced by the crews of high-sided vessels such as *Tombarra* when attempting to launch rescue boats in a seaway. • The increased hazards to which the crews of rescue boats and survival craft are exposed when operating at height. • The action taken by Wilhelmsen Lines Car Carriers Ltd to change the design of its future vessels to lower the height of the rescue boat davit head. • The maximum height of davit heads used in conjunction with survival craft already recommended for passenger vessels in SOLAS III/24; and, • The guidance provided in MSC Circ 1094 regarding the height of davit heads used for fast rescue boats on board passenger ships.

Appropriate action planned

Report Part B - The failure of the fall wire		
Nº	**Recommendation(s) to:**	**Maritime and Coastguard Agency**
2012/128	Submit to the IMO proposals for the LSA Code to: • Reflect a requirement for a 'system approach' to davit and winch installations with the aim of eliminating the possibility of any component being overstressed to the point of failure. • Provide clarification on the fitting and use of 'safety devices' on davit and winch systems, using a goal-based approach to their application. **Appropriate action planned** Update requested NO DATE GIVEN	
2012/134	Submit to the IMO proposals to amend the LSA Code designed to: • Ensure any water entering foam-filled buoyancy chambers within the enclosed hulls of rescue boats and lifeboats can be easily removed. • Require the actual weight of the rescue boat or lifeboat supplied to the vessel, rather than its prototype, to be provided in its certification. **Appropriate action planned** Update requested NO DATE GIVEN	
2012/135	Submit to the IMO proposals to amend MSC.1/Circ.1206/Rev.1 designed to require the annual weighing of rescue boats and lifeboats which use buoyancy foam within internal spaces, as soon as practicable. **Appropriate action planned** Update requested NO DATE GIVEN	

2011 RECOMMENDATIONS - PROGRESS REPORT

Delta 8.5m RIB

Report number: 1/2011

Rigid-hulled inflatable boat | Accident date: 5/6/2010

Injury to a passenger on the River Thames, London

Nº	Recommendation(s) to: Maritime and Coastguard Agency
2011/101	Prioritise and resource the revision of MGN 280 to ensure the updated code of practice for small commercial vessels is published as early as is possible.

Partially accepted - closed

MAIB comment:
While the revision to MGN 280 is still awaited, it is acknowledged that the intent of the regulation has been achieved through the publication of:

- **MGN 353 "The Merchant Shipping and Fishing Vessels (Control of Vibration at Work) Regulations 2007" which describes the relevant regulations**
- **MGN436 "Whole-body vibration: Guidance on Mitigating Against the Effects of Shocks and Impacts on small vessels" which provides design and operations guidance for all small vessels, whether coded or not;**
- **The Code of Practice for controlling Risks due to Whole-body Vibration on Ships", which provides detailed advice on compliance with the SI.**

Princes Club

Report number: 11/2011

Inflatable banana boat | Accident date: 11/09/2010

Fatal accident at Princes Club Water Sports Park in Bedfont, Middlesex

Nº	Recommendation(s) to: Health and Safety Executive
2011/120	Include oversight of the activity of riding on towed inflatables into the arrangements that are currently being considered to replace the Adventure Activities Licensing Authority.

Appropriate action implemented

Korenbloem/Optik/Osprey III

(Combined) Report number: 6/2010

Fishing vessels | Accident dates: November 2009

Fatal person overboard accidents

Nº	Recommendation(s) to:	Department for Transport
2010/112	Recognise the consistent and disproportionate rate of fatalities in the UK fishing industry and take urgent action to develop a comprehensive, timely and properly resourced plan to reduce that rate to a level commensurate with other UK occupations.	

Appropriate action planned — 2016 NOVEMBER 30

DfT comment:
The Fishing Industry Safety Group is currently in the process of developing a targeted strategy that addresses the key causes of fatalities. A draft strategy was presented to the FISG Executive Board in May 2016 and a final version will be presented to the FISG Executive Board for approval in the autumn.

Bro Arthur	Report number:	9/2010
Oil/chemical tanker	Accident date:	19/02/2010

Fatality of a shore worker in No 2 cargo tank while alongside at Cargill Terminal, Hamburg

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
2010/119	Provide additional guidance on the following: • Management of contractors and sub-contractors with emphasis on the master's and other officers' and crew members' related health and safety responsibilities. • The need for the provision of lightweight, portable casualty recovery equipment suitable for recovery from deep cargo tanks, and for the crew to be fully trained in its use. Appropriate action implemented	

Nº	Recommendation(s) to:	International Chamber of Shipping
2010/120	Include guidance on the following in the respective International Chamber of Shipping publications during their next periodic review: • TSGC - Management of contractors and sub-contractors with emphasis on the master's and other officers' and crew members' related health and safety responsibilities. • TSGC and ISGOTT - The need for the provision of lightweight, portable casualty recovery equipment suitable for recovery from deep cargo tanks and for the crew to be fully trained in its use. Appropriate action planned 2016 NOVEMBER 31	

MAIB comment:
The ICS publication TSG (Chemicals) has been completed. The update to ISGOTT is due by the end of 2019.

Olivia Jean	Report number:	10/2010
Fishing vessel	Accident date:	10/10/2009

Injury to fisherman

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
2010/123	Consider the findings of this investigation when assisting the Department for Transport to address MAIB Recommendation 2010/112, including the need to improve fishing vessel standards and occupational safety by: • Reviewing the application of LOLER, PUWER, risk assessment and working time regulations on board fishing vessels to ensure that they are suitable for the task of improving safety and reducing accidents; and, • Providing clear and robust guidance to its surveyors and the fishing industry at large. • Ensuring that accurate records are maintained such that surveyors are provided with the information required to survey fishing vessels effectively. • Improving its recording of accidents on vessels' SIAS records to identify trends and act upon them.	

Appropriate action planned

2009 RECOMMENDATIONS - PROGRESS REPORT

Celtic Pioneer

Report number: 11/2009

Rigid-hulled Inflatable Boat | Accident date: 26/08/2008

Injury to a passenger on board RIB in the Bristol Channel

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
2009/126	Review and revise the deck manning and qualification requirements of the harmonised SCV Code taking into account the speed of craft and the type of activity intended in addition to the distance from shore and environmental conditions.	

Appropriate action planned, progress is ongoing

Nº	Recommendation(s) to:	Local Authorities Co-Ordinators of Regulatory Service / Institute of Licensing
2009/128	When available, promulgate the approved code of practice for thrill-type boat operators, and strongly encourage local authorities within the United Kingdom to require operators to adhere to the code as a condition of licensing.	

Withdrawn

MAIB comment:
Recommendation 2009/128 was withdrawn by MAIB in April 2016 as LACORS has been disbanded.

Abigail H

Report number: 15/2009

Grab hopper dredger | Accident date: 02/11/2008

Flooding and foundering in the Port of Heysham

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
2009/141	Introduce a mandatory requirement, for all vessels greater than 24m length and less than 500 gross tons, for the fitting of bilge alarms in engine rooms and other substantial compartments that could threaten the vessel's buoyancy and stability if flooded. These, and any other emergency alarms should sound in all accommodation spaces when the central control station is unmanned. In addition to functioning in the vessel's normal operational modes, alarms should be capable of operating when main power supplies are shut down, and be able to wake sleeping crew in sufficient time for them to react appropriately.	

Appropriate action planned 2018 SEPTEMBER 30

Fishing Vessel Safety Study

Fishing vessels | Accident dates: 1992 to 2006

Analysis of UK Fishing Vessel Safety 1992 to 2006

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
2008/173	In developing its plan to address the unacceptably high fatality rate in the fishing industry, identified in its study of statistics for the years 1996 to 2005, in addition to delivering the actions outlined at 6.2, the MCA is recommended to consider the findings of this safety study, and in particular to: • Clarify the requirement for risk assessments to include risks which imperil the vessel such as: environmental hazards; condition of the vessel; stability etc. • Work towards progressively aligning the requirements of the *Small Fishing Vessel Code*, with the higher safety standards applicable under the Workboat Code. • Clarify the requirements of *The Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997* to ensure that they apply in respect of all fishermen on board fishing vessels, irrespective of their contractual status. • Ensure that the current mandatory training requirements for fishermen are strictly applied. • Introduce a requirement for under 15m vessels to carry EPIRBs. • Review international safety initiatives and transfer best	

practice to the UK fishing industry with particular reference to the use of PFDs and Personal Locator Beacons.
- Conduct research on the apparent improvement in safety in other hazardous industry sectors, such as agriculture, construction and offshore, with the objective of identifying and transferring best safety practice from those industries to the fishing industry.

Appropriate action planned 

Nº	Recommendation(s) to:	Department for Transport/ Maritime and Coastguard Agency
2008/174	Agree the coherent resourced plan for reducing the fatality rate in the fishing industry (see recommendation 2008/173).	

DfT: Appropriate action planned 

MCA: Appropriate action planned 

Note:
For comment refer to the DFT statement under recommendation 2010/112 on page 73.

Nº	Recommendation(s) to:	Department for Transport
2008/175	Work closely together and with fishing industry safety representatives, to ensure pragmatic safety concerns are integrated into conservation policy measures.	

Appropriate action implemented 

Nº	Recommendation(s) to:	Maritime and Coastguard Agency
2008/177	Review the current requirements for safety training with particular reference to training assessment and refresher training.	

Appropriate action planned 

MSC Napoli	Report number:	9/2008
Container vessel	Accident date:	18/01/2007

Structural failure

Nº	Recommendation(s) to: International Association of Classification Societies
2008/128	Review the contents of UR S11 (Longitudinal Strength Standard) to ensure: • Hull girder strength and buckling checks are carried out on all critical sections along the entire length of the hull. • An evaluation of the suitability of current UR S11 design wave bending moment criteria for vessels with low block coefficient is undertaken. • Member societies use common methodologies when complying with the requirements of this rule. **Appropriate action implemented**
2008/130	Research and review the technological aids available which would assist masters to measure hull stresses in port and at sea. **Appropriate action implemented**

2007 RECOMMENDATIONS - PROGRESS REPORT

Danielle

	Report number:	**5/2007**
Scallop dredger	Accident date:	06/06/2006

Major injuries sustained by a deckhand

Nº	Recommendation(s) to: Maritime and Coastguard Agency
2007/119	Amplify and expand on current advice contained in MSN 1768 (M&F) such that fishermen are reminded: • Medical scale requirements provide the minimum levels of medical stores only. Additional stores may be provided at the skipper's/owner's discretion. Such advice should also specify the need for skippers to consider the level of additional medical stores carried on individual vessels as part of the statutory risk assessment process. **Partially accepted - action planned** 2016 JUNE 30

Thunder

	Report number:	**12/2007**
General cargo	Accident date:	10/08/2006

Grounding at the approaches to the Dee Estuary

Nº	Recommendation(s) to: Department for Transport
2007/144	In considering his decisions on the Harbour Revision Orders submitted by the Environment Agency and Mostyn Docks Limited, take into account the need to clarify the status of the Mostyn Outer Channel, such that the responsible authority has the necessary powers to ensure the safety of navigation in the channel. **Appropriate action implemented**

PART 3: STATISTICS

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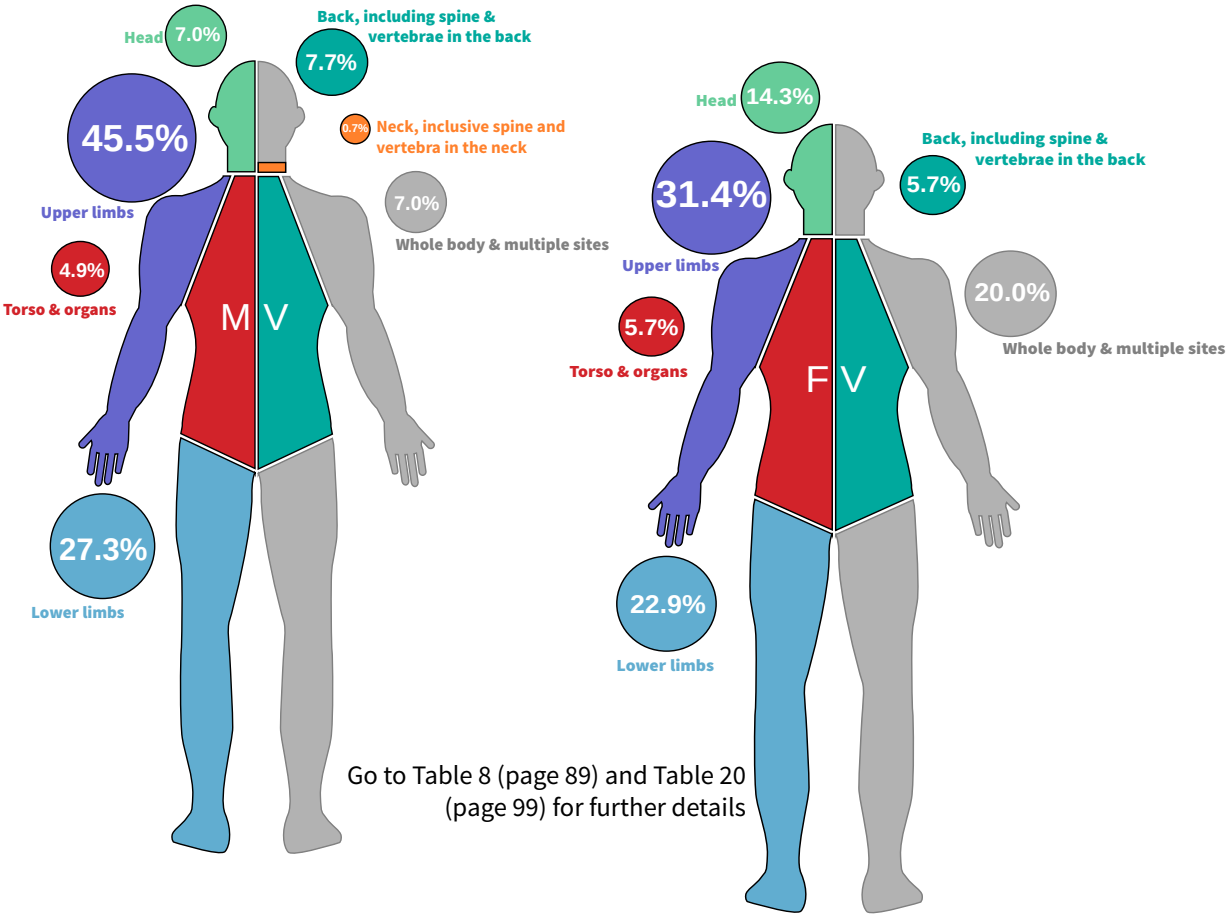
For details of reporting requirements and terms used in this section please see Annex - Statistics Coverage on page 104 and Glossary on page 105.

Deaths and injuries of merchant vessel and fishing vessel crew by part of body injured



Go to Table 8 (page 89) and Table 20 (page 99) for further details

UK VESSELS: ACCIDENTS INVOLVING LOSS OF LIFE

Table 1: Loss of life in 2015

Date	Name of vessel	Type of vessel	Location	Accident
Merchant vessels 100gt and over				
24 Jun	*Diamond Princess*	Passenger ship	Kobe, Japan	Passenger drowned while in swimming pool
7 May	*Sian C*	General cargo	Atlantic Ocean	Body of stowaway discovered, likely to have died when cargo fumigated
3 Aug	*Oldenburg*	Passenger ship	Ilfracombe, Devon	Shoreworker sustained fatal injuries after falling between vessel and quayside
18 Aug	*Arco Avon*	Dredger	12nm off Great Yarmouth, Norfolk	Third engineer suffered fatal burns in engine room fire
9 Nov	*Pacific Dawn*	Passenger ship	Coral Sea, South Pacific	Passenger drowned while in swimming pool
29 Dec	*Svitzer Moira*	Tug	Portbury Dock, Bristol	Crewmember killed during mooring operations
Merchant vessels under 100gt				
6 Jan	*GPS Battler*	Tug	Marin, Spain	Crewmember fell from quay while awaiting access
30 Apr	*Carol Anne*	Workboat	Loch Spelve, Isle of Mull	Skipper killed by falling crane
Fishing vessels				
10 Feb	*Beryl*	Stern trawler	21nm WNW of Shetland	Crewmember fell overboard during shooting operations
9 Jul	*Enterprise*	Stern trawler	North Sea	Skipper fell overboard in rough seas
9 Jul	*JMT*	Scallop dredger	3.8nm SW of Rame Head, Cornwall	Vessel sank with the loss of both crewmembers
15 Jul	*Susie Mo II*	6m trawler	North Wales coast	Single-handed fisherman drowned – vessel missing
17 Aug	*Aquarius*	Stern trawler	Off Aberdeen	Crewmember fell overboard
4 Oct	*Annie T*	Creeler	Sound of Mingulay, Barra	Crewmember fell overboard while shooting creels
Recreational craft				
19 Apr	-	Kayak	Solent, Hampshire	Kayaker drowned after getting into difficulties while paddling from Lepe Beach to Hill Head
2 May	-	Fletcher 155 speedboat	Tor Bay, Devon	Teenage girl became entangled and drowned after boat capsized and sank by stern
9 May	*Spring Horizon I*	Motor cruiser	Norfolk Broads	Charterer drowned after falling overboard

Date	Name of vessel	Type of vessel	Location	Accident
Recreational craft continued				
18 May	*Skippa*	Motor cruiser	Cleeve Lock, River Thames, Oxfordshire	Charterer received fatal injuries after falling overboard
1 Feb	*Sabriel*	Sailing yacht	Cardiff Bay	Crew member fell overboard during a race
2 Feb	-	Motor launch	River Thames	Coach of rowing team fell overboard and drowned.
6 Mar	-	Motor cruiser	Starcross, Devon	Owner died while ferrying supplies to moored vessel
13 Mar	*Carolina*	Kayak	Firth of Forth, East Lothian	Body of kayaker found following searches
27 May	-	Home-built motor vessel	East of Stornoway, Isle of Lewis	The owner drowned after getting into difficulties. The vessel was found part-submerged
19 Jun	-	RIB	Osborne Bay, Isle of Wight	Collision between RIB and motor yacht resulting in fatal injuries to RIB passenger
23 Jun	*Reel Fun*	Motor cruiser	Off Newhaven, East Sussex	Owner died after sustaining head injury and collapsing in wheelhouse
12 Jul	*True Blue*	Sailing yacht	Off Bridlington, Yorkshire	Crew member fell overboard during race and could not be resuscitated having received serious injuries during retrieval
10 Aug	-	Small angling boat	Firth of Forth	Three anglers died after getting into difficulties in deteriorating weather
5 Sep	*CV21*	Commercial racing yacht	123nm WNW of Porto, Portugal	Watchleader sustained fatal injury on deck
18 Sep	*Flapjack*	Sailing yacht	Carrickfergus, County Antrim	Owner fell overboard and drowned while in marina
19 Sep	-	Small angling boat	Off Salcombe, Devon	The owner fell overboard and when recovered by RNLI could not be resuscitated
25 Sep	*Meggie*	Sailing yacht	Norfolk Broads	The owner received fatal crush injuries while lowering mast
8 Dec	-	Fletcher 13 speedboat	River Thames, London	Boat capsized while underway resulting in the death of one of the two occupants

UK MERCHANT VESSELS >= 100GT

Table 2: Merchant vessel total losses

There were no losses of UK merchant vessels reported to MAIB in 2015.

Table 3: Merchant vessel losses — 2005-2015

	Number lost	UK fleet size	Gross tons lost
2005	6	1443	1579
2006	-	1480	-
2007	5	1518	54304
2008	2	1578	645
2009	1	1564	274
2010	-	1520	-
2011	-	1521	-
2012	-	1450	-
2013	-	1392	-
2014	-	1361	-
2015	-	**1385**	-

Table 4: Merchant vessels in casualties by nature of casualty and vessel category❶

	Solid cargo	Liquid cargo	Passenger	Service ship	Commercial recreational	Total
Collision	6	1	8	20	-	**35**
Contact	8	3	6	7	-	**24**
Damage to ship or equipment	2	-	2	3	-	**7**
Fire/explosion	1	-	1	2	1	**5**
Flooding/foundering	-	-	-	1	-	**1**
Grounding	7	1	3	7	-	**18**
Loss of control	7	1	9	11	-	**28**
Total	**31**	**6**	**29**	**51**	**1**	**118**

❶ Vessel groups include vessels operating on inland waterways.
Note: 118 Casualties represents a rate of 85 Casualties per 1 000 vessels on the UK Fleet.

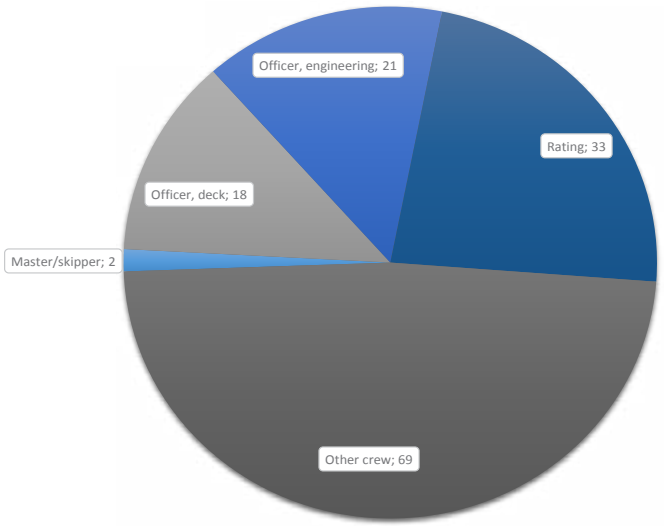
Table 5: Deaths and injuries to merchant vessel crew — 2005-2015❷

	Crew injured	Of which resulted in death
2005	246	2
2006	233	3
2007	243	12
2008	224	5
2009	199	6
2010	222	3
2011	185	5
2012	186	3
2013	134	1
2014	142	-
2015	**143**	**2**

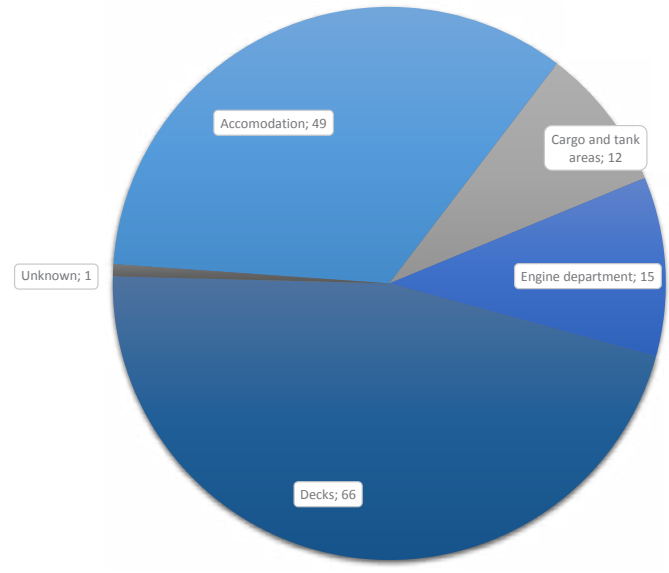
❷ From 2012 this table excludes injuries/fatalities that were not in connection with the operation of a ship

Table 6: Deaths and injuries of merchant vessel crew by rank

Rank/specialism	Number of crew
Master/skipper	2
Officer, deck	18
Officer, engineering	21
Rating	33
Other crew	69
Total	**143**



Deaths and injuries of merchant vessel crew by rank



Deaths and injuries of merchant vessel crew by place

Table 7: Deaths and injuries of merchant vessel crew by place

Place		Number of crew
Accommodation	Bathroom, shower, toilet	3
	Cabin space - crew	7
	Corridor	3
	Galley spaces	12
	Gymnasium	1
	Mess room, dayroom	4
	Provision room	4
	Restaurant/bar	3
	Stairway/ladders	3
	Theatre	2
	Accommodation, other	7
Cargo & tank areas	Cofferdam/void space	1
	Open deck cargo space	2
	Vehicle cargo space	9
Engine department	Boiler room	1
	Engine room	12
	Workshop/stores	1
	Other	1
Ship	Boat deck	15
	Forecastle deck	7
	Freeboard deck	16
	Over side	2
	Poop deck	2
	Stairs/ladders	11
	Superstructure deck	2
	Other	11
Unknown		1
Total		**143**

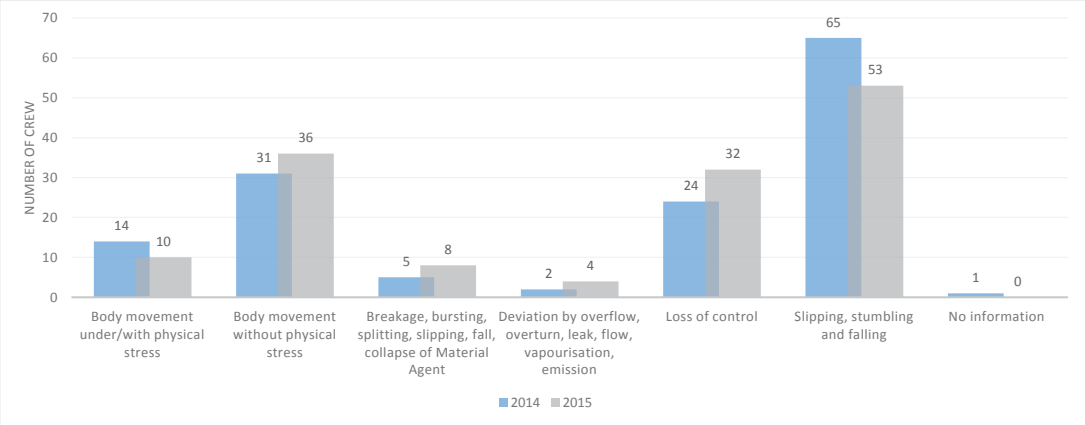
Table 8: Deaths and injuries of merchant vessel crew by part of body injured

Part of body injured		Number of crew
Whole body and multiple sites	Whole body	1
	Multiple sites	9
Head	Eye(s)	2
	Facial area	4
	Brain and cranial nerves and vessels	3
	Head, other	1
Neck, inclusive spine and vertebra in the neck		1
Upper limbs	Arm, including elbow	9
	Finger(s)	19
	Hand	22
	Shoulder and shoulder joints	9
	Wrist	6
Back, including spine and vertebrae in the back		11
Torso and organs	Chest area including organs	2
	Pelvic and abdominal area including organs	1
	Rib cage, ribs including joints and shoulder blade	3
	Torso, other	1
Lower limbs	Ankle	11
	Foot	13
	Leg, including knee	15
Total		**143**

Table 9: Deaths and injuries of merchant vessel crew by deviation

Deviation*		Number of crew
Body movement under or with physical stress (generally leading to an internal injury)	Lifting, carrying, standing up	4
	Treading badly, twisting leg or ankle, slipping without falling	3
	Body movement under or with physical stress (internal), other	3
Body movement without any physical stress (generally leading to an external injury)	Being caught or carried away, by something or by momentum	30
	Uncoordinated movements, spurious or untimely actions	4
	Body movement under or with physical stress (external), other	2
Breakage, bursting, splitting, slipping, fall, collapse of Material Agent	Breakage, bursting - causing splinters (wood, glass, metal, stone, plastic, others)	1
	Slip, fall, collapse of Material Agent* - from above (falling on the victim)	3
	Slip, fall, collapse of Material Agent - from below (dragging the victim down)	1
	Slip, fall, collapse of Material Agent - on the same level	2
	Breakage, bursting, splitting, slipping, fall, collapse of Material Agent, other	1
Deviation by overflow, overturn, leak, flow, vaporisation, emission	Liquid state - leaking, oozing, flowing, splashing, spraying	3
	Gaseous state - vaporisation, aerosol formation, gas formation	1
Loss of control (total or partial)	Of hand-held tool (motorised or not) or of the material being worked by the tool	11
	Of machine (including unwanted start-up) or of the material being worked by the machine	4
	Of means of transport or handling equipment, (motorised or not)	2
	Of object (being carried, moved, handled, etc.)	14
	Loss of control (total or partial), other	1
Slipping - stumbling and falling - fall of persons	Fall of person - to a lower level	25
	Fall overboard of person	2
	Fall of person - on the same level	26
	Total	**143**

*See "Terms" on page 106



Deaths and injuries of merchant vessel crew by deviation

Table 10: Deaths and injuries of merchant vessel crew by injury

Main injury		Number of crew
Bone fractures	Closed fractures	46
	Open fractures	1
Burns, scalds and frostbites	Burns and scalds (thermal)	5
Concussion and internal injuries	Concussion and intracranial injuries	1
	Internal injuries	3
Dislocations, sprains and strains	Dislocations and subluxations*	3
	Sprains and strains	30
Wounds and superficial injuries	Open wounds	13
	Superficial injuries*	34
Traumatic amputations (loss of body parts)		1
Other specified injuries not included under other headings		1
Multiple injuries		1
Unknown or unspecified		4
Total		**143**

*See "Terms" on page 106

Table 11: Deaths and injuries to passengers — 2005-2015❸❹

	Number of passengers	Of which resulting in death
2005	110	1
2006	114	1
2007	106	-
2008	170	2
2009	115	1
2010	92	2
2011	109	1
2012	50	-
2013	46	-
2014	56	1
2015	**55**	**1**

❸ From 2012 this table excludes injuries/fatalities that were not in connection with the operation of a ship.

Table 12: Deaths and injuries of passengers by injury

Main injury		Number of passengers
Drowning and asphyxiation	Drowning and non-fatal submersions	2
Bone fractures	Closed fractures	45
Concussion and internal injuries	Concussion and intracranial injuries	1
Dislocations, sprains and strains	Dislocations and subluxations*	1
	Sprains and strains	1
Unknown or unspecified		3
Traumatic amputations (Loss of body parts)		1
Other specified injuries not included under other headings		1
Total		**55**

*See "Terms" on page 106

UK MERCHANT VESSELS < 100GT

Table 13: Merchant vessels < 100gt - losses

Date	Name Of vessel	Type of vessel	loa	Casualty event
30 Mar	*Asterix**	Service ship - Tug (towing/pushing)	13.08	Capsize

*Constructive total loss

Table 14: Merchant vessels < 100gt

	Solid cargo | Barge	Passenger ship	Recreational craft | Power	Recreational craft | Sailboat	Service ship | Offshore	Service ship | SAR craft	Service ship | Special purpose ship	Service ship | Tug (towing/pushing)	Service ship | Other	Total
Capsizing/listing	-	-	-	-	-	-	-	1	-	**1**
Collision	1	6	2	32	1	-	8	1	2	**53**
Contact	-	5	-	2	-	2	1	2	1	**13**
Damage to ship or equipment	-	1	-	-	1	1	2	-	-	**5**
Fire/explosion	-	1	-	-	1	-	1	-	-	**3**
Flooding/foundering	-	-	2	-	-	-	1	-	-	**3**
Grounding/stranding	-	1	1	11	3	-	4	-	2	**22**
Loss of control	1	5	1	-	-	1	1	2	-	**11**
Total per vessel type	**2**	**19**	**6**	**45**	**6**	**4**	**18**	**6**	**5**	**111**
Deaths	-	-	1	1	-	-	1	-	-	**3**
Injuries	-	11	4	11	1	5	6	3	7	**48**

UK FISHING VESSELS

There were 5 746 UK registered fishing vessels at the end of 2015. During 2015, 115 casualties to vessels involving these vessels were reported to the MAIB. Figures in the following tables show casualties to vessels and injuries involving UK registered vessels that were reported to the MAIB in 2015.

13 fishing vessels were reported lost (0. 23% of the total fleet) and there were 7 fatalities to crew.

Table 15: Fishing vessel total losses

Date	Name of vessel	Age	Gross tons	Casualty event
Under 15m length overall (loa)				
13 Jan	*Anna*	32	6.13	Grounding
12 Feb	*Cesca*	47	27.02	Foundering
26 Jun	*Five Brothers*	19	8.40	Capsizing
09 Jul	*JMT*	27	15.20	Capsizing
15 Jul	*Susie Mo II*	41	2.00	Missing
15 Nov	*Sabre II*	44	3.90	Grounding
18 Nov	*Rising Sun*	26	3.00	Foundering
10 Dec	*Learig*	40	5.50	Grounding
15m length overall - under 24m registered length (reg)				
18 May	*Kairos*	11	163.00	Flooding
29 Jul	*Silver Dee*	44	63.00	Collision
24 Aug	*St Apollo**	36	51.00	Grounding
04 Oct	*Karinya*	33	120.00	Fire
28 Oct	*CKS*	42	58.00	Grounding

* Constructive total loss

Table 16: Fishing vessel losses — 2005-2015❺

	Under 15m loa	15m loa to <24m reg	24m reg and over	Total lost	UK registered	% lost
2005	20	11	3	34	6 314	0.54
2006	11	7	1	19	6 346	0.30
2007	16	5	-	21	6 330	0.33
2008	14	4	3	21	6 763	0.31
2009	11	4	-	15	6 222	0.24
2010	11	3	-	14	5 902	0.24
2011	17	7	-	24	5 974	0.40
2012	5	4	-	9	5 834	0.15
2013	15	3	-	18	5 774	0.31
2014	9	3	-	12	5 715	0.21
2015	**8**	**5**	**-**	**13**	**5 746**	**0.23**

❺ From 2012 this table excludes losses that were not in connection with the operation of a ship.

Table 17: Casualties to fishing vessels

	Number of vessels involved	Incident rate per 1 000 vessels at risk (to one decimal place)
Capsizing/listing	2	0.3
Collision	14	2.4
Contact	1	0.2
Damage to ship or equipment	1	0.2
Fire/explosion	2	0.3
Flooding/foundering	6	1.0
Grounding	19	3.3
Loss of control	69	12.0
Missing	1	0.2
Total	**115**	**20.0**

*Figure adjusted to properly reflect fleet size (115/5 746 vessels)

Table 18: Fishing vessels in casualties — by nature of casualty

	Number of vessels involved	Incident rate per 1 000 vessels at risk (to one decimal place)
Under 15m length overall (loa) — vessels at risk: 5 109		
Capsizing/listing	2	0.4
Collision	7	1.4
Damage to ship or equipment	1	0.2
Flooding/Foundering	4	0.8
Grounding	11	2.2
Loss of control	43	8.4
Missing	1	0.2
Total	**69**	**13.5**
15m loa - 24m registered length (reg) — vessels at risk: 488		
Collision	4	8.2
Fire/Explosion	1	2.0
Flooding/Foundering	2	4.1
Grounding	8	16.4
Loss of control	20	41.0
Total	**35**	**71.7**
24m reg and over — vessels at risk: 149		
Collision	3	20.1
Contact	1	6.7
Fire/explosion	1	6.7
Loss of control	6	40.3
Total	**11**	**73.8**
Fleet total	**115**	**20.0**

Table 19: Deaths and injuries to fishing vessel crew by injury

Main injury		Number of crew
Drowning and asphyxiation	Drowning and non-fatal submersions	6
Multiple injuries		1
Traumatic amputations (Loss of body parts)		8
Bone fractures	Closed fractures	6
Concussion and internal injuries	Concussion and intracranial injuries	3
	Internal injuries	2
Dislocations, sprains and strains	Dislocations and subluxations	1
Effects of temperature extremes, light and radiation	Effects of reduced temperature	1
Wounds and superficial injuries	Open wounds	5
	Superficial injuries	1
Unknown or unspecified		1
Total		**35**

Deaths and injuries to fishing vessel crew by injury

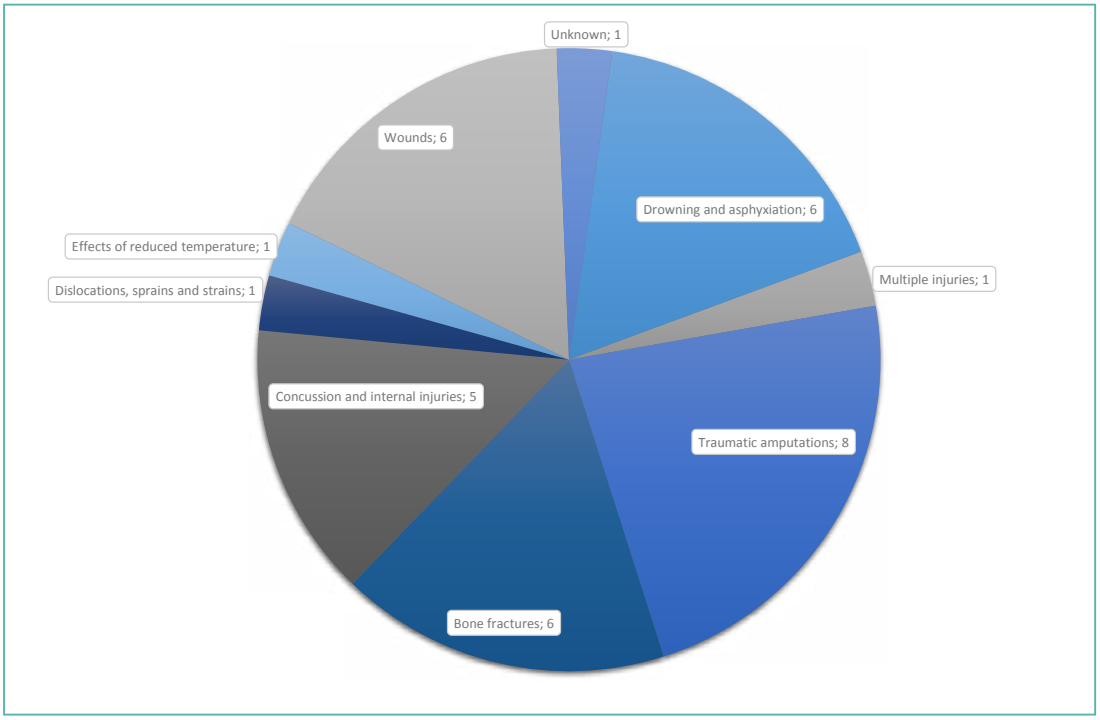


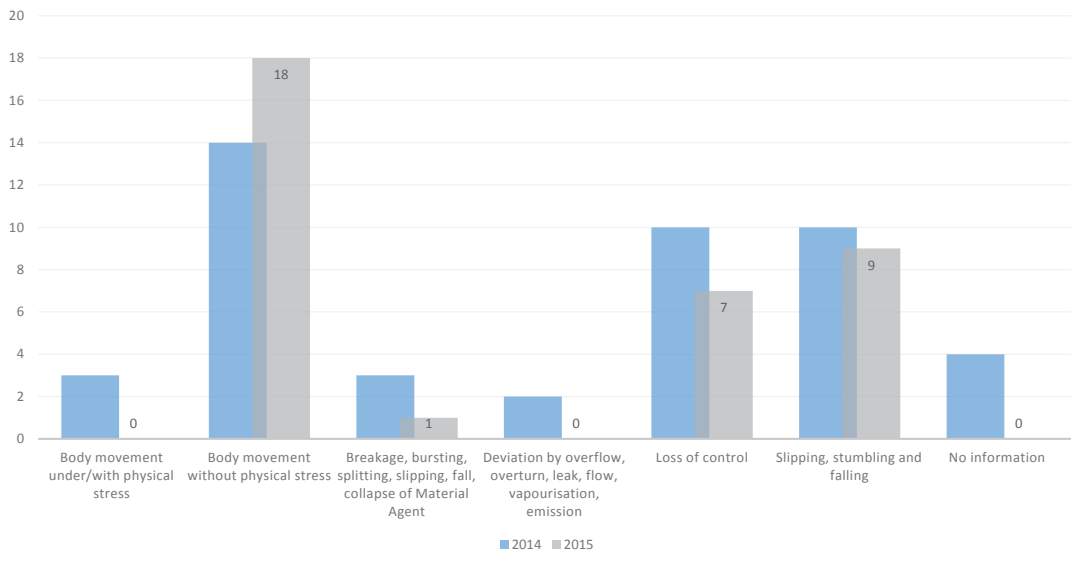
Table 20: Deaths and injuries of fishing vessel crew by part of body injured

Part of body injured		Number of crew
Whole body and multiple sites	Whole body (systemic effects)	6
	Multiple sites of the body affected	1
Head	Head, brain and cranial nerves and vessels	3
	Head, other parts not mentioned above	2
Upper limbs	Hand	3
	Finger(s)	7
	Upper extremities, multiple sites affected	1
Back	Back, including spine and vertebra in the back	1
	Back, other parts not mentioned above	1
Torso and organs	Rib cage, ribs including joints and shoulder blade	2
Lower Limbs	Leg, including knee	7
	Ankle	1
	Total	**35**

Table 21: Deaths and injuries of fishing vessel crew by deviation

Deviation*		Number of crew
Body movement without any physical stress (generally leading to an external injury)	Being caught or carried away, by something or by momentum	16
	Uncoordinated movements, spurious or untimely actions	1
	Other movements not mentioned above	1
Breakage, bursting, splitting, slipping, fall, collapse of Material Agent*	Slip, fall, collapse of Material Agent - from above (falling on the victim)	1
Loss of control (total or partial)	Of machine (including unwanted start-up) or of the material being worked by the machine	2
	Of means of transport or handling equipment, (motorised or not)	2
	Of object (being carried, moved, handled, etc.)	3
Slipping - stumbling and falling - fall of persons	Fall of person - to a lower level	4
	Fall overboard of person	3
	Fall of person - on the same level	2
	Total	**35**

*See "Terms" on page 106

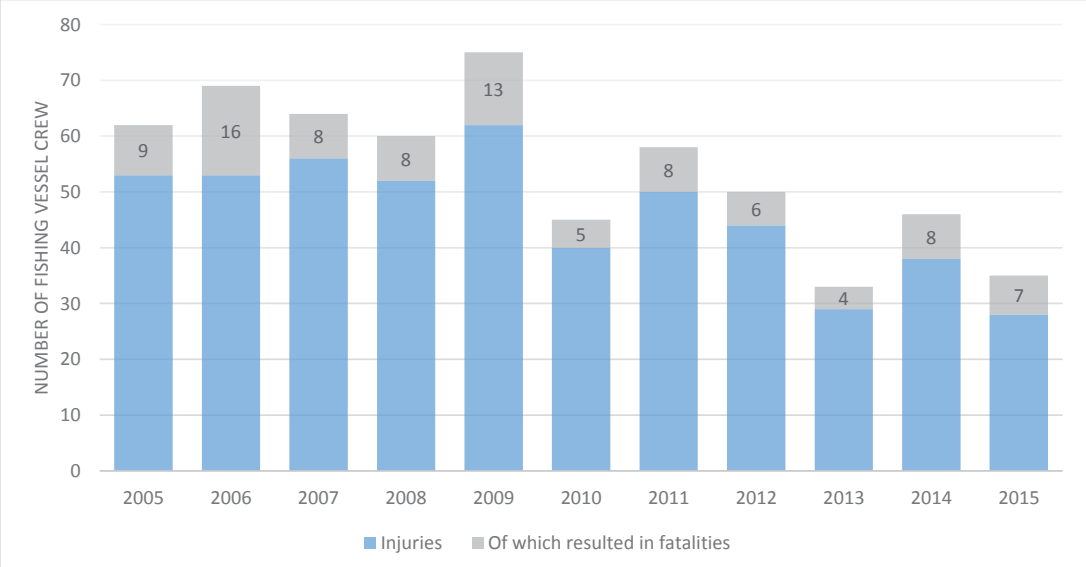


Deaths and injuries of fishing vessel crew by deviation

Table 22: Deaths and injuries to fishing vessel crew by vessel length (of which, deaths shown in brackets) 2005-2015 ❷

	Under 15m loa		15m loa - under 24m reg		24m reg and over		Total	
2005	20	(3)	27	(3)	15	(3)	62	(9)
2006	21	(6)	30	(8)	18	(2)	69	(16)
2007	25	(4)	24	(3)	15	(1)	64	(8)
2008	19	(3)	22	(4)	19	(1)	60	(8)
2009	32	(5)	30	(7)	13	(1)	75	(13)
2010	22	(4)	10	-	13	(1)	45	(5)
2011	20	(7)	27	(1)	11	-	58	(8)
2012	21	(4)	22	(2)	7	-	50	(6)
2013	13	(3)	13	(1)	7	-	33	(4)
2014	22	(5)	14	(3)	10	-	46	(8)
2015	**10**	**(4)**	**17**	**(1)**	**8**	**(2)**	**35**	**(7)**

❷From 2012 this table excludes injuries/fatalities that were not in connection with the operation of a ship.



Deaths an injuries to fishing vessel crew

NON-UK COMMERCIAL VESSELS

Table 23: Non UK commercial vessels total losses in UK waters

Date	Name of vessel	Type of vessel	Flag	Gross tons	loa	Casualty event
03 Jan	*Cemfjord*	Cement carrier	Cyprus	1 850	83.19 m	Foundering
20 Jan	MFV *Iuda Naofa*	Fishing vessel	Ireland	198	24.99 m	Foundering
28 Jan	*Morgenster*	Fishing vessel	Belgium	24	23.82 m	Foundering
22 Aug	*Negrier*	Fishing vessel	France	9	10.30 m	Foundering
29 Aug	*Erin Wood* *	Bunkering tanker	Saint Kitts and Nevis	70	24.00 m	Collision

* Constructive total loss

Table 24: Non UK commercial vessels in UK waters

	Cargo solid	Liquid cargo	Passenger	Service ship	Fishing vessel	Total
Capsize/listing	1	1	-	-	-	**2**
Collision	8	4	2	4	2	**20**
Contact	12	5	5	3	-	**25**
Damage to ship or equipment	5	-	1	2	1	**9**
Fire/explosion	4	1	3	2	-	**10**
Flooding/foundering	1	-	-	-	3	**4**
Grounding/stranding	23	2	1	2	-	**28**
Loss of control	31	5	1	2	2	**41**
Total per vessel type	**85**	**18**	**13**	**15**	**8**	**139**
Deaths	8	-	-	-	4	**12**
Injuries	15	6	12	5	2	**40**

ANNEX - STATISTICS COVERAGE

1. Data is presented by the year in which the incident was reported to the MAIB. Historic data tables contain information from the past 10 years.
2. Not all historical data can be found in this report. Further data is contained in previous MAIB Annual Reports.
3. United Kingdom ships are required by the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012[10] to report Accidents to the MAIB.
4. Accidents are defined as being Marine Casualties or Marine Incidents, depending on the type of event(s) and the results of the event(s). See Casualty definitions[11] or MAIB's Regulations[10] for more information.
5. Details of vessel types and groups used in this Annual Report can be found in the document: Vessel types used in MAIB Annual Reports (2013 onwards)[11].
6. Non-UK flagged vessels are not required to report accidents to the MAIB unless they are within a UK port/harbour or within UK 12 mile territorial waters and carrying passengers to or from a UK port. However, the MAIB will record details of, and may investigate, significant accidents notified to us by bodies such as H.M. Coastguard.
7. The Maritime and Coastguard Agency, harbour authorities and inland waterway authorities have a duty to report accidents to the MAIB.
8. In addition to the above, the MAIB monitors news and other information sources for relevant accidents.

[10] https://www.gov.uk/government/organisations/marine-accident-investigation-branch/about#regulations-and-guidance

[11] The supporting documentation, originally published with Annual Report 2014, are available on the MAIB website: https://www.gov.uk/government/publications/maib-annual-report-for-2014

GLOSSARY OF ABBREVIATIONS, ACRONYMS AND TERMS

▸ Abbreviations and Acronyms ◂

AIS	-	Automatic Identification System
BIS	-	Department of Business Innovation and Skills
CERS	-	Consolidated European Reporting System
CI	-	Chief Inspector
Circ.	-	Circular
CO	-	Carbon monoxide
CO_2	-	Carbon dioxide
CPA	-	Closest Point of Approach
CPP	-	Controllable Pitch Propeller
CSS Code	-	Code of Safe Practice for Cargo Stowage and Securing
DfT	-	Department for Transport
DSC	-	Digital Selective Calling
ECDIS	-	Electronic Chart Display and Information System
EPIRB	-	Emergency Position Indicating Radio Beacon
EU	-	European Union
(f)	-	fishing
FISG	-	Fishing Industry Safety Group
FRS	-	Fire and Rescue Service
FV	-	Fishing Vessel
GM	-	Metacentric height
GNSS	-	Global Navigation Satellite System
GPS	-	Global Positioning System
GRP	-	Glass Reinforced Plastic
GT	-	Gross tonnage
HMPE	-	High Modulus Polyethylene
HTW	-	Human Elements, training and watchkeeping
IACS	-	International Association of Classification Societies
ICS	-	International Chamber of Shipping
IMO	-	International Maritime Organization
ISAF	-	International Sailing Federation (now World Sailing)
ISGOTT	-	International Safety Guide for Oil Tankers and Terminals
ISM	-	International Safety Management Code
ISO	-	International Standards Organization
(l)	-	length
LACORS	-	Local Authority Coordinators of Regulatory Services
LOLER	-	Lifting Operations and Lifting Equipment Regulations
LNG	-	Liquefied Natural Gas
LSA	-	Life Saving Appliance
Ltd	-	Limited (company)
m	-	metre
(m)	-	merchant
(M+F)	-	Merchant and Fishing
MCA	-	Maritime and Coastguard Agency

MGN	-	Marine Guidance Note
MMO	-	Marine Management Organisation
MSC	-	Maritime Safety Committee
MSN	-	Merchant Shipping Notice
mv	-	merchant vessel
N/A	-	Not Applicable
No.	-	Number
OIC	-	Officer in Command
OSR	-	Offshore Special Regulations
OOW	-	Officer of the Watch
PFD	-	Personal Flotation Device
PLB	-	Personal Locater Beacon
PLC	-	Public Liability Company
PUWER	-	Provision and Use of Work Equipment Regulations (1998)
PWT	-	Prozess-Wärmeträgertechnik GmbH
RCD	-	Recreational Craft Directive
RIB	-	Rigid Inflatable Boat
RPC	-	Regulatory Policy Committee
RRC	-	Reducing Regulations Committee
Ro-ro	-	Roll on, roll off vessel
SAR	-	Search and Rescue
SCV Code	-	Small Commercial Vessel Code
SIAS	-	Ship Inspections and Surveys
SMS	-	Safety Management System
SOLAS	-	Safety of Life at Sea
TCPA	-	Time to Closest Point of Approach
TSGC	-	Tanker Safety Guide (Chemicals)
UK	-	United Kingdom
UR	-	Unified Requirements
VDR	-	Voyage Data Recorder
VHF	-	Very High Frequency
VTS	-	Vessel Traffic Services
VTSO	-	Vessel Traffic Service Officer

▸ Terms ◂

DUKW	-	A DUKW (commonly pronounced “duck”) is an amphibious landing vehicle that was designed to transport military personnel and supplies for the US Army during World War 2. The acronym DUKW indicates that it was designed in 1942 (D), it is an amphibious (U) vehicle and has both front-wheel and rear-wheel drive capability (K and W, respectively).
Material Agent	-	A tool, object or instrument.
Subluxation	-	Incomplete, or partial dislocation.
Superficial injuries	-	Bruises, abrasions, blisters etc.
Deviation	-	The last event differing from the normal working process and leading to an injury/fatality.

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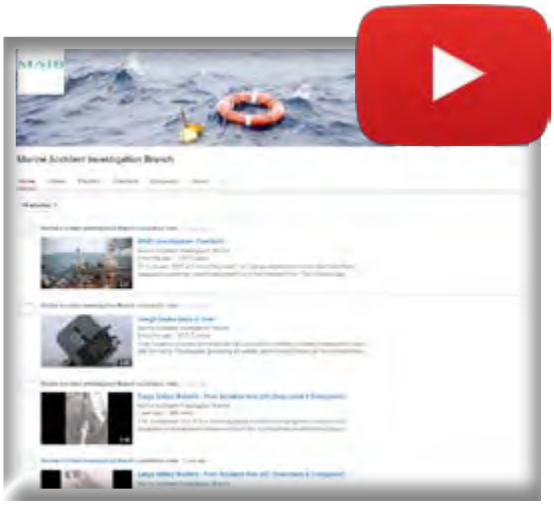

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