

Safety and Environment Statistics for IMCA Members: Report for the period 1 January–31 December 2013

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1 Introduction

IMCA produces an annual report of safety and environment statistics (covering fatalities, injuries and environmental indicators) supplied by contractor members. This information note reports detailed annual statistics for 2013. A short executive summary of the figures for 2013 was published as information note IMCA SEL 04/14.

Safety and environment statistics are a useful insight into the performance of a company and industry sector in the areas of health, safety and environment. The purpose of these statistics is to record the safety and environment performance of IMCA contractor members each year and to enable IMCA members to benchmark their performance. Statistics were provided by 245 companies and organisations, representing around 67% of the contractor membership. Fifty-nine contractors took part for the first time, but 35 contractors that took part last year did not do so this year. IMCA would like to thank all those who took part in this important annual benchmarking exercise.

Definitions of the leading and lagging indicators calculated from statistics collected from IMCA members can be found in full at Appendices 3 and 4. The definition of injuries used is that of the US Occupational Safety and Health Administration (OSHA).

It should be noted that IMCA uses one million rather than 200,000 man-hours as a basis for the calculation of lost time injury frequency rate (LTIFR) and total recordable injury frequency rate (TRIR).

2 Executive Summary

The 2013 dataset is drawn from 245 IMCA contractor members, based upon 1301 million man-hours of work overall (1008 million man-hours offshore). Onshore data was provided by 191 of 245 companies (78%). Environmental data was provided by 47% of members.

The main injury/incident figures continue to ‘flatline’ or improve only slowly. There were fewer fatalities (9) this year than last year (14). Whilst LTIs remain broadly constant, there has been an increase in the number of LTIs reported without an immediate cause. The number of very large contractors (more than 30,000 employees based on man-hours) talking part continues to increase, from one last year to four this year.

Overall lost time injury frequency rate (overall LTIFR)	0.37	(0.51)
Overall number of lost time injuries	474	(467)
Overall total recordable injury rate (TRIR)	1.47	(1.93)
Overall fatal accident rate (FAR)	0.69	(1.69)
Offshore lost time injury frequency rate (offshore LTIFR)	0.35	(0.57)
Offshore fatal accident rate (FAR)	0.69	(2.14)
Offshore total recordable injury rate (TRIR)	1.37	(1.95)
Onshore lost time injury frequency rate (onshore LTIFR)	0.46	(0.39)
Onshore total recordable injury rate (TRIR)	1.81	(1.90)

Table 1 – Summary of IMCA safety statistics for 2013 (last year's figures in brackets)

For the purposes of comparison, the safety statistics recorded here by IMCA members are consistent with those of other main industry trade associations, the International Association of Oil & Gas Producers (OGP) and the International Association of Drilling Contractors (IADC).

Comparison of Overall Total Recordable Injury Frequency Rates (TRIR) between Trade Associations									
	2005	2006	2007	2008	2009	2010	2011	2012	2013
IMCA	5.41	4.14	4.38	2.50	2.54	2.74	2.40	1.93	1.47
OGP	3.05	2.92	2.68	2.08	1.75	1.68	1.76	1.74	1.60
IADC	11.71	10.85	10.24	9.11	6.12	6.55	4.17	4.41	4.03

Table 2 – Comparison of trade association TRIR

It should be noted that although IMCA encourages all contractor members to take part in this safety statistics exercise, doing so is not mandatory, and statistics are submitted on a voluntary basis on the understanding of complete anonymity.

IMCA is pleased that members feel able to report incidents, injuries and fatalities, and will continue to share information from incidents and fatalities in our sector, even those not reported in these statistics, through our normal communications such as safety flashes.

IMCA is continuing to publish detailed statistical analysis of the safety data in this separate information note. As in previous years, data is separated into offshore and onshore activity to improve consistency in the data collected. The offshore statistics cover offshore work only, whereas the inclusion of onshore work covers such areas as fabrication yards and office work. The statistics over the past 17 years have been as follows:

	Overall								Offshore				Onshore						
	Contractors	Million hours worked	LTI's	LTIFR	Fatalities	Fatal accident rate	Recordable injuries	TRIR	Million hours worked	LTI's	LTIFR	Fatal accident rate	Recordable injuries	TRIR	Million hours worked	LTIFR	Fatal accident rate	TRIR	
1997	23	47.6	236	4.96	3	6.3													
1998	32	52.9	257	4.86	2	3.8													
1999	28	52.8	196	3.72	4	7.6													
2000	31	65.6	227	3.46	5	7.6			4.25	10.1					1.05				
2001	32	54.5	162	2.97	4	7.3			3.77	10.1					0.86				
2002	32	197	244	1.24	3	1.52		62	2.96	4.83				135	0.44	0			
2003	31	200	198	0.99	5	2.49		66	133	2	6.03			134	0.49	0.75			
2004	36	145	164	1.13	3	2.06	645	72	120	1.65	2.75		8.87	72	0.61	1.39			
2005	51	160	189	1.18	6	3.13	864	102	172	1.69	3.93	742	7.29	58	0.29	1.73	2.1		
2006	74	221	226	1.02	6	2.72	914	186	196	1.06	3.23	807	4.35	35	0.86	0	3.05		
2007	100	310	339	1.09	6	1.94	1356	252	315	1.25	2.38	1180	4.68	58	0.42	0	3.05		
2008	129	612	433	0.72	7	1.14	1531	2.5	465	0.74	1.08	1176	2.53	148	0.64	1.35	2.4		
2009	152	602	395	0.67	6	1.00	1530	2.54	474	0.73	1.27	1291	2.72	127	0.43	0	1.88		
2010	172	547	393	0.73	7	1.28	1499	2.74	389	0.86	1.29	1240	3.19	158	0.43	1.27	1.64		
2011	195	583	370	0.64	3	0.51	1400	2.40	431	0.71	0.70	1133	2.63	152	0.44	0.00	1.76		
2012	227	945	467	0.51	14	1.69	1825	1.93	655	0.57	2.14	1274	1.95	291	0.39	0.69	1.90		
2013	245	1301	474	0.37	9	0.69	1867	1.48	1008	341	0.35	0.69	1378	1.37	293	0.46	0.68	1.81	

Table 3 – Summary of IMCA safety statistics 1997-2013

3 Distribution of Contributors

3.1 By Geographical Region

IMCA’s regional section meetings enable members to communicate at a regional level, sharing good practice, networking and co-ordinating discussions with local client and regulatory bodies. IMCA members join one of five geographical regions, based roughly around time-zones, depending on where their primary areas of operations are based. ICO members are international contractor members. These are the highest level international IMCA member companies who conduct work in all regions of the world. It should be noted that the regional breakdown of statistics here refers to the office location of the member company submitting statistics, and may only broadly correspond to the actual location of operations.

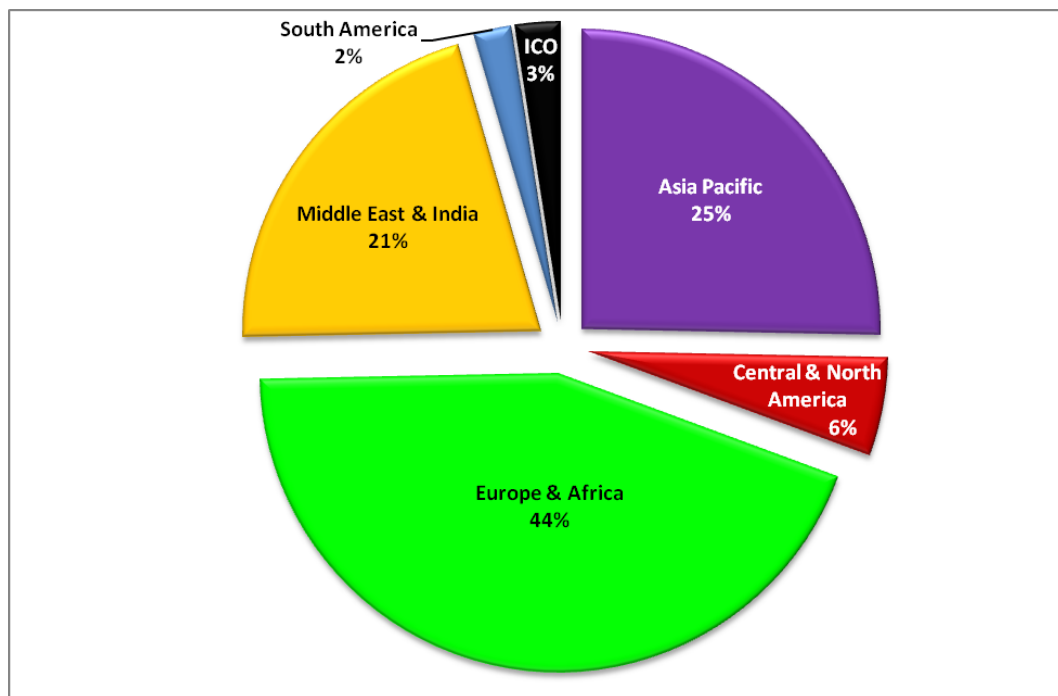


Figure 1 – Contributors by IMCA geographical region

Key (please refer to Appendix 3 for further definition of these rates and acronyms)	
FAR	fatal accident rate
TRIR	total recordable injury frequency rate
LTIFR	lost time injury frequency rate
RAL	reporting activity level
SOFR	safety observation frequency
MVR	management visit ratio
LLR	lessons learnt ratio

IMCA Region	Contributors
Asia-Pacific (AP)	62 (56)
Central & North America (CNA)	13 (13)
Europe & Africa (EA)	108 (96)
Middle East & India (MEI)	51 (51)
South America (SA)	5 (4)
International Contractors (ICO)	6 (7)

Table 4 – Contributors by region (last year in brackets)

	Offshore			Overall			Onshore		
	FAR	LTIFR	TRIR	FAR	LTIFR	TRIR	FAR	LTIFR	TRIR
AP	0.69	0.13	0.58	0.62	0.14	0.69	0.00	0.21	1.64
CNA	0.00	0.63	1.88	0.00	0.67	2.21	0.00	0.84	3.65
EA	0.42	0.69	2.81	0.32	0.71	2.57	0.00	0.76	1.73
MEI	0.00	0.38	1.32	0.79	0.36	1.61	2.27	0.34	2.15
SA	0.00	1.14	3.54	0.00	1.33	3.65	0.00	3.52	4.92
ICO	1.71	0.10	0.59	1.24	0.16	0.76	0.00	0.33	1.24

Table 5 – Lagging safety indicators by geographical region

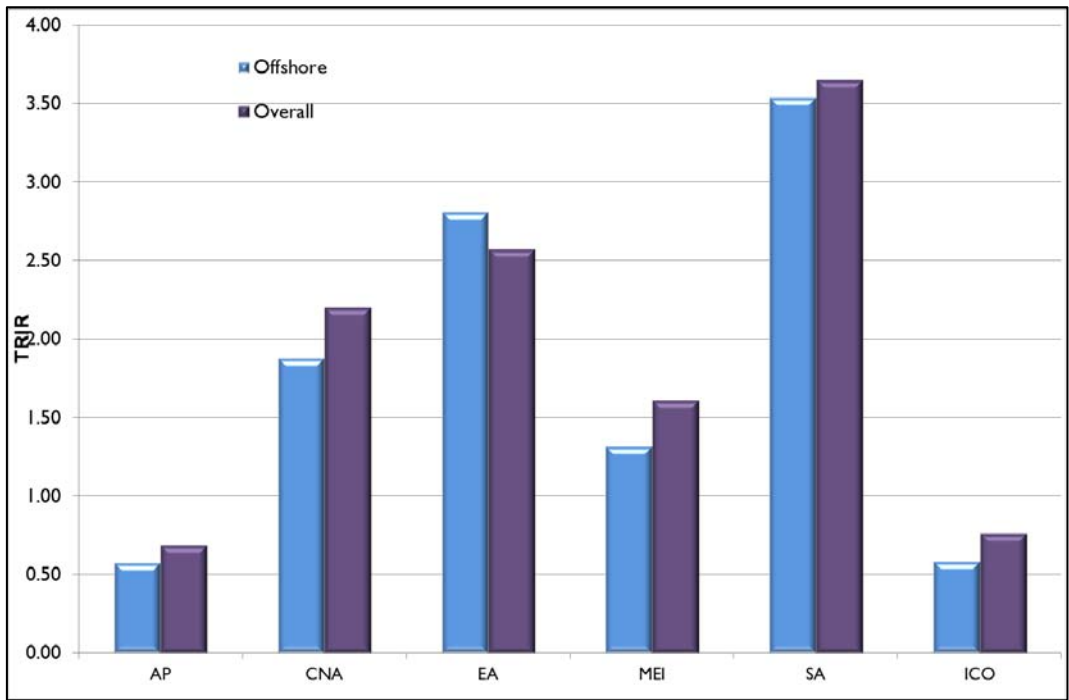


Figure 2 – Overall and offshore TRIR by geographical region

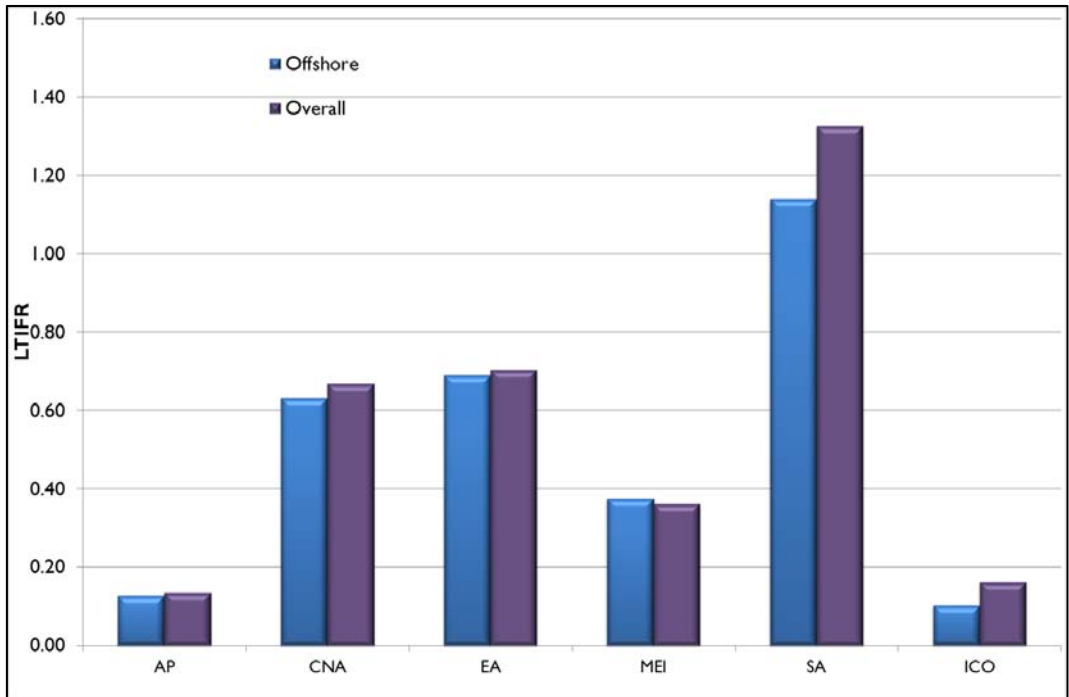


Figure 3 – Overall and offshore LTIFR by geographical region

3.2 By IMCA Technical Division

IMCA members join one or more of the four technical divisions – Diving, Marine, Offshore Survey and Remote Systems & ROV – depending on the work they are conducting. ICO members belong to all four technical divisions as they tend to conduct work in all four technical disciplines.

It is not possible, owing to the fact that members can join in one or more of the four technical divisions, to draw any conclusions about the safety performance of members in different divisions.

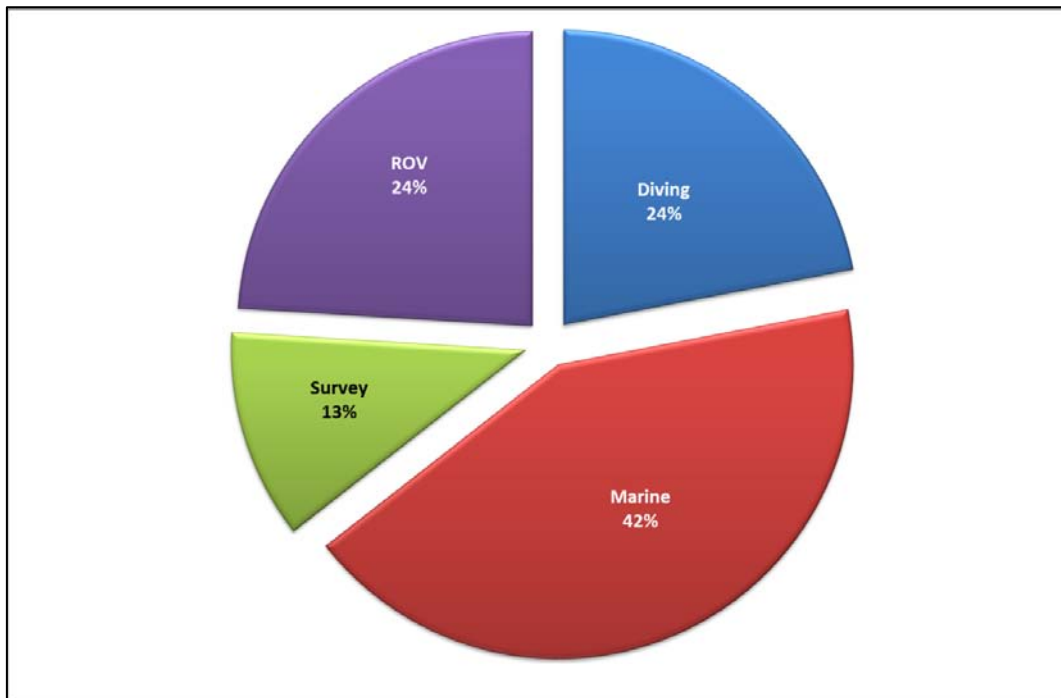


Figure 4 – Contributors by IMCA technical division

4 Environmental Indicators

This is the second year that IMCA has collected information from contractor members on their environmental performance. The information we have sought to collect has been broadly based on IMCA SEL 010 – *Guidelines for the use of environmental performance indicators*. We have collected data on the following:

- ◆ Number of spills and amount spilt;
- ◆ Bunkers used (by volume or by weight);
- ◆ Electricity consumed onshore;
- ◆ Non-hazardous and hazardous waste generated.

A number of contractors may have misunderstood the units required for reporting; where clarification and correction has not been possible, this data has been excluded from the IMCA calculations. In some cases, particularly in the context of bunkers used, electricity consumed and waste generated, contractors have submitted data that is clearly three orders of magnitude too large – that is, 1000 x greater than the reality. See below for further details.

The number of contractors submitting environmental data has increased this year. Last year, 37% of contractors who submitted statistics, also submitted environmental data. This year, the figure is 47%.

4.1 Definition of Environmental Indicators

The environmental indicators are broadly based on the suggestions in IMCA SEL 010.

- ◆ Number of oil spills per million man-hours worked;
- ◆ Amount of oil spilt (litres) per million man-hours worked;
- ◆ Bunkers used (both tonnes and cubic metres) per million offshore man-hours worked;
- ◆ Megawatt-hours electricity used per million onshore man-hours worked;
- ◆ Non-hazardous waste per million overall (offshore and onshore) man-hours worked;
- ◆ Hazardous waste per million overall (offshore and onshore) man-hours worked.

Given the quantities being reported, all weights reported are taken to be in tonnes (1000 kg) rather than the US short ton (907 kg) or the UK long ton (1016 kg).

To create performance indicators we have normalised the collected data against 1,000,000 man-hours. It may make sense, at some point, to create new indicators normalised to give more a personal feel for how much fuel or electricity is used, or how much waste is disposed of, per employee (based on man-hours, again assuming a nominal 12 hour day for a nominal 180 days work per year). This may lead to more appropriate figures and therefore may be more useful than the current arrangements.

4.2 Oil Spills (Offshore)

Seventy-eight contractors (55 last year) reported having spilt oil, and 73 (52 last year) reported the quantity spilt. IMCA members reported a total of 682 oil spills.

4.3 Bunkers (Offshore)

Amount of bunkers used was reported by 155 contractors (109 last year), of whom eleven reported by both weight and volume. Some of the data was reported in different units to that required, leading to indications that bunkers used were one, two or even three orders of magnitude (1000 x) greater than what was likely given the number of offshore man-hours involved and the possible number of vessels involved. This data was corrected to the mean.

Some rough assumptions were drawn about mean fuel consumption per typical vessel (18-20 tonnes per day) and utilisation (80%), which enabled a working figure for how many vessels might be supplied by the amount of bunkers reported.

4.4 Electricity Consumed (Onshore)

Data on onshore electricity consumption was provided by 109 contractors (81 last year). Nine contractors supplied a figure for electricity consumed but provided no onshore man-hours against which to calculate a rate. Twelve contractors supplied data in kWh rather than MWh – these figures were corrected and included where possible.

4.5 Waste Disposal (Overall)

This year, 138 contractors reported the amount of non-hazardous waste disposed of (98 last year), and 99 contractors reported the amount of hazardous waste disposed of (80 last year); 95 reported both.

	Spills	Amount Spilt	Bunkers (Volume)	Bunkers (Weight)	Electricity (MWh)	Non-hazardous Waste	Hazardous Waste
No. of contributors	78	71	82	73	109	138	98
Minimum	0.05	0.005	6.56	12.18	0.04	0.57	0.01
Maximum	98.79	7347.69	140450.56	87780.02	99106.18	28230.66	9293.00
Average	5.15	264.01	17293.46	17336.10	4989.90	947.26	349.34
IMCA	0.68	164.65	2659.47	3507.30	3652.94	393.23	91.38

Table 6 – Environmental performance indicators at a glance

Table 6 above is an updated table and it supersedes and replaces the similar table (Table 4) originally circulated in information note IMCA SEL 04/14 – Summary of IMCA members' 2013 safety & environment statistics.

See Appendix 2 for further details.

5 Lost Time Injury Frequency Rate (LTIFR)

The offshore LTIFR for 2013 has improved to 0.35 from 0.57 in 2012, and the overall LTIFR has improved from 0.51 in 2012 to 0.37 this year.

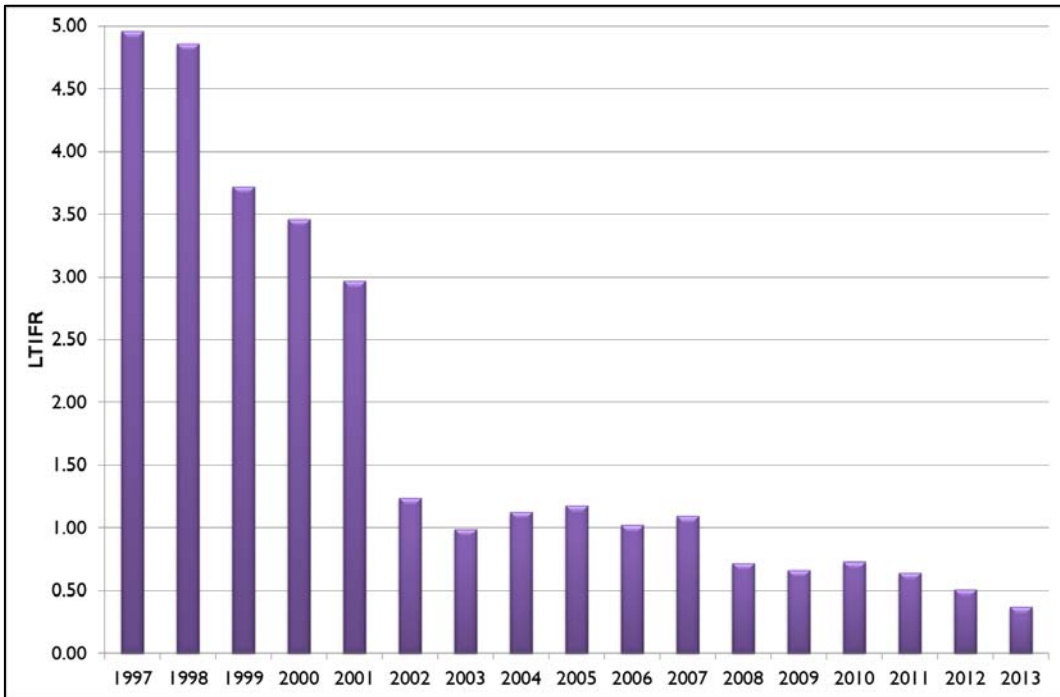


Figure 5 – Overall LTIFR

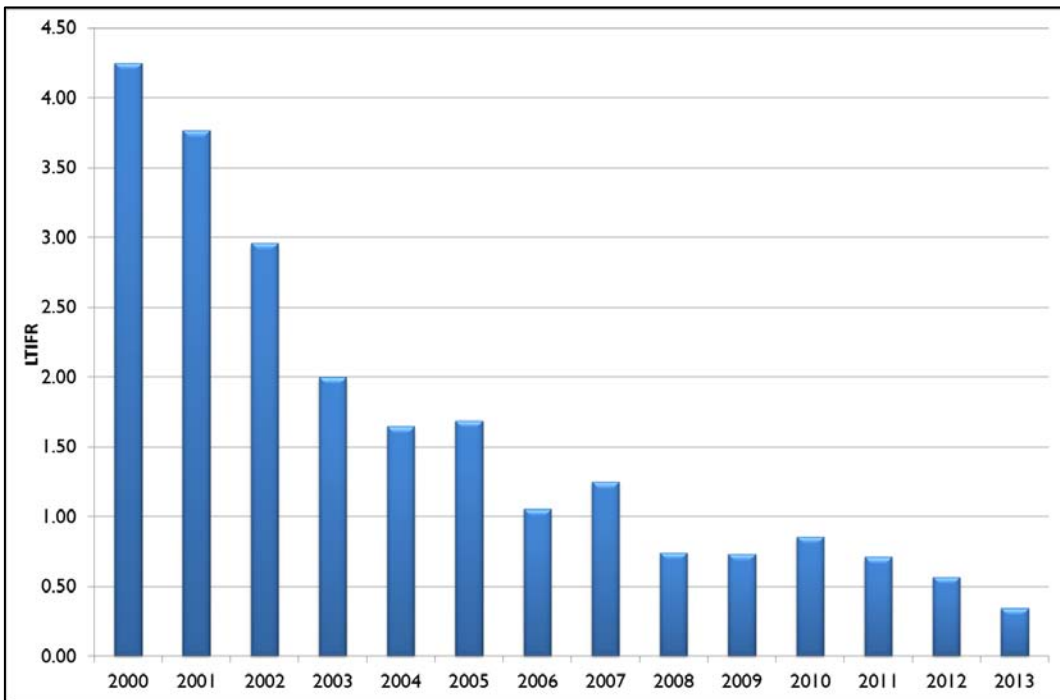


Figure 6 – Offshore LTIFR

5.1 Direct Causes of Lost Time Injuries

IMCA categorises information on the direct causes of lost time injuries (LTIs) into 12 categories agreed by the SEL Core Committee, as tabulated below.

LTI Category	No of LTIs						
	AP	CNA	EA	MEI	SA	ICO	total
A) Falls from height	7	3	19	6	2	9	46
B) Falls on the same level (including slips & trips)	7	8	47	23	2	9	96
C) Struck against	5	5	24	16	5	5	60
D) Struck by moving/falling objects	9	15	54	12	9	12	111
E) Exposure to mechanical vibration	0	0	1	0	0	0	1
F) Exposure to sound	0	0	0	0	0	0	0
G) Muscle stress and repetitive movement	3	6	10	4	0	2	25
H) Contact with electricity	0	1	1	1	0	1	4
I) Contact/exposure to heat/cold	1	0	5	2	0	1	9
J) Contact/exposure with hazardous substances	1	1	1	2	0	0	5
K) Entrapment	1	2	6	1	2	6	18
L) Asphyxiation	0	0	0	0	1	0	1
M) None given	8	11	49	23	3	4	98
TOTAL	42	52	217	90	24	49	474

Table 7 – Causes of LTIs by IMCA geographical region

There were 474 lost time injuries recorded by IMCA members this year. 'Struck by moving or falling objects' was the most common immediate cause of LTIs with 23% of recorded LTIs.

Slightly more LTIs than usual (in percentage terms) have been reported this year with no direct cause, so the second most common category this year is 'no direct cause given'. (In 2012 this was the third most common cause at 17%.) The third most common cause this year at 20% of all reported LTIs is 'Falls on the same level'.

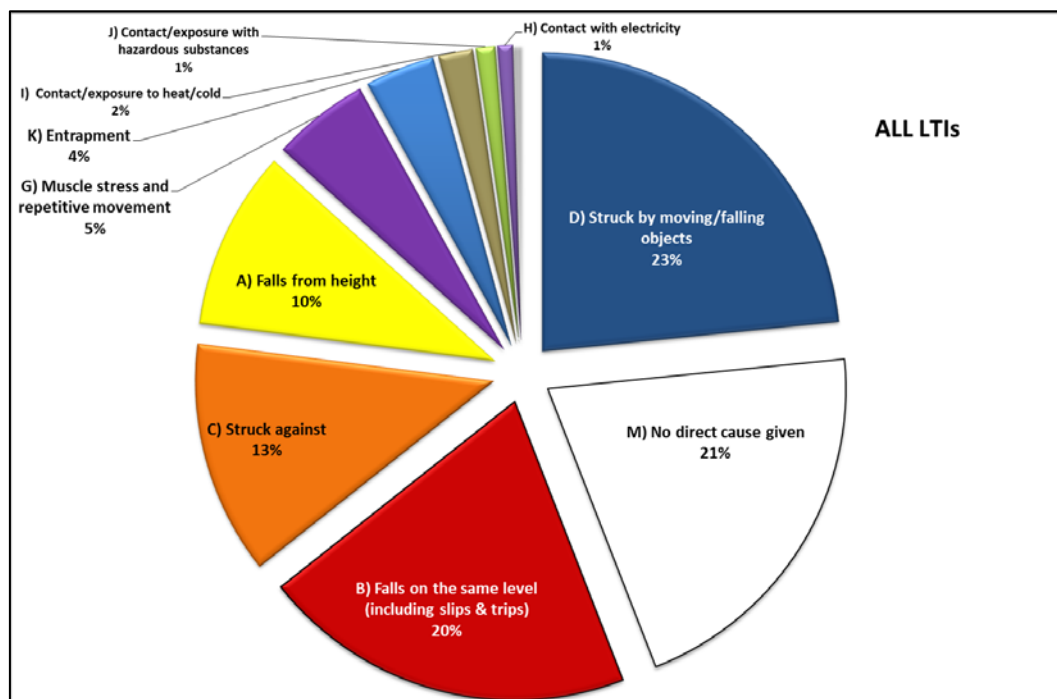


Figure 7 – Direct causes of all reported lost time injuries

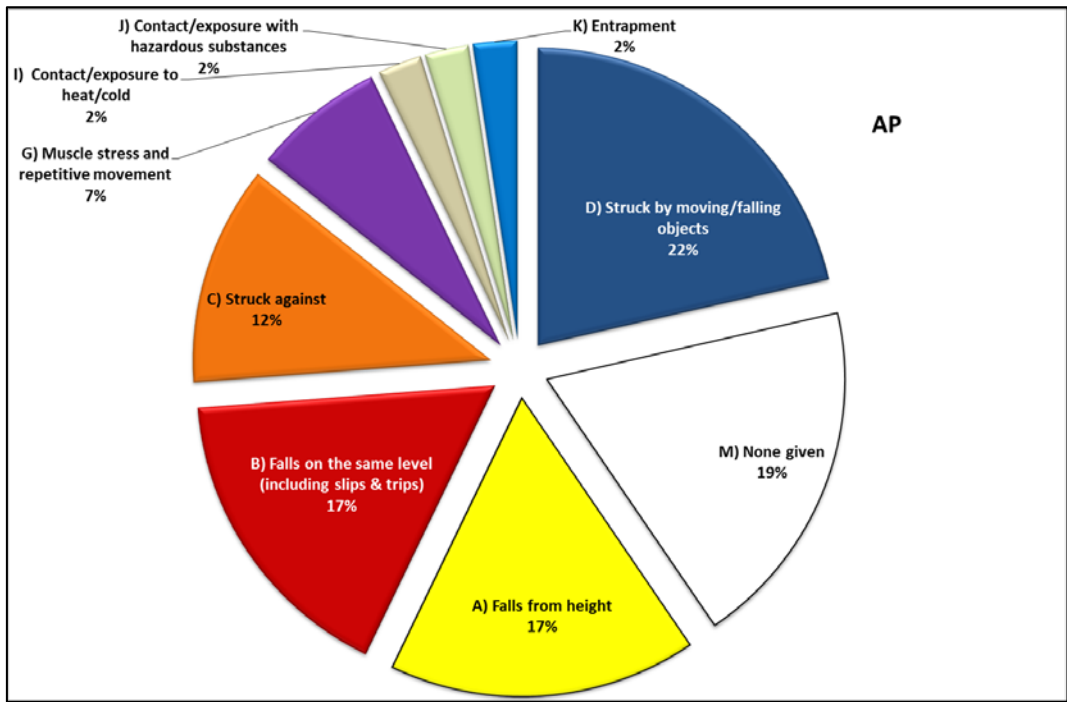


Figure 8 – Causes of LTIs in Asia-Pacific region

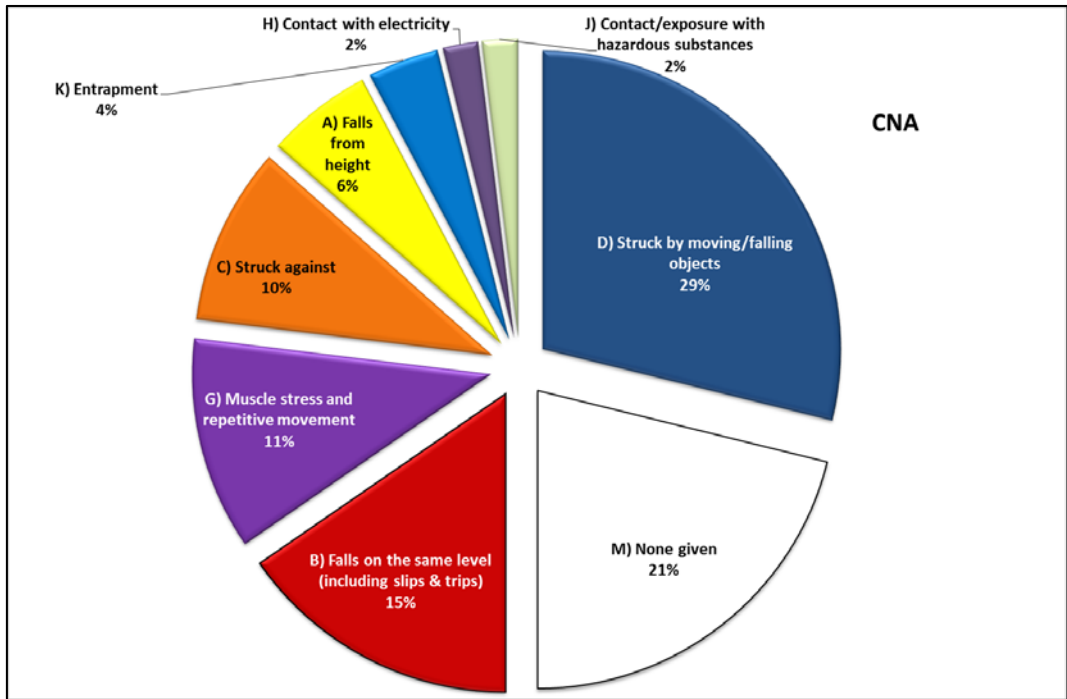


Figure 9 – Causes of LTIs in Central & North America region

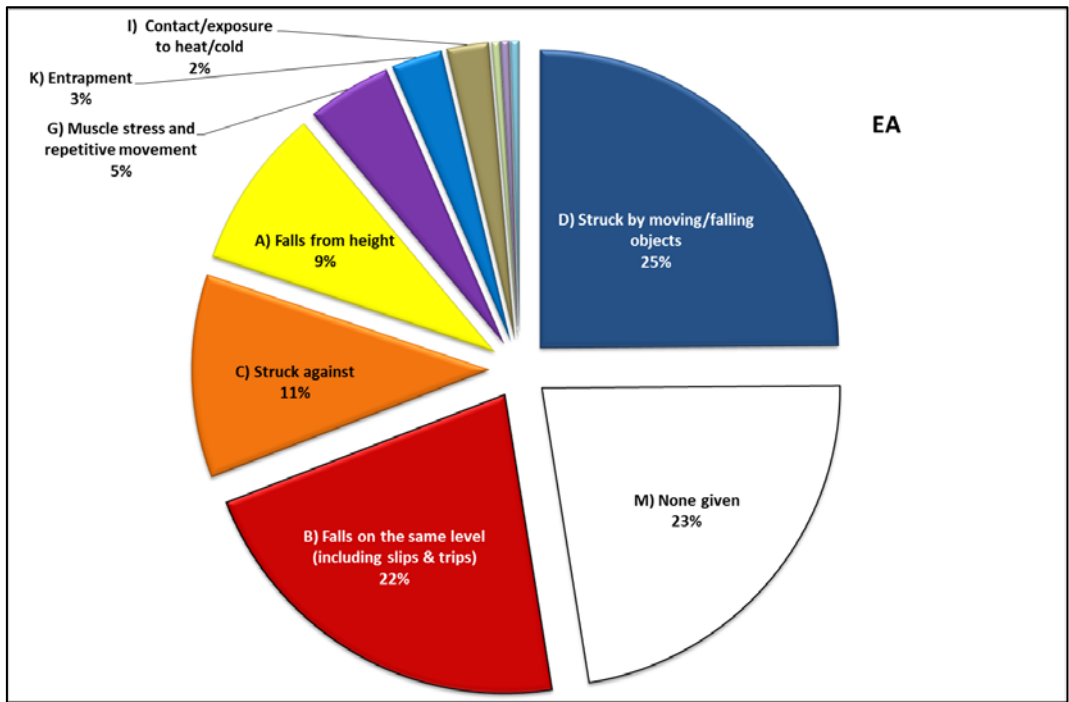


Figure 10 – Causes of LTIs in Europe & Africa region

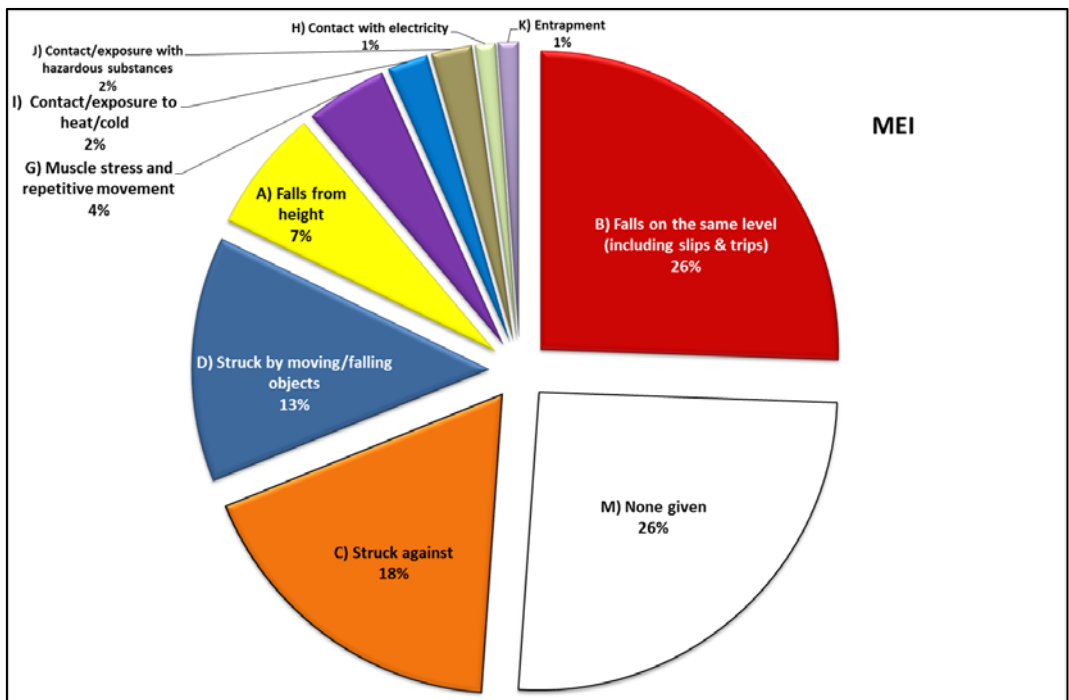


Figure 11 – Causes of LTIs in Middle East & India region

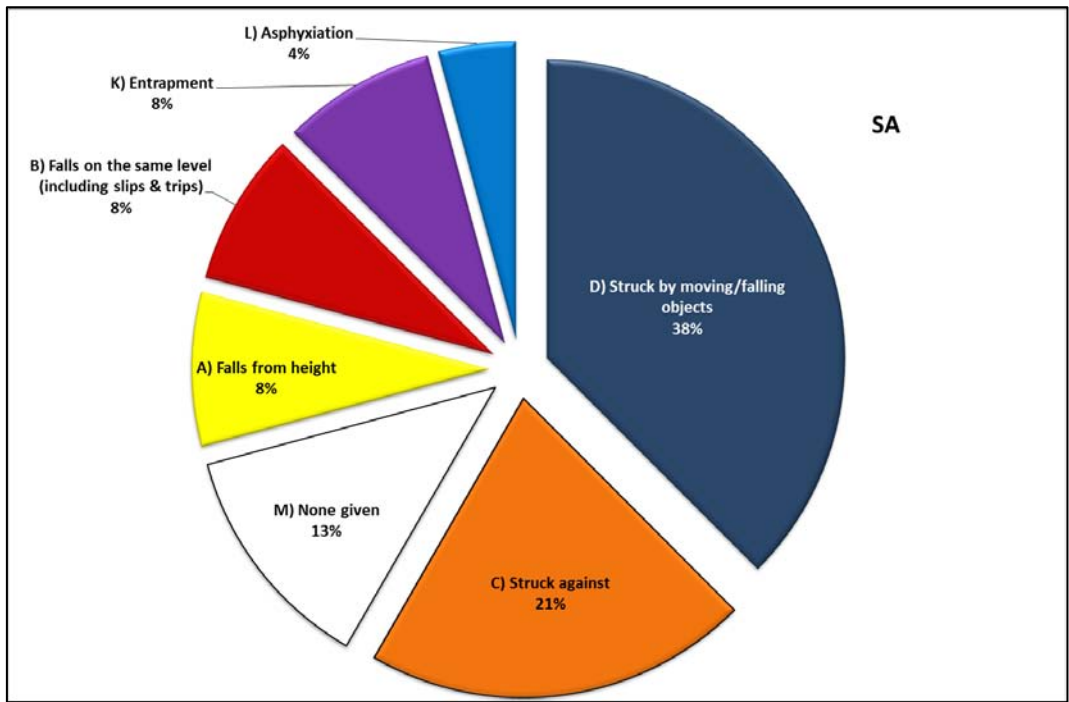


Figure 12 – Causes of LTIs in South America region

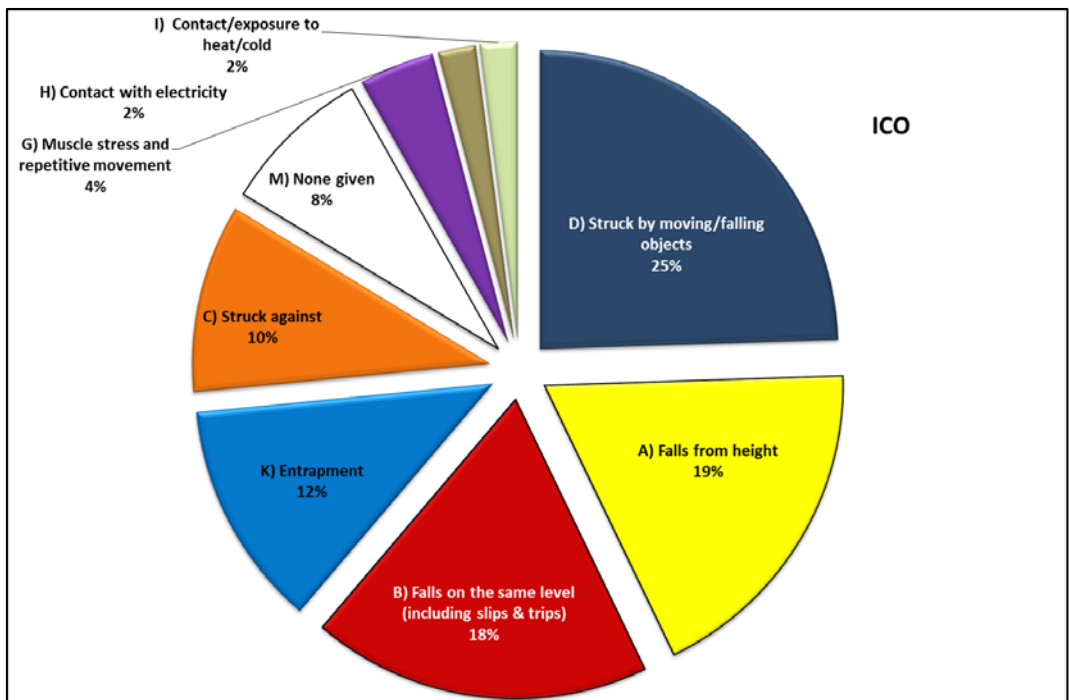


Figure 13 – Causes of LTIs amongst ICO members

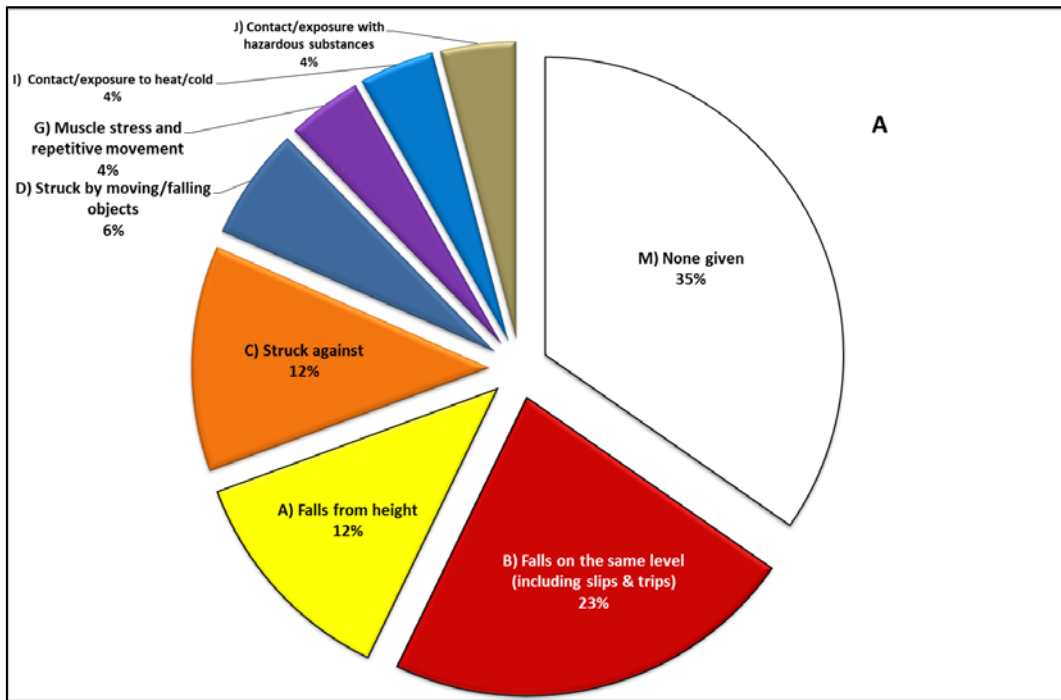


Figure 14 – Causes of LTIs in A-band members

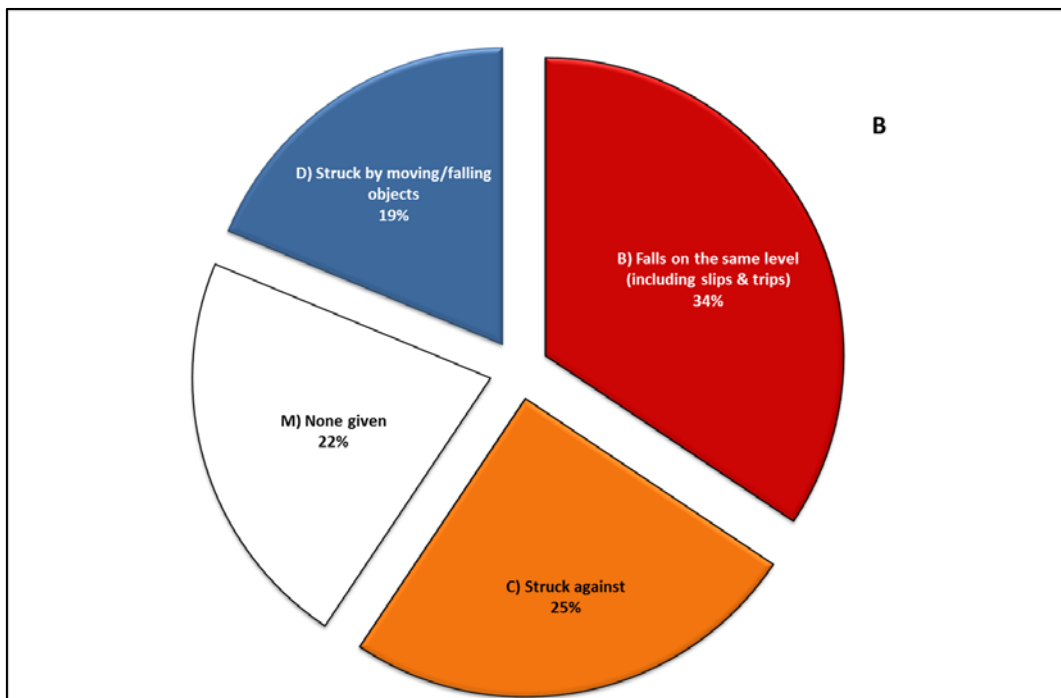


Figure 15 – Causes of LTIs in B-band members

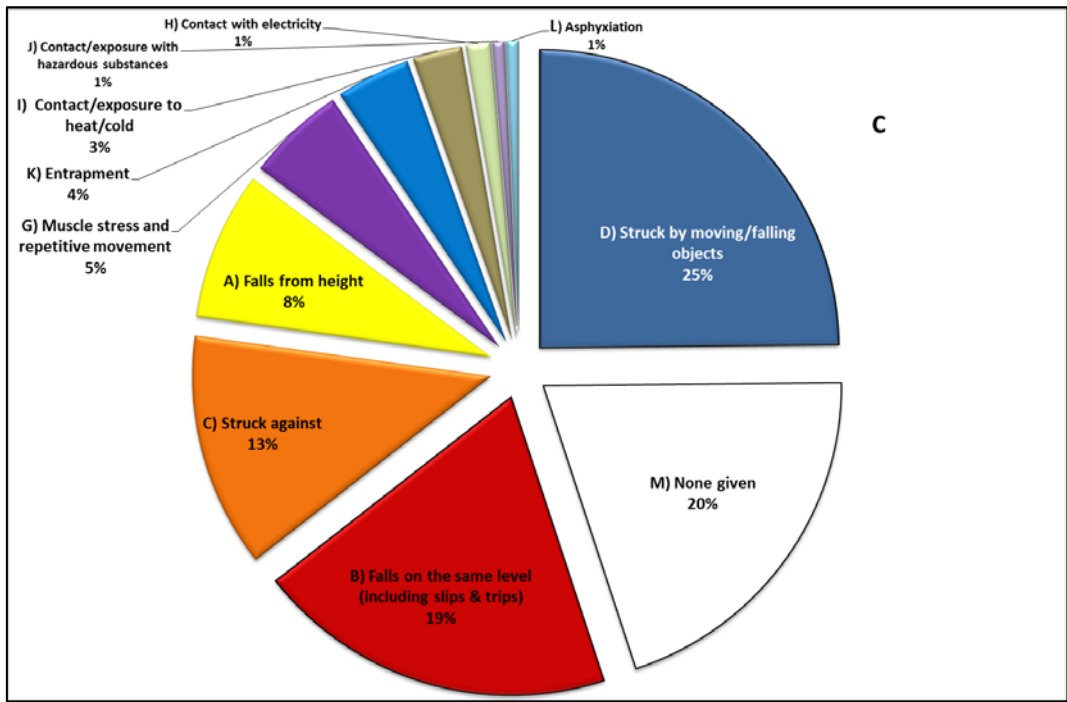


Figure 16 – Causes of LTIs in C-band members

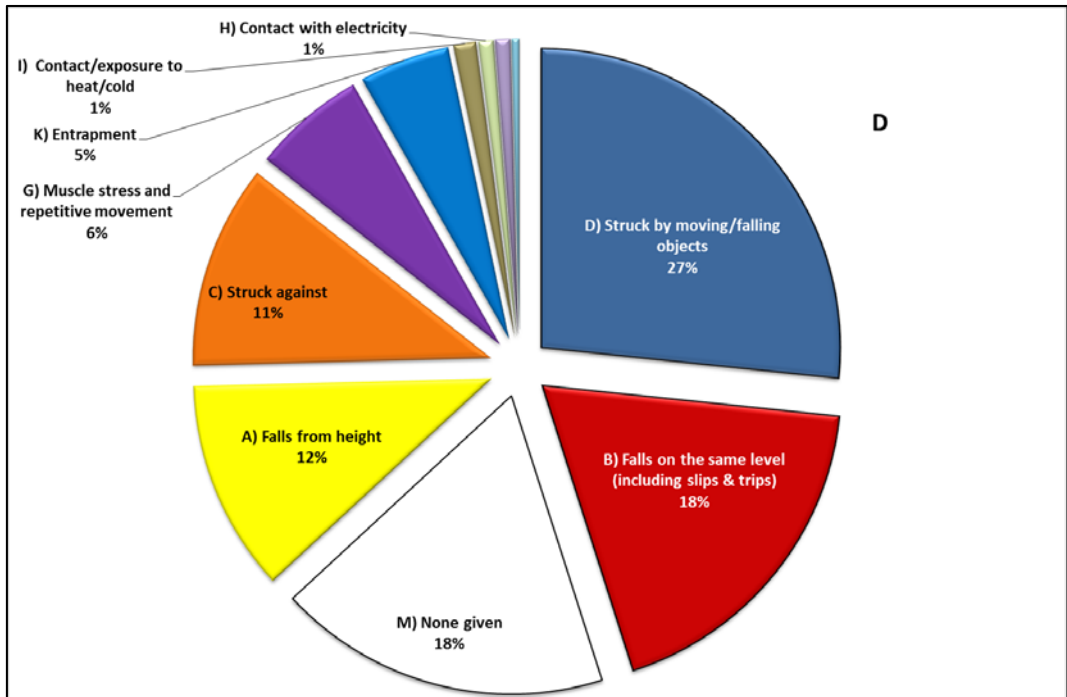


Figure 17 – Causes of LTIs in D-band members

6 Total Recordable Injury Rates (TRIR)

Total recordable injuries have been tracked for a number of years as they are considered to be a more reliable pointer to safety in the industry. In 2013, the **offshore TRIR** has improved to 1.37 from 1.95 in 2012. The **onshore TRIR** was 1.81, showing a decrease in reported onshore incidents since last year (1.90). The **overall TRIR** was 1.47, an improvement on the 2012 figure of 1.93.

Year	Overall TRIR	Offshore TRIR	Onshore TRIR
2004		8.87	
2005	5.42	7.29	2.10
2006	4.14	4.35	3.06
2007	4.38	4.68	3.05
2008	2.50	2.50	2.40
2009	2.54	2.72	1.88
2010	2.74	3.19	1.64
2011	2.40	2.63	1.76
2012	1.93	1.95	1.95
2013	1.47	1.37	1.81

Table 8 – Total recordable injury rates (TRIR) 2004-2013

Year	Overall					Offshore				
	First Aid	Medical Treatment	RWC	Lost Time Injuries	Fatalities	First Aid	Medical Treatment	Lost Time Injuries	RWC	Fatalities
2004				164	3			120		2
2005	1812	521	148	189	5	1703	436	172	130	4
2006	2072	492	190	226	6	1772	434	196	171	6
2007	3752	730	281	339	6	3200	607	315	252	6
2008	3877	745	345	433	7	2991	581	341	249	5
2009	4919	747	382	395	6	3911	631	340	314	6
2010	3759	831	378	393	7	2869	610	328	317	5
2011	4027	671	356	370	3	3077	542	303	285	3
2012	4319	843	499	467	16	3104	578	357	325	14
2013	4562	963	462	474	9	3497	688	341	342	7

Table 9 – Recordable injuries, medical treatment and first aid cases 2004-2013

7 Fatal Accident Rate (FAR)

IMCA contractor members reported nine fatalities during 2013. Whilst all incidents should be seen as avoidable, it is important that companies are able to report incidents, injuries and fatalities without fear of commercial or other repercussions. IMCA continues to work closely with its members and other trade associations to ensure that all marine contracting industry work-place fatalities are properly recorded. Our focus remains on lessons learnt and information sharing, to ensure that these incidents never recur. To this end, IMCA is publishing brief and anonymous information on each of the fatality incidents reported this year.

Basic information on fatalities – 2013	
◆	After tank inspection, person climbed up to the exit of the tank and fell down when he reached the top of the ladder. Height is approx. 10 metres. He died on location from his injuries;
◆	Person crushed by load on vessel causing fatal trauma to heart;
◆	Flange on the hatch came up with a lot of pressure and hit person in the face causing fatal head injuries;
◆	Person fell overboard during personnel transfer and drowned owing to heart attack;
◆	Employee got crushed by a double joint pipe that was being lifted;
◆	Employee fell into water and drowned while securing two bulwarks, one on top of the other;
◆	Person stood in bight of cable and died as a result;
◆	Fall from height (through slab opening);
◆	Person crushed between load and rigging.

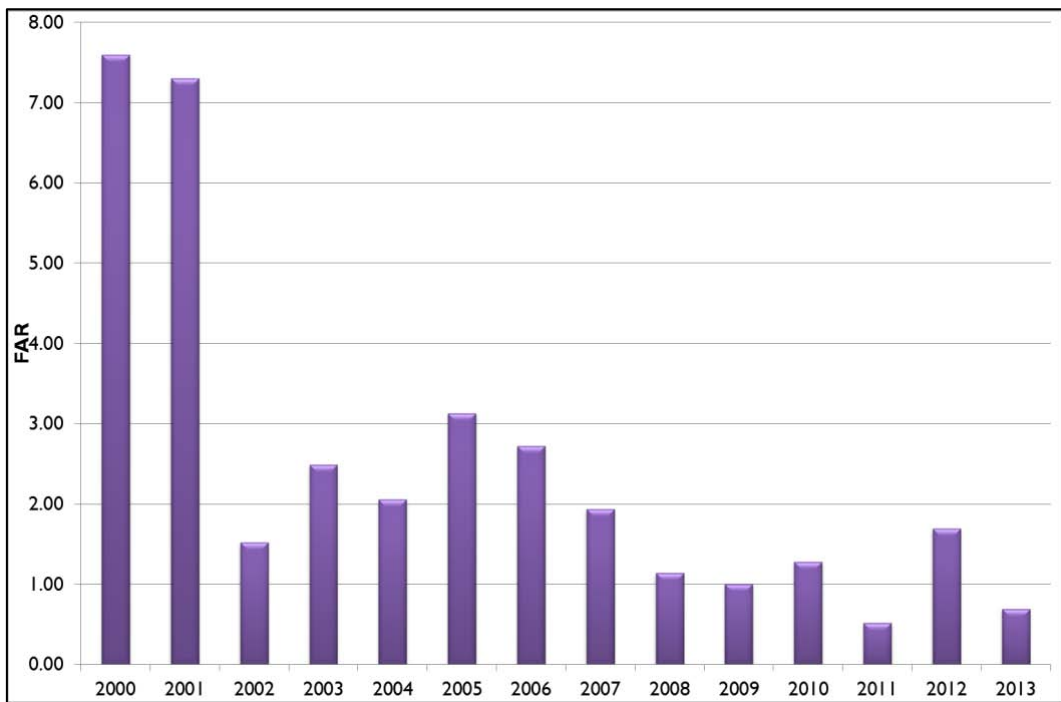


Figure 18 – Overall FAR 2000-2013

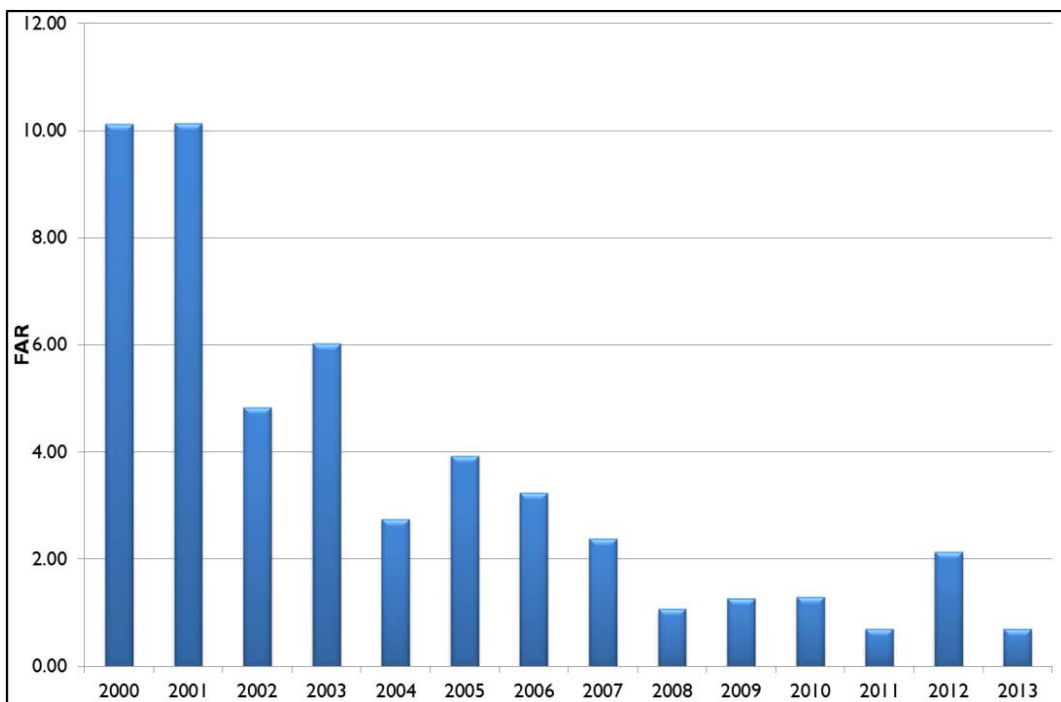


Figure 19 – Offshore FAR 2000-2013

8 Hours Worked Banding

In order for members to identify how their company compares to others of similar size, contributing contracting companies have been divided into four bands, according to the overall man-hours reported. 20% of the contractors taking part – 49 of 245 companies – contributed 86% of the man-hours.

The six largest contributors worked half of all the 1301 million man-hours. There has been in recent years an increase in very large contractors; an adjustment of bands may be indicated to compensate for this and provide more accurate results.

Hours Worked				
	Band A	Band B	Band C	Band D
Year	<500,000	500,000-1,000,000	1,000,000-5,000,000	>5,000,000
2004	15	3	11	7
2005	17	9	16	9
2006	27	13	21	13
2007	33	18	30	19
2008	44	13	47	25
2009	64	17	42	29
2010	69	25	52	26
2011	74	27	68	26
2012	86	25	80	36
2013	90	31	88	36

Table 10 – Number of companies in each band

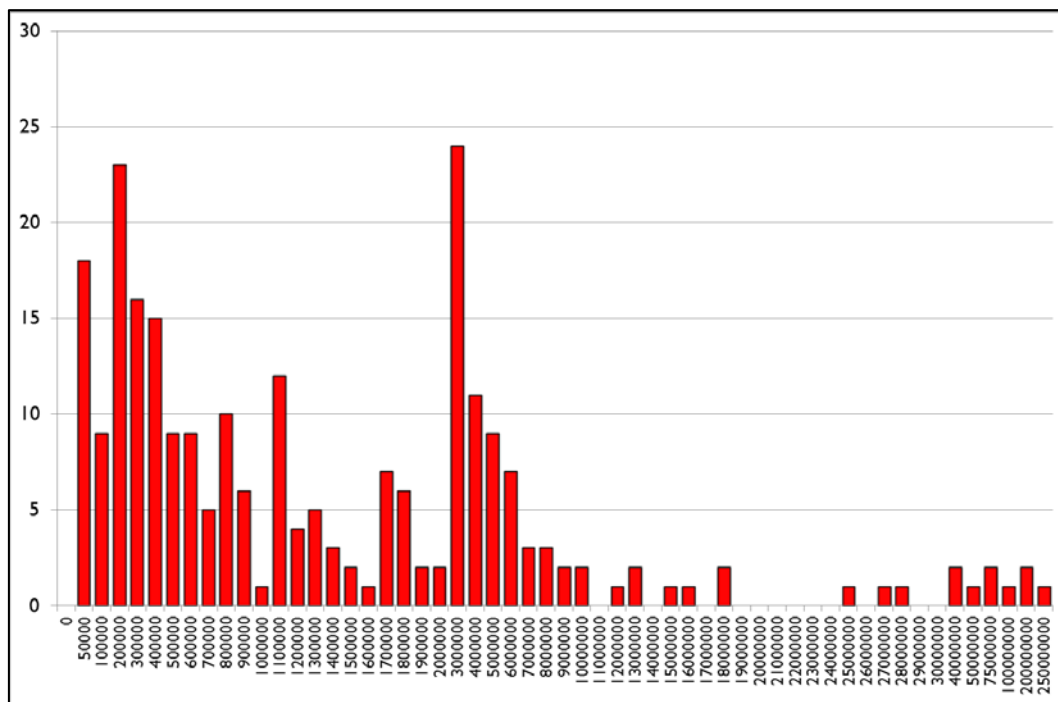


Figure 20 – Number of companies against size (overall man-hours)

8.1 Indicators and Statistics by Company Bands

		FAR	LTIFR	TRIR	LTI	TRI	RWC	Med Trt	First Aid
Offshore	Band A	0.00	2.74	10.03	38	139	24	77	350
	Band B	11.81	1.83	4.78	29	81	21	29	114
	Band C	0.60	0.75	3.07	125	513	121	266	1298
	Band D	0.49	0.19	0.80	149	645	176	316	1735
Onshore	Band A	0.00	3.20	9.90	11	34	3	20	58
	Band B	0.00	0.62	2.08	3	10	2	5	25
	Band C	0.00	0.73	2.85	24	93	13	56	172
	Band D	0.79	0.38	1.56	95	393	102	194	810
Overall	Band A	0.00	2.83	10.00	49	173	27	97	408
	Band B	9.20	1.56	4.18	32	91	23	34	139
	Band C	0.50	0.75	3.03	149	606	134	322	1470
	Band D	0.56	0.24	0.98	244	1038	278	510	2545

Table 11 – Lagging indicators and statistics by company band 2013

Note: Actual numbers of fatal accidents have been omitted to assist with preserving anonymity.

	Safety Observations	SOFR	Management Visits	RAL	MVR	Safety Bulletins	LLR
Band A	399992	5353.15	14390	209.31	192.58	1390	18.60
Band B	29731	325.61	877	63.68	9.60	257	2.81
Band C	624224	689.63	9425	62.49	10.41	1549	1.71
Band D	164789	35.52	2382	19.36	0.51	644	0.14
Total/IMCA	1218736	213.43	27074	29.39	4.74	3840	0.67

Table 12 – Leading indicators and statistics by company band 2013

Key (please refer to the appendices for further definition of these rates and acronyms)			
FAR	fatal accident rate	RWC	restricted workday cases
TRI	total recordable injuries	TRIR	total recordable injury frequency rate
LTI	lost time injury	LTIFR	lost time injury frequency rate
SOFR	safety observation frequency	RAL	reporting activity level
MVR	management visit ratio	Med trt	medical treatment cases
LLR	lessons learnt ratio	RWC	restricted workday case

8.2 Overall LTIFR and TRIR in Company Bands

Table 13 shows the overall LTIFR and TRIR of companies within the defined bands of number of hours worked.

	LTIFR				TRIR			
	Band A	Band B	Band C	Band D	Band A	Band B	Band C	Band D
2001	8.91	3.13	4.37	2.15				
2002	5.14	5.15	1.75	1.1				
2003	3.88	0.96	0.92	0.87				
2004	3.87	2.71	1.65	1.53				
2005	2.85	3.07	1.59	0.83	11	11.3	6.02	4.57
2006	2.64	2.02	1.37	0.74	10.16	8.29	5.08	3.19
2007	2.21	1.34	1.44	0.94	11.74	7.86	6.07	3.42
2008	3.29	1.62	1.19	0.56	9.76	6.29	3.79	2.02
2009	2.14	1.39	1.42	0.44	6.86	4.86	4.66	1.91
2010	3.36	1.24	1.02	0.52	11.81	5.13	3.62	2.01
2011	2.63	1.55	1.1	0.35	10.54	5.04	3.58	1.52
2012	2.95	1.71	0.99	0.31	8.75	4.46	3.06	1.43
2013	2.83	1.56	0.75	0.24	10	4.18	3.03	0.98

Table 13 – Overall LTIFR and TRIR by company band

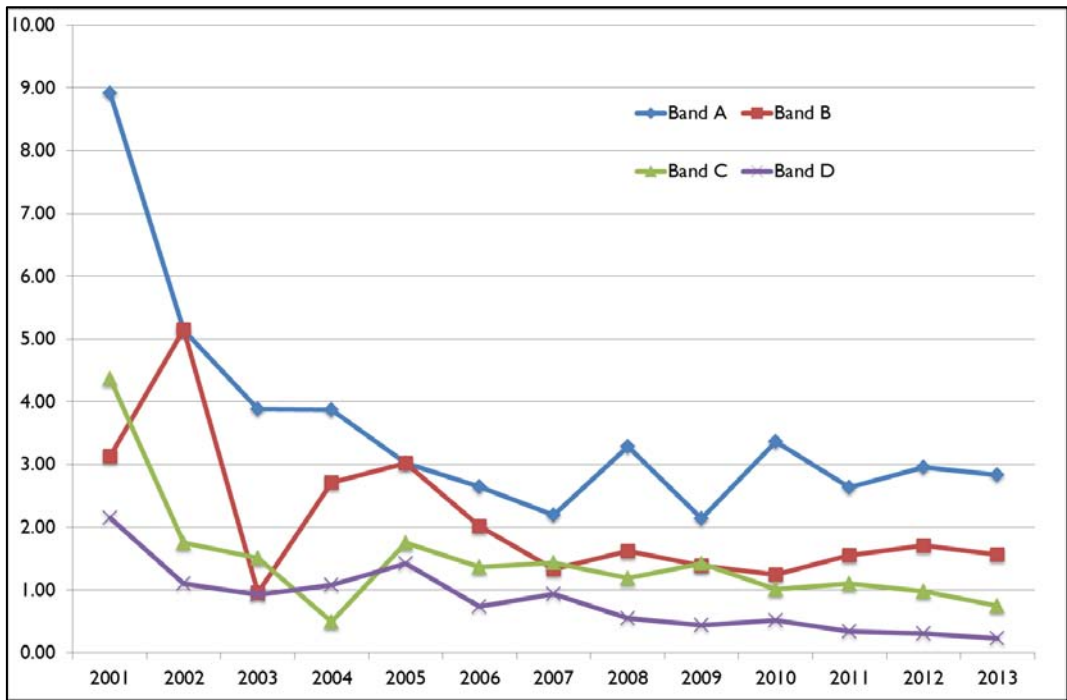


Figure 21 – Overall LTIFR for company bands

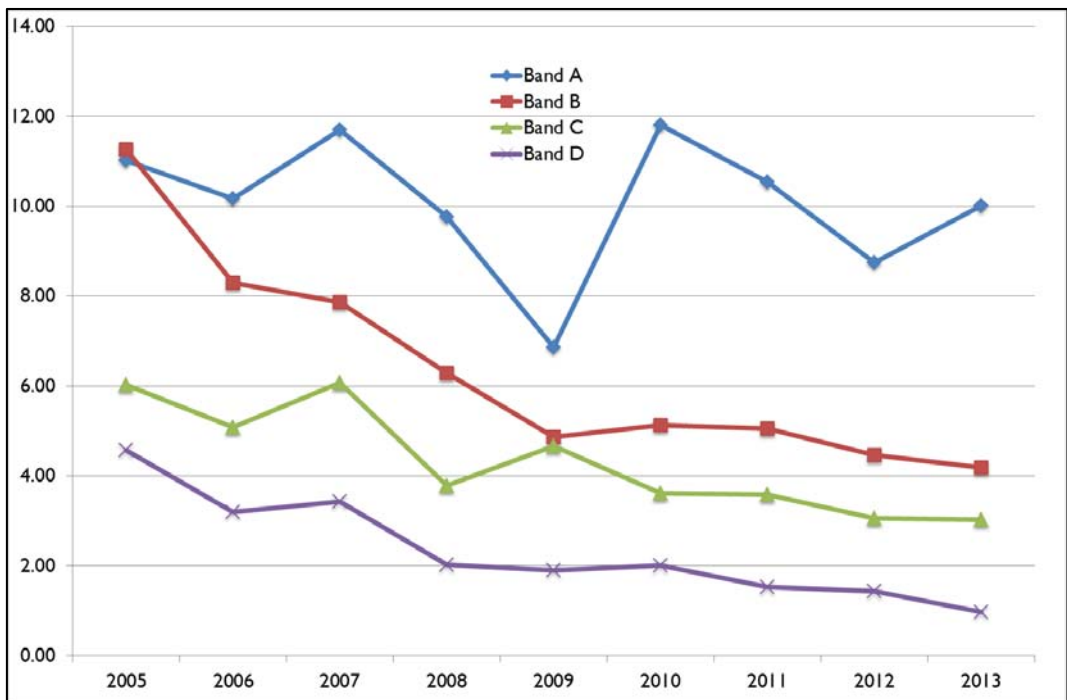


Figure 22 – Overall TRIR for company bands

9 Leading Performance Indicators

9.1 Overview

IMCA has been collecting Leading Performance Indicator data for eleven years. The table below shows how the Leading Performance Indicators have changed over that time. This table was recalculated in 2009 to show the leading performance indicators based on 200,000 man-hours.

	SOFR	RAL	MVR	LLR
2003	160.95	160.65	2.25	0.36
2004	160.44	113.80	4.27	0.66
2005	190.19	70.14	7.32	2.29
2006	159.49	51.11	3.46	1.70
2007	153.02	67.30	4.10	2.27
2008	216.63	28.92	6.31	1.77
2009	209.25	39.84	13.61	1.29
2010	258.39	41.67	13.59	1.61
2011	265.20	30.79	5.81	1.23
2012	312.34	19.78	6.92	1.42
2013	213.43	29.39	4.74	0.67

Table 14 – Leading performance indicators 2003-2013

	SOFR	RAL	MVR	LLR
AP	297.05	12.49	7.33	0.74
CNA	89.14	51.57	1.34	0.53
EA	354.58	54.77	9.19	1.29
MEI	170.75	28.03	2.95	0.67
SA	666.77	60.29	1.84	0.28
ICO	26.34	17.19	0.37	0.07
IMCA	213.43	29.39	4.74	0.67

Table 15 – Leading safety indicators (overall) by region

9.2 Safety Observation Frequency Rate (SOFR)

Safety observations are defined as reports identifying at-risk behaviour, unsafe conditions or similar, e.g. STOP cards, and were provided by 228 of the 245 contributing contractors. We continue to see widely variant interpretations of the definition of a 'safety observation'. Data from four contractors has been excluded from the IMCA calculation, as being a highly improbable number of safety observations given the man-hours reported – that is to say, of the order of more than 100 safety observations reported for each person offshore (based nominally on 180 days per year and 12 hours days). Even with these four excluded, there is still very wide variation in reporting levels and in the safety observation frequency rate, which varies over four orders of magnitude, from 0.41 to 4272.

Analysis of the data shows that the average rate of observations per person offshore (based on 12 hour shifts for 180 days a year) is 4.55, with a maximum of 45 observations per person in 2013. Both average and maximum are convincing and realistic figures.

SOFR is a rate that should rise year on year – whilst working to create an accident-free and injury-free workplace, there will always be room for improvement and subsequent reporting of that improvement. It is this positive and proactive reporting that needs to be encouraged.

No.	Safety Obs	SOFR	No.	Safety Obs	SOFR	No.	Safety Obs	SOFR	No.	Safety Obs	SOFR
1	1750	6.54	63	27	69.76	125	89	40.01	187		
2	998	315.56	64	56953	1664.42	126			188	2587	33.12
3	1724	183.76	65	49	105.29	127	576	17.98	189	950	39.54
4	115	66.55	66	10	96.06	128			190	431	1091.19
5	17	15.57	67	560	1077.50	129	21	4.91	191	542	51.05
6	19291	560.51	68	258	623.55	130	3568	395.83	192	845	140.44
7	491	98.20	69	280	366.88	131	6510	905.63	193	30	19.33
8	66	1.39	70			132	479	43.50	194	3993	7.05
9	7171	268.18	71			133	6546	577.73	195	1521	1288.83
10	8070	129.17	72	2707	521.81	134	394	34.40	196	3942	1901.43
11			73	427	96.98	135	3306	389.98	197	9	37.76
12	1	1.68	74	500	2411.27	136			198	25001	711.58
13	6	3.73	75	10	1.91	137	84	10.73	199	14	11.76
14	300	107.52	76	37627	1837.56	138	9931	428.03	200	61	102.60
15	2603	1305.47	77	5	3.11	139	23306	4272.25	201	720	359.67
16	26984	1909.72	78	5	4166.67	140	817	126.85	202	22	121.74
17	211	25.36	79	17	6.84	141	4906	903.30	203	38	74.51
18	55244	55.25	80	792	61.57	142	21	51.81	204	86	744.59
19	1949	217.51	81	26	23.42	143	384	185.19	205	5002	296.00
20	600	294.59	82	4900	202.54	144			206	298	82.61
21	4205	291.69	83	146	25.04	145	985	255.22	207	3417	181.14
22	118	20.05	84	64	262.67	146	12896	2630.28	208	69	27.70
23			85	10	24.03	147	147	2930.62	209		
24			86	102	123.86	148	450	183.99	210		
25	53	32.98	87	43726	2175.74	149	1247	196.60	211	1709	605.13
26	17311	433.12	88	38179	433.16	150	2	31.88	212	2910	665.02
27	6	22.07	89	5936	712.77	151	31467	2605.89	213	3014	132.16
28	72	5.36	90	1933	239.60	152	39569	2734.82	214	52	19.94
29	5336	964.74	91			153	481	184.73	215	25	422.15
30	40	39.52	92	878	882.60	154	4	30.89	216	5	0.41
31	83	15.47	93	7	10.83	155			217	51	11.49
32	8	4.80	94	22764	1337.86	156	833	137.66	218	56	55.38
33	14438	1386.29	95	726	339.16	157	172018	1234.00	219	167	32.59
34	1125	393.45	96	107	416.96	158	9568	2650.84	220	3	5.27
35			97	0		159	443	2.25	221	3315	88.21
36	13188	322.16	98			160			222	264	470.04
37	1123	92.43	99	150	122.75	161	5326	686.12	223	1184	87.70
38	1017	146.56	100	27616	1206.63	162			224	3148	156.04
39	1	1.88	101	38	10.24	163	1212	62.31	225	28487	216.83
40	620	385.74	102			164	29	8.88	226	36165	1399.45
41	14588	1115.71	103	106	42.33	165	9754	3371.35	227	1315	200.15
42	133	5.10	104	57	150.90	166	2217	213.91	228	24	4.50
43	1623	311.71	105	11142	1792.80	167	4	2.61	229	1228	442.50
44	26	43.56	106	26	743.28	168			230	600	751.60
45	1157	86.71	107	1652	150.85	169	27	14.98	231	1265	388.53
46			108	6809	303.28	170	0		232	13038	700.90
47	4214	665.24	109	331	563.39	171	294	86.94	233	252	228.91
48			110	1306	146.02	172	2389	12.91	234		
49	168	18.66	111	29	87.88	173	402	1028.40	235	5449	545.60
50	159	7.29	112	8	18.41	174	265	709.16	236	1834	679.64
51	12	202.36	113	861	523.45	175	656	1414.77	237	15	26.95
52	55422	2378.64	114	180	162.81	176	1027	823.75	238	3166	502.92
53	413	292.29	115			177			239	1213	110.11
54	2152	410.24	116	70	102.81	178	414	284.90	240	1514	109.29
55	6	4.21	117	2634	1447.59	179			241	325	35.28
56	4	16.47	118	68786	1091.11	180	221	83.12	242	6132	721.90
57	6854	547.45	119	11644	269.15	181			243	0	
58	1233	205.66	120	197	358.33	182	253	72.51	244	140	504.44
59	3195	837.84	121	41806	404.51	183	1302	215.41	245	2498	435.15
60	4795	941.74	122	8	1.95	184	4796	1625.94			
61	464	1.17	123	53	0.60	185	20	3968.25			
62	7719	577.92	124	896	476.60	186	131	4.73			
									IMCA	1218736	213.43

Table 16 – Safety observation frequency rate (SOFR) 2013

9.3 Reporting Activity Level (RAL)

The reporting activity level, designed as an indicator of how good a company's 'reporting culture' is, is calculated as a rate. The number of hours over which it is normalised changed in 2009 from 1,000,000 to 200,000 to maintain consistency with the other leading indicators. The definition of FNMR, MTR and RWIR can be found in Appendix 3. The number of man-hours used in the calculation depends on whether the contractor states that leading indicators are based on overall (combined offshore and onshore) man-hours, or on offshore man-hours.

Reporting activity level (RAL) = ((5 × FNMR) + (20 × MTR) + (100 × RWIR)). In the past this has been calculated per million man-hours; it is now calculated per **200,000 man-hours** and the results from previous years have been recalculated.

Co	First Aid	Med trt	RWP	RAL	Co	First Aid	Med trt	RWP	RAL	Co	First Aid	Med trt	RWP	RAL
1	0	10	4	2.24	83	0	16	5	140.63	165	0	0	0	0.00
2	0	2	1	44.27	84	0	1	0	82.08	166	0	11	11	127.36
3	0	27	5	110.85	85	0	8	6	1826.48	167	0	6	0	78.31
4	0	0	0	0.00	86	0	2	0	48.57	168	1	0	1	274.08
5	0	0	0	0.00	87	3	23	0	23.64	169	0	4	9	543.88
6	1	16	5	23.97	88	14	149	16	52.76	170	0	0	0	0.00
7	0	5	5	120.00	89	0	9	0	21.61	171	0	0	0	0.00
8	0	1	1	2.52	90	2	1	4	53.30	172	1	12	3	2.94
9	1	20	4	30.11	91	0	0	0	0.00	173	0	0	0	0.00
10	2	19	4	12.65	92	0	0	1	100.52	174	0	2	0	107.04
11	0	0	0	0.00	93	0	0	0	0.00	175	0	0	0	0.00
12	0	1	0	33.62	94	0	26	6	65.82	176	0	0	0	0.00
13	0	0	0	0.00	95	3	7	1	119.13	177	0	2	2	96.74
14	1	9	2	137.98	96	0	3	3	1402.85	178	0	2	0	27.53
15	0	2	0	20.06	97	1	4	2	107.81	179	9	96	9	46.72
16	1	5	0	7.43	98	0	5	0	293.43	180	3	2	1	58.30
17	0	2	0	4.81	99	0	0	0	0.00	181	0	12	0	0.00
18	6	157	26	5.77	100	2	23	2	29.27	182	0	0	0	0.00
19	1	19	4	87.61	101	0	0	0	0.00	183	1	1	2	37.23
20	0	2	2	117.84	102	0	6	1	83.38	184	0	0	0	0.00
21	0	18	1	31.91	103	0	5	5	239.59	185	0	0	0	0.00
22	0	6	0	20.38	104	0	2	0	105.90	186	1	15	2	18.22
23	0	0	9	44.16	105	3	31	3	150.45	187	0	2	0	27.39
24	0	23	4	123.70	106	0	0	0	0.00	188	38	130	21	62.61
25	0	0	0	0.00	107	0	15	2	45.66	189	2	30	11	71.17
26	6	115	4	68.30	108	3	56	7	81.73	190	0	0	0	0.00
27	1	3	4	1710.79	109	0	1	1	204.25	191	4	16	4	69.70
28	0	2	3	25.31	110	3	27	8	151.50	192	0	4	1	29.92
29	2	28	6	211.53	111	0	1	1	363.64	193	0	5	4	322.14
30	0	0	0	0.00	112	0	1	0	46.03	194	0	8	3	0.81
31	0	15	3	111.85	113	0	21	4	498.52	195	0	3	2	220.31
32	1	2	0	27.00	114	1	4	0	76.88	196	0	6	0	57.88
33	0	19	1	46.09	115	0	1	1	7.45	197	0	1	0	83.92
34	0	2	1	48.96	116	0	0	0	0.00	198	10	41	19	78.84
35	0	8	2	14.63	117	0	0	0	0.00	199	2	0	0	8.40
36	1	69	2	38.72	118	8	52	18	45.68	200	0	2	0	67.28
37	5	40	9	141.97	119	10	103	22	99.62	201	3	6	8	467.07
38	2	12	1	50.44	120	0	3	1	291.03	202	0	0	0	0.00
39	0	0	0	0.00	121	11	74	8	22.59	203	0	0	0	0.00
40	0	0	0	0.00	122	0	2	2	58.37	204	0	0	0	0.00
41	8	16	2	42.83	123	0	20	1	5.68	205	1	1	5	31.07
42	3	55	16	104.09	124	1	2	3	183.51	206	0	0	2	55.44
43	0	0	0	0.00	125	0	164	9	1879.18	207	0	0	17	90.12
44	0	0	0	0.00	126	0	0	0	0.00	208	0	0	0	0.00
45	0	0	3	22.48	127	0	9	4	18.10	209	0	0	0	0.00
46	0	0	0	0.00	128	0	0	18	32.61	210	2	6	0	143.30
47	0	0	0	0.00	129	1	4	2	66.59	211	0	3	2	92.06
48	0	50	24	88.86	130	0	20	0	44.38	212	0	12	2	100.55
49	0	1	5	57.76	131	4	50	5	211.45	213	0	45	14	100.85
50	0	11	2	19.25	132	2	17	8	104.44	214	6	7	6	295.23
51	0	0	0	0.00	133	0	22	0	38.83	215	2	2	1	2532.93

Co	First Aid	Med trt	RWP	RAL	Co	First Aid	Med trt	RWP	RAL	Co	First Aid	Med trt	RWP	RAL
52	0	38	3	45.49	134	2	9	2	34.05	216	9	11	3	46.74
53	0	6	0	84.93	135	2	8	1	31.85	217	2	18	1	105.90
54	1	9	7	168.71	136	1	10	3	114.36	218	0	0	1	98.89
55	0	5	2	210.75	137	0	28	4	122.59	219	2	6	1	44.88
56	0	0	0	0.00	138	0	13	2	19.83	220	4	0	0	35.11
57	0	24	3	62.30	139	0	2	2	43.99	221	5	34	15	58.67
58	0	22	3	123.43	140	3	27	1	101.70	222	0	1	0	35.61
59	0	0	0	0.00	141	1	19	7	199.77	223	8	14	1	31.11
60	2	5	3	80.52	142	0	4	0	197.36	224	0	10	4	29.74
61	44	203	82	31.51	143	0	4	0	38.58	225	13	161	32	49.36
62	0	3	2	19.47	144	0	2	0	65.12	226	14	72	3	70.04
63	0	0	0	0.00	145	0	15	0	77.73	227	2	3	2	41.10
64	11	61	11	69.41	146	0	3	2	53.03	228	0	0	0	0.00
65	0	2	3	730.62	147	0	1	1	2392.34	229	0	1	0	7.21
66	0	3	0	576.37	148	1	9	0	75.64	230	0	0	0	0.00
67	0	0	0	0.00	149	0	4	3	59.91	231	0	0	1	30.71
68	0	0	0	0.00	150	0	0	0	0.00	232	3	77	4	105.10
69	0	1	0	26.21	151	6	76	4	161.49	233	0	0	0	0.00
70	1	0	0	1.11	152	2	62	6	127.86	234	0	5	0	55.41
71	0	0	1	363.11	153	1	2	3	132.50	235	1	2	2	24.53
72	0	15	2	96.38	154	0	0	0	0.00	236	0	3	0	22.23
73	1	3	1	37.48	155	2	3	0	19.16	237	0	6	2	574.90
74	0	0	0	0.00	156	1	18	3	109.90	238	0	0	3	47.65
75	0	0	3	57.15	157	11	264	23	54.77	239	0	14	1	34.50
76	3	0	2	10.50	158	0	1	1	33.25	240	1	12	2	32.12
77	2	25	2	441.02	159	2	3	3	1.88	241	4	1	2	26.05
78	0	0	0	0.00	160	6	53	7	3.12	242	3	29	3	105.37
79	0	0	0	0.00	161	1	19	0	49.60	243	4	12	4	57.21
80	3	14	3	46.26	162	4	33	3	552.27	244	1	0	3	1098.95
81	1	3	2	238.66	163	12	111	16	199.48	245	0	2	0	6.97
82	5	25	10	63.03	164	2	39	3	333.83	IMCA	410	4080	842	29.39

Table 17 – Reporting activity level (RAL) 2013

It will be noted that the number of incidents reported here is slightly less than the total recorded in Table 8 in Section 6. This is because members can choose to have leading indicators such as reporting activity level calculated against offshore hours or against overall hours. If a member chooses to do so against the former, then incidents reported *onshore* are omitted from the calculation for that member – leading to a light shortfall here.

9.4 Management Visit Ratio (MVR)

Management Visit Ratio (MVR) = Number of managerial visits per **200,000** man-hours.

Management visit data was provided by 219 of the 245 contractors. Data from nine contractors have been excluded from the IMCA calculation as somewhat improbable given the man-hours reported and criteria for a management visit which were stated in the guide to contributors. In general, 'improbable' means if the number of management visits reported greatly exceeds the number of people working offshore for the contractor (based nominally on 180 days per year and 12 hours days). The criteria for management visits are repeated here:

- ◆ The visiting manager has commercial or production responsibility for the company (e.g. Managing Director);
- ◆ The visiting manager is directly responsible for the conduct of the project (e.g. Project Manager).
- ◆ The visiting manager is directly responsible for the operational or service support activities of the particular offshore barge or ship (e.g. Operations Manager);
- ◆ The visiting manager has responsibility for health, safety and environmental processes or other key process within the company;
- ◆ The visits should be made offshore during operational activities and be of at least 24 hours' duration;
- ◆ The visit must include a safety briefing or presentation to the majority of the offshore people;
- ◆ The visit may also involve the manager making a safety performance check of the site with the people who manage or supervise the activities.

Co	Management visits	MVR	Co	Management visits	MVR	Co	Management visits	MVR	Co	Management visits	MVR	
1	16	0.06	63	3	7.75	125	12	5.39	187		0.00	
2	18	5.69	64	116	3.39	126	12	182.15	188		0.00	
3	189	20.15	65	4	8.60	127	9	0.28	189	30	1.25	
4	10	5.79	66	15	144.09	128		0.00	190	22	55.70	
5	12	10.99	67	4	7.70	129	20	4.67	191	285	26.84	
6	179	5.20	68	2	4.83	130	97	10.76	192	108	17.95	
7	14	2.80	69	12	15.72	131	1435	199.63	193	20	12.89	
8	5	0.11	70		0.00	132		0.00	194	25	0.04	
9	58	2.17	71		0.00	133	130	11.47	195	48	40.67	
10	17	0.27	72	70	13.49	134	18	1.57	196	44	21.22	
11		0.00	73	59	13.40	135	28	3.30	197		0.00	
12	6	10.09	74	12	57.87	136		0.00	198	495	14.09	
13	12	7.45	75	9	1.71	137	17	2.17	199	3	2.52	
14	30	10.75	76	376	18.36	138	35	1.51	200	12	20.18	
15	5	2.51	77	6	3.73	139	26	4.77	201	18	8.99	
16	2	0.14	78		0.00	140	109	16.92	202	3	16.60	
17	6	0.72	79	1	0.40	141	33	6.08	203	7	13.73	
18	1570	1.57	80		0.00	142	6	14.80	204	8	69.26	
19	355	39.62	81	4	3.60	143	48	23.15	205	205	12.13	
20		0.00	82	500	20.67	144	16	26.05	206	22	6.10	
21	45	3.12	83	26	4.46	145	48	12.44	207	31	1.64	
22	192	32.62	84	5	20.52	146	9	1.84	208		0.00	
23	4380	214.92	85	14	33.65	147		0.00	209		0.00	
24	60	8.63	86	168	204.01	148	73	29.85	210	34	37.48	
25	45	28.00	87	62	3.09	149	82	12.93	211	3	1.06	
26	185	4.63	88		0.00	150	4	63.76	212	40	9.14	
27	12	44.15	89	108	12.97	151	942	78.01	213	211	9.25	
28	10	0.74	90	7	0.87	152	310	21.43	214	48	18.40	
29	766	138.49	91		0.00	153	46	17.67	215		0.00	
30	12	11.86	92	28	28.15	154	4	30.89	216	23	1.90	
31		0.00	93	11	17.01	155		0.00	217	52	11.72	
32	24	14.40	94	165	9.70	156	100	16.53	218	19	18.79	
33	46	4.42	95	40	18.69	157	1250	8.97	219	79	15.42	
34	18	6.30	96	8	31.17	158	44	12.19	220	15	26.33	
35		0.00	97	9	3.40	159	8	0.04	221		0.00	
36	800	19.54	98		0.00	160		0.00	222	5	8.90	
37	62	5.10	99	13	10.64	161	119	15.33	223	4	0.30	
38	122	17.58	100	15	0.66	162		0.00	224	11	0.55	
39		0.00	101	5	1.35	163	106	5.45	225	357	2.72	
40	12	7.47	102		0.00	164	16	4.90	226	92	3.56	
41	50	3.82	103	8	3.19	165	4	1.38	227	37	5.63	
42	368	14.11	104	22	58.24	166	60	5.79	228	15	2.81	
43	6	1.15	105	12	1.93	167	80	52.21	229	24	8.65	
44	27	45.24	106	3	85.76	168	8	20.88	230	16	20.04	
45	58	4.35	107	18	1.64	169	5	2.77	231	6	1.84	
46	32	32.65	108	120	5.34	170	10	32.11	232	63	3.39	
47	18	2.84	109	111	188.93	171	13	3.84	233	62	56.32	
48		0.00	110	10	1.12	172	36	0.19	234	8	4.43	
49	88	9.77	111		0.00	173	15	38.37	235	172	17.22	
50	12	0.55	112	3	6.91	174	24	64.23	236	9	3.34	
51	8	134.91	113	109	66.27	175	16	34.51	237	7	12.58	
52	214	9.18	114	7	6.33	176	13	10.43	238	101	16.04	
53	8	5.66	115	122	7.58	177		0.00	239	67	6.08	
54	63	12.01	116	11	16.16	178	4	2.75	240	38	2.74	
55	34	23.88	117	21	11.54	179	76	1.24	241	80	8.68	
56	5	20.58	118	1975	31.33	180	9	3.39	242	307	36.14	
57	18	1.44	119	254	5.87	181		0.00	243		0.00	
58	16	2.67	120	8	14.55	182	5	1.43	244		0.00	
59	6	1.57	121	2617	25.32	183	15	2.48	245	4	0.70	
60	52	10.21	122	2	0.49	184	4	1.36				
61	32	0.08	123	122	1.39	185		0.00				
62	12	0.90	124	216	114.89	186		0.00				
										IMCA	27074	4.74

Table 18 – Management visit ratio (MVR) data 2013

9.5 Lessons Learnt Ratio (LLR)

163 of 245 contractors contributed data on safety bulletins.

Lessons Learnt Ratio (LLR) = Number of bulletins issued per **200,000** man-hours. In the past this has been calculated per 100,000 man-hours; it is now calculated per 200,000 man-hours and the results from previous years have been recalculated.

Co	Safety Bulletins	LLR	Co	Safety Bulletins	LLR	Co	Safety Bulletins	LLR	Co	Safety Bulletins	LLR
1	2	0.01	63	1	2.58	125	21	9.44	187		0.00
2	4	1.26	64		0.00	126		0.00	188	12	0.15
3	100	10.66	65	3	6.45	127	36	1.12	189	24	1.00
4		0.00	66	4	38.42	128		0.00	190	89	225.33
5	43	39.38	67	1	1.92	129	7	1.64	191		0.00
6	65	1.89	68		0.00	130	2	0.22	192	49	8.14
7		0.00	69		0.00	131	30	4.17	193	12	7.73
8	21	0.44	70		0.00	132	9	0.82	194	13	0.02
9	12	0.45	71		0.00	133		0.00	195		0.00
10	14	0.22	72		0.00	134	4	0.35	196	1	0.48
11		0.00	73		0.00	135		0.00	197		0.00
12	4	6.72	74		0.00	136		0.00	198	21	0.60
13	12	7.45	75		0.00	137	5	0.64	199		0.00
14	22	7.88	76	58	2.83	138	60	2.59	200		0.00
15	3	1.50	77		0.00	139	12	2.20	201		0.00
16	4	0.28	78	2	1666.67	140	21	3.26	202	1	5.53
17		0.00	79		0.00	141	11	2.03	203	1	1.96
18	16	0.02	80	12	0.93	142		0.00	204		0.00
19	7	0.78	81		0.00	143		0.00	205	23	1.36
20		0.00	82	3	0.12	144	6	9.77	206	12	3.33
21	247	17.13	83	22	3.77	145	16	4.15	207		0.00
22	12	2.04	84	3	12.31	146	42	8.57	208		0.00
23	120	5.89	85	12	28.84	147	8	159.49	209		0.00
24	41	5.90	86	39	47.36	148	54	22.08	210	1	1.10
25	5	3.11	87	21	1.04	149		0.00	211	1	0.35
26	146	3.65	88	76	0.86	150	0	0.00	212	0	0.00
27	12	44.15	89	94	11.29	151	1	0.08	213	27	1.18
28	7	0.52	90	1	0.12	152	37	2.56	214	5	1.92
29		0.00	91		0.00	153	51	19.59	215	15	253.29
30	4	3.95	92	1	1.01	154		0.00	216		0.00
31		0.00	93		0.00	155		0.00	217		0.00
32	28	16.80	94	37	2.17	156	24	3.97	218	6	5.93
33	2	0.19	95	17	7.94	157	90	0.65	219	18	3.51
34		0.00	96	25	97.42	158		0.00	220	12	21.06
35		0.00	97	11	4.16	159	2	0.01	221		0.00
36	21	0.51	98		0.00	160	30	0.05	222		0.00
37		0.00	99		0.00	161	2	0.26	223		0.00
38	5	0.72	100		0.00	162		0.00	224	4	0.20
39		0.00	101	12	3.24	163	14	0.72	225	79	0.60
40	2	1.24	102		0.00	164	18	5.51	226	50	1.93
41	34	2.60	103		0.00	165	3	1.04	227		0.00
42	0	0.00	104		0.00	166	6	0.58	228	3	0.56
43	20	3.84	105	3	0.48	167		0.00	229	29	10.45
44	18	30.16	106	13	371.64	168		0.00	230	26	32.57
45	10	0.75	107	9	0.82	169	18	9.99	231	18	5.53
46	18	18.37	108	5	0.22	170		0.00	232	48	2.58
47	16	2.53	109	5	8.51	171		0.00	233		0.00
48		0.00	110	13	1.45	172	17	0.09	234	15	8.31
49	71	7.89	111	29	87.88	173		0.00	235	1	0.10
50		0.00	112		0.00	174	1	2.68	236	9	3.34
51	1	16.86	113	2	1.22	175	24	51.76	237	19	34.13
52	13	0.56	114	20	18.09	176		0.00	238		0.00
53	19	13.45	115		0.00	177		0.00	239	16	1.45
54	76	14.49	116		0.00	178	8	5.51	240	9	0.65
55	2	1.40	117		0.00	179		0.00	241	20	2.17
56	13	53.52	118		0.00	180	24	9.03	242	29	3.41
57	147	11.74	119	193	4.46	181	2	91.32	243	2	0.17

Co	Safety Bulletins	LLR	Co	Safety Bulletins	LLR	Co	Safety Bulletins	LLR	Co	Safety Bulletins	LLR
58		0.00	120	3	5.46	182	3	0.86	244		0.00
59	50	13.11	121	9	0.09	183	45	7.45	245		0.00
60		0.00	122	8	1.95	184	28	9.49			
61	2	0.01	123	27	0.31	185		0.00			
62	7	0.52	124	5	2.66	186	31	1.12			
									IMCA	3840	0.67

Table 19 – Lessons learnt ratio (LLR) data 2013

Individual Company LTIFR and TRIR Statistics

The following tables show the important statistical rates for each of the 245 companies with an identifying number and a letter indicating the band into which they fall.

In order for members to identify how their company compares to others of like size, four bands are used for contributing contracting companies, categorised by their annual amount of overall working hours.

Band	Hours worked
A	<500,000
B	500,000-1,000,000
C	1,000,000-5,000,000
D	>5,000,000

Table 20 – Hours worked bands

A letter has accompanied this report addressed to each contributing member which lets each recipient know only its own identifying number.

Co	Banding	Offshore LTIFR	Onshore LTIFR	Overall LTIFR	Offshore TRIR	Onshore TRIR	Overall TRIR
IMCA		0.35	0.46	0.37	1.37	1.81	1.47
1	D	0.00	0.00	0.00	0.07	0.00	0.07
2	C	0.00	0.00	0.00	1.58	0.00	1.00
3	C	0.00	0.00	0.00	2.66	0.00	2.31
4	A	0.00	0.00	0.00	0.00	0.00	0.00
5	A	9.62	0.00	4.58	9.62	0.00	4.58
6	D	0.57	0.00	0.44	1.72	0.00	1.31
7	C	0.00	3.33	0.77	5.00	3.33	4.62
8	D	0.11		0.11	0.21		0.21
9	D	0.00		0.00	0.93		0.93
10	D	0.32	0.00	0.24	0.64	0.97	0.72
11	A	0.00		0.00	0.00		0.00
12	A	0.00		0.00	0.00		0.00
13	A	0.00	29.87	5.14	0.00	59.74	10.28
14	B	0.00	0.00	0.00	5.38	0.00	5.01
15	A	0.00		0.00	0.00		0.00
16	C	0.00	0.00	0.00	0.71	0.00	0.35
17	C	0.60	0.00	0.57	0.60	0.00	0.57
18	D	0.02	0.44	0.05	0.18	1.37	0.27
19	C	0.56	0.00	0.42	3.35	0.00	2.53
20	A	2.45	0.00	2.27	7.36	0.00	6.80
21	C	0.35		0.35	0.69		0.69
22	C	11.04	0.00	7.73	11.04	0.00	7.73
23	C	0.98	30.98	1.45	3.19	61.97	4.11
24	C	2.16	0.00	1.76	5.03	0.00	4.11
25	A	0.00	0.00	0.00	0.00	0.00	0.00
26	D	0.90	0.00	0.88	2.20	0.00	2.13
27	A	111.71	36.36	73.58	260.65	72.71	165.56
28	C	1.11	1.12	1.12	2.23	2.24	2.23
29	C	0.90	0.00	0.77	8.14	0.00	6.95
30	A	4.94	0.00	4.56	4.94	0.00	4.56
31	C	0.00	3.81	2.80	3.50	6.35	5.59
32	A	3.00		3.00	6.00		6.00
33	C	0.00	0.00	0.00	0.51	0.00	0.48
34	B	1.75		1.75	3.50		3.50
35	C	0.41		0.41	0.81		0.81

Co	Banding	Offshore LTIFR	Onshore LTIFR	Overall LTIFR	Offshore TRIR	Onshore TRIR	Overall TRIR
IMCA		0.35	0.46	0.37	1.37	1.81	1.47
36	D	0.24		0.24	0.61		0.61
37	C	1.23	0.00	1.18	7.00	0.00	6.70
38	C	0.00	0.00	0.00	2.96	0.00	2.16
39	A	0.00	8.86	4.56	0.00	17.72	9.12
40	B	0.00	0.00	0.00	0.00	0.00	0.00
41	C	1.15	0.00	1.04	4.97	0.00	4.50
42	D	1.34	0.00	1.21	4.98	0.00	4.48
43	C	0.00		0.00	0.00		0.00
44	A	0.00		0.00	0.00		0.00
45	C	0.37	0.00	0.36	1.50	0.00	1.42
46	A	0.00	0.00	0.00	0.00	0.00	0.00
47	C	0.00	0.00	0.00	0.00	0.00	0.00
48	D	2.03	1.31	1.96	5.51	1.31	5.10
49	C	1.11	0.00	0.92	3.89	2.66	3.68
50	C	0.00	0.00	0.00	0.25	2.37	0.46
51	A	0.00	0.00	0.00	0.00	0.00	0.00
52	C	0.43		0.43	1.07		1.07
53	A	3.54	0.00	3.28	3.54	0.00	3.28
54	C	0.00	0.00	0.00	7.63	0.00	7.52
55	A	0.00	0.00	0.00	7.02	0.00	6.22
56	A	0.00	0.00	0.00	0.00	0.00	0.00
57	C	0.80	0.00	0.73	2.00	0.00	1.82
58	C	0.00		0.00	2.50		2.50
59	C	0.00	0.00	0.00	0.00	0.00	0.00
60	C	2.95	0.00	2.83	7.86	0.00	7.55
61	D	0.00	0.24	0.23	1.11	1.86	1.82
62	C	0.39	0.00	0.37	1.18	0.00	1.12
63	A	0.00	0.00	0.00	0.00	0.00	0.00
64	D	0.88	0.63	0.66	4.09	1.56	1.90
65	A	10.74	0.00	8.88	42.98	0.00	35.51
66	A	0.00	0.00	0.00	0.00	0.00	0.00
67	A	0.00		0.00	0.00		0.00
68	A	0.00	0.00	0.00	0.00	0.00	0.00
69	A	0.00	0.00	0.00	0.00	0.00	0.00
70	B	1.11		1.11	2.23		2.23
71	A	0.00	0.00	0.00	18.16	0.00	10.62
72	C	0.00		0.00	1.93		1.93
73	B	4.54		4.54	6.81		6.81
74	A	0.00	0.00	0.00	0.00	0.00	0.00
75	C	0.95	0.00	0.91	3.81	0.00	3.65
76	C	0.00	0.00	0.00	1.35	0.00	1.22
77	A	0.00	0.00	0.00	12.42	0.00	8.52
78	A	0.00	0.00	0.00	0.00	0.00	0.00
79	A	2.01		2.01	2.01		2.01
80	C	0.00	5.92	0.78	2.69	5.92	3.11
81	A	0.00	0.00	0.00	13.51	0.00	11.91
82	D	1.45	0.00	1.07	4.55	0.00	3.35
83	C	1.68	0.00	0.86	5.04	5.25	5.14
84	A	0.00		0.00	0.00		0.00
85	A	0.00	0.00	0.00	72.10	0.00	49.20
86	A	0.00	0.00	0.00	0.00	0.00	0.00
87	D	0.00	0.00	0.00	0.75	0.00	0.59
88	D	0.11		0.11	1.82		1.82
89	C	0.00	0.00	0.00	0.00	0.00	0.00
90	C	0.00	0.00	0.00	3.72	0.00	2.79
91	A	0.00	0.00	0.00	0.00	0.00	0.00
92	A	0.00	14.48	5.03	0.00	28.96	10.05
93	A	13.38	0.00	7.73	13.38	0.00	7.73
94	C	1.47	0.00	1.43	3.23	0.00	3.15

Co	Banding	Offshore LTIFR	Onshore LTIFR	Overall LTIFR	Offshore TRIR	Onshore TRIR	Overall TRIR
IMCA		0.35	0.46	0.37	1.37	1.81	1.47
95	B	2.34	0.00	1.81	11.68	0.00	9.05
96	A	0.00	0.00	0.00	58.45	0.00	38.20
97	B	0.00	0.00	0.00	5.67	0.00	4.63
98	A	0.00	0.00	0.00	0.00	24.90	17.48
99	A	4.09		4.09	4.09		4.09
100	C	0.32	0.00	0.22	1.60	0.00	1.09
101	B	0.00	0.00	0.00	0.00	0.00	0.00
102	B	0.00	0.00	0.00	1.90	0.00	1.32
103	B	0.00	0.00	0.00	9.98	0.00	9.57
104	A	0.00	0.00	0.00	0.00	0.00	0.00
105	C	1.61	0.00	1.22	6.44	0.00	4.88
106	A	0.00	0.00	0.00	0.00	0.00	0.00
107	C	0.91	0.00	0.87	1.83	0.00	1.74
108	D	1.11	0.94	1.08	3.34	0.94	2.88
109	A	0.00	0.00	0.00	8.51	9.74	9.08
110	C	0.66	7.39	1.68	6.59	14.78	7.83
111	A	15.15	20.20	17.32	30.30	60.61	43.29
112	A	0.00	11.47	5.74	0.00	34.40	17.23
113	A	0.00	5.49	3.04	6.81	21.97	15.20
114	A	0.00	0.00	0.00	4.52	0.00	4.43
115	C	0.31		0.31	0.62		0.62
116	A	0.00	0.00	0.00	0.00	0.00	0.00
117	A	5.36	5.64	5.50	5.36	5.64	5.50
118	D	0.79	0.41	0.49	2.86	1.25	1.60
119	D	0.35	0.00	0.33	4.05	0.00	3.90
120	A	0.00	0.00	0.00	9.09	0.00	7.35
121	D	0.15	0.00	0.12	1.06	0.00	0.89
122	B	0.00		0.00	2.43		2.43
123	D	0.11	0.00	0.11	0.17	0.00	0.17
124	A	0.00	0.00	0.00	10.64	0.00	9.47
125	A	4.50	0.00	4.47	24.73	0.00	35.79
126	A	0.00		0.00	0.00		0.00
127	D	0.00		0.00	0.62		0.62
128	D	1.99		1.99	3.62		3.62
129	B	2.34		2.34	5.84		5.84
130	C	0.00	0.00	0.00	0.00	0.00	0.00
131	C	0.00	0.00	0.00	6.26	6.14	6.25
132	C	0.45		0.45	5.00		5.00
133	C	0.00	0.00	0.00	0.00	0.00	0.00
134	C	0.87	0.00	0.82	2.62	0.00	2.47
135	C	0.00		0.00	1.77		1.77
136	C	1.13	1.85	1.40	5.66	5.54	5.62
137	C	1.28	12.65	1.82	3.83	12.65	4.25
138	C	0.00		0.00	0.43		0.43
139	C	0.92	0.00	0.68	2.75	0.00	2.04
140	C	0.00	0.00	0.00	2.66	6.17	3.11
141	C	1.84	0.00	1.69	9.21	0.00	8.45
142	A	0.00	0.00	0.00	0.00	0.00	0.00
143	A	0.00	0.00	0.00	0.00	0.00	0.00
144	A	10.22	0.00	8.14	10.22	0.00	8.14
145	B	6.91	0.00	3.89	6.91	0.00	3.89
146	C	0.00	0.00	0.00	2.04	0.00	1.90
147	A	0.00	0.00	0.00	99.68	0.00	27.66
148	B	0.00	0.00	0.00	2.04	0.00	1.63
149	C	0.00	0.00	0.00	2.36	0.00	1.92
150	A	0.00	0.00	0.00	0.00	0.00	0.00
151	C	2.07	0.00	1.46	6.21	1.97	4.95
152	C	1.04	0.00	0.79	3.80	0.00	2.90
153	B	0.00	0.00	0.00	12.04	5.64	7.68

Co	Banding	Offshore LTIFR	Onshore LTIFR	Overall LTIFR	Offshore TRIR	Onshore TRIR	Overall TRIR
IMCA		0.35	0.46	0.37	1.37	1.81	1.47
154	A	0.00		0.00	0.00		0.00
155	B	1.37		1.37	4.11		4.11
156	C	0.83	0.00	0.60	4.13	0.00	3.01
157	D	0.19	0.09	0.11	1.67	1.24	1.33
158	D	0.00	0.00	0.00	1.39	0.60	0.65
159	D	0.15		0.15	0.28		0.28
160	D	0.02	0.36	0.03	0.13	0.36	0.14
161	C	0.00	0.00	0.00	0.64	0.00	0.62
162	A	2.82		2.82	22.54		22.54
163	C	1.54		1.54	8.74		8.74
164	C	12.25	5.13	8.89	19.91	23.93	21.81
165	B	0.00	0.00	0.00	0.00	0.00	0.00
166	C	0.62	2.18	0.96	6.81	4.36	6.27
167	A	0.00	0.00	0.00	0.00	0.00	0.00
168	A	0.00	0.00	0.00	26.10	0.00	20.12
169	A	0.00		0.00	24.97		24.97
170	A	16.06	0.00	6.76	16.06	0.00	6.76
171	B	5.91	0.00	5.23	5.91	0.00	5.23
172	D	0.19	0.00	0.19	0.30	0.00	0.30
173	A	0.00		0.00	0.00		0.00
174	A	0.00	0.00	0.00	0.00	0.00	0.00
175	A	0.00	0.00	0.00	0.00	0.00	0.00
176	A	0.00		0.00	0.00		0.00
177	A	6.85	0.00	6.05	11.41	0.00	10.08
178	A	0.00	0.00	0.00	0.00	0.00	0.00
179	D	0.73	1.06	0.78	2.20	3.17	2.33
180	B	1.88	0.00	1.07	9.40	0.00	5.34
181	B	0.00	0.00	0.00	0.00	0.00	0.00
182	B	4.30		4.30	4.30		4.30
183	C	0.00	0.00	0.00	2.48	0.00	2.27
184	B	3.39	0.00	2.81	3.39	0.00	2.81
185	A	0.00		0.00	0.00		0.00
186	D	0.84	2.51	1.44	1.41	3.02	1.98
187	A	3.42	0.00	2.57	3.42	0.00	2.57
188	D	0.51		0.51	4.29		4.29
189	C	0.00	0.31	0.21	2.59	3.07	2.91
190	A	0.00	0.00	0.00	0.00	0.00	0.00
191	C	0.47	0.00	0.45	4.24	0.00	4.07
192	C	0.00	0.00	0.00	0.83	0.00	0.73
193	A	3.22		3.22	16.11		16.11
194	D	0.01	0.00	0.01	0.04	0.00	0.04
195	A	4.24		4.24	12.71		12.71
196	B	0.00	0.00	0.00	0.00	9.05	1.90
197	A	0.00	0.00	0.00	0.00	0.00	0.00
198	D	0.71		0.71	4.84		4.84
199	A	10.29	0.00	8.40	20.59	0.00	16.80
200	A	0.00	0.00	0.00	0.00	0.00	0.00
201	A	12.49		12.49	39.96		39.96
202	A	0.00		0.00	0.00		0.00
203	A	0.00	0.00	0.00	0.00	0.00	0.00
204	A	0.00		0.00	0.00		0.00
205	C	1.48	2.50	1.59	3.25	5.00	3.44
206	B	0.00	2.25	1.39	0.00	6.76	4.16
207	C	0.53		0.53	5.04		5.04
208	B	0.00	0.00	0.00	0.00	0.00	0.00
209	A	0.00	0.00	0.00	0.00	0.00	0.00
210	C	0.00	0.00	0.00	11.02	6.06	6.83
211	B	0.00	0.00	0.00	3.54	0.00	3.01
212	C	3.43	0.00	2.97	5.71	0.00	4.96

Co	Banding	Offshore LTIFR	Onshore LTIFR	Overall LTIFR	Offshore TRIR	Onshore TRIR	Overall TRIR
IMCA		0.35	0.46	0.37	1.37	1.81	1.47
213	D	0.66	2.05	0.90	3.73	4.10	3.79
214	B	10.92	15.73	11.50	32.75	47.19	34.51
215	A	0.00	0.00	0.00	253.29	1785.71	322.48
216	C	1.24	0.00	1.23	6.20	0.00	6.13
217	B	2.57	0.00	2.25	6.41	0.00	5.63
218	A	4.94	0.00	4.70	9.89	0.00	9.40
219	C	0.98	0.00	0.95	3.90	0.00	3.79
220	A	35.11	142.45	46.88	70.21	142.45	78.14
221	D	0.40	0.00	0.31	3.06	0.00	2.35
222	A	0.00	0.00	0.00	0.00	0.00	0.00
223	C	0.37	0.90	0.53	3.70	0.90	2.89
224	C	0.74	0.00	0.71	1.73	0.00	1.66
225	D	0.28	0.99	0.61	0.78	4.12	2.32
226	D	0.19	0.00	0.18	3.48	0.00	3.23
227	C	2.28	0.54	1.26	5.33	11.80	9.13
228	C	0.00		0.00	0.00		0.00
229	B	1.80		1.80	1.80		1.80
230	A	0.00	0.00	0.00	0.00	0.00	0.00
231	B	0.00	0.00	0.00	1.54	0.00	1.30
232	C	0.74	0.00	0.54	2.60	1.94	2.42
233	B	0.00	2.69	1.69	0.00	2.69	1.69
234	A	0.00		0.00	0.00		0.00
235	C	0.00	0.00	0.00	1.50	0.00	1.34
236	C	1.85	0.00	0.57	1.85	0.00	0.57
237	A	8.98	0.00	8.66	26.95	0.00	25.99
238	C	0.00		0.00	2.38		2.38
239	C	1.19	0.73	0.91	2.38	0.73	1.36
240	C	1.08	7.09	1.64	2.17	7.09	2.62
241	C	0.00	0.00	0.00	3.26	0.00	3.08
242	C	0.59	0.00	0.53	4.12	0.00	3.70
243	C	1.73	0.00	1.58	5.20	0.00	4.74
244	A	0.00		0.00	72.06		72.06
245	C	0.00	0.00	0.00	0.00	0.00	0.00
IMCA		0.35	0.46	0.37	1.37	1.81	1.47

Table 21 – Individual company LTIFR and TRIR statistics 2013

IMCA Environmental Performance Indicators

The following tables show the new IMCA environmental performance indicators as supplied by those companies that were able to do so. More information is available in Section 5.

Co	Spills	Amount spilt	Bunkers (Weight)	Bunkers (Volume)	Onshore MWh	Non-haz Waste	Hazardous Waste
IMCA	0.68	164.65	2659.47	3507.30	3652.94	393.23	91.38
1				22650.88	1852.08	0.67	
2							
3	1.60					212.86	102.26
4	17.15	428.79	3962.01		4715.46	7.81	3.76
5			219.35		601.76	32.05	4.12
6	0.96		17667.94		726.23	300.45	22.60
7	2.00	40.00					
8	0.11	0.21					
9							
10	0.21	4.04		9767.07			
11							
12						16.81	16.81
13				62.11	244.93	0.93	
14			10144.63		1050.14	460.64	
15							
16					593.99		8.49
17			4018.74		46.82	239.91	25.83
18	0.35	3.00	67.42		1732.31	48.66	6.22
19	2.23	40.18		7570.99		24.79	0.85
20							
21			30713.15			89.53	200.01
22					851.91	20.81	
23							
24	5.03		17379.09				
25							
26				19535.39		7784.85	402.19
27			55853.44		10907.11	73.58	
28			3276.20			43.97	0.38
29	1.81	723.65	25349.36			2004.86	198.34
30				27064.68	117.83		
31							
32				28117.84		1055.28	359.46
33							
34			5655.03			0.57	0.02
35	5.49	629.78		3454.22		166.59	1.24
36	3.18	89.24	9762.09				
37	1.23	8.23					
38	0.99	19.71		7026.07	2.06	129.70	
39				9510.67	996.45		
40			11345.25		1325.81	47.57	18.23
41	0.38	0.76		72745.25	11721.61	1095.91	2051.93
42	2.11	16.27	31350.86		1537.33	28230.66	
43				3666.71		1622.08	
44			5604.14			2228.25	240.00
45							
46							
47				17515.19	65.61	757.82	
48	2.61	156.01					
49							
50				933.29		24.53	5.73
51							
52							
53	14.15	273.53	42533.62		617.78	131.24	1.64
54	1.91	29.55					
55			12996.14		6781.68	68.42	

Co	Spills	Amount spilt	Bunkers (Weight)	Bunkers (Volume)	Onshore MWh	Non-haz Waste	Hazardous Waste
IMCA	0.68	164.65	2659.47	3507.30	3652.94	393.23	91.38
56					994.77	53.52	6.17
57	9.58	1368.04	22101.03		573.57	110.93	
58							
59							
60	1.96	245.50		7887.75			
61					248.35	774.95	343.07
62				7154.63	8442.04	206.74	49.04
63	26.64	13.32					
64	0.58	2.78		87780.02			11.43
65			16503.35		410.54	205.94	8.08
66							
67	9.62	19.24	17119.80			115.45	495.46
68					168.30		
69			18867.92		838.29	194.42	239.69
70	2.23	11.13		21985.48			
71							
72							
73	1.14						
74				21749.61	145.24	126.59	0.83
75				2528.94	612.99		
76	0.54	4.06	23110.60				
77	3.11	155.29	3051.92	3051.91		117.13	532.43
78					5332.92	113.64	
79				5362.26		179.08	175.05
80						24.92	19.39
81							
82	0.21	41.33	12813.58				
83			7727.35		559.78	103.93	24.18
84			1242.97			20.52	
85				23107.43	1394.45	615.03	
86					4124.20	30.78	26.08
87	0.75	14.93					
88	1.08	7347.69					
89			13208.26		3.68	26.70	
90			1741.94		263.62	377.11	0.01
91					3.30	474.55	140.43
92					2316.93	1.51	0.20
93							
94	5.88	1069.92	16992.43		3404.26	783.69	257.79
95			10251.99	8831.80		915.42	44.69
96				974.20	0.04	12.73	
97							
98					1213.89	339.69	16.87
99			50940.25	44418.26		45.01	
100	1.60	4.49		13472.89			
101				10313.35		114.58	0.54
102	1.90	284.26	13379.03			135.10	66.31
103	7.99						
104					1154.00		
105	0.80	24.14	8825.62		455.89		
106			8889.37		3146.48	17.13	
107	0.46	0.23					
108	7.79	180.83	11529.26		3331.07	139.25	347.54
109							
110	1.32	10.21	5201.42		2750.85	69.88	0.84
111			10621.21		1717.17	69.26	8.66
112							
113			728.82		105.25	313.10	94.23
114							
115				9861.21		173.22	
116				2796.42	2138.21	36.72	
117							
118	0.40	156.24		13343.27	765.76	628.72	303.55
119	1.62	54.78	21114.34	18158.30	3740.01	207.24	

Co	Spills	Amount spilt	Bunkers (Weight)	Bunkers (Volume)	Onshore MWh	Non-haz Waste	Hazardous Waste
IMCA	0.68	164.65	2659.47	3507.30	3652.94	393.23	91.38
120							
121	1.26	34.83	26124.77	20899.84	446.12	912.46	235.10
122							
123							
124			34574.84			908.69	
125			12700.17		121.79	693.42	116.32
126							
127	0.94	31.68					
128	2.45	800.25	16676.03				
129				37316.23			
130	1.11	11.09	31157.16		49745.42	3192.78	
131	5.56	13.91		11830.27	99106.18	464.21	1024.64
132			4037.79			1701.98	
133	5.84	33.44		9741.18	1388.39	112.17	65.75
134	6.11	106.08		67749.72	4760.43	503.68	1555.10
135			18579.74				
136							
137	1.28	12.77	38758.19		4010.63	773.75	519.07
138	0.43	0.86					
139	0.92	91.66	6795.13		11627.66	2827.45	138.79
140	0.89	177.62	6656.28		1113.24	1066.67	1907.43
141	52.47	1069.84		32355.00	4767.90	215.88	704.12
142					366.52	3.35	
143				19241.90	1988.10	803.32	
144							
145						31.09	2.59
146				2782.03		580.92	68.55
147			140450.56				
148			59696.12		965.21	1075.85	
149			1044.57	373.02	6686.28		
150							
151	0.41	9.40					
152							
153			18775.27			272.68	96.01
154			2702.49			203.85	27.02
155							
156				10065.23	2104.47	834.49	135.37
157	3.16	201.93	10977.39	6437.62	1537.63	1853.71	336.84
158			33177.08		692.36	268.86	
159			440.53			5.98	7.54
160	0.07						
161	8.37	219.00		24412.21	2629.28	441.26	553.13
162				12380.95			687.52
163	1.80						
164				1346.04	1224.41	37.16	
165					122.49	57.86	25.45
166	0.62	3.72					
167							
168	13.05						
169			12522.62			135.97	0.83
170				11884.28	21590.80	122.40	
171				17180.61	2631.36	683.46	62.73
172	0.05	7.16	980.39		5053.96		0.05
173				7329.24		89.54	2.56
174					2608.18	13.46	1.35
175				5397.04	2244.52	316.62	
176							
177							
178							
179					994.69	32.92	1.48
180				257.64	34.57	56.58	
181							
182							
183							

Co	Spills	Amount spilt	Bunkers (Weight)	Bunkers (Volume)	Onshore MWh	Non-haz Waste	Hazardous Waste
IMCA	0.68	164.65	2659.47	3507.30	3652.94	393.23	91.38
184			3051.18		60933.77	15722.30	9293.00
185				1984.13			
186			759.78		1604.09		
187							
188	0.26	33.42		3687.09		150.75	
189	1.94	0.32	661.11			1876.21	3087.68
190							
191	0.94	2.35		11381.87		42.92	
192							
193							
194			79.45		64.73	1.49	2.49
195	21.18	317.76	16559.62			861.34	9.49
196			1730.57	1639.99		97.13	24.76
197				5245.05	459.69	355.96	
198				69358.35			
199					1589.16	38.10	33.48
200					5.45	28.64	4398.32
201						249.77	
202							
203			85362.75	77637.25	89406.79	22021.54	32.47
204							
205			14447.97			19.83	0.66
206			86.44		186.22	381.17	
207	0.27	0.27	14808.55			527.99	68.12
208							
209	98.79	869.39	31040.26			26.11	
210			1113.32		332.34	316.72	5.55
211			27198.85		1200.00	2295.29	89.50
212	2.29	25.06	3940.23		3830.71	3.37	
213		61.17		7374.57	2413.02	77.41	8.40
214				7779.08	12613.03	105.52	36.84
215				27017.90	375.00	3224.77	80.62
216					1057.13	2.04	
217	1.28	0.64		56469.65	307.41	207.07	10.70
218				53699.64	134.10	1410.60	
219							
220							
221	1.60	105.64		9889.49	928.05		
222			77.95	77.45		114.10	
223	0.74	0.56	67379.76				
224	0.50	0.00	5243.19			272.51	32.38
225	4.95	131.44		3833.76		186.60	3.23
226	1.16	14.12		45648.13	1631.08	1071.58	983.12
227				979.99	807.43	87.91	12.29
228			6.56	12.18		101.15	
229			26236.32				
230							
231							
232	4.46	107.50	14790.83		2066.77	1870.80	709.35
233							
234							
235				5972.89	1033.06	242.17	7.33
236				22270.41	903.31	151.53	124.79
237							
238						38.92	
239						69.44	2.27
240	1.44	10.83		4779.78	1499.64	203.00	20.08
241	0.54	2.71			1168.22		
242	1.77	765.23	41343.68				
243				17418.41			
244							
245			1457.09		2.13	177.55	0.11
IMCA	0.68	164.65	2659.47	3507.30	3652.94	393.23	91.38

Table 22 – IMCA Environmental performance indicators, 2013

Definition – Lagging Safety Statistics

In order to compile meaningful statistics, it is important that standard, consistent, well defined terms are used. For the purposes of compiling the IMCA statistics the following definitions are used:

Hours worked	<ul style="list-style-type: none"> ◆ for offshore operations – the ‘actual hours worked’, based on a 12-hour day ◆ for onshore operations – the actual hours worked, including overtime hours
Number of fatalities	the total number of employees and others who died as a result of an accident
Fatal accident rate (FAR)	number of fatalities per 100,000,000 hours worked
Number of lost time injuries (LTIs)	<p>comprises all accidental injuries (including fatalities and lost work day cases but excluding restricted work day cases) where:</p> <ul style="list-style-type: none"> ◆ a lost work day case is any work-related accidental injury other than a fatal injury which results in a person being unfit for work on the next shift/day; and ◆ a restricted workday case is any work-related injury other than a fatality or lost work day case which results in a person being unfit for full performance of a regular job on the shift/day after the injury. Work might be: <ul style="list-style-type: none"> – an assignment to a temporary job; – working in the regular job but not performing all the usual duties of the job. <p>Note: Where no meaningful restricted work is being performed, the incident should be recorded as a lost work day case.</p>
Lost time injury frequency rate (LTIFR)	<p>analysed separately as offshore, onshore and overall statistics</p> $\frac{\text{Lost time injuries} \times 1,000,000}{\text{hours worked}}$
Total recordable injury rate (TRIR)	<p>the number of injuries and/or illnesses per 100 full-time workers and is calculated as:</p> $= \frac{\text{total number of recordable injuries} \times 1,000,000}{\text{total hours worked}}$
The US Occupational Safety & Health Administration (OSHA) definition of ‘total recordable injuries’	<p><i>Work-related injuries and illnesses</i> – events or exposures in the work environment that caused or contributed to the condition or significantly aggravated a pre-existing condition.</p> <p><i>Recordable cases</i> – include work-related injuries and illnesses that result in:</p> <ul style="list-style-type: none"> ◆ death ◆ loss of consciousness ◆ days away from work ◆ restricted work activity or job transfer ◆ medical treatment (beyond first aid) ◆ significant work related injuries or illnesses that are diagnosed by a physician or other licensed health care professional. These include any work related case involving cancer, chronic irreversible disease, a fracture or cracked bone, or a punctured eardrum ◆ additional criteria that can result in a recordable case include: <ul style="list-style-type: none"> – any needlestick injury or cut from a sharp object that is contaminated with another person’s blood or other potentially infectious material – any case requiring an employee to be medically removed under the requirements of an OSHA health standard – tuberculosis infection as evidenced by a positive skin test or diagnosis by a physician or other licensed health care professional after exposure to a known case of active tuberculosis <p><i>Days away from work, days of restricted work activity or job transfer</i> are cases that involve days away from work, or days of restricted work activity or job transfer, or both</p> <ul style="list-style-type: none"> ◆ cases involving days away from work are cases requiring at least one day away from work with or without days of job transfer or restriction ◆ job transfer or restriction cases occur when, as a result of a work-related injury or illness, an employer or health care professional keeps, or recommends keeping an employee from doing the routine functions of his or her job or from working the full workday that the employee would have been scheduled to work before the injury or illness occurred. <p><i>Total recordable injury rate (TRIR)</i> – the number of injuries and/or illnesses per 100 full-time workers and is calculated as: $(N/EH) \times 200,000$ where:</p> <p>N = total number of recordable injuries and/or illnesses EH = total hours worked by all employees during the calendar year 200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year)</p> <p>Note: The primary difference between the IMCA TRIR and that of OSHA is that IMCA follows the practice of referencing recordable injuries against one million man-hours rather than 200,000 man-hours</p>

Definitions – Leading Safety Statistics

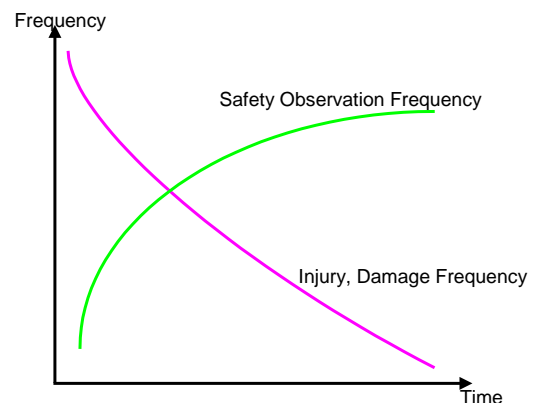
IMCA's leading performance indicators have been developed by members of the SEL Committee and have been subject to periodic update and review since their initial development in 2002. The most recent change, made in 2009, was to harmonise all the leading performance indicators with the safety observation frequency and calculate them using 200,000 man-hours. Prior to 2010, the various leading indicators were calculated with a number of different baselines.

Safety Observations Frequency Rating (SOFR)

If we are to eliminate injuries, damage or near miss incidents, we need to focus on at-risk acts and unsafe conditions, which have not yet caused loss or harm but have the potential to. Thus we need a systematic approach to observing, correcting and recording such at-risk behaviour or unsafe situations.

This is generally called safety observation (or hazard observation). The expected result is that by increasing safety observation, there would be a reduction in injuries, damage or near misses – the undesired events (see the accompanying graph).

The measure used by IMCA is based on the number of safety observation records made over the course of 12 months. The measure is directly related to operational work man-hours and as such the measure should be based on frequency. The definitions for the determination of operational work man-hours are defined in information note [IMCA SEL 38/02](#).



Since proactive worksites are expected to generate a high level of reporting (perhaps several hundred in a year), the frequency basis shall be:

$$\begin{aligned} \text{SOFR} &= \text{number of safety observations per 200,000 man-hours} \\ &= \frac{\text{number of safety observations} \times 200,000}{\text{Total man-hours}} \end{aligned}$$

Definitions

SOFR	Safety observation frequency rating
Safety observation	Report identifying at-risk behaviour, or an unsafe condition to prevent loss or harm e.g. STOP card
Observational work man-hours	for onshore operations – 'actual' hours worked, including overtime hours for offshore operations – the hours worked, based on a 12-hour exposure day

Injury Events Reporting Level

In a mature safety culture, where all injuries, damage or near misses (undesired events) get reported, regardless of their severity, it would be expected that there would be a much greater number of non-serious events for every serious event.

Ultimately we do not want any form of undesired event and those companies with low numbers of actual injuries, damage events or near miss incidents should not be penalised because they have a low number of reports per man-hours worked. In addition we need to consider the case where all events are not reported. The balance in straight numbers of events shown in the diagram below is not a fair comparison.

It may cause a degree of controversy that a leading indicator measure should be based on a series of lagging indicators but in order to demonstrate that a mature culture exists we need to assure ourselves that every undesired event is being reported. We cannot equate one company which reports everything and has suffered a certain number of injuries with another company where few injuries are reported to achieve the same number.

Thus to show an active worksite, the basis of the reporting level could be a ratio of less serious events to serious events. This can be converted to a number, which expresses the activity level from sums of 'weighted' products representing injury severity and is defined as shown below:

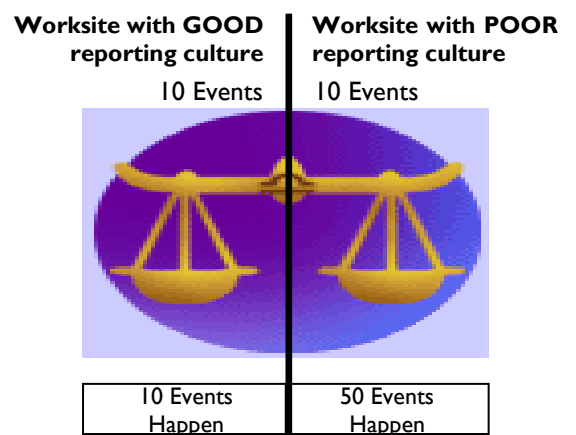
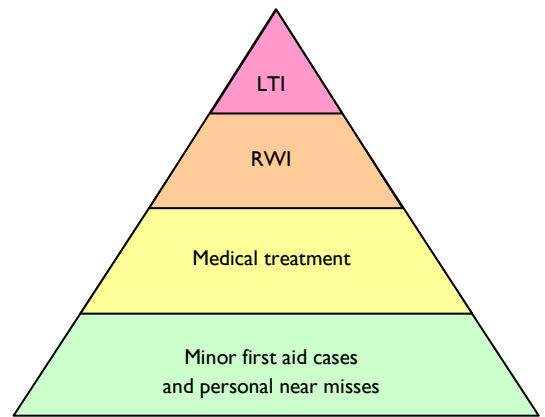
$$\text{RAL} = ((5 \times \text{FNMR}) + (20 \times \text{MTR}) + (100 \times \text{RWIR})) \text{ per } 200,000 \text{ man-hours}$$

The number of hours over which the RAL is referenced is 200,000. The definition of FNMR, MTR and RWIR remain unchanged.

Definitions

RAL	Reporting activity level
FNMR	Number of first aid injuries and personal near-miss reports
MTR	Number of medical treatment reports
RWIR	Number of restricted work injury reports
First aid injury	A one-time treatment for the purpose of dealing with minor scratches, cuts, burns, splinters etc. which do not ordinarily require medical care
Medical treatment injury	Is work related injury, which requires attention from a medical practitioner (not necessarily a doctor) but does not result in either a lost time injury or a restricted work injury
Restricted work injury	Is a work related injury, which causes the injured person to be assigned to another job on a temporary basis or to work at his normal job less than full time or not necessarily undertaking all of the normal duties
Lost time injury (LTI)	A work related injury which causes the injured person to be absent from work for at least one normal shift* after the event because he is unfit to perform any duties

* This should take into account travel time in attending the doctor to assess the injury



Line Management Visits Rating (MVR)

Line managers have overall accountability for the safety of people and the protection of equipment on their worksites. They are responsible for ensuring a safe system of work but are equally responsible for listening to people's concerns with regard to safety and to then act on them. It is also accepted that managerial leadership in demonstrating their interest and involvement in issues is a key factor in improving general behavioural aspects.

Thus a measure of a proactive safety culture is seen to be adequate qualitative visits by relevant managers to their operational worksites. The measure should not only be related to the operational man-hours expended on the site but should also link to management focus on serious undesired events. After all, sites where serious undesired events happen, should expect a higher number of visits to correct such situations.

Thus the measure proposed is:

$$\text{MVR} = \text{number of managerial visits per } 200,000 \text{ man-hours}$$

Criteria

- ◆ The visiting manager has commercial or production responsibility for the company (e.g. Managing Director);
- ◆ The visiting manager is directly responsible for the conduct of the project (e.g. Project Manager).
- ◆ The visiting manager is directly responsible for the operational or service support activities of the particular offshore barge or ship (e.g. Operations Manager);
- ◆ The visiting manager has responsibility for health, safety and environmental processes or other key process within the company;
- ◆ The visits should be made offshore during operational activities and be of at least 24 hours' duration;
- ◆ The visit must include a safety briefing or presentation to the majority of the offshore people;
- ◆ The visit may also involve the manager making a safety performance check of the site with the people who manage or supervise the activities.

Definitions

MVR
MV

Managerial visit rating

Managerial visits may be counted if the managers meet the criteria provided below. The visits should be made offshore during operational activities and be of at least 24 hours' duration. (Management visits during port visits are seen as routine.) The visit must include a safety briefing or presentation to the majority of the offshore people. It may also involve the manager making a safety performance check of the site with the people who manage or supervise the activities

Lessons Learnt Rating (LLR)

As a result of reporting undesired events, accident investigations, findings from managerial visits and inspection/audits, actions will be identified to improve safety performance. Sites where safety is given high priority or focus will be keen to see such events closed within a reasonable timescale and to pass on the lesson to others.

The lessons learnt from a series of similar events or from a more serious injury or near miss is usually notified to other worksites via a safety bulletin or safety flash. A simple measure of activity is therefore the number of bulletins issued. To be included in the IMCA leading safety performance indicator, the bulletin must have been issued to IMCA. IMCA safety flashes covering more than one subject count as a single bulletin. The lessons learnt rating is defined as:

LLR = number of bulletins issued per 200,000 man-hours

Definitions

LLR Lessons learnt rating