Safety Statistics for IMCA Members
Report for the Period 1 January–31 December 2011

Contents

1 Introduction

IMCA produces an annual report of safety statistics (covering fatalities and injuries) supplied by members. This information note reports detailed annual statistics for 2011. A short executive summary of the figures for 2011 is available as information note IMCA SEL 04/12.

Safety 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 performance of IMCA contractor members each year and to enable IMCA members to benchmark their performance. Statistics were provided by 195 companies and organisations, representing around 60% of the marine contractor membership. Fifty-five companies and organisations took part for the first time. IMCA would like to thank all those who took part in this important annual benchmarking exercise.

2 What's New

For this year IMCA has collected data using a new Excel template which separates out lagging indicators, leading indicators and near misses. Also, we have collected information on high potential near misses, i.e. near misses that in other circumstances might have resulted in fatalities – see section 5.

3 Executive Summary

Overall lost time injury frequency rate (overall LTIFR)	**0.64**	(0.73)
Overall number of lost time injuries	**370**	(393)
Overall total recordable injury rate (TRIR)	**2.40**	(2.74)
Overall fatal accident rate (FAR)	**0.51**	(1.28)
Offshore lost time injury frequency rate (offshore LTIFR)	**0.71**	(0.86)
Offshore fatal accident rate (FAR)	**0.70**	(1.29)
Offshore total recordable injury rate (TRIR)	**2.63**	(3.19)
Onshore lost time injury frequency rate (onshore LTIFR)	**0.44**	(0.43)
Onshore total recordable injury rate (TRIR)	**1.76**	(1.64)

Table 1 – Summary of IMCA safety statistics for 2011 (last year's figures in brackets)

The 2011 dataset is drawn from 195 IMCA contractor members, based upon 583 million man-hours of work overall (431 million man-hours offshore).

Onshore data was provided by 163 of 195 companies (84%).

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). Further details of the results published by these organisations can be found in section 10.

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. Members should also note that the data recorded here, though broadly representative of marine contractors, is the combined safety statistics only of the 195 contractor members who actually took part. It should be recalled that these statistics necessarily will not capture all the incidents, including fatalities, which may have taken place within the marine contracting industry during 2011. IMCA continues 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 as a separate appendix (Appendix 1). 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 fifteen years have been as follows:

	Overall								Offshore					Onshore			
	Contractors	Million hours worked	LTIs	LTIFR	Fatalities	Fatal Accident Rate	Recordable injuries	TRIR	Million hours worked	LTIs	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	5.42	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	4.14	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	4.38	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	341	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	340	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	328	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**	**303**	**0.71**	**0.70**	**1133**	**2.63**	**152**	**0.44**	**0.00**	**1.76**

Table 2 – Summary of IMCA safety statistics 1997-2011

3.1 Definitions

Full definitions of the leading and lagging indicators calculated from statistics collected from IMCA members can be found in full at Appendix 2 and Appendix 3. 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 man-hours for lagging indicators (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). This is to maintain like-for-like comparison with the other main trade associations, including OGP.

4 Distribution of Contributors

4.1 By Geographical Region

IMCA's regional sections enable members to communicate at a regional level, sharing best 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 companies who are members of IMCA and 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, rather than the actual location of operations.

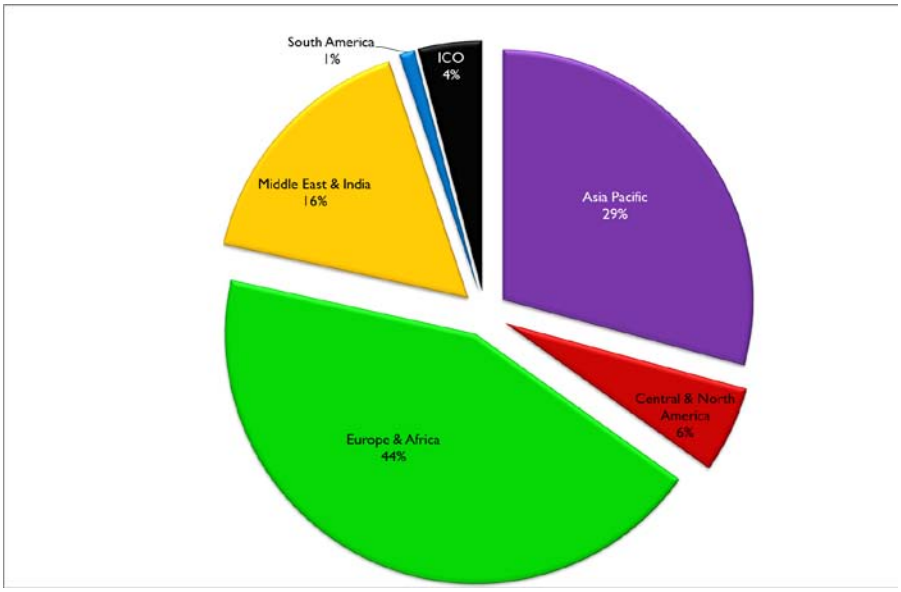


Figure 1 – Contributors by IMCA geographical region

Key: Please refer to the appendix 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)	57 (36)
Central & North America (CNA)	11 (9)
Europe & Africa (EA)	85 (78)
Middle East & India (MEI)	32 (37)
South America (SA)	2 (3)
International Contractors (ICO)	8 (9)

Table 3 – Contributors by region (last year in brackets)

	FAR	LTIFR	TRIR	FAR	LTIFR	TRIR	FAR	LTIFR	TRIR
	Offshore			Overall			Onshore		
AP	1.31	0.46	1.77	1.01	0.44	1.91	0.00	0.40	2.39
CNA	0.00	0.47	1.90	0.00	0.48	2.43	0.00	0.52	4.55
EA	0.53	0.88	2.97	0.49	0.86	2.82	0.00	0.57	1.08
MEI	0.00	0.78	3.32	0.00	0.99	3.53	0.00	2.60	5.19
SA	0.00	0.38	3.04	0.00	0.68	3.04	0.00	2.99	2.99
ICO	1.38	0.65	2.72	0.59	0.44	1.84	0.00	0.29	1.18

Table 4 – Lagging safety indicators by IMCA region

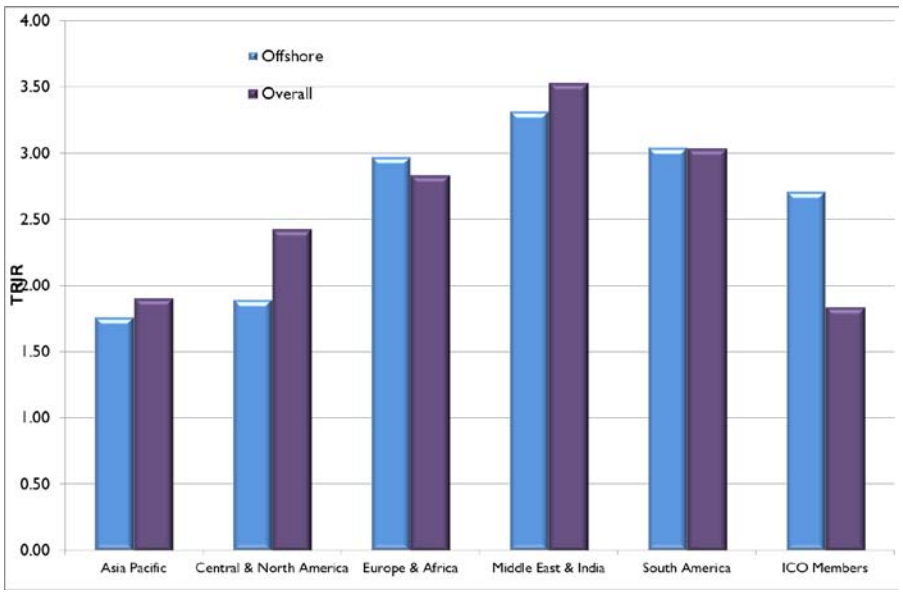


Figure 2 – Overall and offshore TRIR by region

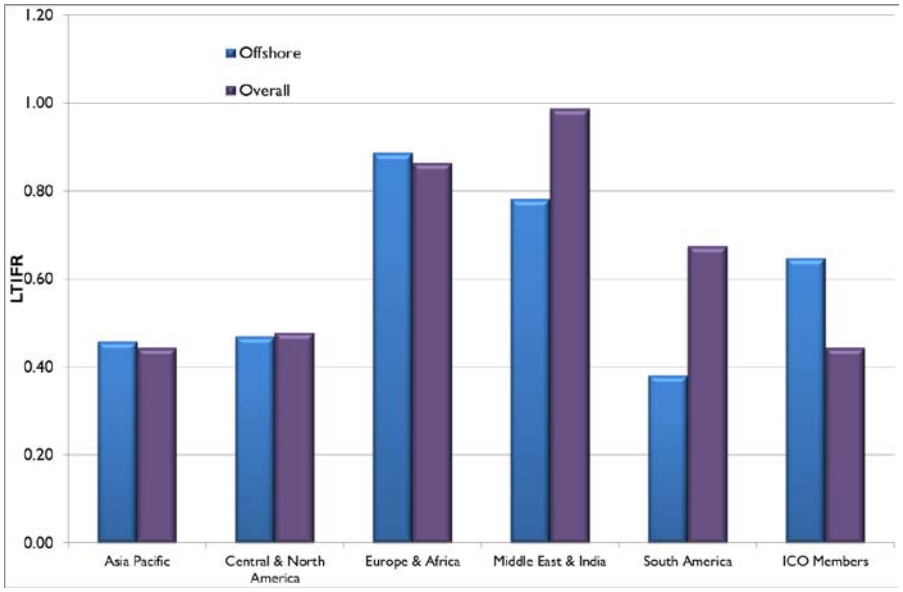


Figure 3 – Overall and offshore LTIFR by region

4.2 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.

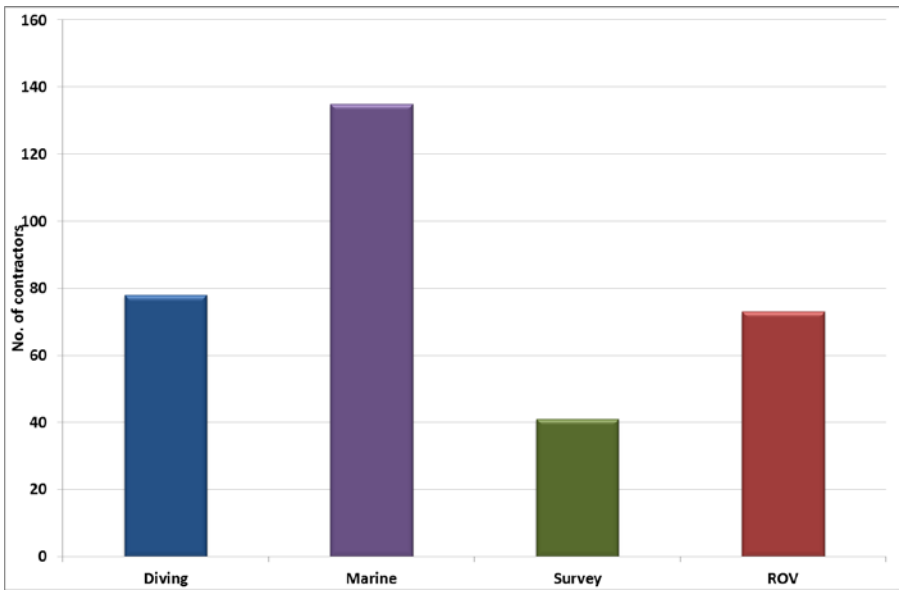


Figure 4 – Contributors by IMCA technical division

5 High Potential Near Miss Incidents

This year IMCA has asked contributors to submit information about the immediate causes (not root causes) of high potential near miss incidents. We consider high potential near miss incidents to be any incidents or near misses that could, in other circumstances, have realistically resulted in one or more fatalities. Four basic categories have been used for this first year of collecting high potential near miss information. It is understood that incidents may not fall clearly into each category and also that the fourth category can act as a 'catch-all' for near miss incidents not easily put into another category. The four categories are:

- Human factors — *Examples: At risk behaviours, failure to follow procedures, poor communication*;
- Failure of management system — *Examples: incorrect or out of date procedures, inadequate training provided*;
- Failure of plant or equipment — *Examples: equipment breakdown, power failure, poor equipment design*;
- External or other factors — *Examples: weather conditions, piracy.*

Given a clearer definition of a near miss incident, which had not been provided thus far, members have reported fewer near miss incidents than in previous years. There is still scope for improving the understanding of this definition, as some members have reported numbers of near miss incidents that could not possibly all be potential fatalities.

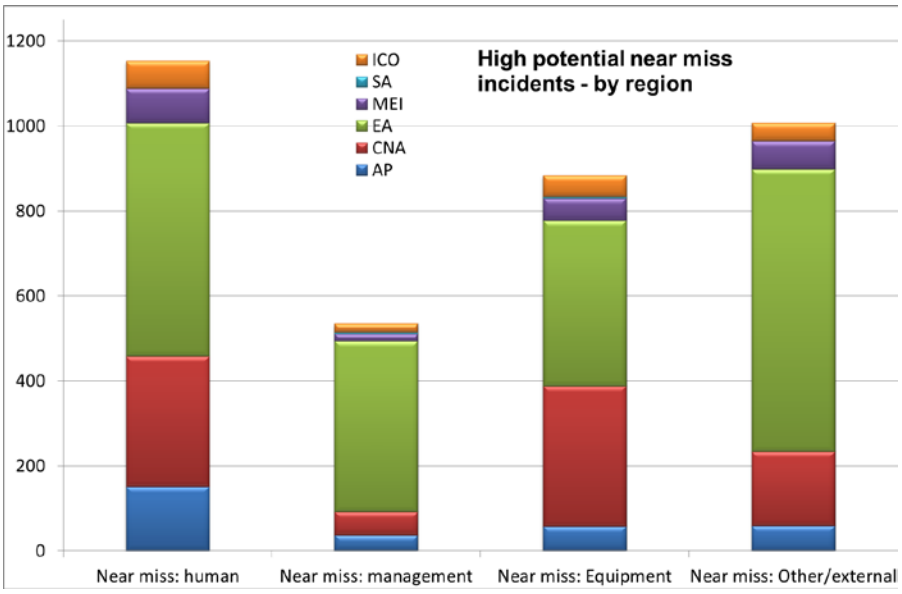


Figure 5 – High potential near miss incidents in the IMCA regions

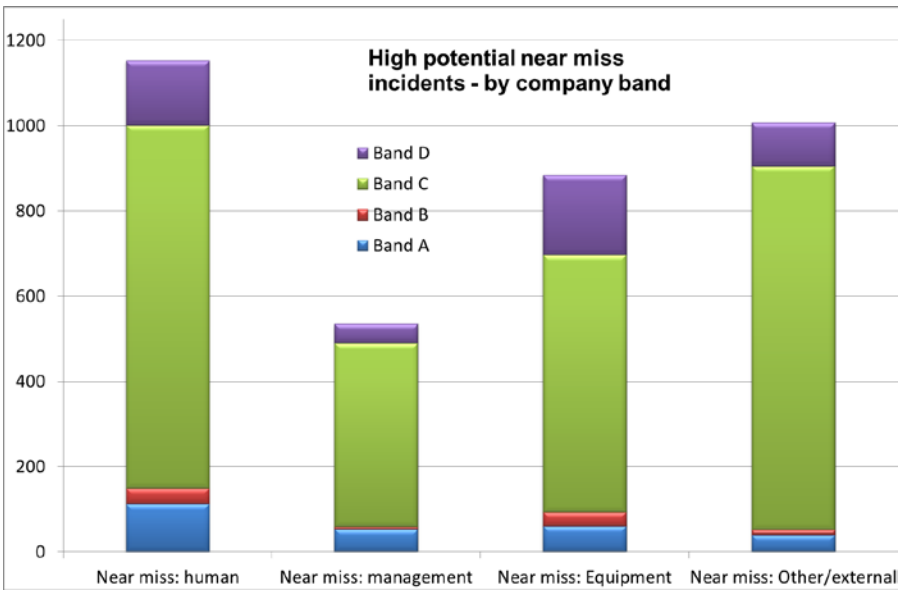


Figure 6 – High potential near miss incidents in IMCA company bands

Please refer to section 9 for a definition of company bands.

6 Lost Time Injury Frequency Rate (LTIFR)

The offshore LTIFR for 2011 has improved to 0.71 from 0.86 in 2010, and the overall LTIFR has improved slightly from 0.73 in 2010 to 0.64 this year.

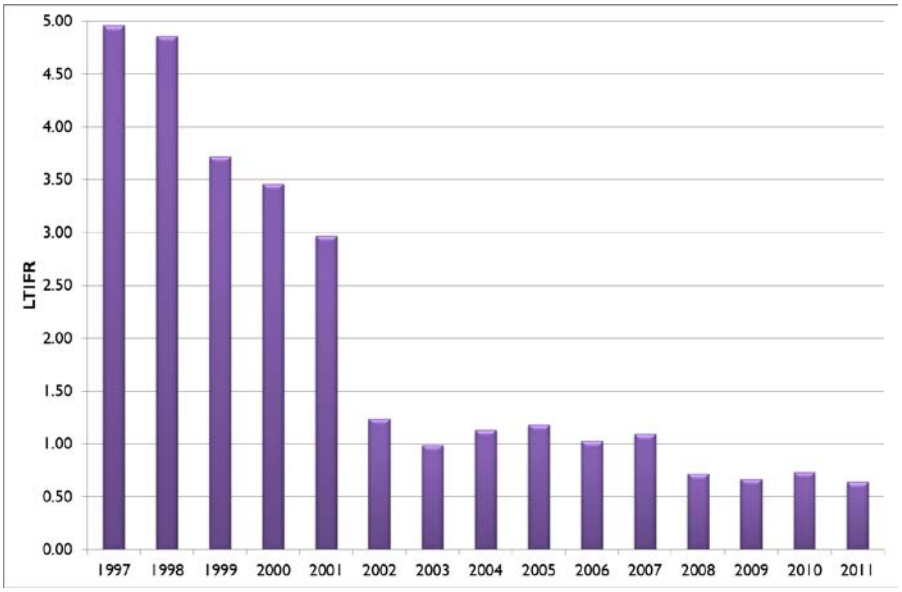


Figure 7 – Overall LTIFR

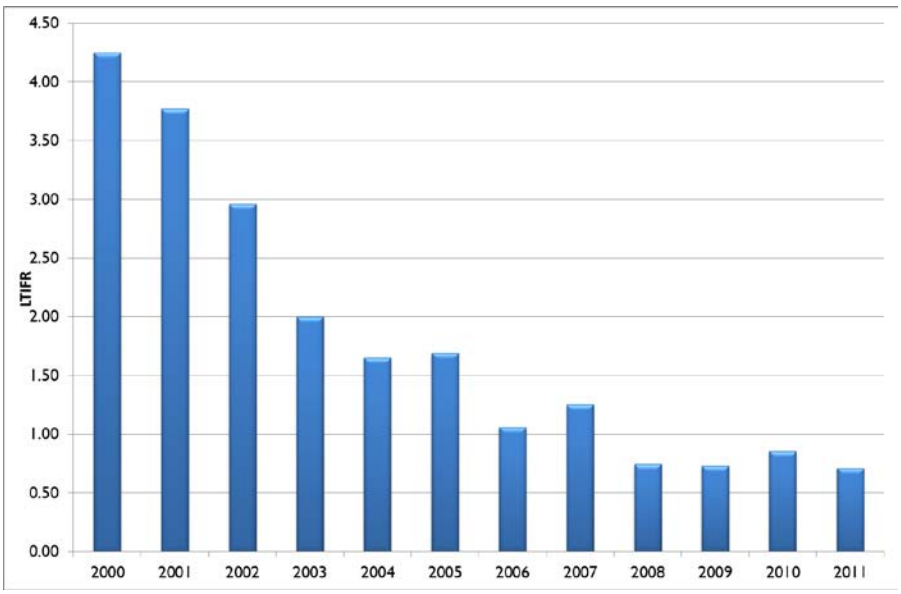


Figure 8 – Offshore LTIFR

6.1 Direct Causes of Lost Time Injuries

IMCA categorises information on the direct causes of lost time injuries into 12 categories agreed by the SEL Core Committee, as shown in Table 5.

	No of LTIs						
LTI Category	**AP**	**CNA**	**EA**	**MEI**	**SA**	**ICO**	**Total**
A) Falls from height	3	1	18	4	0	5	31
B) Falls on the same level (including slips & trips)	11	4	49	10	0	16	90
C) Struck against	4	3	12	8	0	1	28
D) Struck by moving/falling objects	5	7	36	7	1	23	79
E) Exposure to mechanical vibration	0	5	0	0	0	0	5
F) Exposure to sound	0	0	0	0	0	0	0
G) Muscle stress and repetitive movement	7	6	11	10	0	10	44
H) Contact with electricity	0	0	0	0	0	6	6
I) Contact/exposure to heat/cold	2	0	6	1	0	0	9
J) Contact/exposure with hazardous substances	0	0	6	0	0	0	6
K) Entrapment	0	0	5	4	0	9	18
L) Asphyxiation	0	0	0	0	0	0	0
M) None given	11	2	33	3	1	4	54
TOTAL	43	28	176	47	2	74	370

Table 5 – Causes of LTIs by IMCA geographical region

There were 370 lost time injuries recorded by IMCA members this year. *Falls on the same level* was the most common immediate cause of LTIs with 24% of recorded LTIs and *Struck by moving or falling objects* was the second most common direct cause of LTIs for contributors with 21% of recorded LTIs.

NB: Because only two LTIs were recorded in the South America section, the pie chart for that region is omitted.

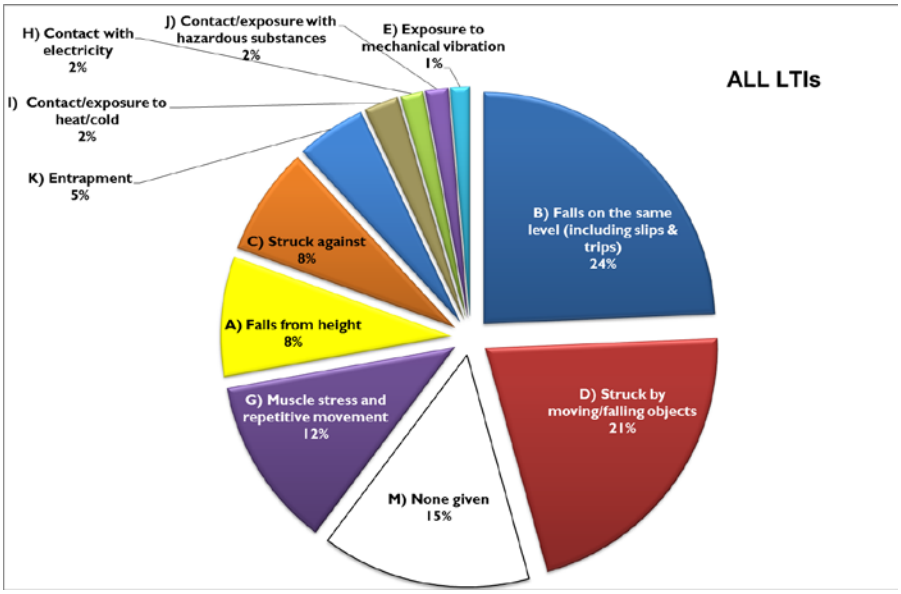


Figure 9 – Direct causes of all reported lost time injuries

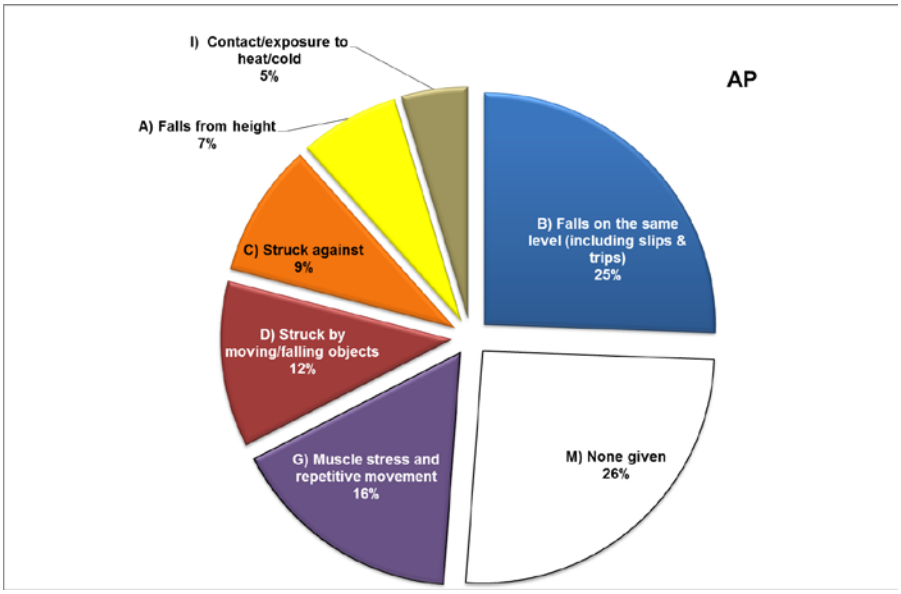


Figure 10 – Causes of LTIs in Asia Pacific region

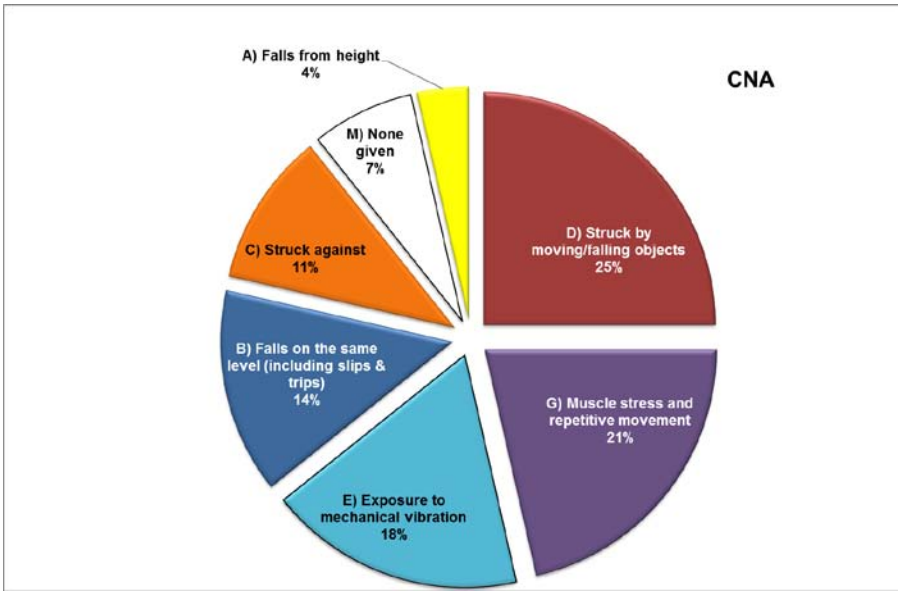


Figure 11 – Causes of LTIs in Central & North America region

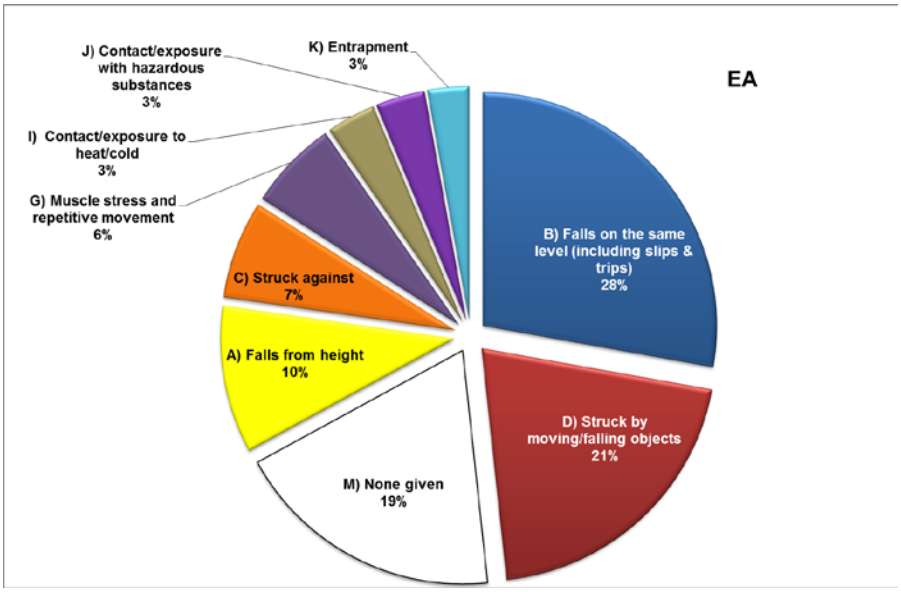


Figure 12 – Causes of LTIs in Europe & Africa region

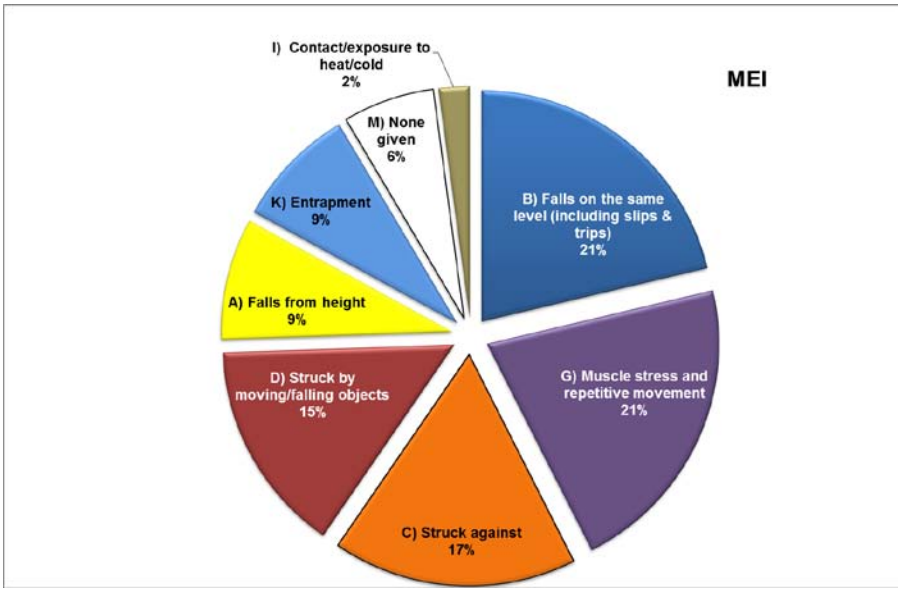


Figure 13 – Causes of LTIs in Middle East & India region

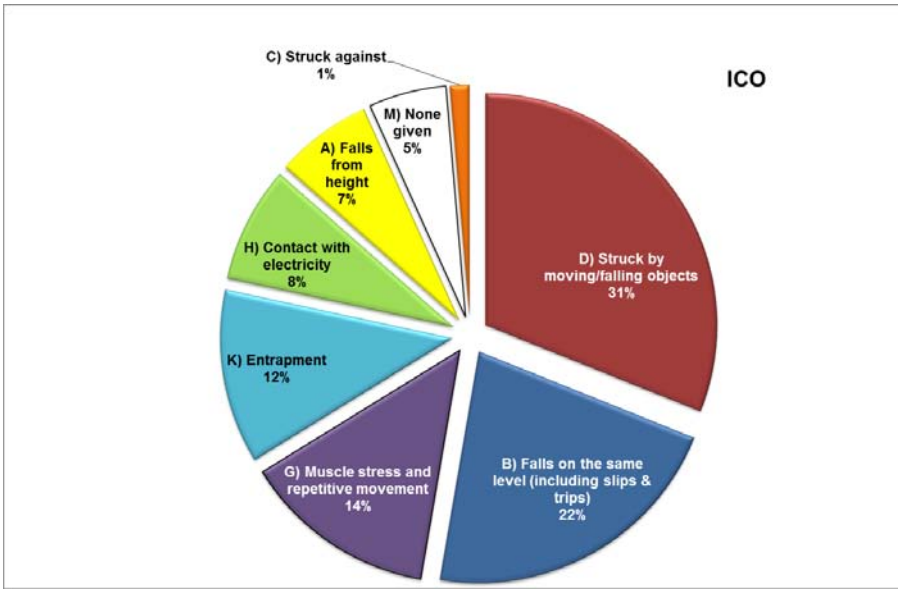


Figure 14 – Causes of LTIs amongst ICO members

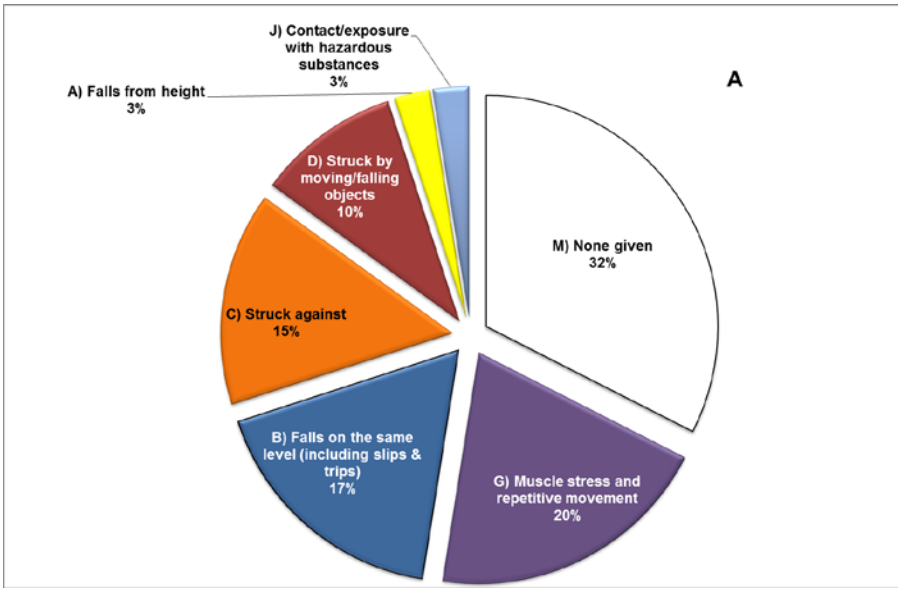


Figure 15 – Causes of LTIs in A-band members

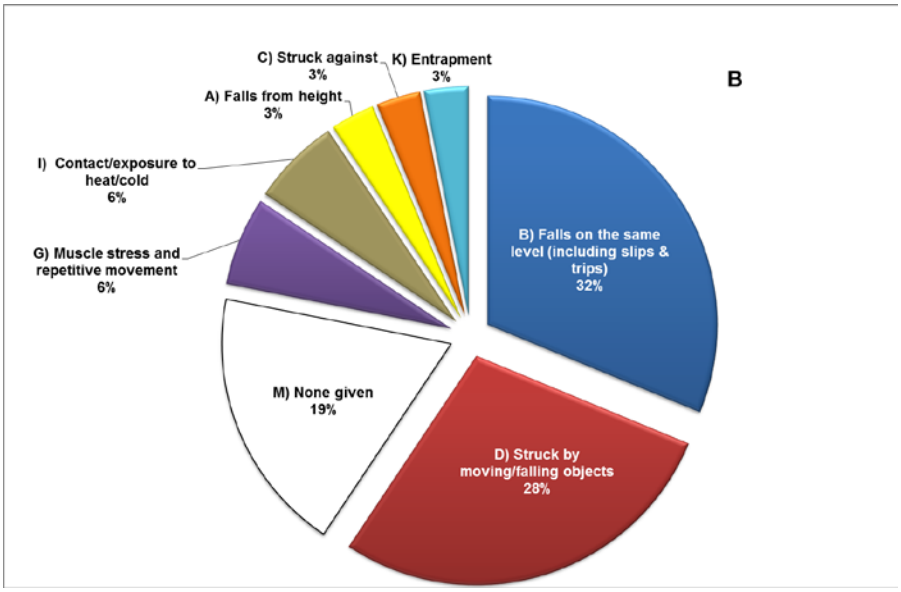


Figure 16 – Causes of LTIs in B-band members

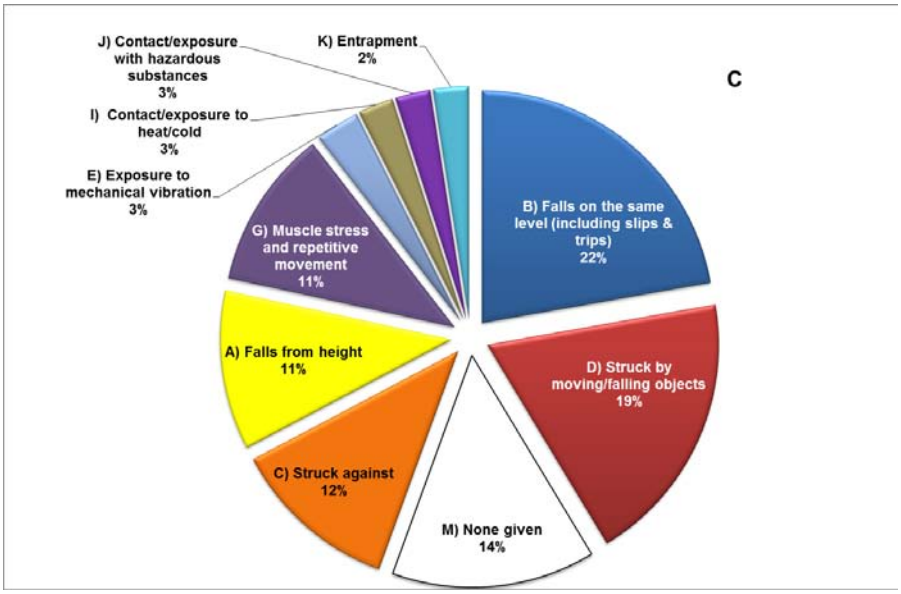


Figure 17 – Causes of LTIs in C-band members

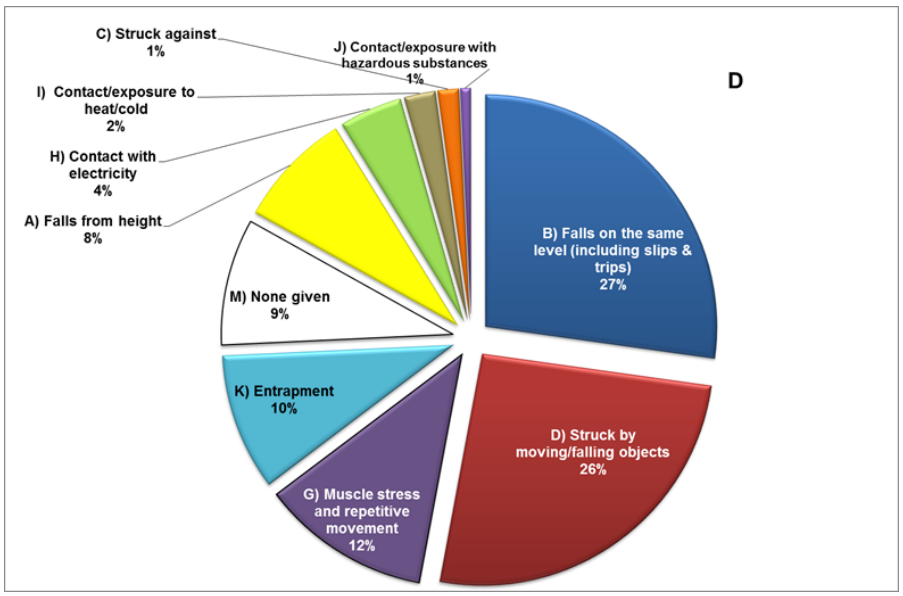


Figure 18 – Causes of LTIs in D-band members

7 Total Recordable Injury Rates (TRIR)

Total recordable injuries have been tracked for a number of years as a more reliable pointer to safety in the industry. In 2011, the offshore **TRIR** has improved to 2.63 from 3.19 in 2010. The onshore **TRIR** was 1.76, which is slightly poorer than the 2010 figure of 1.64. The overall **TRIR** was 2.41, an improvement on the 2010 figure of 2.74.

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**

Table 6 – Total recordable injury rates (TRIR) 2004-2011

- There were 542 offshore medical treatment cases reported in 2011. This is a decrease in reporting compared to 2010, when there were 610 offshore medical treatment cases reported;
- There were 285 offshore restricted work injury reports reported in 2011, compared to 317 offshore restricted work injury reports reported in 2010;
- Members reported that there were 3,077 offshore first aid cases in 2011 compared with 2,869 in 2010;
- There were 4,027 first aid cases overall during 2011, compared to 3,759 first aid cases overall during 2010.

7.1 Accident Triangles

Accident triangles can be used to demonstrate the relationship between fatalities and minor accidents.

	Overall					Offshore				
Year	First aid	RWC	Medical treatment	Lost time injuries	Fatalities	First aid	RWC	Medical treatment	Lost time injuries	Fatalities
2011	4,027	356	671	370	3	3,077	285	542	303	3
2010	3,759	378	831	393	7	2,869	317	610	328	5
2009	4,919	382	747	395	6	3,911	314	631	340	6
2008	3,877	345	745	433	7	2,991	249	581	341	5
2007	3,752	281	730	339	6	3,200	252	607	315	6
2006	2,072	190	492	226	6	1,772	171	434	196	6
2005	1,812	148	521	189	5	1,703	130	436	172	4
2004				164	3				120	2
2003				198	5				133	4

Table 7 – Accident triangle data 2003-2011

8 Fatal Accident Rate (FAR)

It should be noted when considering the fatal accident rate and the safety statistics as a whole that 40% of all IMCA contractor members chose not to take part in the safety statistics exercise. There has been considerable discussion of the importance of fully capturing all work-place fatalities, to work towards the goal of eliminating them completely. IMCA intends to work closely with its members and other trade associations to ensure that all marine contracting industry work-place fatalities are properly recorded.

IMCA members reported three offshore fatalities during 2011. 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 regarding the fatalities that have been recorded.

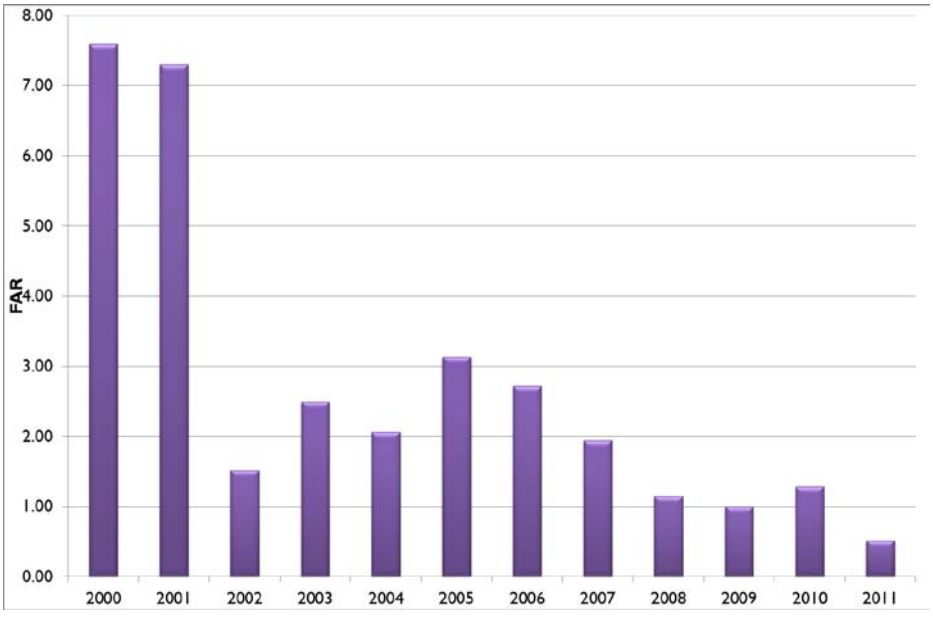


Figure 19 – Overall FAR 2000-2011

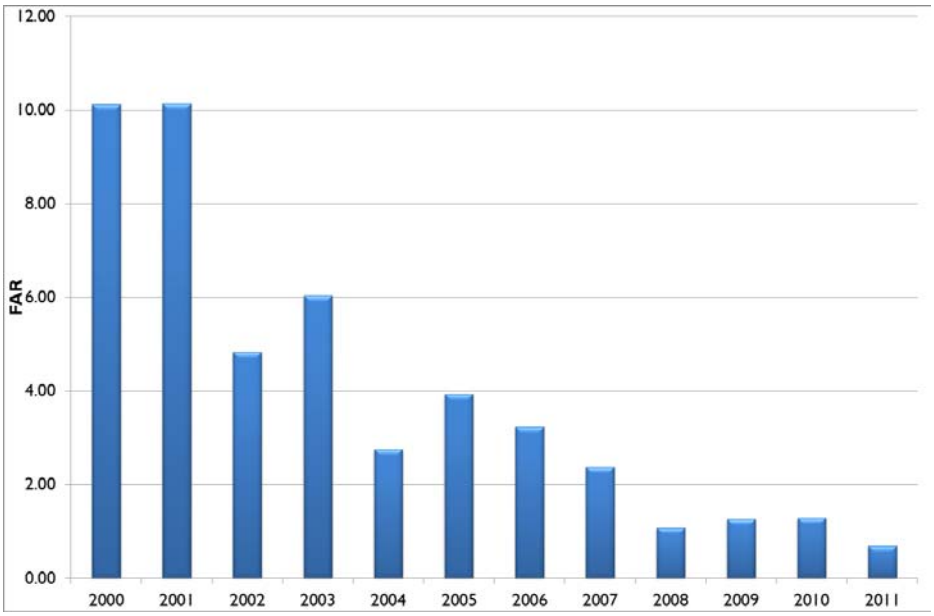


Figure 20 – Offshore FAR 2000-2011

8.1 Fatal Accident Information

The SEL Committee has suggested that basic information is collected about each fatality. This was accomplished for this year's statistics with the following results:

- During routine maintenance of a main engine, filter oil sprayed on to a hot surface and ignited. This caused an engine room fire. One of the crew did not escape from the engine room;
- Employee fell into water and drowned during transfer of personnel using workboat;
- Air diver drowned during surface swimming operation.

9 Hours Worked Banding

In order for members to identify how their company compares to others of like size, contributing contracting companies have been divided into four bands, according to their annual number of overall working hours.

A 'pareto' or '80:20' analysis of the contributed man-hours tells us that around a fifth of the companies taking part (39 of 195) in the exercise contributed 80% of the man-hours . Fifteen of the largest contributors worked half of all the contributed man-hours.

Fourteen contributors (15 last year, 18 in 2009 and 15 in 2008) worked more than ten million man-hours. Two contributors worked more than 40 million man-hours.

Banding		Companies in Band								
Band	**Hours Worked**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
A	<500,000	11	15	17	27	33	44	64	69	**74**
B	500,000-1,000,000	4	3	9	13	18	13	17	25	**27**
C	1,000,000-5,000,000	9	11	16	21	30	47	42	52	**68**
D	>5,000,000	7	7	9	13	19	25	29	26	**26**

Table 8 – Number of companies in each band

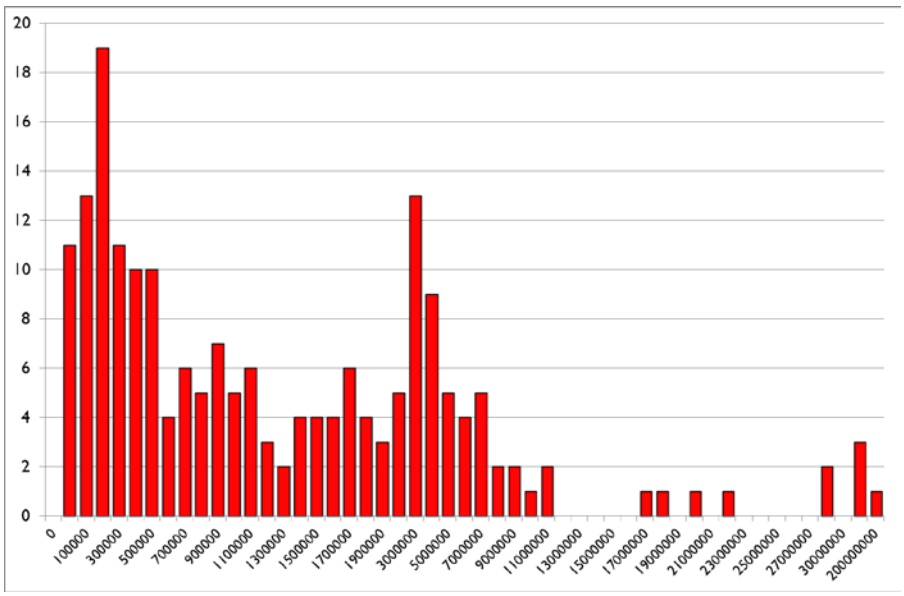


Figure 21 – Number of companies against size (overall man-hours)

9.1 Indicators and Statistics by Company Bands

	FAR	LTIFR	TRIR	LTI	TRI	Medical Treatment	RWC	First Aid	Near Miss
Offshore									
Band A	0.00	2.80	12.17	32	139	80	27	168	266
Band B	0.00	1.59	5.64	24	85	51	10	120	89
Band C	0.79	1.14	3.74	142	470	214	113	1423	2739
Band D	0.72	0.39	1.58	105	439	197	135	1366	485
Onshore									
Band A	0.00	2.13	5.58	8	21	12	1	55	20
Band B	0.00	1.68	3.98	8	19	11	0	76	13
Band C	0.00	0.91	2.69	20	59	24	15	173	109
Band D	0.00	0.26	1.38	31	168	82	55	646	274
Overall									
Band A	0.00	2.63	10.54	40	160	92	28	223	286
Band B	0.00	1.61	5.24	32	104	62	10	196	102
Band C	0.68	1.10	3.58	162	529	238	128	1596	2848
Band D	0.50	0.35	1.52	136	607	279	190	2012	759

Table 9 – Lagging indicators and statistics by company band 2011

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

	Safety Obs	SOFR	Management Visits	RAL	MVR	Safety Bulletins	LLR
Band A	16,244	220.70	1,056	97.35	14.35	1,057	14.36
Band B	16,185	160.55	1,266	36.40	12.56	319	3.16
Band C	281,795	385.60	7,082	54.35	9.69	1,135	1.55
Band D	452,305	227.85	7,375	19.36	3.72	1,030	0.52
Total/IMCA	**766,529**	**265.20**	**16,779**	**30.79**	**5.81**	**3,541**	**1.23**

Table 10 – Leading indicators and statistics by company band 2011

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

9.2 Overall LTIFR and TRIR in Company Bands

Table 11 shows the overall LTIFR and TRIR of companies within the defined bands of number of hours worked.

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
LTIFR	Band A	8.91	5.14	3.88	3.87	2.85	2.64	2.21	3.29	2.14	3.36	**2.63**
	Band B	3.13	5.15	0.96	2.71	3.07	2.02	1.34	1.62	1.39	1.24	**1.55**
	Band C	4.37	1.75	0.92	1.65	1.59	1.37	1.44	1.19	1.42	1.02	**1.10**
	Band D	2.15	1.10	0.87	1.53	0.83	0.74	0.94	0.56	0.44	0.52	**0.35**
TRIR	Band A					11.0	10.16	11.74	9.76	6.86	11.81	**10.54**
	Band B					11.3	8.29	7.86	6.29	4.86	5.13	**5.04**
	Band C					6.02	5.08	6.07	3.79	4.66	3.62	**3.58**
	Band D					4.57	3.19	3.42	2.02	1.91	2.01	**1.52**

Table 11 – Overall LTIFR and TRIR by company band

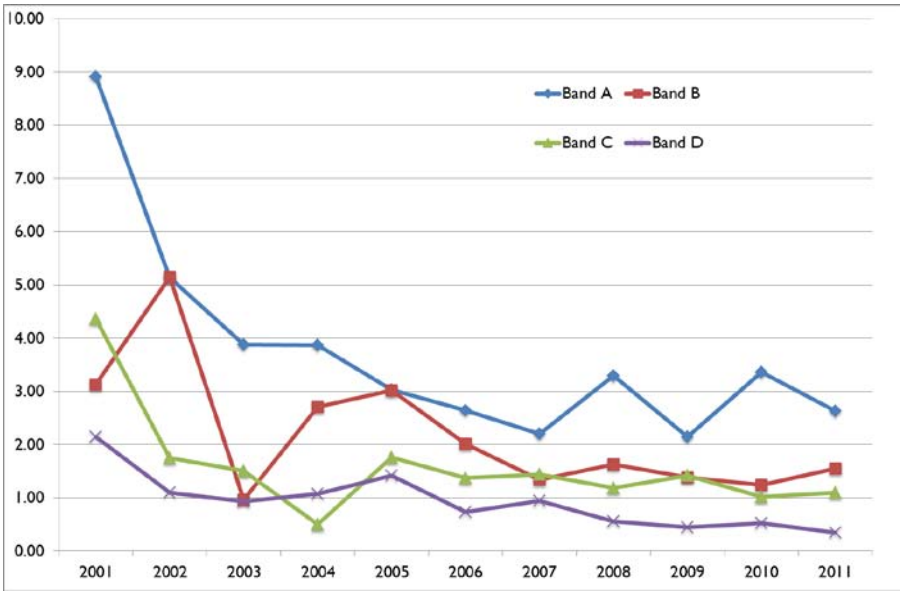


Figure 22 – Overall LTIFR for company bands

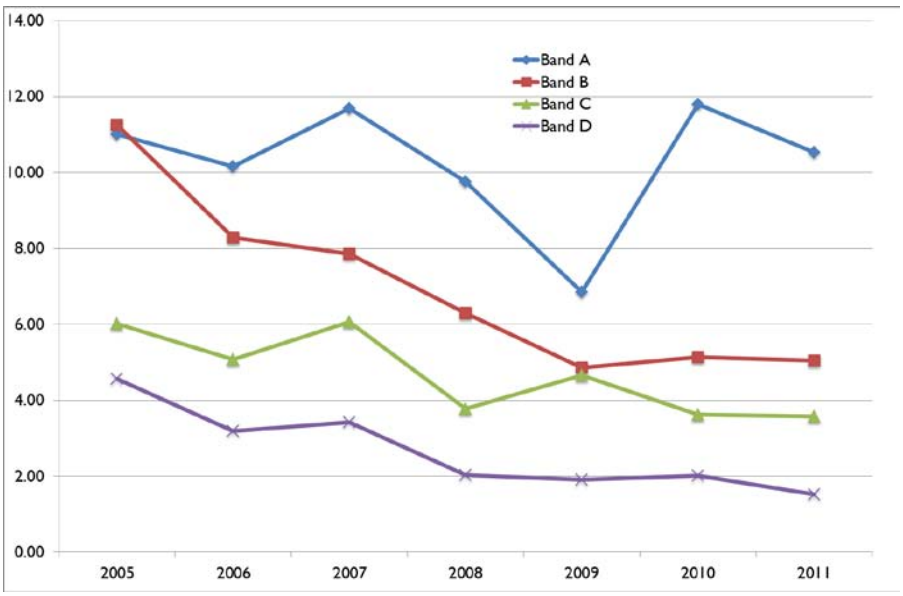


Figure 23 – Overall TRIR for company bands

10 Comparison with Other Published Figures

Comparison of Overall Total Recordable Injury Frequency Rates (TRIR) between Trade Associations							
	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
IMCA	5.41	4.14	4.38	2.50	2.54	2.74	2.40
OGP	3.05	2.92	2.68	2.08	1.75	1.68	1.76
IADC	11.71	10.85	10.24	9.11	6.12	6.55	5.81*

(*4th quarter only)

Table 12 – Comparison of trade association TRIR

10.1 International Association of Drilling Contractors (IADC) – 2010

IADC represents offshore and onshore drilling contractors. In 2010 IADC members reported 1,600 recordable injuries (of which 146 were offshore), 451 lost time injuries of which 31 were offshore, and 22 fatalities of which 9 were offshore. Based on offshore hours of approximately 34 million man-hours and on a base figure of one million man-hours rather than 200,000, this equates to an offshore TRIR of 4.29 and LTIFR of 0.91.

Further detailed information on the IADC's 2010 statistics can be downloaded from http://www.iadc.org/iadc-hse/2010-asp-report-index/. Full 2011 data was not available at the time of publication.

10.2 International Association of Oil & Gas Producers (OGP) – 2011

In 2011 OGP members recorded an overall TRIR of 1.76. The overall LTIFR was 0.43. OGP members recorded 65 fatalities – an overall (onshore and offshore) fatal accident rate of 1.88. This information is based on 3456 million man-hours of work.

The offshore TRIR recorded by OGP members was 2.84; the offshore LTIFR was 0.74 and the offshore FAR 1.03, based upon 776 million man-hours of offshore work.

11 Leading Performance Indicators

11.1 Overall

This is the ninth year for which IMCA has collected leading performance indicator data. Table 13 shows how the leading performance indicators have changed over 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**

Table 13 – Leading performance indicators 2003-2011

	SOFR	RAL	MVR	LLR
AP	**274.09**	**22.78**	**6.03**	**1.89**
CNA	**432.32**	**49.71**	**6.95**	**1.61**
EA	**225.22**	**35.84**	**6.31**	**1.46**
MEI	**220.08**	**31.14**	**7.27**	**1.93**
NA	**56.17**	**28.36**	**5.60**	**2.16**
ICO	**267.04**	**22.60**	**4.26**	**0.21**
IMCA	**265.30**	**30.79**	**5.81**	**1.23**

Table 14 – Leading safety indicators (overall) by region, 2011

11.2 Safety Observation Frequency Rate (SOFR)

Safety observations are defined as reports identifying at-risk behaviour, unsafe conditions or similar, e.g. STOP cards. There is still very wide variation in reporting levels and in the safety observation frequency rate thus calculated, which varies over four orders of magnitude, from 0.58 to 5,984. We continue to see widely variant interpretations of the definition of a 'safety observation', although analysis of the data shows that the average rate of observations per person offshore (based on a rough estimate of 2,000 hours worked in a year) is 3, with a maximum of 60 observations per person in 2011. 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	12044	1686.72	51	2307	47.57	101	184	40.18	151	238	94.26
2			52	2	6.33	102	3438	595.35	152	325	390.25
3	98	124.48	53	7289	199.67	103	12780	391.68	153	478	2473.74
4	880	85.98	54			104	242	1.78	154	133	128.36
5	2164	215.67	55	6089	1334.96	105			155		
6	7342	900.77	56	2483	312.39	106			156	14008	2263.11
7	430	536.31	57	1070	718.37	107	14400	546.44	157	25	70.97
8	44	48.40	58	637	149.36	108			158	2797	331.63
9	33814	5984.06	59	23	3.24	109	290	25.03	159	458	493.02
10	1138	515.88	60	46	18.41	110	148	0.96	160	97	291.12
11	1624	2181.04	61	744	50.49	111	87554	318.32	161	34	6.76
12	2646	146.85	62			112	10753	672.22	162	534	303.79
13	18	5.05	63	268	25.32	113	20	50.17	163	1	5.25
14	0	0.00	64			114	12479	2163.05	164	10	82.96
15	13654	252.26	65	237	181.59	115	70	12.94	165	216	31.03
16			66	21	14.18	116	953	115.16	166	10052	1031.61
17	7	19.44	67	18691	107.46	117	3034	567.18	167	47	10.89
18	759	52.73	68	104	19.57	118	2081	271.08	168	371	233.41
19	19	39.26	69	18	5.23	119	160	105.67	169	59	15.93
20	334	141.93	70	42	45.48	120	124	13.18	170		
21			71	12	25.60	121	17	12.28	171	89	18.91
22	2720	284.87	72	352	196.48	122	4000	116.02	172	38	30.87
23	850	49.33	73	4	1.68	123	106	10.66	173	6	8.28
24			74			124	4	35.65	174	803	122.83
25	475	112.05	75	200	100.37	125	246	211.06	175	4068	165.76
26	104	421.16	76	1965	1016.45	126	28	3.47	176		0.00
27			77	336	22.15	127	29140	299.46	177	8942	537.77
28	2200	43.03	78	2953	307.07	128	803	63.43	178	8354	60.67
29	69	8.93	79	564	133.46	129			179		
30	759	338.84	80	20	3.88	130	3108	359.08	180	3277	432.86
31	2128	440.13	81	76	181.18	131	10	1.86	181	10	17.45
32	4	2.23	82	56	5.89	132	60	17.60	182	758	42.89
33	40	4.70	83	24	27.19	133			183	780	833.95
34	50	70.18	84			134	421	99.60	184		
35	155	484.04	85	36128	1470.19	135	35494	1725.25	185	45301	1417.80
36	8802	639.06	86	401	43.64	136	1829	814.32	186	9	6.51
37	746	91.41	87	699	221.58	137	5250	155.58	187	2	1.00
38	44909	280.39	88	133	75.65	138	4998	233.62	188	893	221.82
39	2196	202.12	89	329	14.49	139	10	22.33	189	4609	104.00
40	1422	519.25	90	30	12.66	140			190	90	157.42
41	16824	155.50	91	586	98.67	141	10	2.53	191	254	59.12
42	2395	140.44	92	46067	573.74	142	2557	224.12	192	2484	66.08
43	37	44.43	93	158	69.89	143	40339	958.55	193	4	6.38
44	27487	1510.41	94	25686	1008.18	144	566	209.42	194	670	509.97
45	7593	284.85	95	12074	951.56	145	147	137.45	195	2858	195.82
46	20	32.68	96	25	91.07	146	52	0.58	**IMCA**	**766529**	**265.20**
47	41	51.27	97	1145	247.61	147	21	11.69			
48	8	351.80	98	477	322.53	148	8	2.37			
49	1679	52.24	99	15	6.40	149	3	79.87			
50			100	2950	340.78	150	146	53.86			

Table 15 – Safety observation frequency rate (SOFR) 2011

11.3 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.

Reporting activity level (RAL) = ((5 x FNMR) + (20 x MTR) + (100 x 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	Med trt	RWP	First Aid	Near Miss	RAL	Co	Med trt	RWP	First Aid	Near Miss	RAL
1	0	0	9	0	6.30	99	2	0	0	3	23.46
2	3	1	1	0	41.35	100	3	5	23	2	79.13
3	0	3	0	8	431.86	101	6	1	10	5	64.41
4	0	2	69	0	53.25	102	0	0	5	2	6.06
5	7	1	17	0	32.39	103	7	1	77	2	19.46
6	2	0	5	1	8.59	104	1	1	1	16	1.51
7	3	2	22	1	467.71	105	20	16	120	19	148.27
8	0	0	0	3	16.50	106	0	1	0	0	415.94
9	4	2	0	2	51.32	107	2	9	21	8	41.17
10	0	0	0	2	4.53	108	0	0	1	0	21.16
11	0	0	1	3	26.86	109	20	0	13	37	56.10
12	2	3	17	0	23.59	110	7	2	14	17	3.22
13	4	1	4	10	70.17	111	22	29	174	329	21.29
14	0	0	0	10	117.79	112	1	0	3	16	7.19
15	2	18	95	4	43.14	113	0	0	1	0	12.54
16	0	0	0	0	0.00	114	5	4	14	2	100.53
17	1	0	0	0	55.54	115	0	0	0	1	0.92
18	7	5	4	8	48.63	116	2	7	20	4	103.92
19	1	0	3	19	268.65	117	2	1	0	1	27.11
20	0	0	0	5	10.62	118	0	0	0	0	0.00
21	2	1	9	0	17.23	119	12	5	2	44	640.64
22	2	1	11	9	25.14	120	0	0	1	5	3.19
23	16	0	131	0	56.58	121	3	1	2	3	133.68
24	4	0	1	0	62.06	122	14	6	45	8	33.21
25	1	0	3	2	10.62	123	0	0	3	7	5.03
26	0	0	0	5	101.24	124	0	0	0	0	0.00
27	0	0	2	2	44.59	125	0	0	5	0	21.45
28	2	0	16	0	2.35	126	4	0	4	3	14.25
29	4	1	5	6	30.41	127	31	30	215	19	49.22
30	9	3	14	0	245.54	128	1	0	38	4	18.17
31	0	0	4	1	5.17	129	9	5	33	0	157.45
32	1	1	2	0	72.47	130	0	5	22	454	332.74
33	0	2	2	0	24.65	131	3	2	47	742	780.58
34	1	2	3	5	364.96	132	0	0	0	4	5.87
35	0	0	0	0	0.00	133	4	0	0	0	9.13
36	1	1	15	9	17.42	134	8	2	3	4	93.45
37	3	0	2	10	14.70	135	8	3	22	28	34.51
38	44	25	256	21	29.75	136	0	0	0	0	0.00
39	5	4	77	4	83.30	137	11	10	91	2	49.94
40	3	1	4	2	69.38	138	2	0	11	0	4.44
41	15	8	91	118	19.83	139	0	0	0	0	0.00
42	1	2	8	29	23.75	140	3	1	0	0	17.65
43	0	0	0	39	234.14	141	0	0	0	0	0.00
44	4	1	16	47	27.20	142	1	0	11	32	20.60
45	1	0	6	2	2.25	143	9	2	25	28	15.33
46	0	0	2	2	32.68	144	0	0	0	0	0.00
47	0	0	0	3	18.76	145	1	0	2	3	42.08
48	1	2	0	2	10,114.34	146	2	0	35	0	2.41
49	5	2	16	0	11.82	147	5	1	7	0	130.86
50	1	4	8	0	55.37	148	0	0	0	5	7.41
51	11	8	22	52	28.66	149	0	0	0	0	0.00
52	0	0	0	1	15.82	150	3	1	0	10	77.47
53	5	1	4	20	8.77	151	0	0	1	14	29.70
54	1	1	5	0	226.79	152	0	1	1	4	150.10
55	2	0	6	5	20.83	153	3	0	0	0	310.51
56	2	0	20	4	20.13	154	3	0	40	0	250.94
57	7	0	3	1	107.42	155	1	0	2	0	282.81

Co	Med trt	RWP	First Aid	Near Miss	RAL
58	0	0	1	5	7.03
59	1	0	5	1	7.05
60	0	1	1	4	50.01
61	2	0	0	11	6.45
62	3	2	16	0	52.92
63	4	2	11	0	31.65
64	0	0	1	0	1.72
65	0	0	0	14	53.63
66	0	0	2	1	10.13
67	23	13	310	3	19.12
68	0	0	0	123	115.75
69	16	0	97	4	239.79
70	1	0	0	3	37.90
71	2	0	4	9	224.01
72	2	2	5	1	150.71
73	1	1	1	4	60.74
74	4	2	36	0	29.09
75	2	0	0	1	22.58
76	3	0	0	2	36.21
77	1	2	16	6	21.76
78	6	4	75	13	99.83
79	1	0	4	9	20.11
80	4	0	54	0	67.97
81	0	0	1	1	23.84
82	0	0	24	0	12.62
83	0	0	6	7	73.64
84	0	0	0	0	0.00
85	9	9	174	383	157.28
86	7	0	6	4	20.68
87	1	1	7	6	58.64
88	0	0	0	1	2.84
89	8	4	33	4	32.82
90	1	0	9	0	27.44
91	4	3	20	15	93.45
92	8	8	158	58	25.41
93	7	0	3	0	68.56
94	14	0	104	0	31.40
95	4	2	18	2	29.95
96	0	0	1	29	546.45
97	0	0	1	1	2.16
98	3	0	1	16	98.05
156	1	0	27	8	31.50
157	0	0	0	0	0.00
158	2	0	19	9	21.34
159	0	0	0	3	16.15
160	0	0	0	0	0.00
161	0	0	13	0	12.93
162	1	0	4	0	22.76
163	0	0	0	0	0.00
164	0	0	0	2	82.96
165	4	1	29	10	53.88
166	2	3	11	1	41.05
167	4	0	9	3	32.44
168	0	0	4	0	12.58
169	1	1	2	0	35.09
170	5	3	49	0	110.18
171	0	0	20	0	21.25
172	0	0	2	2	16.25
173	0	1	0	2	151.78
174	0	1	5	1	19.89
175	2	1	28	4	12.22
176	3	0	41	6	39.41
177	5	2	39	8	32.17
178	15	4	137	25	10.97
179	0	0	10	0	57.95
180	0	0	0	0	0.00
181	0	0	0	1	8.73
182	5	8	22	758	271.60
183	5	0	1	0	112.26
184	3	0	10	2	35.44
185	18	10	53	11	52.58
186	0	0	0	0	0.00
187	3	0	4	6	54.92
188	0	1	3	3	32.29
189	1	3	13	0	8.69
190	2	0	8	2	157.42
191	2	0	4	1	15.13
192	8	0	30	0	8.25
193	1	0	1	2	55.86
194	0	0	34	8	159.84
195	0	0	8	9	5.82
IMCA	**666**	**356**	**4021**	**3992**	**30.79**

Table 16 – Reporting activity level (RAL) 2011

11.4 Management Visit Ratio (MVR)

Management visit ratio (MVR) = number of managerial visits per **200,000** man-hours.

Management visit data from five contractors has been omitted as possible errors causing erroneous results.

Co	M/visits	MVR	Co	M/visits	MVR	Co	M/visits	MVR	Co	M/visits	MVR
1	5	0.70	51		0.00	101	14	3.06	151	96	38.02
2		0.00	52	2	6.33	102	40	6.93	152	4	4.80
3	8	10.16	53		0.00	103	190	5.82	153	8	41.40
4	295	28.82	54		0.00	104	20	0.15	154	19	18.34
5	25	2.49	55	16	3.51	105	184	10.12	155	2	18.85
6	88	10.80	56	20	2.52	106	5	20.80	156	60	9.69
7	32	39.91	57	11	7.39	107	65	2.47	157	0	0.00
8	10	11.00	58	14	3.28	108	0	0.00	158	21	2.49
9	58	10.26	59	12	1.69	109	73	6.30	159	5	5.38
10	36	16.32	60	95	38.01	110	10	0.06	160	12	36.01
11	9	12.09	61	39	2.65	111	1540	5.60	161	236	46.93
12	671	37.24	62		0.00	112	120	7.50	162	43	24.46
13	52	14.60	63		0.00	113		0.00	163	2	10.51
14	0	0.00	64		0.00	114	3	0.52	164	3	24.89
15	750	13.86	65	3	2.30	115	95	17.57	165	10	1.44
16		0.00	66	20	13.50	116	13	1.57	166	334	34.28
17	0	0.00	67	524	3.01	117	11	2.06	167	7	1.62
18	2	0.14	68	10	1.88	118	80	10.42	168	15	9.44
19	10	20.67	69	21	6.10	119	56	36.99	169	2	0.54
20	10	4.25	70	25	27.07	120	76	8.08	170		0.00
21		0.00	71	2	4.27	121	15	10.84	171	39	8.29
22	5	0.52	72	21	11.72	122	25	0.73	172	13	10.56
23		0.00	73	12	5.03	123	10	1.01	173	2	2.76
24		0.00	74		0.00	124	5	44.56	174	28	4.28
25	106	25.00	75	40	20.07	125	8	6.86	175	16	0.65
26	0	0.00	76	143	73.97	126	100	12.39	176		0.00
27	1	2.23	77	9	0.59	127	346	3.56	177	21	1.26
28	12	0.23	78	488	50.74	128	14	1.11	178	257	1.87
29	4	0.52	79	83	19.64	129	36	6.71	179		0.00
30		0.00	80	2	0.39	130	128	14.79	180	3	0.40
31	14	2.90	81	1	2.38	131	5	0.93	181	27	47.12
32	5	2.79	82	16	1.68	132		0.00	182	34	1.92
33	24	2.82	83	7	7.93	133	268	30.58	183	7	7.48
34	12	16.84	84	2	16.39	134	26	6.15	184	50	14.77
35	2	6.25	85	1470	59.82	135	452	21.97	185	246	7.70
36	57	4.14	86	7	0.76	136	53	23.60	186	0	0.00
37	58	7.11	87	18	5.71	137	140	4.15	187	7	3.49
38	763	4.76	88	12	6.83	138	58	2.71	188	45	11.18
39	29	2.67	89	286	12.60	139	5	11.17	189	14	0.32
40	20	7.30	90	25	10.55	140		0.00	190	15	26.24
41	1559	14.41	91	64	10.78	141	12	3.04	191	13	3.03
42	51	2.99	92		0.00	142	21	1.84	192	32	0.85
43	14	16.81	93	7	3.10	143	307	7.30	193	10	15.96
44	573	31.49	94	40	1.57	144	567	209.79	194	48	36.53
45	91	3.41	95	103	8.12	145	8	7.48	195	6	0.41
46	10	16.34	96	10	36.43	146	147	1.65	**IMCA**	**16779**	**5.81**
47	23	28.76	97	13	2.81	147	1	0.56			
48	3	131.93	98	32	21.64	148	7	2.07			
49	177	5.51	99	24	10.24	149	3	79.87			
50		0.00	100	175	20.22	150	7	2.58			

Table 17 – Management visit ratio (MVR) data 2011

11.5 Lessons Learnt Ratio (LLR)

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
1	0	0.00
2		0.00
3	12	15.24
4	12	1.17
5	66	6.58
6	0	0.00
7	87	108.51
8	0	0.00
9	138	24.42
10	0	0.00
11	82	110.13
12	75	4.16
13	7	1.96
14	0	0.00
15	10	0.18
16		0.00
17	4	11.11
18	0	0.00
19	12	24.80
20	200	84.99
21		0.00
22	40	4.19
23	1	0.06
24		0.00
25	39	9.20
26	23	93.14
27	0	0.00
28	3	0.06
29	16	2.07
30		0.00
31	55	11.38
32		0.00
33	6	0.70
34	12	16.84
35	1	3.12
36	28	2.03
37	55	6.74
38	5	0.03
39	6	0.55
40	0	0.00
41	10	0.09
42	0	0.00
43	3	3.60
44	46	2.53
45	45	1.69
46	0	0.00
47	21	26.26
48	0	0.00
49	8	0.25
50		0.00
51		0.00
52	0	0.00
53	30	0.82
54		0.00
55	40	8.77
56	24	3.02
57	56	37.60
58	12	2.81
59	10	1.41
60	0	0.00
61	26	1.76
62		0.00
63	31	2.93
64		0.00
65	0	0.00
66	22	14.86
67	31	0.18
68	12	2.26
69	27	7.85
70	8	8.66
71	12	25.60
72	46	25.68
73	35	14.66
74		0.00
75	100	50.18
76	80	41.38
77	7	0.46
78	27	2.81
79	1	0.24
80	0	0.00
81	0	0.00
82	14	1.47
83	0	0.00
84	0	0.00
85	43	1.75
86	10	1.09
87	2	0.63
88	2	1.14
89	0	0.00
90	8	3.38
91	31	5.22
92	218	2.72
93	14	6.19
94	34	1.33
95	0	0.00
96	21	76.50
97	0	0.00
98	0	0.00
99	3	1.28
100	66	7.62
101	0	0.00
102	5	0.87
103	129	3.95
104	6	0.04
105	13	0.72
106	0	0.00
107	100	3.79
108	0	0.00
109	8	0.69
110	8	0.05
111		0.00
112	0	0.00
113	15	37.63
114	0	0.00
115	0	0.00
116	0	0.00
117	1	0.19
118	52	6.77
119	0	0.00
120	8	0.85
121	5	3.61
122	12	0.35
123	0	0.00
124	12	106.95
125	7	6.01
126	6	0.74
127	130	1.34
128	30	2.37
129	22	4.10
130	24	2.77
131	0	0.00
132		0.00
133		0.00
134	3	0.71
135	29	1.41
136	5	2.23
137	12	0.36
138	20	0.93
139		0.00
140		0.00
141	0	0.00
142	12	1.05
143	0	0.00
144	0	0.00
145	39	36.47
146	57	0.64
147	3	1.67
148	20	5.92
149	0	0.00
150	12	4.43
151	12	4.75
152	23	27.62
153	13	67.28
154	0	0.00
155	0	0.00
156	39	6.30
157	0	0.00
158	5	0.59
159	0	0.00
160	1	3.00
161	4	0.80
162	0	0.00
163	3	15.76
164	0	0.00
165	0	0.00
166	32	3.28
167	19	4.40
168	63	39.64
169	12	3.24
170		0.00
171	14	2.97
172	0	0.00
173	0	0.00
174	0	0.00
175	18	0.73
176		0.00
177	0	0.00
178	69	0.50
179		0.00
180	5	0.66
181	0	0.00
182	12	0.68
183	4	4.28
184	4	1.18
185	0	0.00
186	0	0.00
187	3	1.50
188	0	0.00
189	49	1.11
190		0.00
191	37	8.61
192	64	1.70
193	0	0.00
194	0	0.00
195	0	0.00
IMCA	**3541**	**1.23**

Table 18 – Lessons learnt ratio (LLR) data 2011

Individual Company LTIFR and TRIR Statistics

The following tables show the important statistical rates for each of the 195 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 19 – 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
1	C	2.00	0.00	0.70	2.00	0.00	0.70
2	B	0.00	0.00	0.00	5.96	0.00	5.01
3	A	0.00	0.00	0.00	21.45	0.00	19.05
4	C	0.00	0.00	0.00	1.12	0.00	0.98
5	C	1.99		1.99	5.98		5.98
6	C	0.73	0.00	0.61	2.18	0.00	1.84
7	A	6.95	0.00	6.24	41.71	0.00	37.42
8	A	0.00	0.00	0.00	0.00	0.00	0.00
9	C	1.77	0.00	1.54	7.08	0.00	6.15
10	A	0.00	0.00	0.00	0.00	0.00	0.00
11	A	0.00		0.00	0.00		0.00
12	C	0.86	0.00	0.83	2.29	0.00	2.22
13	B	0.00	0.00	0.00	7.30	0.00	7.02
14	A	0.00	0.00	0.00	0.00	0.00	0.00
15	D	0.76	0.00	0.74	2.68	0.00	2.59
16	A	0.00	0.00	0.00	0.00	0.00	0.00
17	A	0.00	0.00	0.00	24.75	0.00	13.89
18	C	1.92	0.00	1.39	7.68	0.00	5.56
19	A	0.00		0.00	10.33		10.33
20	A	0.00	0.00	0.00	0.00	0.00	0.00
21	C	0.00	3.24	0.47	0.54	9.71	1.86
22	C	0.00	0.00	0.00	1.72	0.00	1.57
23	C	0.87		0.87	5.51		5.51
24	A	0.00		0.00	14.60		14.60
25	B	0.00	0.00	0.00	2.05	0.00	1.18
26	A	0.00	0.00	0.00	0.00	0.00	0.00
27	A	15.41	0.00	11.15	15.41	0.00	11.15
28	D	0.00	0.00	0.00	0.00	2.54	0.20
29	C	0.00	0.00	0.00	4.32	1.61	3.24
30	A	6.70		6.70	33.48		33.48
31	B	0.00	0.00	0.00	0.00	0.00	0.00
32	A	0.00	0.00	0.00	6.94	0.00	5.57
33	C	0.00	0.00	0.00	1.21	0.00	1.17
34	A	9.43	0.00	7.02	37.71	0.00	28.07
35	A	0.00	0.00	0.00	0.00	0.00	0.00
36	C	0.48	0.00	0.36	1.44	0.00	1.09
37	C	0.00	0.00	0.00	1.98	0.00	1.84
38	D	0.85	0.30	0.56	4.54	1.07	2.72
39	C	0.97	0.88	0.92	9.69	0.88	5.06

Co	Banding	Offshore LTIFR	Onshore LTIFR	Overall LTIFR	Offshore TRIR	Onshore TRIR	Overall TRIR
40	B	2.00	0.00	1.83	10.01	0.00	9.13
41	D	0.17	0.27	0.18	1.45	0.27	1.25
42	C	0.29	0.00	0.28	1.17	0.00	1.11
43	A	0.00	0.00	0.00	0.00	0.00	0.00
44	C	0.92	0.00	0.82	2.45	0.00	2.20
45	D	0.00	0.00	0.00	0.24	0.00	0.19
46	A	0.00	0.00	0.00	0.00	0.00	0.00
47	A	0.00	0.00	0.00	0.00	0.00	0.00
48	A	0.00	0.00	0.00	666.67	0.00	659.63
49	D	0.16		0.16	1.24		1.24
50	C	0.61	0.00	0.60	3.65	0.00	3.61
51	D	0.21		0.21	2.17		2.17
52	A	0.00	0.00	0.00	0.00	0.00	0.00
53	D	0.85	0.00	0.82	1.70	0.00	1.64
54	A	0.00	67.20	7.82	0.00	201.61	23.46
55	B	0.00	0.00	0.00	2.85	0.00	2.19
56	C	3.05	0.00	2.52	4.58	0.00	3.77
57	A	0.00	0.00	0.00	35.18	0.00	23.50
58	B	1.28	0.00	1.17	1.28	0.00	1.17
59	C	0.70	0.00	0.67	1.41	0.00	1.35
60	A	0.00	0.00	0.00	2.34	0.00	2.00
61	C	0.39	0.00	0.34	1.18	0.00	1.02
62	C	1.17	4.69	2.33	5.83	7.03	6.23
63	C	0.56	2.99	0.94	3.93	2.99	3.78
64	B	0.00	0.00	0.00	0.00	0.00	0.00
65	A	0.00		0.00	0.00		0.00
66	A	0.00	0.00	0.00	0.00	0.00	0.00
67	D	0.74	0.22	0.34	2.60	1.01	1.38
68	C	0.00	0.00	0.00	0.00	0.00	0.00
69	B	3.62	0.00	1.45	28.95	21.86	24.71
70	A	5.74	0.00	5.41	11.48	0.00	10.83
71	A	0.00	0.00	0.00	17.78	26.67	21.33
72	A	0.00	5.58	2.79	11.16	16.74	13.95
73	A	0.00		0.00	4.19		4.19
74	C	1.95	0.00	1.90	3.90	0.00	3.79
75	A	0.00	0.00	0.00	5.69	0.00	5.02
76	A	0.00	0.00	0.00	9.98	0.00	7.76
77	C	2.02	0.00	1.98	3.03	0.00	2.97
78	C	1.06	0.00	0.52	5.31	6.12	5.72
79	B	0.00		0.00	1.18		1.18
80	C	3.14	0.00	2.91	5.24	26.34	6.80
81	A	0.00	0.00	0.00	0.00	0.00	0.00
82	C	0.00	5.18	3.15	0.00	5.18	3.15
83	A	17.94	16.56	16.99	17.94	16.56	16.99
84	A	0.00	0.00	0.00	0.00	0.00	0.00
85	C	3.03	0.00	2.24	6.61	3.90	5.90
86	C	0.63	0.00	0.54	5.01	0.00	4.35
87	B	2.64	0.00	1.58	7.92	0.00	4.75
88	A	10.51	0.00	8.53	10.51	0.00	8.53
89	C	1.32	2.44	1.41	3.96	2.44	3.84
90	A	0.00	0.00	0.00	2.65	0.00	2.11
91	C	1.68		1.68	7.58		7.58
92	D	0.00		0.00	1.00		1.00
93	A	12.13	4.88	8.85	32.33	14.65	24.33
94	D	2.00	0.48	1.37	6.01	1.43	4.12
95	C	2.97	0.00	2.76	5.51	0.00	5.12
96	A	0.00		0.00	0.00		0.00
97	B	1.92	0.00	1.08	1.92	0.00	1.08
98	A	0.00	0.00	0.00	10.14	0.00	8.57
99	B	2.13	0.00	1.46	6.40	0.00	4.38
100	C	0.00	0.00	0.00	5.23	0.00	4.62

Co	Banding	Offshore LTIFR	Onshore LTIFR	Overall LTIFR	Offshore TRIR	Onshore TRIR	Overall TRIR
101	B	2.18	13.70	3.03	9.83	13.70	10.11
102	C	0.95	0.00	0.87	0.95	0.00	0.87
103	D	1.38	0.00	1.33	2.61	0.00	2.51
104	D	0.04	0.00	0.04	0.07	11.27	0.11
105	C	2.48		2.48	12.38		12.38
106	A	0.00	0.00	0.00	20.80	0.00	9.82
107	D	0.57		0.57	2.66		2.66
108	A	0.00		0.00	0.00		0.00
109	C	4.32		4.32	12.95		12.95
110	D	0.10	0.00	0.10	0.39	0.00	0.39
111	D	0.49	0.27	0.31	2.05	1.05	1.24
112	D	0.63	0.00	0.39	0.94	0.00	0.59
113	A	0.00	0.00	0.00	0.00	0.00	0.00
114	C	1.73	0.00	1.46	9.53	0.00	8.06
115	C	0.00	0.00	0.00	0.00	0.00	0.00
116	C	2.04	0.00	1.81	8.16	0.00	7.25
117	C	0.00	0.00	0.00	2.80	5.15	3.43
118	C	0.00	0.00	0.00	0.00	0.00	0.00
119	A	19.81		19.81	75.95		75.95
120	C	0.00	0.00	0.00	0.00	0.00	0.00
121	A	0.00	0.00	0.00	20.63	0.00	14.45
122	D	0.48	0.00	0.29	4.09	1.83	3.19
123	C	1.51		1.51	1.51		1.51
124	A	0.00	0.00	0.00	0.00	0.00	0.00
125	A	0.00	0.00	0.00	0.00	0.00	0.00
126	C	0.00	0.00	0.00	2.63	0.00	2.48
127	D	0.47	0.46	0.46	2.62	4.79	3.60
128	C	0.94	0.00	0.79	0.94	2.53	1.18
129	C	0.00	4.66	2.79	11.65	18.63	15.84
130	C	0.00	0.00	0.00	2.99	0.00	2.89
131	C	2.86	0.00	2.78	7.62	0.00	7.43
132	B	0.00	0.00	0.00	0.00	0.00	0.00
133	C	1.14		1.14	3.42		3.42
134	B	5.91		5.91	17.74		17.74
135	C	2.55	1.46	2.19	5.83	2.92	4.86
136	A	3.31	0.00	2.23	3.31	0.00	2.23
137	D	0.44		0.44	3.56		3.56
138	C	0.23		0.23	0.70		0.70
139	A	0.00	0.00	0.00	0.00	0.00	0.00
140	C	1.71	0.00	1.66	4.00	0.00	3.86
141	B	0.00	0.00	0.00	0.00	0.00	0.00
142	C	0.44		0.44	0.88		0.88
143	D	0.00	0.00	0.00	1.30	1.31	1.31
144	B	4.67	8.91	5.55	4.67	8.91	5.55
145	A	0.00		0.00	4.68		4.68
146	D	0.17	0.00	0.17	0.28	0.00	0.28
147	A	0.00		0.00	16.71		16.71
148	B	0.00	0.00	0.00	0.00	35.21	2.73
149	A	0.00		0.00	0.00		0.00
150	B	0.00	0.00	0.00	8.00	0.00	7.38
151	B	0.00	0.00	0.00	0.00	0.00	0.00
152	A	13.06	0.00	12.01	19.59	0.00	18.01
153	A	0.00	0.00	0.00	84.38	0.00	77.63
154	A	0.00	0.00	0.00	11.39	16.75	14.48
155	A	132.70	0.00	47.13	265.39	0.00	94.27
156	C	0.95	0.00	0.81	1.91	0.00	1.62
157	A	0.00	0.00	0.00	0.00	0.00	0.00
158	C	2.29	0.00	1.78	3.81	0.00	2.96
159	A	0.00	0.00	0.00	0.00	0.00	0.00
160	A	0.00	0.00	0.00	0.00	0.00	0.00
161	C	1.02	0.00	0.99	1.02	0.00	0.99

Co	Banding	Offshore LTIFR	Onshore LTIFR	Overall LTIFR	Offshore TRIR	Onshore TRIR	Overall TRIR
162	A	0.00	0.00	0.00	3.64	0.00	2.84
163	A	0.00	0.00	0.00	0.00	0.00	0.00
164	A	0.00	0.00	0.00	0.00	0.00	0.00
165	C	0.87	0.00	0.72	5.21	0.00	4.31
166	C	1.60	0.00	1.54	4.27	0.00	4.11
167	B	0.00	0.00	0.00	8.60	0.00	4.63
168	A	0.00	0.00	0.00	0.00	0.00	0.00
169	B	3.01	0.00	1.35	9.04	0.00	4.05
170	C	0.00	0.98	0.85	6.51	7.87	7.69
171	B	6.48	9.48	8.50	6.48	9.48	8.50
172	A	0.00		0.00	0.00		0.00
173	A	48.52	0.00	34.50	58.23	0.00	41.39
174	C	0.00	0.00	0.00	0.00	4.10	0.76
175	C	0.41	0.00	0.41	1.04	0.00	1.02
176	C	1.45	0.00	1.34	3.63	0.00	3.34
177	C	0.80	1.20	0.90	3.61	1.20	3.01
178	D	0.20	1.04	0.25	0.62	5.18	0.94
179	A	0.00	0.00	0.00	0.00	0.00	0.00
180	C	0.00	0.00	0.00	0.00	0.00	0.00
181	A	0.00	0.00	0.00	0.00	2.85	2.15
182	C	1.41	0.00	1.35	5.09	0.00	4.86
183	A	0.00	0.00	0.00	23.01	35.27	26.73
184	B	4.81	0.00	4.43	9.62	0.00	8.86
185	D	0.17	0.00	0.16	5.03	0.00	4.54
186	A	0.00	0.00	0.00	0.00	0.00	0.00
187	A	5.50	0.00	4.99	13.74	0.00	12.48
188	B	5.67	0.00	3.73	7.56	0.00	4.97
189	D	1.58		1.58	2.03		2.03
190	A	0.00	0.00	0.00	22.08	0.00	17.49
191	B	0.00	0.00	0.00	2.79	0.00	2.33
192	D	0.89	0.00	0.80	1.79	2.51	1.86
193	A	0.00	48.85	23.94	0.00	65.13	31.92
194	A	3.81		3.81	3.81		3.81
195	C	0.00	6.54	0.34	0.00	6.54	0.34
IMCA		**0.71**	**0.44**	**0.64**	**2.63**	**1.76**	**2.40**

Table 20 – Individual company LTIFR and TRIR statistics 2011

Definitions – 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

- 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)

comprises all accidental injuries (including fatalities and lost work day cases but excluding restricted work day cases) where:

- 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:
  - an assignment to a temporary job;
  - working in the regular job but not performing all the usual duties of the job.

Note: Where no meaningful restricted work is being performed, the incident should be recorded as a lost work day case.

Lost time injury frequency rate (LTIFR)

analysed separately as offshore, onshore and overall statistics

$$\frac{\text{Lost time injuries} \times 1{,}000{,}000}{\text{hours worked}}$$

Total recordable injury rate (TRIR)

the number of injuries and/or illnesses per 100 full-time workers and is calculated as:

$$= \frac{\text{total number of recordable injuries} \times 1{,}000{,}000}{\text{total hours worked}}$$

The US Occupational Safety & Health Administration (OSHA) definition of 'total recordable injuries'

from the American Bureau of Labor Statistics www.bls.gov/iif/oshdef.htm

Work-related injuries and illnesses – events or exposures in the work environment that caused or contributed to the condition or significantly aggravated a pre-existing condition.

Recordable cases – include work-related injuries and illnesses that result in:

- *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:*
  - *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*

Days away from work, days of restricted work activity or job transfer are cases that involve days away from work, or days of restricted work activity or job transfer, or both

- *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.*

Total recordable injury rate (TRIR) – the number of injuries and/or illnesses per 100 full-time workers and is calculated as: (N/EH) x 200,000 where:

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)

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

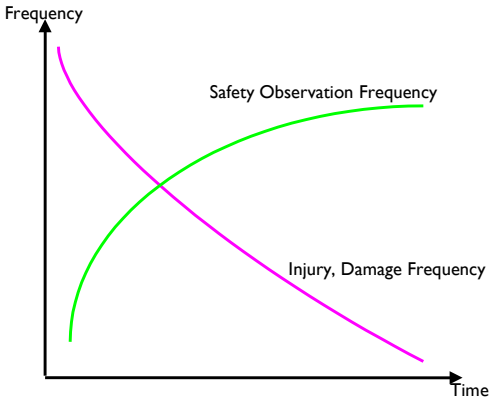
Definitions – Leading Safety Statistics

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:

SOFR = number of safety observations per 200,000 man-hours

$$= \frac{\text{number of safety observations} \times 200{,}000}{\text{Total man-hours}}$$

Definitions

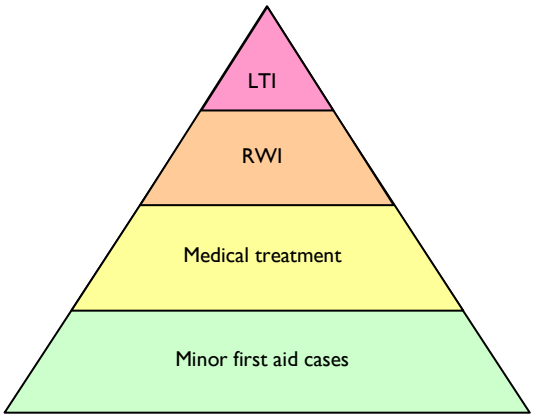
SOFR	Safety observation frequency rating
Safety observation	Report identifying at-risk behaviour, or an unsafe condition to prevent loss or harm e.g. STOP card
Observational work man-hours	for onshore operations – 'actual' hours worked, including overtime hours for offshore operations – the hours worked,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

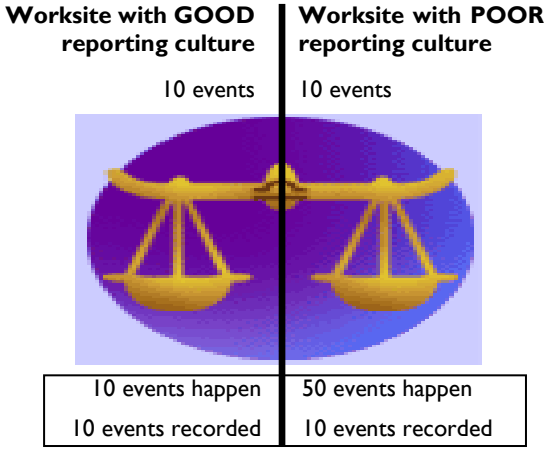
It may cause a degree of controversy that a leading indicator measure should be based on a series of lagging indicators but in order to demonstrate that a mature culture exists we need to assure ourselves that every undesired event is being reported. We cannot equate one company which reports everything 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:

RAL = ((5 x FNMR) + (20 x MTR) + (100 x RWIR)) per 200,000 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 events happen should expect a higher number of visits to correct such situations.

Thus the measure proposed is:

MVR = number of managerial visits per 200,000 man-hours

Criteria

- The manager has commercial or production responsibility for the company (e.g. Managing Director);
- The manager has responsibility for health, safety and environmental processes or other key processes within the company;

- The manager is directly responsible for the operational or service support activities of the particular offshore barge or ship (e.g. Operations Manager);
- The manager is directly responsible for the conduct of the project (e.g. Project Manager).

Definitions

MVR	Managerial visit rating
MV	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