

HSSEQ ANNUAL REPORT 2017

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Message from the CEO

Introduction

HSE Performance

Lost Time and Total Recordable In Lost Time and Total Recordable In Potential Matrix Frequency (PMF) Corporate Statistics and Trends OH&S Incident Classification Perfor OH&S Conclusion

Environment

GHG Emissions Data

Quality Management Quality Continuous Improvement

Audit Performance 2017

Internal Audit Execution External Audit Execution Results of Internal and External Au Customer Feedback QA/QC Conclusion

Continuous Improvement Ini

Continual Improvement Driven via



Table of Contents

	01
	02
	03
njury Rate Performance	03
njury Frequency Rate Benchmarks	03
	04
	05
ormance	06
	07
	08
	08
	09
Analysis	09
	10
	10
	10
udits	11
	12
	12
itiatives and Sharing Best Practice	13
Business Diversity	13

Message from the CEO



As a result of everyone's commitment GMS recorded a full year of zero Lost Time Incidents (LTI's), and zero Recordable Incidents (TRIR). This should be recognised as the excellent achievement that it is. **77**

In GMS, Health, Safety and the Environment is always our top priority and in 2017 that was perfectly reflected through the end of year HSE performance figures. 2017 saw us undertake a total number of man hours worked of 4.5 million hours in a high-risk working environment. As a result of everyone's commitment GMS recorded a full year of zero Lost Time Incidents (LTI's), and zero Recordable Incidents (TRIR). This should be recognised as the excellent achievement that it is and I commend everyone within the company for their individual performance that has contributed toward attaining this success.

Our core SESV fleet now consists of 13 vessels, with an average age of just seven years. This makes our fleet one of the youngest in the industry, however, as our new build programme is now complete, we have scaled down the number of construction personnel substantially.

From a quality perspective we once again achieved a very low level (less than 1%) of technical and operational downtime for our chartered vessels and this is a credit to our highly skilled and dedicated workforce.

We continually seek to enhance the capability of our vessels and the services we provide so we can deliver the highest quality cost-effective offshore support solutions to our clients.

In 2017 we expanded our well services capabilities through the development of a cantilever system for our Large Class SESVs. The combination of a self-propelled jack-up vessel with a removable cantilever and workover unit is a world-first that allows our vessel to supplant

higher cost non-propelled drilling rigs on well workover projects. The system was installed on GMS Evolution, which became fully operational during the year and approval of its Safety Case for well operations has been received from the UK Health and Safety Executive.

During the year we also designed and developed an innovative crew transfer system that was an important element in the successful award of a renewable energy contract.

On a cautionary note, as we have now moved into 2018, we must recognise that reaching the goal of zero is only the beginning of improvement and sustaining this impressive record requires everyone to maintain the highest level of standards. The potential for a serious accident is always just around the corner if the proper care and assessments are not undertaken. We should never allow complacency to creep in following an achievement such as this, everyone needs to maintain their individual awareness and perception of the hazards and risks which are present whilst undertaking work activities.

As always our people are at the heart of our business and I would like to thank our highly skilled and dedicated workforce for their contribution to GMS during the past year. The support and continued commitment of all our staff to maintaining our high HSSEQ standards is the very core of our business model in the industries in which we operate.

Duncan Anderson

Introduction

This annual report has been created to summarise Although a reduction in man-hours was realised the GMS Health, Safety, Security, Environmental through the continuing tight market environment, and Quality (HSSEQ) performance for 2017. We there was still a considerable amount of activity place the highest priority on managing the risks including the completion of our cantilever and well inherent to our operations and we continually work over unit project. In our North West Europe comply fully with National and International HSSEQ Region we have succeeded in attaining contracts Standards. We utilize our company integrated within the renewable energy sector, with 2 of management system which covers all the aspects our large class ('E' Class) assets assigned to be of HSSEQ principles and objectives of our business, deployed on offshore wind projects for Orsted. which is implemented throughout our offshore and From an environmental view point we saw no onshore operations. The system aims to provide pollution incidents in 2017, and we once again innovative and sustainable solutions to monitor our captured all our emissions data and reported this HSSEQ performance and continuously improve the through our GMS annual reports. We ensured that necessary safeguards to protect our employees all our environmental operational objectives were and minimize the impact on the environment. driven through our annual HSSEQ Plan.

Our HSSEQ performance for 2017 saw us record Looking ahead, we are determined to continue our both zero Lost Time Incidents and zero Recordable efforts to drive down our performance trends. We Incidents for the first time since 2012. This will do this by ensuring that complacency does performance was achieved against an overall man not become a factor following our successful hours worked of circa. 4,500,000 hours. Looking zero performance of 2017, and this shall be at GMS' 5 year performance, (2013 - 2017), we accomplished through a drive to ensure that can see that a Total Recordable Incident Rate our personnel, at all levels, keep their focus on (TRIR) decrease from 0.41, to a rate of zero has performing their duties safely and efficiently. been achieved.

The Lost Time Injury Rate (LTIR) has also fallen from 0.14 in 2013 to zero in 2017.

Overall our linear trendline from 2013 through to 2017 shows a continued improvement year on year for both LTIR and TRIR and this continuing downward trend is a very positive indicator, and one which needs to be maintained.

On a cautionary note, in 2018 our sight and energy must be maintained on the prevention of High Potential Incident (HiPo) occurrences, as 3 of these occurred in 2017, and any one of these incidents could have resulted in a major incident. Another area of focus must be on our Safety and Environmental Critical Elements (SECE's) Impairment/Failure. We have seen an increase in these types of reports, however, this can be explained by the concerted effort to raise awareness of the importance of these issues, and therefore to ensure the protection overall of our safety critical barriers. Both HiPo's and SECE's have become critical measuring metrics within the HSSEQ performance reviews. In-depth analysis along with improvement actions are constantly being undertaken and implemented as a result of these reviews.

This report is divided into the following sections;

- H&S Performance
- Lost Time and Recordable Injury Rate Performance
- Lost Time and Recordable Injury Rate Benchmarks
- GMS Potential Matrix Factor (PMF)
- Corporate Statistics and Trends
- OH&S Conclusion
- Environment
- Global GHG Emissions Data
- Quality Management
- Quality Continuous Improvement Analysis
- Audit Performance 2017
- Report on Findings
- Customer Feedback
- QA/QC Conclusion
- Continuous Improvement Initiatives and Sharing
 Best Practice
- Continual Improvement Driven via Business Diversity

HSE Performance

Lost Time and Total Recordable Injury Rate Performance

Annual Comparison



The Total Recordable Incident Rate (TRIR) 2013 - 0.41 to 2017 - 0.00 Lost Time Incident Rate (LTIR) 2013 - 0.14 to 2017 - 0.00 (per 200,000 man-hours worked)

Lost Time & Total Recordable Injury Frequency Rate Benchmarks





GMS Potential Matrix Frequency (PMF)

The following graph shows how GMS has performed during the 2 year period between 1 January 2016 until 31 December 2017 - Potential Incident Outcomes (Red) versus Actual Incident Outcomes (Yellow).

Company Combined Jan 2016 - Dec 2017 TRIR v PMFR Per 200,000



The above graph gives GMS a 2 year rolling picture of potential performance.

As can be seen, the potential outcomes (Red Line) recorded a steady but slow rise from March to July (peak 196). The HSSEQ Department instigated a number of initiatives to engage all personnel and to get individual and team hazard and risk awareness and perception levels raised in order to maintain, or improve, their overall performance. These actions ensured that the early warning signals were recognised and that the actual performance result remained at zero.

04

06

Corporate Statistics and Trends

TOTAL CORPORATE STATS					
CATEGORIES	2017	2016	2015	2014	2013
Fatality	0	0	0	0	0
Lost Time Injury (LTI)	0	1	2	0	1
Restricted Work Day Case (RWDC)	0	4	1	3	0
Medical Treatment Case (MTC)	0	1	4	3	2
First Aid Case (FAC)	7	12	5	86	2
Occupational Illness and Occupational Disease	0	0	0	0	1
Material/Productivity Loss	6	10	9	10	8
Pollution	0	0	0	0	1
Loss of Containment	3	1	1	4	2
Fire Explosion	0	1	3	4	0
Security	1	0	0	0	0
Near Miss	24	22	20	10	17
HiPO	3	3	1	7	2
Safe Critical Equipmemt/Failure	13	7	0	2	0
Technical Offhire	1	1	0	0	0
Vehicle Incident	1	0	0	1	0
Man Hours Worked	4,517,474	5,967,760.5	7,655,055	2,994,497	1,469,878
Total Days Lost	0	0	33	0	0
LTI Frequency (LTI per 200,00 man hours)	0	0.03	0.05	0.00	0.14
Total Recordable Injury Rate (LTI+RWC+MTC per 200,000 man hours)	0.00	0.20	0.18	0.4	0.41

OH&S Incident Classification Performance



SECE Classification



OH&S Performance – Body Part Injured



High Potential Incidents (HiPo's)

08

OH&S Conclusion

2017 was a very impressive year for GMS in health and safety performance. Achieving zero Lost Time and Recordable Incidents in a high risk - high hazard working environment is very commendable indeed. However, as can be seen from the earlier statistics, GMS still has a journey to continue and complete.

This coupled with the fact that GMS are also continuing to broaden our service provision, means our risk profile as a company is evolving and changing, therefore, we must always be ahead of the game and ensure proper and in-depth H&S planning and execution is fulfilled.

Health and Safety must be focussed on constantly and we must always have a mindset that continuous improvement is always achievable, that way zero shall become the norm.



Environment

This section has been prepared in accordance with our regulatory obligation to report Green House Gas (GHG) emissions pursuant to Section 7 of the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013.

We have reported on all of the emission sources required. These sources fall within our consolidated financial statement. We do not have responsibility for any emission sources that are not included in our consolidated statement.

In calculating our GHG emissions, we have used the GHG Protocol Corporate Accounting and Reporting Standard (revised edition), the Climate Registry 2014, the IEA CO2 Emissions from Fuel Combustion 2015 and emission factors from the UK Government Conversion Factors for Company Reporting 2015.

The table below shows the data points that are required under the UK Government regulatory requirements.

Global GHG emissions data for period 1 January to 31 December 2017

TONNE
Emissions from:
Combustion of fuel and operation of facilities
Electricity, heat, steam and cooling purchased for own use
Total (in tonnes CO ₂ e)
Total Revenue in the reporting period
Company's chosen intensity measuremen
Emissions reported above normalised to the ratio of tonnes of CO ₂ e per US\$ 1000 of Group Revenue

The consumption of fuel during the operation of our vessels is the largest contributor to our GHG emissions. Although our vessels are leased to our clients on a long term basis we have chosen to account for their GHG emissions within our footprint, in accordance with the 'operational control' approach to developing our GHG footprint. The increase in emissions from fuel from the previous year is due to an increase in overall vessel mileage during contracted charters and activities that are not part of client operations.



	Current reporting year	Comparison year		
	2017	2016		
	48,405	33,298		
k	767	1,043		
	49,174	34,341		
	112,881,000	179,410,000		
nt: of	0.4	0.2		

Quality Management

Quality Continuous Improvement Analysis

2016	2017	Results Positive/Negative
22 Internal Audits (88% completion)	18 Internal Audits (82% completion)	Decrease: access to KSA- based vessels and suppliers still challenging
25 External Audits	14 External Audits	Decrease: less ISM/ISPS mandatory audits
2 Critical Actions raised (Via External Audits)	No Critical Actions raised	Positive – Previous Corrective and Preventative actions (CPAR's) are producing results
27 Major CPARs	12 Major CPARs	Positive – 56% Decrease in Major CPARs raised
No. of Overdue Actions by year end: 37%	No. of Overdue Actions by year end: 22%	Positive – 41% Decrease in Overdue CPARs
25 Client Feedback collected	20 Client Feedback collected	Less vessels working means less feedback opportunities

- Audit schedule completion % decrease - due to challenges within our new operations in KSA
- No Critical Actions raised & reduction in Major Actions
- Significant Client Feedback, despite less vessels on-hire
- Decrease (41%) in Overdue Actions close out



Audit Performance 2017

Internal Audit Execution

AUDITS	PLANNED	EXECUTED
nternal Audits - Office	7	5
nternal Audits - Vessels	11	10
Contractor Audits	4	3

Internal Audit schedule was 82% completed (down from 88% completion in year 2016). This was mainly due to challenges of getting auditors offshore for our new KSA operations, as well as using resource to set up the new KSA office.

External Audit Execution

ENTITY	TYPE	DP / VESSEL	SCOPE
ABS	Regulatory Body	Endeavour	ISM Audit
		Kawawa	ISM Audit
		Kudeta	ISM Audit
		Operations UK	ISM Audit
		Operations KSA	ISM Audit
		Operations MENA	ISM Audit
ADNOC	Olicet	Operations MENA	Marine, HSE, Quality
	Client	Keloa	Marine, HSE
		QHSE	Environmental
BSI	Certification Body	Company (Onshore)	Surveil
		Company (Onshore)	Integrated Audit
HSE UK	Regulatory Body	Endurance	Offshore Inspection
OXY	Client	QHSE (HSE only)	HSE Audit
Port State Control Amsterdam	Regulatory Body	Endeavour	PSC Audit

Results of Internal and External Audits

Report of Findings

Internal and External Main Audit findings -

- No Critical findings raised
- Reduction in Major findings (56%)
- Systems, Procedures and Control Issues were the significant percentage of findings (56%)



In 2017 there were 12 Major CPARs raised, with main findings being:

- Lack of Risk Management
- Internal audits overdue
- API 4F design package incomplete

The significant trend within the Minor CPARs raised (as seen from the graph above)

- Systems, Procedures and Control Issues
- Documentation Control
- Maintenance Issues

Within the Systems, Procedures and Control Issues:

- Audits and improvement actions not being addressed
- NDT activities not carried out as per procedures
- Calibration status tags of equipment missing

Customer Feedback

	Vessel	Country	Client	Туре
January	Enterprise	KSA	McDermott	Recognition
February	Scirocco	Qatar	McDermott	Recognition
March	Enterprise	KSA	Aramco	Recognition
	Kawawa	UAE	ADMA-OPCO	Recognition
	Endurance	UK	Centrica	Recognition
Мау	Kikuyu	Qatar	RasGas	Award
	Endurance	UK	Centrica	Recognition
June	Endeavour	UK	TOTAL E&P	Recognition
	Endurance	UK	Centrica	Award
hub.z	Endurance	UK	Centrica	Recognition
July	Kikuyu	Qatar	QPD	Recognition
	Endurance	UK	ConocoPhillips	Recognition
	Endurance	UK	Centrica	Recognition
September	Endurance	UK	Centrica	Award
	Keloa	UAE	ADMA-OPCO	Recognition
Octobor	Endurance	UK	Centrica	Recognition
Octobel	Kudeta	UAE	Fugro	Recognition
November	Enterprise	KSA	McDermott	Recognition
	Kikuyu	Qatar	OXY	Award
	Keloa	UAE	ADNOC	3 x recommendations received

- with previous years.
- Client feedback received from all regions where GMS operates.

QA/QC Conclusion

In 2017 the key focus area for our audit programme was aimed at risk and execution of our operations and activities. We concentrated less on management system documentation in order to ascertain that personnel were implementing what the documentation was asking and not just concentrating on getting the "paperwork" right. This resulted in the overall findings being more diverse in nature but truer to what is actually going on in the operational environment.

Vital information was received from our 2017 audits and the decision has been made to carry our strategy for 2017 over into 2018.

12

• Client feedback reporting from North West Europe Region improved considerably in comparison

Continuous Improvement Initiatives and Sharing Best Practice

Continual Improvement Driven via Business Diversity

An important part of GMS' strategy is to combine the technological expertise we have in designing and building our own vessels, with the operational experience we acquire by operating them for our clients, in order to continually find ways to enhance our offering and deliver against our clients needs.

This innovation case study describes the delivery of a unique personnel transfer system that was designed by GMS. GMS were successful in being awarded a 2 asset contract for the Hornsea One Project which was due to commence in April 2018. The contract was a Renewable Energy project (Wind Farm) and due to the distance from shore the crew transportation needed to be in-field. This meant GMS needed to provide:

- 2 x large E Class barges, with the primary barge acting as a main transportation hub
- Facilitating helicopter crew transfers from onshore & boat transfers for crew situated offshore
- Accommodation for 150 on each
- Able to reposition between the 3 infield substations

The primary asset also needed to have a CTV boat landing and an access tower system – a system which had never been done before.

This new access tower system would allow:

- Dockings to be undertaken whilst asset is elevated at 21.1m above sea level
- Ability for asset to stow system and transit infield
- Operations to continue uninterrupted while up to 200 personnel transfers/day and 40 CTV dockings/day could be undertaken

Conceptual Considerations

Different design companies were approached to assist GMS with this project and different designs were proposed as a solution for the workscope. The eventual accepted design was chosen because of:

- The simplicity of the design
- Minimal personnel required during the operation of the system
- Less critical parts with the potential for failure

At conceptual stage a number of considerations had to be thought about, and as can be seen from the drawing, the new design is based upon a relatively conventional stairway over a set of boat landing buffer tubes with a set-back ladder. Following a previous serious incident, involving a crew transfer system, it was imperative that the buffer tubes were extended below the low water level in order to eliminate the risk of the CTV fender coming off the bottom of the tubes and becoming trapped.



The original proposed boat landing evolved from what was initially tabled, this was due to addressing other challenges and points which were raised;

- Working with a reduced air gap
- During transiting we needed to stow the system vertically
- The system needed to be deployed and recovered exclusively by our crane
- To refine the structural connections into the vessel deck and hull
- The system needed to be able to operate such as to minimise the height of climb for the PAX at some stages of the tide
- Incorporating additional space for mustering of departing PAX and the ability of arriving PAX to pass the mustered departing PAX
- It was also required that the barge be able to move infield, whilst at the same time utilising the landing/tower system while afloat.



13





Design Approval and Certification

Applicable Codes:

- Structural Aspects
- Primary Code
 - DNVGL OS C201:
 - Structural Design of Offshore Units
 - WSD Method
- Supporting Codes
 - DNVGL ST: 0358 - Certification of Offshore Gangways for Personnel Transfer;
 - DNVGL RP C205 – Environmental Conditions & Environmental Loads;
 - DNVGL RP C203 - Fatigue Design of Offshore Steel Structures
- Non-Structural Safety Scopes
 - DNVGL:ST:E272
 - 2.7-2 Offshore Service Modules

Solution







Gulf Marine Services

Our assets are engaged in a wide range of services throughout the total lifecycle of offshore oil, gas and renewable energy activities.

Our major services include:

- Enhanced oil recovery
- Diving support activities
- Drilling support, completions and testing
- Platform construction, hookup and commissioning • Platform restoration and maintenance
- Well abandonment and decommissioning
- Well intervention and workover
- Wind turbine installation and maintenance
- Accommodation barges

Vessels

K-Class – Kamikaze, Kawawa, Keloa, Kikuyu, Kudeta, Naashi S-Class – GMS Shamal, GMS Scirocco, GMS Sharqi E-Class – GMS Endeavour, GMS Endurance, GMS Enterprise, GMS Evolution P-Class – Pepper Accommodation & Maintenance Barge - Khawla

15





Gulf Marine Services

GMS Mussafah Base P.O. Box: 46046, Abu Dhabi, United Arab Emirates Tel: +971 2 502 8888, Fax: +971 2 555 3421, Email: gmsauh@eim.ae, www.gmsuae.com