

Strategic Consulting

Safety Management System Development



Development and delivery of an Integrated SMS (ISMS) in partnership with an Offshore Oil & Gas Helicopter Operator

The aviation department of a major offshore oil and gas helicopter operator engaged Baines Simmons to assist them in enhancing and improving their existing Safety Management System, thereby creating a world-class Integrated Safety Management System (ISMS) that covered all operations at their airport base. The 18-week project was successfully completed within agreed timescales and with agreed measurable deliverables.

Client Profile

Our client supplies aviation services that support the exploration and production of crude oil and natural gas from onshore and offshore fields in Europe and the Far East. The business encompassed the operation and maintenance of three Sikorsky S92 Helicopters and a dedicated airfield operation which included ATC, Fuel Farm, Fire service, Ground Handling, Security and Passenger Terminal services.

The Challenge

To enhance their existing safety systems by developing an Integrated Safety Management System (ISMS) which was inclusive of the entire operation at a major airport and which complied with ICAO 9859 standard and best practice.

The Solution

Safety Management Diagnostic (SMD): A team of experienced SMS Consultants conducted an initial SMD at the Airport site. A gap analysis exercise was undertaken which comprised interviews with a representative number of personnel across all areas of the business (Pilots, Engineers, ATCO, Refuellers, Ground Operations and Managers) and a desk-top review of company manuals and applicable regulation was also performed. A detailed report of observations and recommendations (47 in total) was sent to the Accountable Manager. The recommendations were incorporated as appropriate into the Integrated SMS (ISMS).

ISMS development and implementation: In partnership with on-site team, the ISMS manual was written during the project and built upon as each phase and section was agreed. The content of the manual was written taking into consideration the existing corporate group Requirements for Aircraft Operations, HSE safety case, BDCA, UKCAA and ICAO requirements. These requirements and their relationships were described throughout the manual. The project plan was amended to meet the implementation needs and updated versions compiled by the project manager were sent to all parties. In order to satisfy the Tier one approved manual requirements, a description section regarding the ISMS was written for inclusion. This manual amendment linked the approved manuals to the ISMS and vice-versa.

“Baines Simmons’ Consultants were able to apply their practical expertise to help create a world-class Safety Management System that would dovetail with Shell’s existing excellent corporate safety systems.”

“We gained a wealth of experience during this project working with an already safety sophisticated client in developing a truly integrated Safety Management System. The project enabled us to understand the differing needs within the worlds of Flight Operations, ATC, Maintenance, Ground Operations and Passenger Handling, and develop solutions to enable those worlds to interrelate on safety issues.”

“Working on this challenging project has allowed us to advance our own thinking in the field of ISMS with very successful outcomes.”

Jez Last, Project Leader, Baines Simmons

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As a result of the establishment of the ISMS meeting structure, the first **Safety Review Board (SRB)**, under the direction and guidance of a Baines Simmons Consultant, was convened just 3 months after the ISMS was set up with the following agenda:

- ▶ SRB and SAG terms of reference
- ▶ Safety & Quality Policy
- ▶ Objectives
- ▶ Key Performance Indicators (KPIs)
- ▶ Performance Monitoring
- ▶ Safety Champions
- ▶ Integrated Safety Management System (manual)
- ▶ Training
- ▶ AOB

From the SRB, KPIs were developed, the establishment of Safety Champions agreed and the other agenda items reviewed and accepted.

Training: A Training Needs Analysis (TNA) was developed and bespoke course material was developed. Baines Simmons created a 2-day Introduction to SMS course to provide a revision of SMS concepts and an understanding of the importance of Human Factors and Error Management – the cornerstones of a Safety Management System. A total of 105 people were trained (78% of the total team) over a 10-day period.

Deliverables

The project delivered the foundations of an ISMS which could be built on and continuously developed by our client, and which included the following core elements:

Safety & Quality Policy	Setting Performance Indicators and Targets
Safety Principals including Safety leadership	Safety Audit checklists
Safety Organisation & Accountabilities	Training Effectiveness
The ISMS Organisation	Evaluation of Individual's Performance Regarding
Personal Accountabilities and Responsibilities	Safety Responsibilities
Safety Meetings	FOQA (Flight Operations Quality Assurance)
SMS and Emergency Response relationship	procedures
Hazard Identification & Risk Management	SMS Management Review
Basic safety Assessment and Occurrence Report	Safety Training
Handling procedures	Safety Promotion
Hazard Identification & Risk Management Process	Disseminating Safety Information
Management of Change process	Terms of Reference for the SRB
Risk Evaluation and Risk Action	Terms of Reference for the SAGs
Incident causation and Control Assurance	Hazard Register
Internal Safety Investigation process	Training Needs Matrix
Departmental Safety Review and Reporting	ISMS Meeting Structure model
Safety Performance Monitoring	Consequence Management Decision Tree
High Level safety Objectives	Key Performance Indicators
Safety Performance Indicators	
Safety performance Targets	

The Outcome

As a result of our project, a fully integrated SMS was developed which created a solid basis for ongoing development and improvement. Our client has subsequently requested safety management continuation training for their entire management team and developed a LOSA programme as a result of attending our Academy training course on this subject.