SMS in Small Ops
A Case Study

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Outline

• Project Management

• “SMS Kickstart” Project
Project Management

• History

• Methodology
Pioneers

Frederick Taylor (1856-1915)

Henry Gantt (1861-1919)

W. Edwards Deming (1900-1993)

Walter Shewhart (1891-1967)

The Traditional PDCA Model

1. Identify customer needs/expectations
2. Describe the current process
3. Measure and analyse data
4. Identify improvement opportunities
5. Identify root cause of problems
6. Generate and choose solutions
7. Plan and implement a pilot of the solutions
8. Evaluate results of pilot
9. Draw conclusions
10. Standardize the change
11. Monitor the change and hold the gains
Myth

“We don’t have a lot of projects here”
Project

“a temporary endeavour undertaken to create a unique product, service or result”

(Project Management Institute)
What is a Project?

- Day-to-Day operations
- Begins with an idea
- Prioritised, scoped & planned
- Executed
- Monitored and measured
- Transitioned to operations
- Closed
Project Management

“the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements”

(Project Management Institute)
Project Managers

Training: Knowledge Areas
1. Integration Management
2. Scope Management
3. Time Management
4. Cost Management
5. Quality Management
6. Human Resource Management
7. Communications Management
8. Risk Management
9. Procurement Management
Project Planning

• What do you have?

• What do you need?

• How do you get there?

• Lessons Learned
What do you ‘have’?

• System Description
  – Model of the Organisation
  – Interfaces of functional areas

• Completed by SMEs
  – Change management
  – Hazard/Threat ID
  – Gaps & Redundancies
System Description

- Identifies functional areas
- Identifies interfaces
- Facilitates hazard/threat ID
- Allows coordinated responses
Components to System
Requirements / Gap Analysis
Programme Management

“The process of managing several related projects, often with the intention of improving organizational performance”

(Project Management Institute)
Lies, damn lies, and statistics

- Standish Group
  - Chaos Report
    - 31.1% of IT projects cancelled before completion
    - 52.7% of completed projects cost over their original estimates
    - 1 in 8: The number of projects that can be considered successful
Centre for Business Practices (2009)

- 100 top companies
- implemented project management methodology

- Improvements:
  - 50% in project/process execution,
  - 54% in financial performance,
  - 38% in customer satisfaction
  - 30% in employee satisfaction
Change Management

• 1995 – John Kotter
  – 30% change programs are successful

• 2007 – McKinsey & Company
  – 30% change programs are successful
Types of Changes

1. Organisational Change
   • New people, roles, company structure, etc.

2. Technology
   • new a/c type, construction, new tools, etc.

3. Human Change
   • Personal, emotional, group dynamics.
How Accidents Happen

(Modified from James Reason)
Organisational Change

1. Commitment from the senior executive team
2. Strategic planning and project management
3. Appropriate resources (right people on the team)
4. Understanding and support by managers
5. Embraced by frontline staff

*It is the frontline staff who will execute the change.*
- especially in the case of an SMS -
Technological Change

- Intro of Type / Entry into Service
  - Training
  - Approvals
  - Documentation
  - Procurement
  - Modifications
  - Quality Planning
  - Staff levels
  - Spares, Tooling, License
  - Timescales, Communication
  - …and so on
Change Response - People

- Deteriorating communication
- Drop in productivity
- Less teamwork
- Less focus on customers and competitors
- Reduction in morale
- Turnover
Scope

ANNEX 1-19* (SARPs)

ICAO

Service Providers
- Aerodrome
- AOC
- ATC
- ATO
- MRO
- OEM

States
- UK CAA
- EASA
- FAA
- TCCA

Contracts SOP

Regulations

SOPs
Helivia Aero Taxi

- 2x 76C+ (1x offshore & 1x VIP)
- Next 76C+ arriving November
- Increasing ~3 aircraft/year
- Currently flying adhoc
- Tendering starts ~end of year
SMS Kick-Start Project

Applying Project Management best practice and Agile methodology, allowing flexibility to plan and implement elements according to priorities, risk level, and resources.

Initiation
- Project outline and demonstration of leadership and commitment

Requirements Gathering
- Breaks project down to Sub-Projects (i.e. Safety Reporting, ERP, QA, etc.)

Project Planning
- Implementation planning considering change management, documentation, training, resources, etc.

Implementation
- Sub-projects implemented at a pace relevant to requirements and available resources.
0 Project Initiation

0.1 Project Charter
- Project Outline
- Resources
- Stakeholders
- Scope
- Justification
- Risks
- Commitment

0.2 Policy (ies)
- SMS
- Just Culture
SAFETY MANAGEMENT SYSTEM
“KICK-START” PROJECT CHARTER

PROJECT SPONSOR:
John Fenton, President, Greenwich do Brasil

6 September 2013
Project Structure

SMS Requirements
1.0 SMS Manual
2.0 SMS Data
3.0 Quality Programme
4.0 Risk Management
5.0 Emergency Response
6.0 Flight Data Monitoring
7.0 Communication
8.0 Admin Management

SMS Planning
1.0 SMS Manual
2.0 SMS Data
3.0 Quality Programme
4.0 Risk Management
5.0 Emergency Response
6.0 Flight Data Monitoring
7.0 Communication
8.0 Admin Management
1.0 SMS Manual

**Requirements**
- 1.2 Document Structure
- 1.3 Organisation Structure
- 1.4 Template

**Planning**
- 1.5 SMS Manual
- 1.6 Compliance Procedures

**Implementation**
- 1.7 Document Approval
- 1.8 SMS Training
- 1.9 Quality Assurance
EHEST SAFETY MANAGEMENT TOOLKIT
SAFETY MANAGEMENT MANUAL
Version for Complex Operators
2.0 SMS Data

**Requirements**
- 2.1 Requirements
- 2.2 Market Research
- 2.3 Gap Analysis

**Planning**
- 2.4 Implementation Plan
- 2.5 Data Management Plan
- 2.6 Safety Performance Ind.

**Implementation**
- 2.7 Rollout
- 2.8 Monitor / Measure
3.0 Quality Programme

**Requirements**
- 3.1 Resource Training
- 3.2 Audit List*

* System Description

**Planning**
- 3.3 Audit Schedule

**Implementation**
- 3.4 Internal Audits
- 3.5 Vendor Audits
- 3.6 Monitor / Measure
4.0 Risk Management

Requirements
4.1 System Description
4.2 Tool Selection
4.3 Hazard Log / Risk Profile

Planning
4.4 Risk Assessments
4.5 Mitigations / Controls
4.6 Gap Analysis

Implementation
4.7 Control Implementation
4.8 Monitor / Measure
5.0 Emergency Response

Requirements
5.1 ERP Manual
5.2 Gap Analysis

Planning
5.3 Resources / Training
5.4 Exercise Planning
5.5 Document Completion

Implementation
5.6 Drills / Exercises
5.7 Monitor / Measure
6.0 Flight Data Monitoring

**Requirements**
- 6.1 Market Research
- 6.2 IT Requirements *
- 6.3 System Selection

* In-house System

**Planning**
- 6.4 A/C Tech Plan
- 6.5 FDM Policy / Procedures
- 6.6 Training

**Implementation**
- 6.7 Software Set Up *
- 6.8 A/C Installation
- 6.9 Monitor / Measure
HELICOPTER FLIGHT DATA MONITORING

INDUSTRY BEST PRACTICE

01 April 2012

www.HFDM.org

HELICOPTER FLIGHT DATA MONITORING TOOLKIT

U.S. JHSIT
1st Edition

An Official Publication of the International Helicopter Safety Team
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7.0 Communication

**Requirements**
- 7.1 Stakeholder ID
- 7.2 Tools Review

**Planning**
- 7.3 Policy & Procedures
- 7.4 Committee Formation
- 7.5 Scheduling

**Implementation**
- 7.6 Production
- 7.7 Distribution
- 7.8 Monitor / Measure
8.0 Human Resources

Requirements
8.1 Human Resources
8.2 Gap Analysis

Planning
8.3 Job Descriptions
8.4 Performance Mgmt
8.5 Career Planning

Implementation
8.6 Documentation
8.7 Training
8.8 Monitor / Measure
Training

**SMS**
- SMS Programme
- Human Factors
- Just Culture
- Accident Investigation
- Safety Reporting Software
- Security

**Occupational H&S**
- First Aid
- Materials Handling
- Fire Extinguisher
- Environmental

**Quality**
- Lead Auditor
- Internal Auditor

**Emergency Response**
- Emergency Management
- Go Team
- Family Assistance
- Business Continuity
- Exercise Design / Delivery

**Management**
- Leadership
- Instructional Skills
- Software / Keyboards
Documents

Safety Management Manual

A  Emergency Response
B  Flight Data Monitoring
C  Health, Environment, Safety, Security
D  Quality Programme
E  etc.
Results

• Strengths
  – Executive Commitment
  – Staff Engagement
  – Small Company

• Challenges
  – SMS Training and Experience
  – Industry Culture: Action vs Planning
  – Communication / Coordination
  – Infrastructure
  – Requirements
  – Competition
To Close

- Project Management Methodology
- Programme Management
- Safety Management
- Planning and Change Management
Thank You

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