The Second MID Region Safety Summit

27- 29 April 2014
Muscat, Oman

SSP/SMS Implementation

Session #8
Presentation #1

United Arab Emirates

الهيئة العامة للطيران المدني
GENERAL CIVIL AVIATION AUTHORITY

U.A.E
STATE SAFETY PROGRAMME (SSP)

رؤيتنا: منظومة طيران مدني آمنة ورائدة ومستدامة
OUR VISION: A LEADING, SAFE, SECURE AND SUSTAINABLE CIVIL AVIATION SYSTEM

UAE Aviation Industry

الهيئة العامة للطيران المدني
GENERAL CIVIL AVIATION AUTHORITY

- 34 Operators
  - 4 Scheduled Carriers
- Numerous Training Organizations
- Over 45 MROs
- 734 aircraft under A6
- 9 Certified Aerodromes

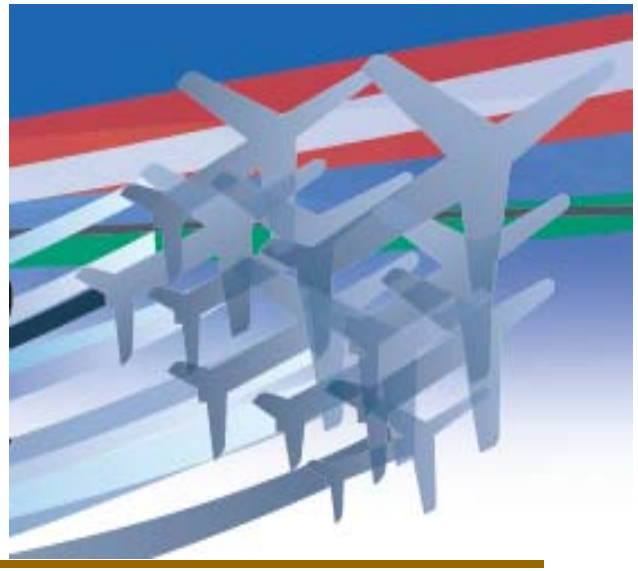
UAE Aviation Industry

الهيئة العامة للطيران المدني
GENERAL CIVIL AVIATION AUTHORITY

- 250,000+ Aviation Personnel
  - Pilots - 8,243
  - Cabin Crew - 32,674
  - Engineers - 3,340
  - ATCO's - 377

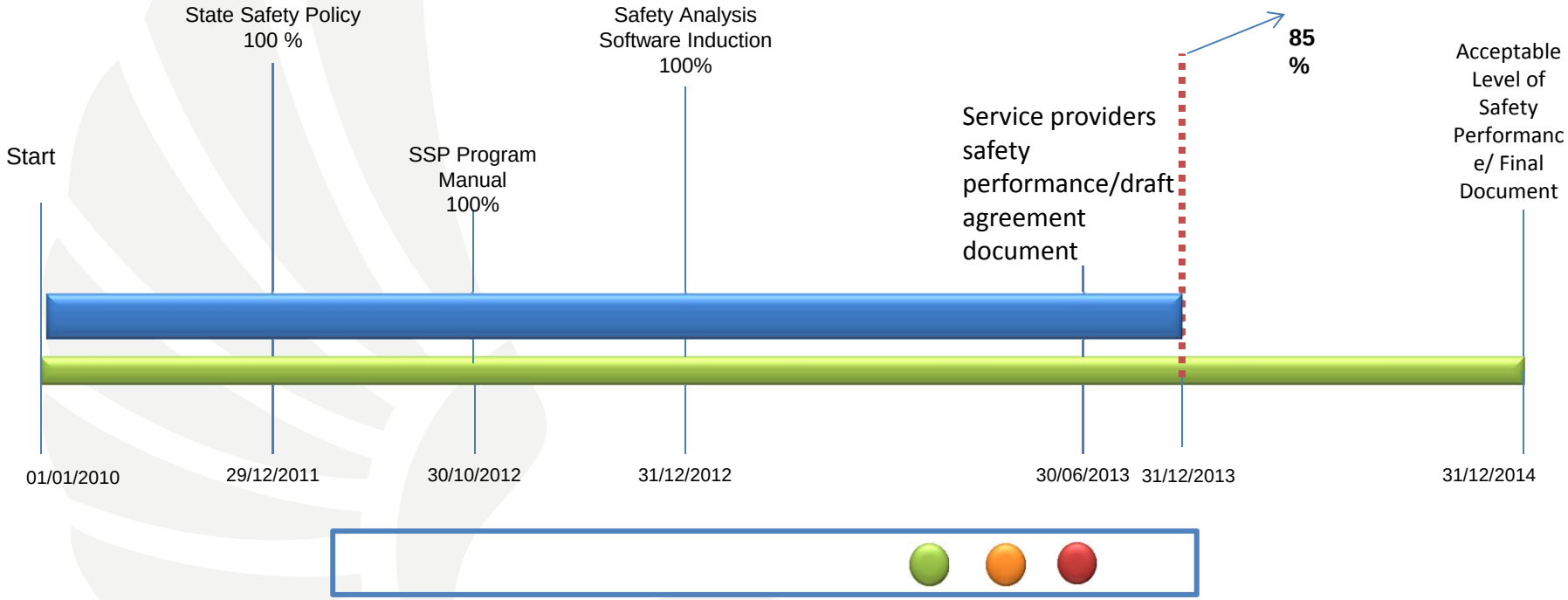
SSP Development

- Development Started in 2010
- Phased Approach Starting with Gap Analysis & Implementation Plan
- Project monitored by PMO office
- Project completion 31 Dec 2014



Overall Progress Status

Reporting Period: 1/3/2014–31/3/2014



Phase	Budget	Planned Completion	Status	Paid to Date	Remaining
SSP Project Charter has NIL budget. All activities are financed through STRATEX on annual basis.					
xxx	xxx	[date]	xxx		
xxx	xxx	[date]	xxx		
xxx	xxx	[date]	xxx		

SSP- State Safety Policy & Objectives

1.1 State Safety Legislative Framework

- ✈ UAE Civil Aviation Law & Regulations – in Place
- ✈State Safety Policy – Developed in 2011
- ✈Search & Rescue (SAR)
  - ✓Regulations – promulgated in 2011
  - ✓Certification of SAR Service Providers in 2013 end

SSP- State Safety Policy & Objectives – contd.

✈Search & Rescue (SAR) – contd.

- ✓Operations shared between UAE Defence Forces & Dubai Police
- ✓UAE National Centre for SAR – Under UAE Supreme Council for National Security
- ✓Certification/Over-Sight/Audit – GCAA ANA Dept.
- ✓SAR LAW signed by H.H The President

✈ Periodic Review of regulations– GCAA PRP Department

1.2 State Safety Responsibilities and Accountabilities

- H.E. the DG of GCAA is Accountable Executive for UAE SSP
- GCAA reorganisation completed in 2011
- Safety Management Committee (SMC) – 2012
- Industry committee coming soon

<u>Documentation</u>

- SSP Manual – 2014
- SSP Interdepartmental Procedures Manual - 2013

SSP - State Safety Policy & Objectives (contd.)

الهيئة العامة للطيران المدني
GENERAL CIVIL AVIATION AUTHORITY

1.3 Accident and Incident Investigation

- GCAA AAIS – An Independent Sector in GCAA

1.4 UAE Enforcement Standard

- Enforcement Standard Established in 2013
- Philosophy
- Provisions for minor violations - Non Punitive under SMS environment
- Conditions for enforcement actions

2.1 Safety Requirements for Service Provider's SMS

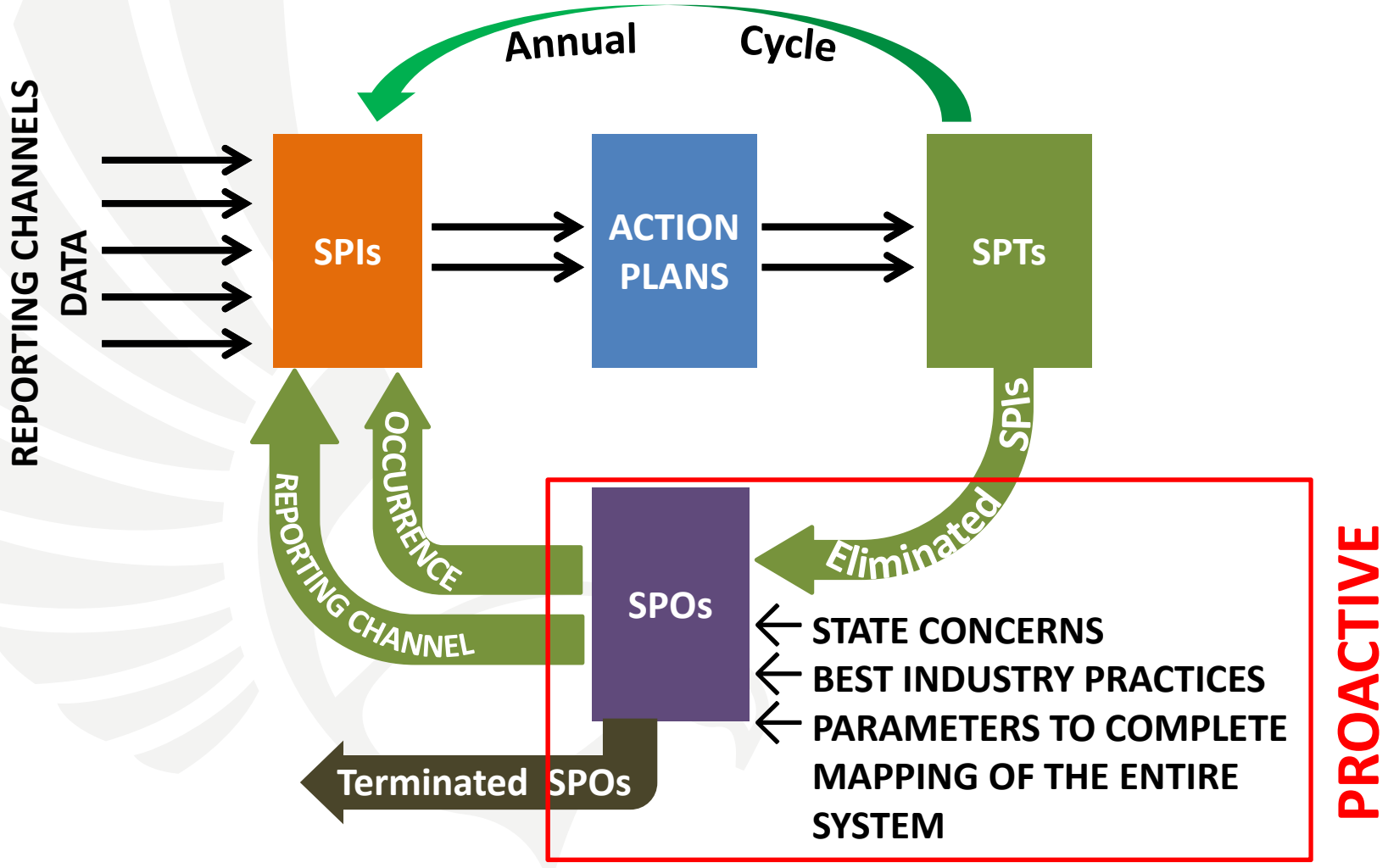
- CAR Part – X promulgated in 2010. revised once
- CAAP 50 Published as Guidance Material
- CAR Part – X revision in process as part of periodic review

2.2 Agreement on Service Providers SPM

Safety Performance Measurement

- SPM Model developed in 2012; Further Enhancement as per ICAO SMM 9859 3rd edition
- Industry education/ Assistance
- Achievement being monitored by PMO office
- 2nd Cycle in process - Completion by June 2014
- Initial UAE ALoSP - 31 Dec 2014

GCAA SPM MODEL



3.1 Safety Oversight

Oversight Plan

- Q Pulse for Audit Management
- Masdar for feedback
- SMS Audit Criteria established in 2012 (generic checklist)
- SMS Audits Completed in 2013
- Detailed SMS Audit criteria development in process
- Risk profiling soft launch in June 2014
- SPMs Audits initiated in 2014

3.2 Safety Data Collection, Analysis & Exchange (SDCPS)

- ROSI – 2010
- VORSY – 2012
- RODGO/ROSB – 2013

✈ Data Analysis – 2013

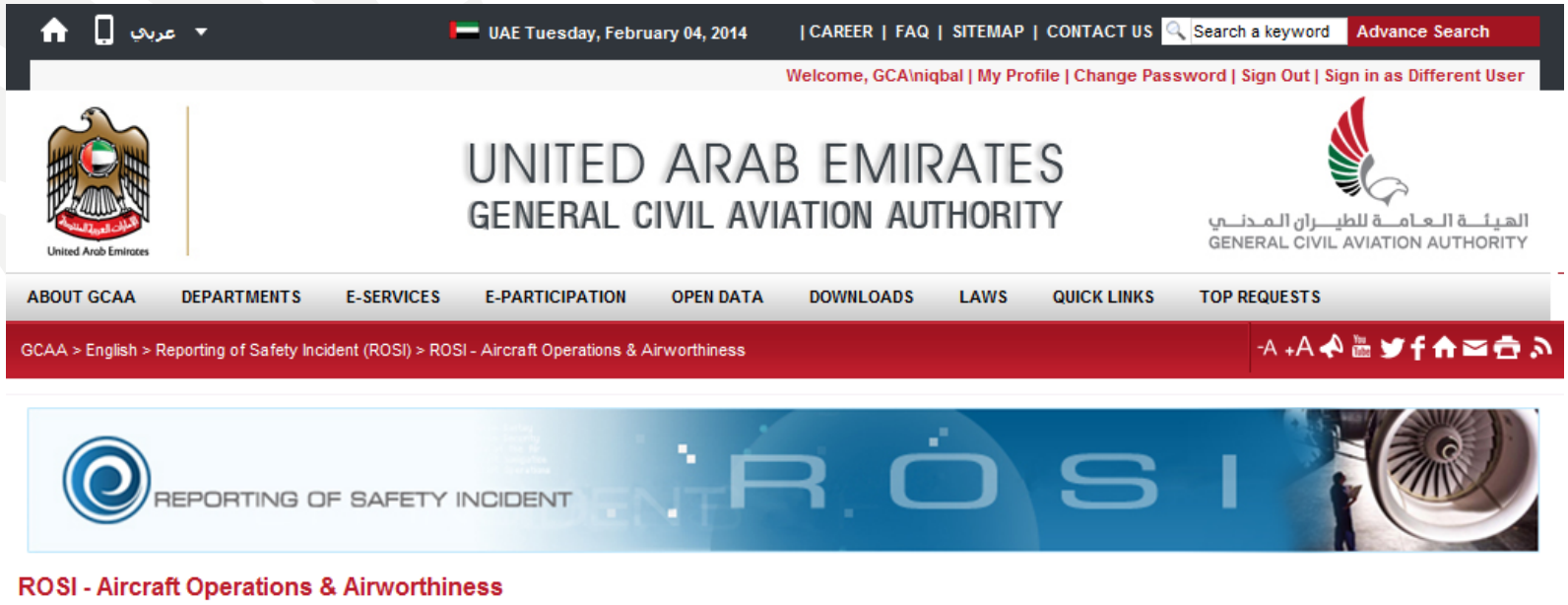
✈ Safety Information Protection (SIP) Law – In process

✈ Accident & Incident reporting to ICAO – In Place

✈ Data Sharing & Information Exchange – Development in process

ROSI DATA

- **PERIOD** **1 JAN 2010 – 31 DEC 2013**
  - ✈ TOTAL – 15,741
  - ✈ OPS ROSI (AOAW) – 6017
  - ✈ ANA ROSI (ATC, AOP, BWI) – 9724



VOLUNTARY REPORTING SYSTEM (VORSY)

United Arab Emirates

الهيئة العامة للطيران المدني
GENERAL CIVIL AVIATION AUTHORITY

Launched in 2012

Objective

- To capture hazards, incidents and errors which may not have been reported through mandatory reporting system
- Voluntary &
- Confidential
- CAAP 57

3.3 Safety Data Driven Targeting of Oversight of Areas of Greater

Concern or Need:

✈ Initiated in 2013

✈ Organisation Risk Profiling Criteria (checklist) – 2013

- Developed as per ICAO guidelines for UAE service providers

SSP - State Safety Promotion

4.1 Internal Training, Communication and Dissemination of Safety Information

4.2 External Training, Communication and Dissemination of Safety Information

- Ongoing & Continuous Process/Program
  - ✈ Conferences
  - ✈ Seminars
  - ✈ Workshops
  - ✈ Newsletters
  - ✈ Promotional Materials
  - ✈ Safety Alerts

THANK YOU

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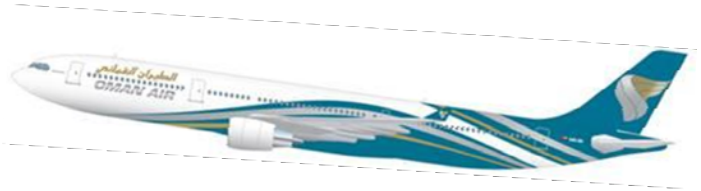
Presentation #2

ICAO/IATA 2nd MID Region Safety Summit

28th APR 2014

Safety Management System
Safety Department,
Oman Air

Capt Waheed Al Subhi



State Safety Program

- **State Safety Programme for the Sultanate of Oman**
- Produced by the Civil Aviation Affairs in conjunction with the Ministry of Transport and Communications
- Published April 2011

Gap Analysis

The out come from the gap analysis:

- SMS Documentation
- SMS Training
- SMS Tool
- Hazard Reporting
- Establish Risk Management
- Feedback

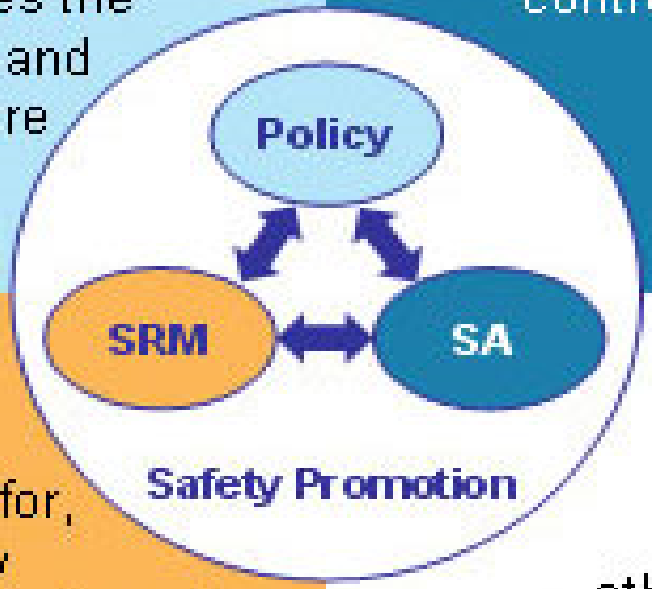
SMS components

Safety Policy

Establishes senior management's commitment to continually improve safety; defines the methods, processes, and organizational structure needed to meet safety goals

Safety Assurance

Evaluates the continued effectiveness of implemented risk control strategies; supports the identification of new hazards



Safety Risk Management

Determines the need for, and adequacy of, new or revised risk controls based on the assessment of acceptable risk

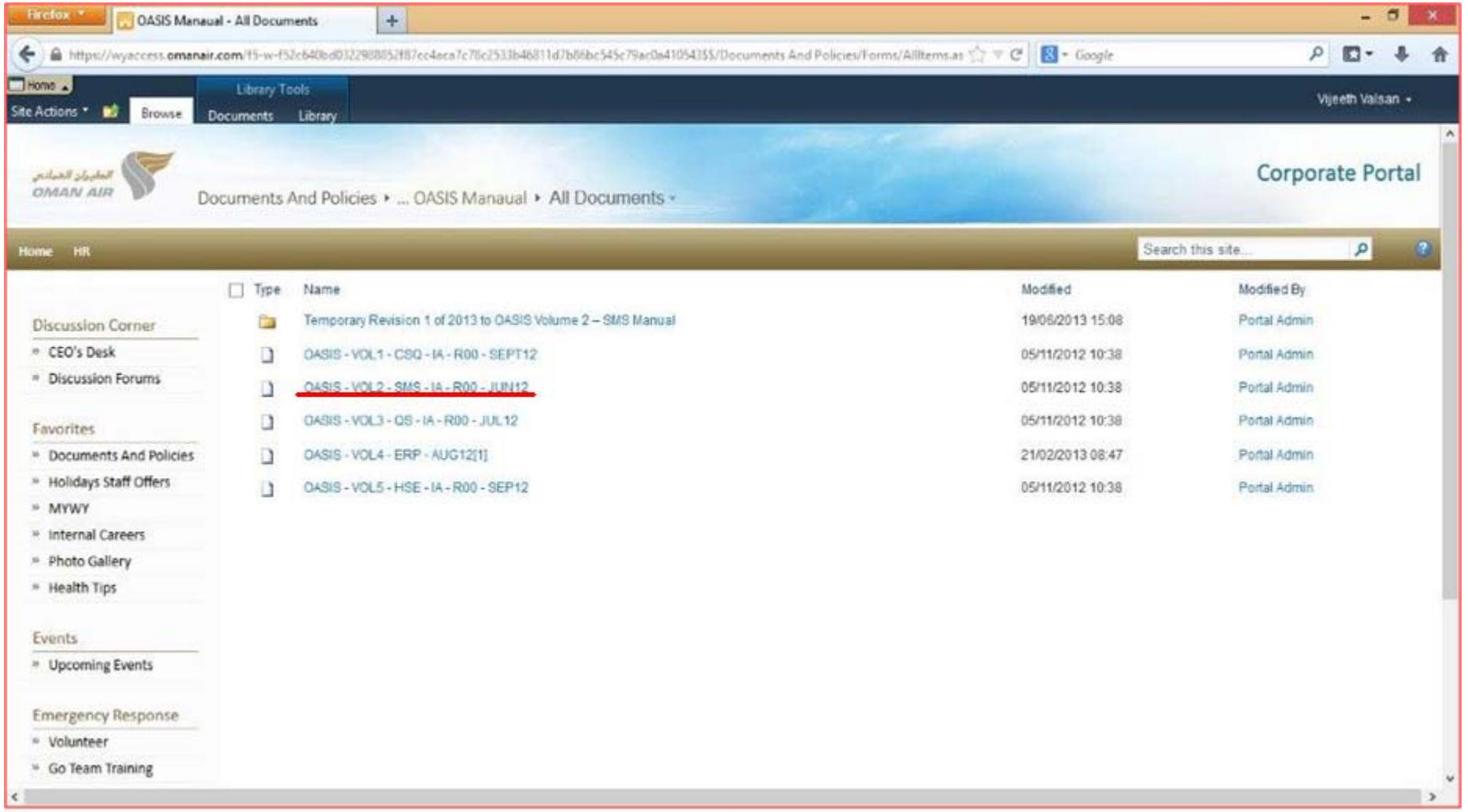
Safety Promotion

Includes training, communication, and other actions to create a positive safety culture within all levels of the workforce

Documentation

SMS manual established on JUN 2012 and approved by Oman PACA in SEP 2012 and it is available for all staff in Oman Air portal under Q&S department, OASIS manual.

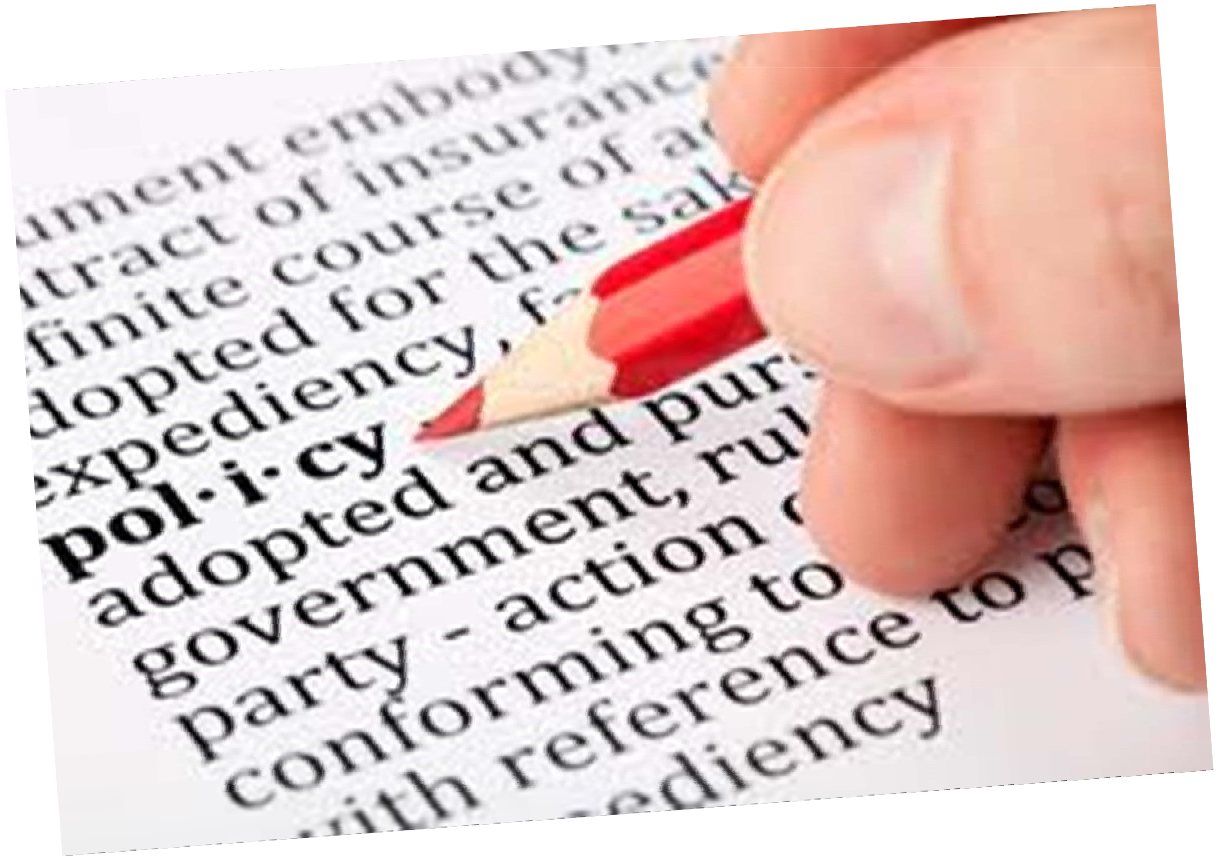
OMAN AIR PORTAL



Management commitment

الطيران العماني
OMAN AIR

Safety



OMAN AIR SAFETY POLICY

OMAN AIR SAFETY POLICY

In Oman Air, safety is one of our core business functions. Safety has been, and always will remain the first priority in all our activities. We are committed to conduct our business in a manner that ensures the safety of our employees, customers, the general public, external contractors, agents and associated organisations. We will constantly strive to develop, implement, maintain and improve strategies and processes to ensure that all our aviation activities are aimed at achieving the highest level of safety performance and meeting national and international standards.
We will achieve our safety goals through the medium of the corporate Safety Management System, which ensures that all levels of management and all employees are accountable for the delivery of the highest level of safety performance, starting with the Chief Executive Officer.
Our commitment is to:

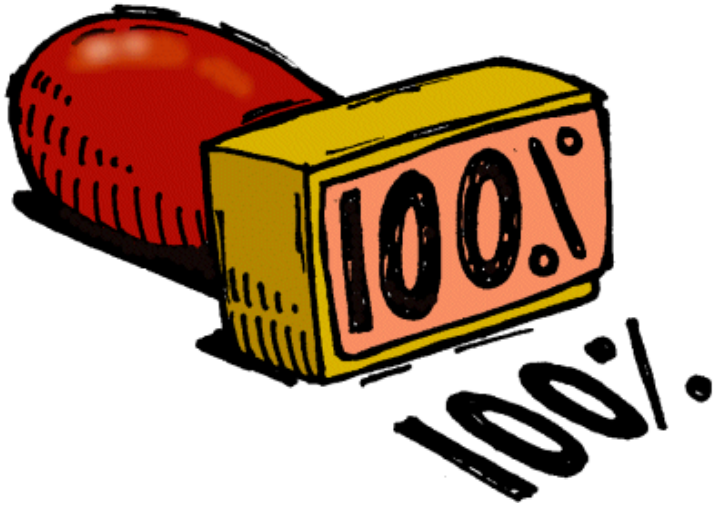
- ***Support*** *the management of safety through the provision of all appropriate resources, that will result in an organizational culture that fosters safe practices, encourages effective safety reporting and communication, and actively manages safety with the same attention to results as the attention to the results of the other management systems of the organization;*
- ***Enforce*** *the management of safety as a primary responsibility of all managers and employees;*
- ***Clearly*** *define for all staff, managers and employees alike, their accountabilities and responsibilities for the delivery of the organization's safety performance and the performance of our safety management system;*
- ***Establish and operate*** *hazard identification and risk management processes, including a hazard reporting system, in order to eliminate or mitigate the safety risks of the consequences of hazards resulting from our operations or activities to a point which is as low as reasonably practicable (ALARP);*
- ***Ensure*** *that no action will be taken against any employee who discloses a safety concern through the safety reporting system, unless such disclosure indicates, beyond any reasonable doubt, an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures;*
- ***Comply*** *with and, wherever possible, exceed, legislative and regulatory requirements and standards;*

Ensure *that sufficient skilled and trained human resources are available to implement safety strategies and processes;*

- ***Ensure*** *that all staff are provided with adequate and appropriate aviation safety information and training, are competent in safety matters, and are allocated only tasks commensurate with their skills;*
- ***Establish and measure*** *our safety performance against realistic safety performance indicators and safety performance targets;*
  - ***Continually improve*** *our safety performance through management processes that ensure that relevant safety action is taken and is effective; and*
  - ***Ensure*** *externally supplied systems and services to support our operations are delivered meeting our safety performance standards.*

Wayne Pearce
Chief Executive Officer

Captain Manin Al Said
General Manager Quality & Safety



SAFETY REVIEW BOARD

Safety Review Board

SAFETY ACTION GROUP

SAFETY OVERSIGHT COMMITTEE

SAFETY TARGETS & GOALS

- Identify Top Risks in their area of operations and the risk mitigation strategies
- Set measurable SAFETY TARGETS/ SAFETY GOALS
- Follow up and track investigation reports and findings till closure
- Work closely with DGSAS & other strategic partners

RISK ASSESSMENT

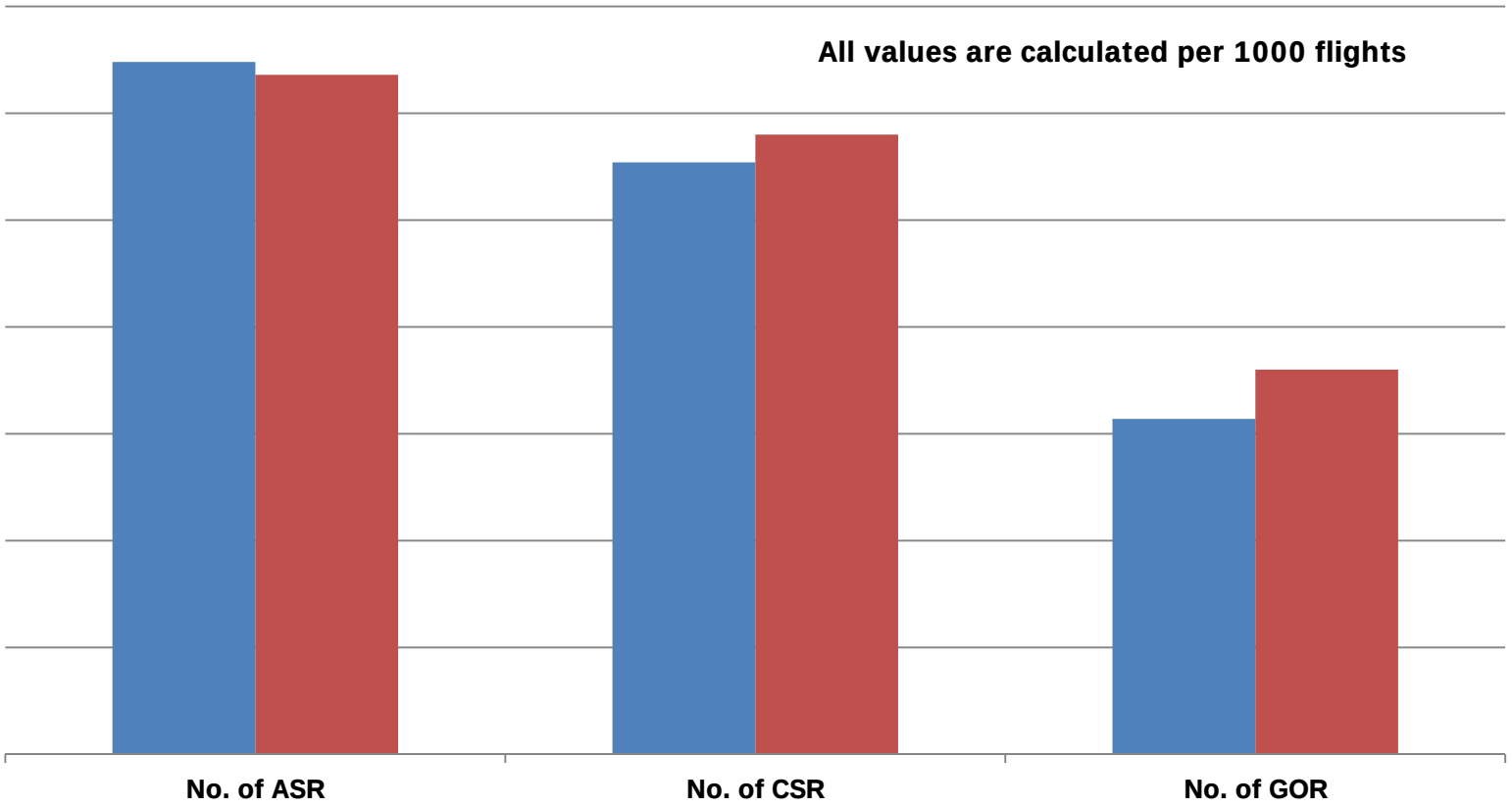
Risk Probability	Risk Severity				
	Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
Frequent 5	5A	5B	5C	5D	5E
Occasional 4	4A	4B	4C	4D	4E
Remote 3	3A	3B	3C	3D	3E
Improbable 2	2A	2B	2C	2D	2E
Extremely Improbable 1	1A	1B	1C	1D	1E

PROBABILITY of Occurrence		
Qualitative Definition	**Meaning**	**Value**
Frequent	Likely to occur many times *(has occurred frequently)*	5
Occasional	Likely to occur some times *(has occurred infrequently)*	4
Remote	Unlikely, but possible to occur *(has occurred rarely)*	3
Improbable	Very unlikely to occur *(not known to have occurred)*	2
Extremely improbable	Almost inconceivable that the event will occur	1
SEVERITY of Occurrence		
Aviation Definition	**Meaning**	**Value**
Catastrophic	➢ Equipment destroyed. ➢ Multiple deaths.	A
Hazardous	➢ A large reduction in safety margins, physical distress or a workload such that the operators cannot be relied upon to perform their tasks accurately or completely. ➢ Serious injury. ➢ Major equipment damage.	B
Major	➢ A significant reduction in safety margins, a reduction in the ability of the operators to cope with adverse operating conditions as a result of increase in workload, or as a result of conditions impairing their efficiency. ➢ Serious incident. ➢ Injury to persons.	C
Minor	➢ Nuisance. ➢ Operating limitations. ➢ Use of emergency procedures. ➢ Minor incident.	D
Negligible	➢ Little consequences	E

Safety Performance Indicators

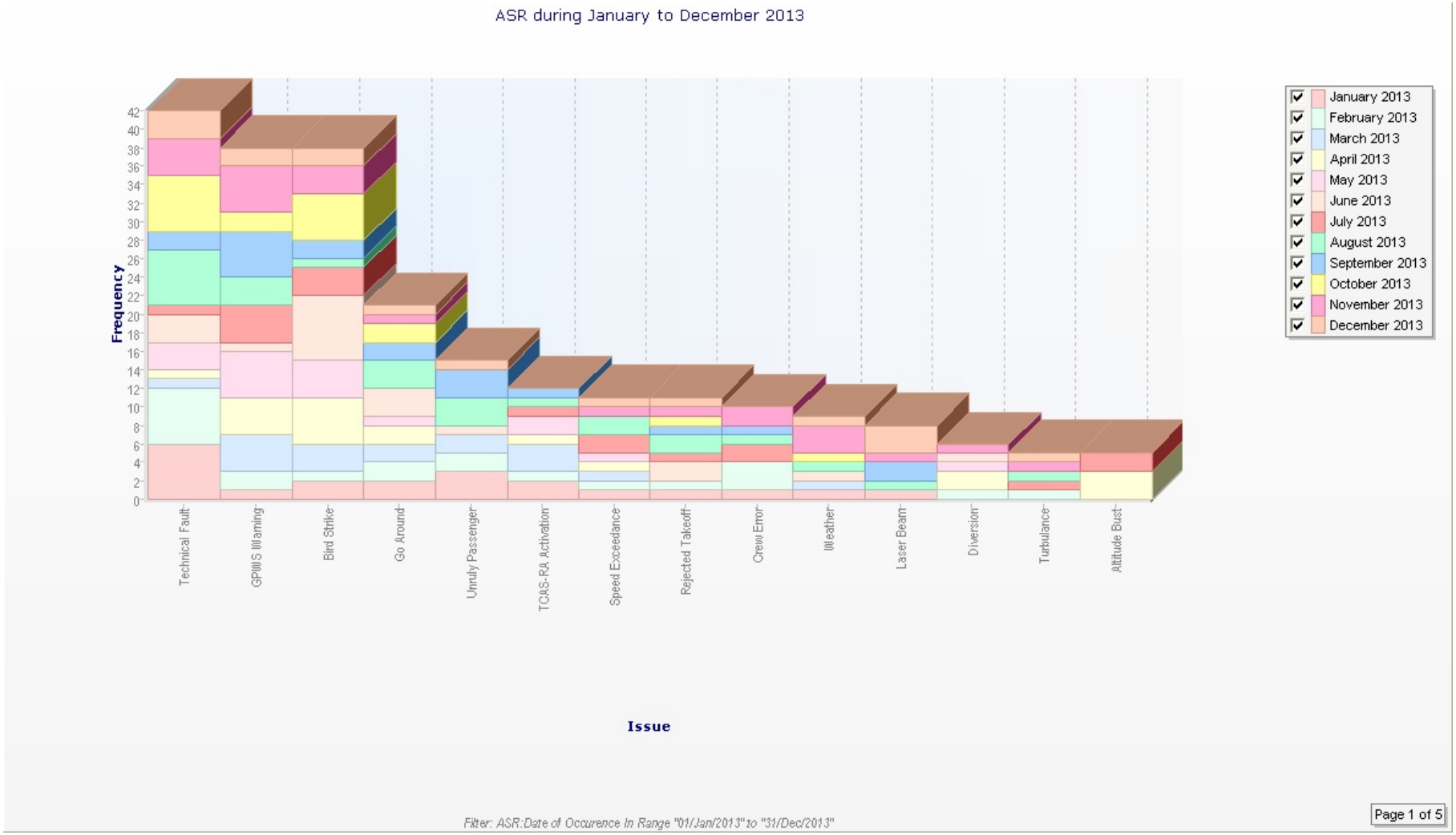
Parameter name	Value per 100 Flights for 2011	SPI	Target reference to 2011 Value per 100 Flights	Value per 100 Flights for 2012	Remark	Value per 100 Flights for 2013 (Jan-Dec)	Target Date
No. of ASR's	aaaa	increase the reporting by 5%	aaaa	aaaa	Safety Culture Healthy	aaaa	Dec 2013
B737							
High ROD below 500 ft	bbbb	Reduction in High ROD below 500 ft /100 flights by by 5%	bbbb	bbbb	↘	bbbb	Dec 2013
Late Flap Configuration	aaaa	Reduction in Late Flap Configuration/ 100 flights by 5 %	aaaa	aaaa	↘	aaaa	Dec 2013
TCAS RA	bbbb	Reduction in TCAS RA/ 100 flights by 20%	bbbb	bbbb	↘	bbbb	Dec 2013
A330							
Late Flap Configuration	aaaa	Reduction in Late Flap Configuration/ 100 flights by 5 %	aaaa	aaaa	↘	aaaa	Dec 2013
ATR							
High ROD below 500 ft	bbbb	Reduction in High ROD below 500 ft /100 flights by 5 %	bbbb	bbbb	↘	bbbb	Dec 2013
E175							
High ROD below 500 ft	aaaa	Reduction in High ROD below 500 ft /100 flights by 5%	aaaa	bbbb	↘	aaaa	Dec 2013

Reporting Trend

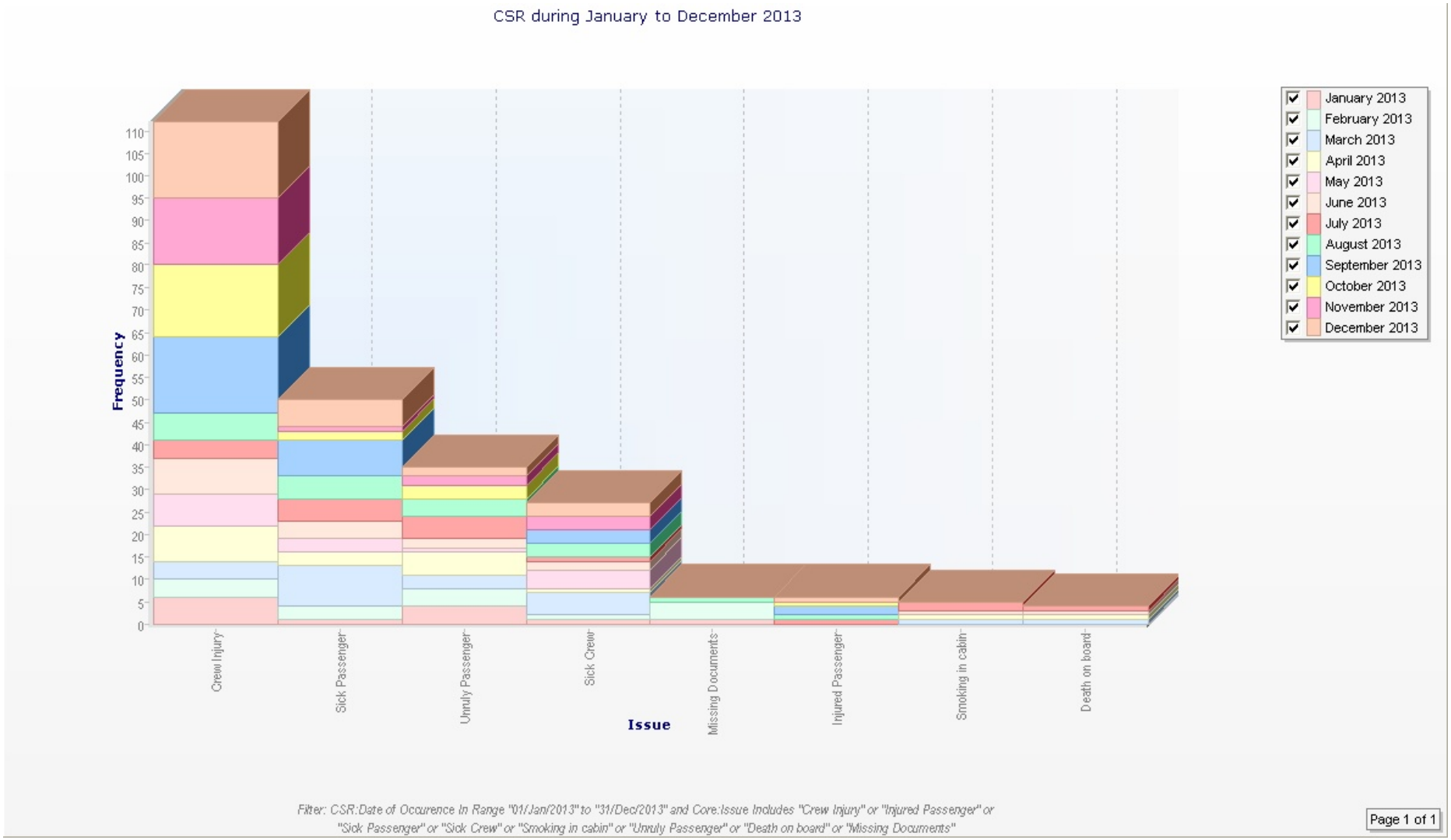


Total Flights 2012: 43790
Total Flights 2013: 51567

Event Types - ASR

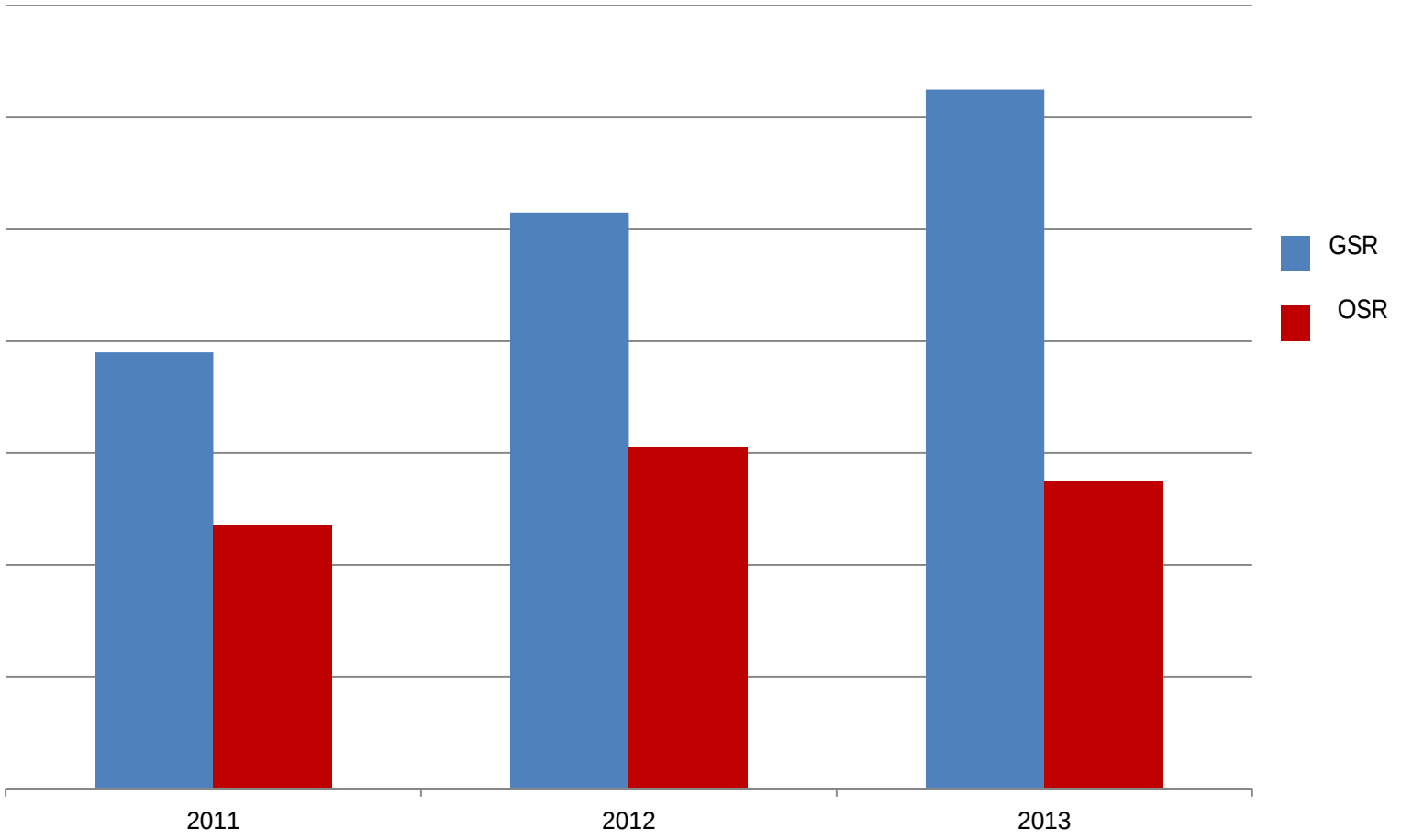


Cabin Safety - Events



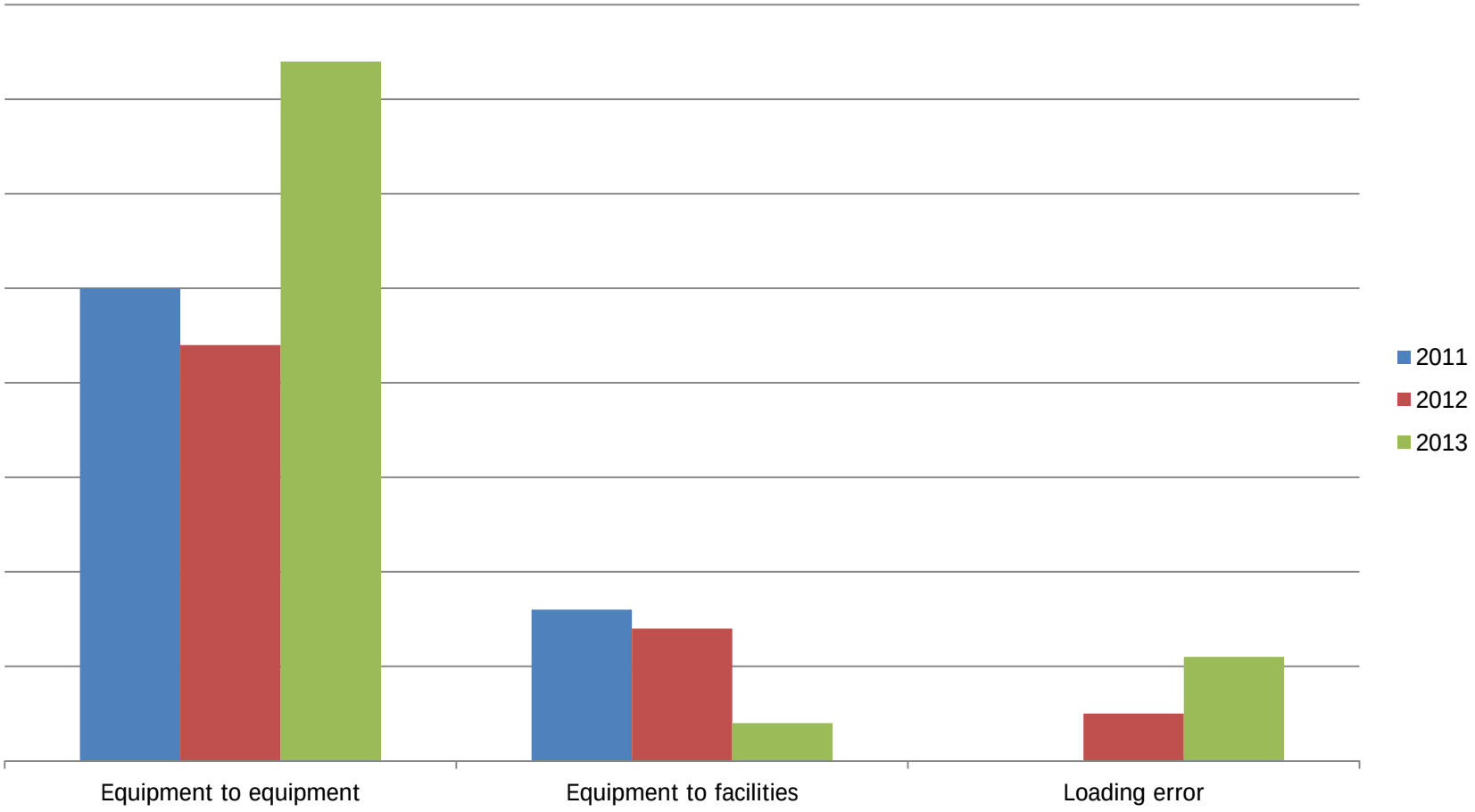
Safety Reports Statistics - GOR

GSR / OSR



Safety Reports Statistics - GSR

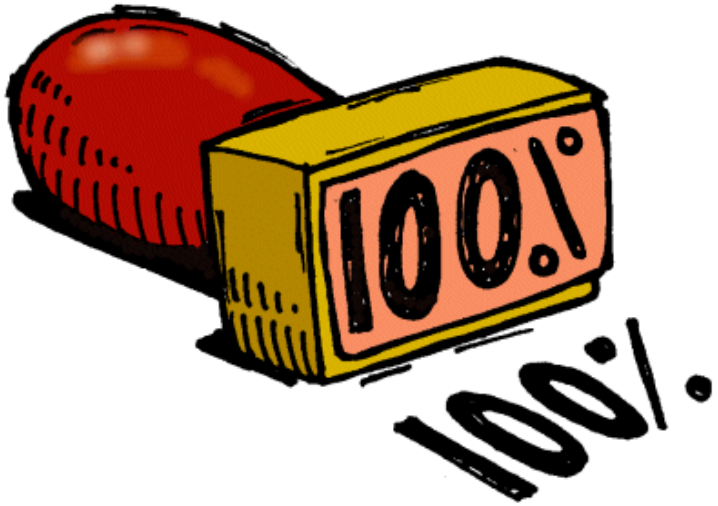
GSR



OPEN REPORTING

Oman Air's 'Open Reporting & Just Culture' Management Statement	بيان الإدارة حول "سياسة الإبلاغ عن حوادث السلامة بالطيران العمانى"
Errors within any system are generally the outcome of being human, the design of a system, and our individual behavioural choices when interacting with that system.	بصورة عامة فإن الأخطاء داخل أى نظام تنتج بسبب الأخطاء البشرية أو لخلل فى تصميم النظام نفسه أو بسبب الإختيارات السلوكية للأفراد عند تعاملهم مع النظام.
Oman Air is committed to a strategy of continually striving for, and achieving, enhanced safety outcomes. In order to achieve this, it is imperative that we learn from our mistakes, strive to reduce instances of human error in the future, and to develop systems that are more error tolerant.	يلتزم الطيران العمانى بوضع إستراتيجية تتضمن تدعيم عناصر السلامة ومن ثم تحقيق أفضل النتائج ، ولهذا فإنه من الضرورى أن نتعلم من أخطائنا وأن نعمل جاهدين للحد من الأخطاء البشرية فى المستقبل ووضع أنظمة عالية الكفاءة تقلل من نسبة حدوث الأخطاء.
Consistent with this strategy, and our individual safety responsibilities, **it is imperative that all Oman Air staff report instances of human error in which they are personally involved**, or that they become aware of through any circumstances.	وتنفيذاً لهذه الإستراتيجية ، فضلاً عن مسئوليتنا لضمان سلامة الأفراد ، فاننا نطلب من موظفى الطيران العمانى ضرورة قيام الأفراد المتسببين فى وقوع أى أخطاء بشرية بالإبلاغ عنها وكذلك الإبلاغ عن أى أخطاء يتسبب فيها آخرون تحت أى ظرف من الظروف .
Through the universal reporting of human errors, the organisation will be able to learn more about the risks existing within the business. Analysis and investigation of these errors will allow identification of contributing factors and the implementation of strategies to strengthen our systems and prevent future events.	من خلال قيام الأفراد بالإبلاغ عن الأخطاء البشرية فى أى مكان ، فستتمكن الشركة من معرفة المزيد من المخاطر التى تكتنف أنشطتها ، ثم القيام بالتحليل والتحقيق عن هذه الأخطاء ومن ثم تحديد الأسباب التى أدت إلى حدوثها وبالتالى تطبيق الإستراتيجيات الضرورية لتعزيز النظام ومنع وقوع مثل هذه الأخطاء فى المستقبل .
The effective dissemination of learning outcomes arising from the enhanced level of reporting will also provide for a more informed – and safer organisation and workplace.	أيضاً ومن خلال إبلاغ كافة الجهات المعنية بالنتائج التى تم التوصل إليها ، فإن ذلك سوف يؤدى إلى خلق بيئة سليمة ومناخ عمل أكثر إدراكاً وسلامة.
In the context of human error management, it is recognised that the achievement of enhanced safety outcomes will be materially improved through the uninhibited reporting of all incidents and occurrences that compromise safety within our operating environment.	وفى سياق إدارة الأخطاء البشرية ، فإنه من المسلم به أن تحقيق نتائج ملموسة ومحسنة فى جوانب وعناصر السلامة لن يتأتى إلا من خلال تقديم تقارير عن كافة الحوادث والأخطار التى تؤثر سلباً على السلامة داخل بيئة العمل .
To assure this outcome, all Oman Air staff are advised that under the terms of this 'Open Reporting & Just Culture' Management Statement, **no disciplinary action will be taken against any member of staff who reports an incident or occurrence involving human error, and who openly participates in the investigation and subsequent development of error prevention strategies.**	ولضمان تحقيق هذه النتائج ، وبمقتضى سياسة الإبلاغ عن حوادث السلامة ، فاننا نود التأكيد لكافة الموظفين بأنه لن يتم إتخاذ أى إجراءات تأديبية ضد أى موظف يقوم بالإبلاغ عن أى حوادث أو أخطار تتضمن أخطاء بشرية أدت الى وقوع الحوادث ، أو يشارك فى التحقيقات والإجراءات المتعلقة بإستراتيجيات منع حدوث الأخطاء .
This policy will not apply to employees who have behaved in a 'reckless' or illegal manner or who have committed a series of human errors that indicates a general lack of care and professionalism.	علما بأن هذه السياسة لن تنطبق على أولئك الموظفين الذين يتصرفون بإهمال أو بطريقة غير مشروعة فى أعمالهم أو الذين يرتكبون أخطاء متكررة تؤكد إهمالهم وعدم كفاءتهم فى العمل .
This Open Reporting & Just Culture Management Statement is complimentary to Oman Air existing Safety Policy.	يعتبر هذا البيان المتعلق بسياسة الإبلاغ عن حوادث السلامة مكملاً لسياسة السلامة المطبقة حالياً بالشركة .

Wayne Pearce
Chief Executive Officer
01 July 2012



Safety Reporting Systems

What to report ?

When to report ?

How to report ?

Whom to report to ?

Where to report ?

Safety Reporting Systems(Forms)

- **ASR ……Flight crew.**
- **CSR……Cabin crew.**
- **GOR……Ground Ops staff.**
- **AOR……maintenance staff.**
- **HSE……(TBN)**
- **FRMF……(TBN)**
- **SCR……All STAFF.** SCR@omanair.com or fill up the SCR Form

SAFETY COMMUNICATION

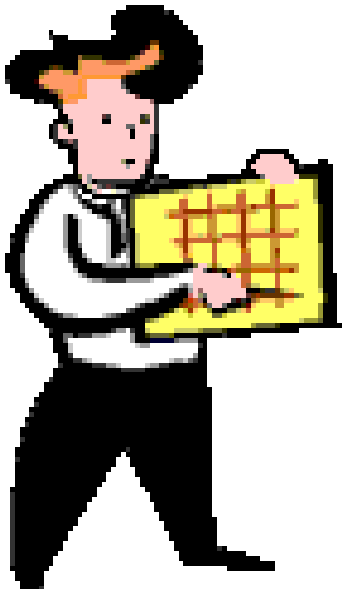
MONTHLY STATISTICS

SAFETY EXCHANGE

WY SHARES SAFETY DATA WITH:

- IATA STEADES
- Participate in the IATA IRM
- Members of GFSC /ISASI/FSF.

FOCUS IN 2014



- Amend and review the SMS manual.
- Promote Safety Culture
- Safety Campaigns
- SMS Training.
- Enhance software to manage risk module for all risk assessments.

THANK YOU

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27- 29 April 2014
Muscat, Oman

SSP/SMS Implementation

Session #8
Presentation #3

ON TARGET

Implementing Safety Management in Kuwait Airways

Safety Department

ON TARGET

Agenda

Implementing Safety Management in Kuwait Airways

- **Safety Management Project** – *A brief description of the Safety Management Project.*
- **The Concept of Safety Management** – *A brief description of Safety Management*
- **Implementing Safety Management** – *A description of the implementation process.*
- **Obstacles faced during Implementation** – Account of obstacles face during implementation and corrective measures taken
- **Results**– A description of the Safety Management System implementation results.
- **Conclusion** – Conclusion of implementation a safety management system in Kuwait Airways

ON TARGET

الخطوط الجوية الكويتية
KUWAIT AIRWAYS
Since 1954 منذ عام

1

Safety Management Project

ON TARGET

Safety

Management Project

Kuwait Airways Board of Governors in December 2004, under directions from the Kuwaiti Government, instructed Kuwait Airways CEO to ensure a safety management system is fully implemented prior to the expected privatization of the airlines in December 2006.

ON TARGET

Implementation Concerns:

The limited time to implement SMS combined with the age and size of the organization posed the largest threat to success of the project.

Careful planning was therefore needed.

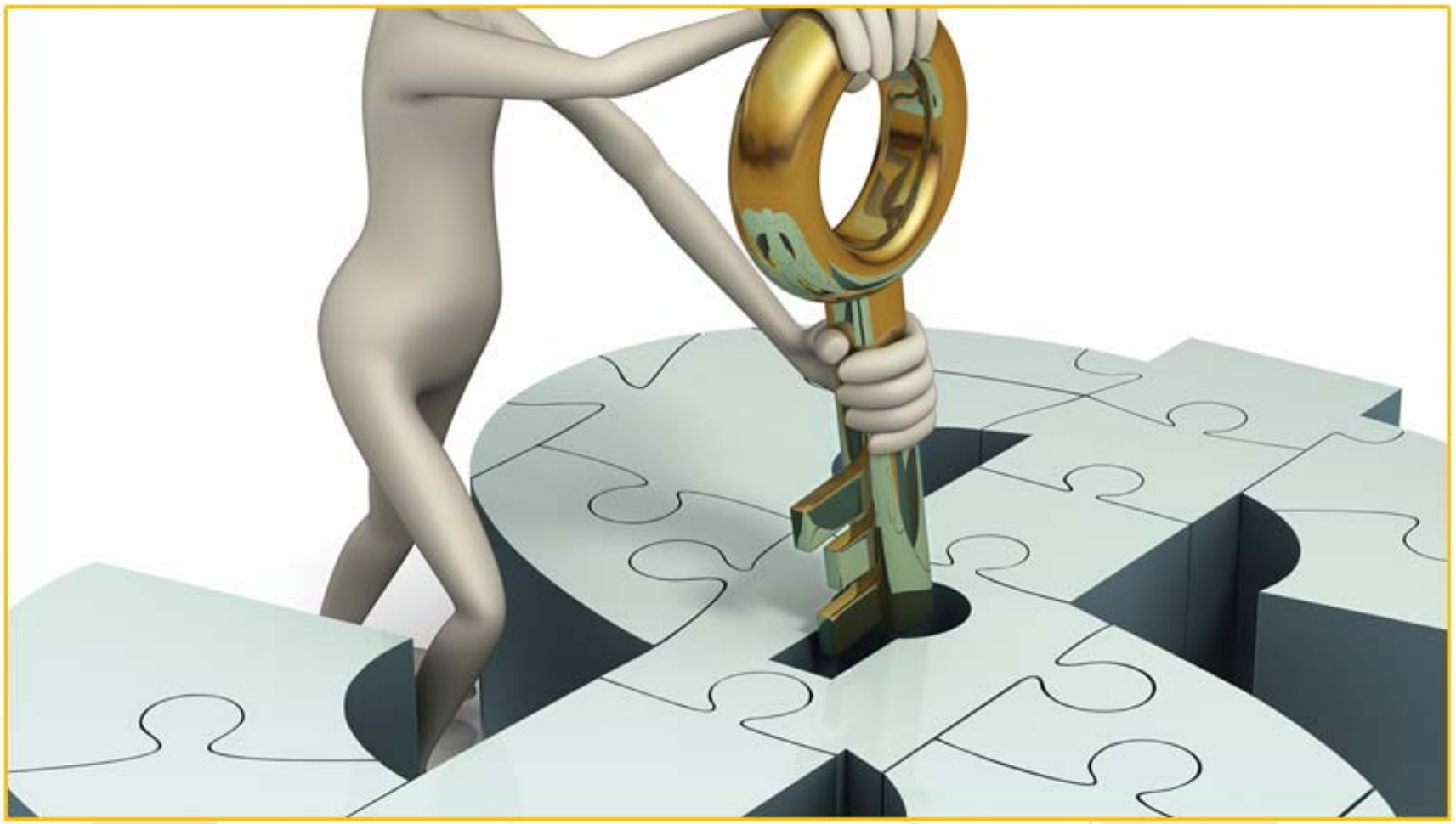
ON TARGET

KUWAIT AIRWAYS
الخطوط الجوية الكويتية
Since 1954 منذ عام

2

The Concept of Safety Management

ON TARGET



Safety Management makes good business sense, it unlocks the potential to improve efficiency, lower costs related to events and advance the organization’s image.

ON TARGET

Key Elements of Safety Management:

1. Gain senior management commitment.
2. Set safety management policies and objectives.
3. Appoint a safety officer.
4. Set up a safety committee. (*or committees*)
5. Establish a process to manage risks.
6. Set up a reporting system to record hazards, risks and actions taken.
7. Train and educate staff.
8. Audit your operation and investigate incidents and accidents.
9. Control documentation and safety data.
10. Evaluate how the system is working.

ON TARGET

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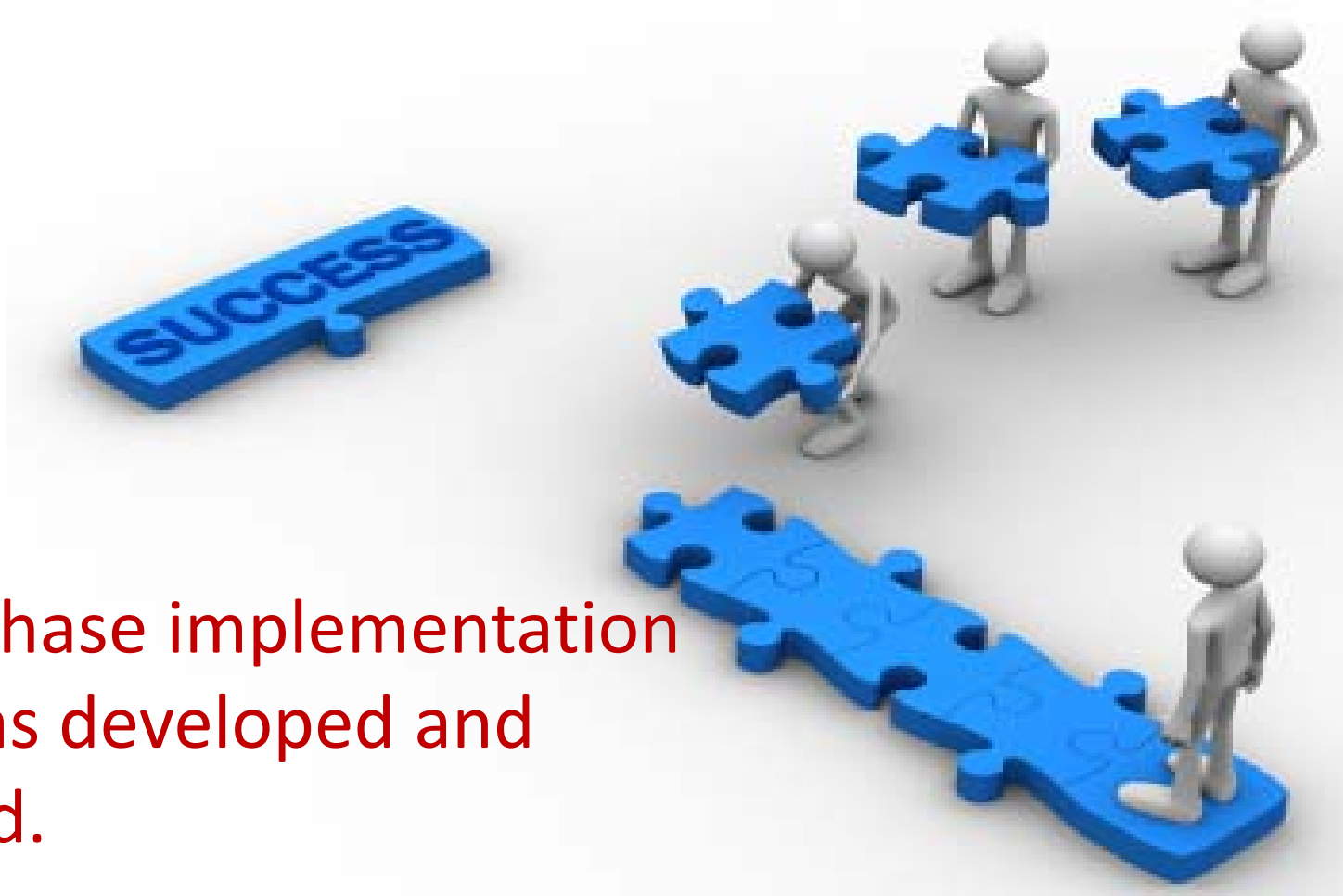
3

Implementing of Safety Management

To ensure effective implementation of SMS, a phased plan must be first developed.



A five phase implementation plan was developed and adopted.

ON TARGET

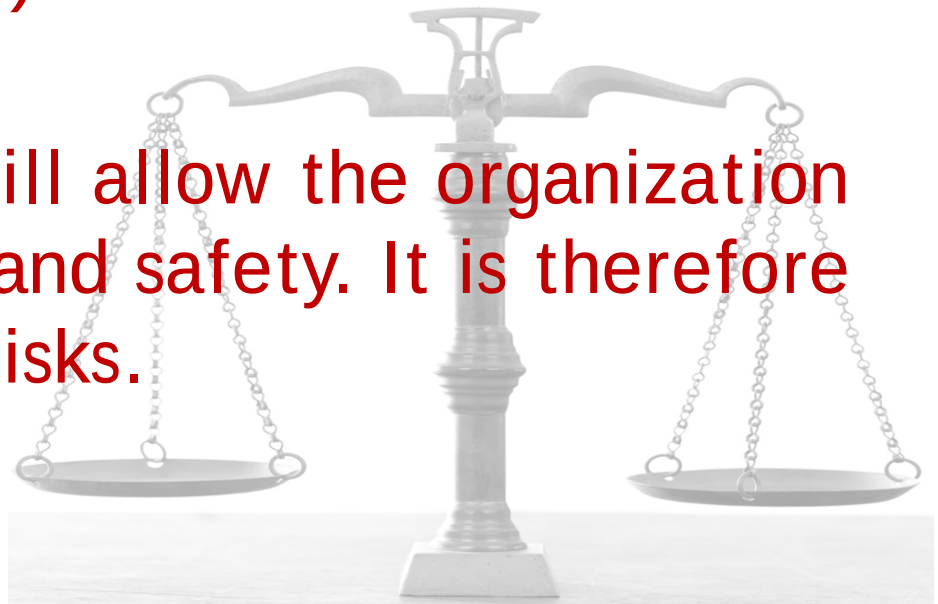

Phase 1
Planning & Review
Management Commitment
Phase 2
Oganization
Phase 3
Safety Oversignt
Phase 4
Risk Management
Safety Analysis
Phase 5
Outsourced Functions
Continuous Monitoring.
Re-evaluated

ON TARGET

Risk Management

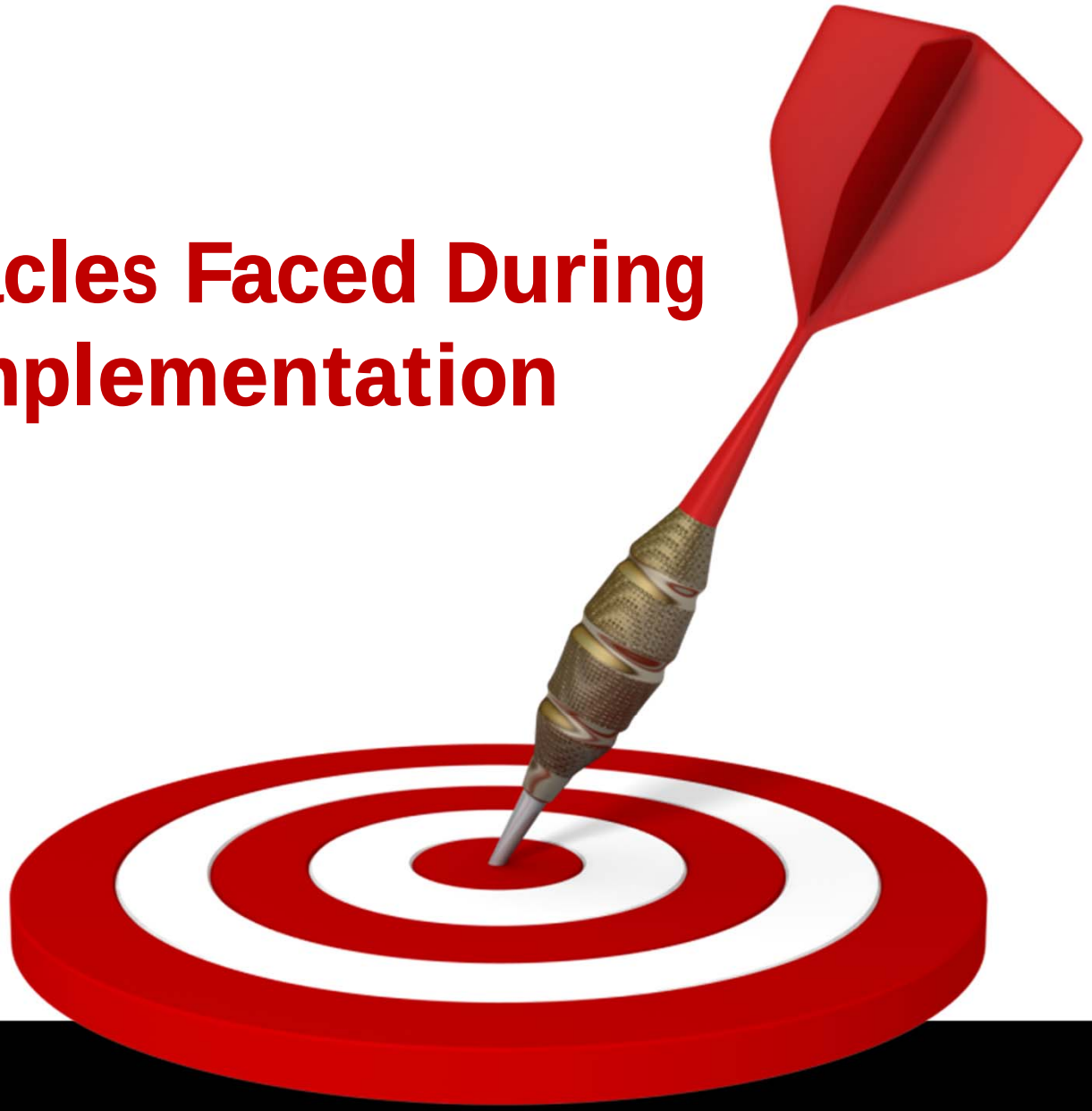
Risk management is the actions taken to identify hazards, evaluating of the risk associated with the hazards (risk analysis) and then the action taken to reduce or eliminate the risk (risk mitigation).

Management of risks will allow the organization to balance production and safety. It is therefore important to quantify risks.



4

Obstacles Faced During Implementation



ON TARGET

Obstacles

During the implementation, a number of unexpected obstacles appeared and needed to be addressed to ensure that the SMS is implemented effectively.

These obstacles are as a direct result of:

- ✓ The size and age of the organization,
- ✓ The existence of effective SOP's,
- ✓ The effectiveness of existing Quality system,
- ✓ The level of support from top management.

ON TARGET

Obstacles

Some of the most significant obstacles are:

- ✓ 1 Reluctance of some management to apply SMS
- ✓ 2 Rejection of some staff to accept safety inspectors
- ✓ 3 Some Managers & Supervisors apposed the non-punitive policy
- ✓ 4 Reluctance to apply safety recommendations
- ✓ 5 Departments were reluctant to transfer staff to the safety office
- ✓ 6 Reluctance of management to include Safety in changes

Most obstacles were attributed to cultural issues and/or lack of Safety Management awareness.

ON TARGET

Cultural issues proved to be the most difficult to resolve.

Type of Cultures:

- ✓ National
- ✓ Organization
- ✓ Professional

ON TARGET

CULTURES

During the implementation, the culture of the organization and the existing negative mindset of a large number of staff proved to be the most difficult of obstacles to overcome.

ON TARGET

National, Organization and professional cultures all play a critical role in safety management.

Management support, awareness training and drastic measures were applied to eliminate these issues.

ON TARGET

5

Results

ON TARGET

RESULTS

The safety management system was successfully implemented in Kuwait Airways within the specified time.

Continuous top management support ensured that personnel within the organization worked towards implementing safety management.

Safety management demonstrated its benefits in KAC in a very short time.

ON TARGET

6

Conclusion

ON TARGET

CONCLUSION

Planning and implementing a safety management system within an organization in a limited period such as two years while the organization is undergoing structure changes is plausible but also extremely challenging.

Top management commitment proved to be one of the primary pillars to the success of the safety management system.

Culture has a direct impact on how well and effective a safety management system operates.

ON TARGET

CONCLUSION

For myself, this project allowed me to utilize and put in practice strategic management knowledge, safety management skills and airline management know – how into practical use.

The project also gave me first hand evidence that a well implemented SMS will also attribute to a better and more efficient organization.

It is very important to ensure that top management understand and be fully convinced of SMS **BEFORE** implementation.

ON TARGET

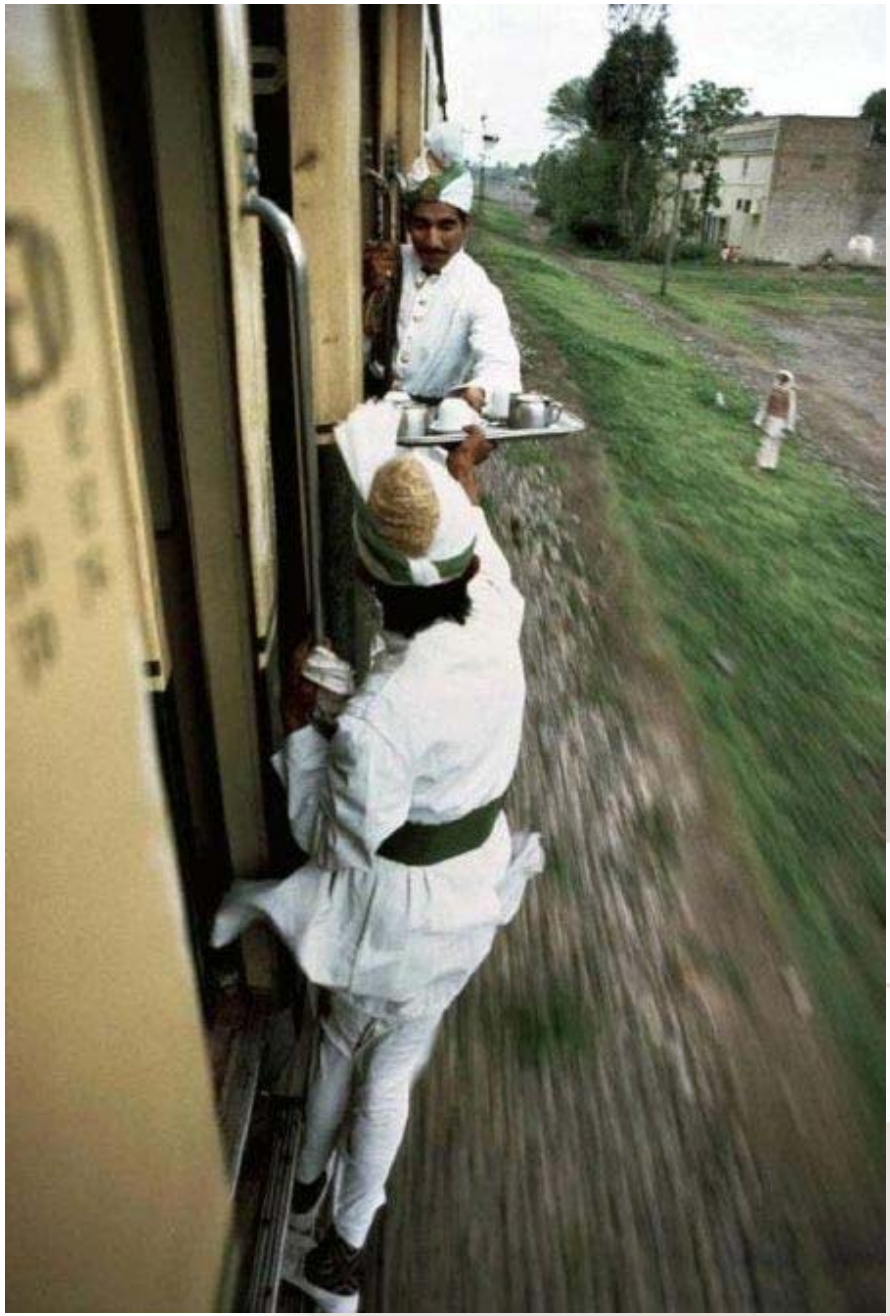
SIMPLIFYING SMS

Hazard

Risk

(Likelihood + Consequences)


Management Team Work is essential
in implementing SMS

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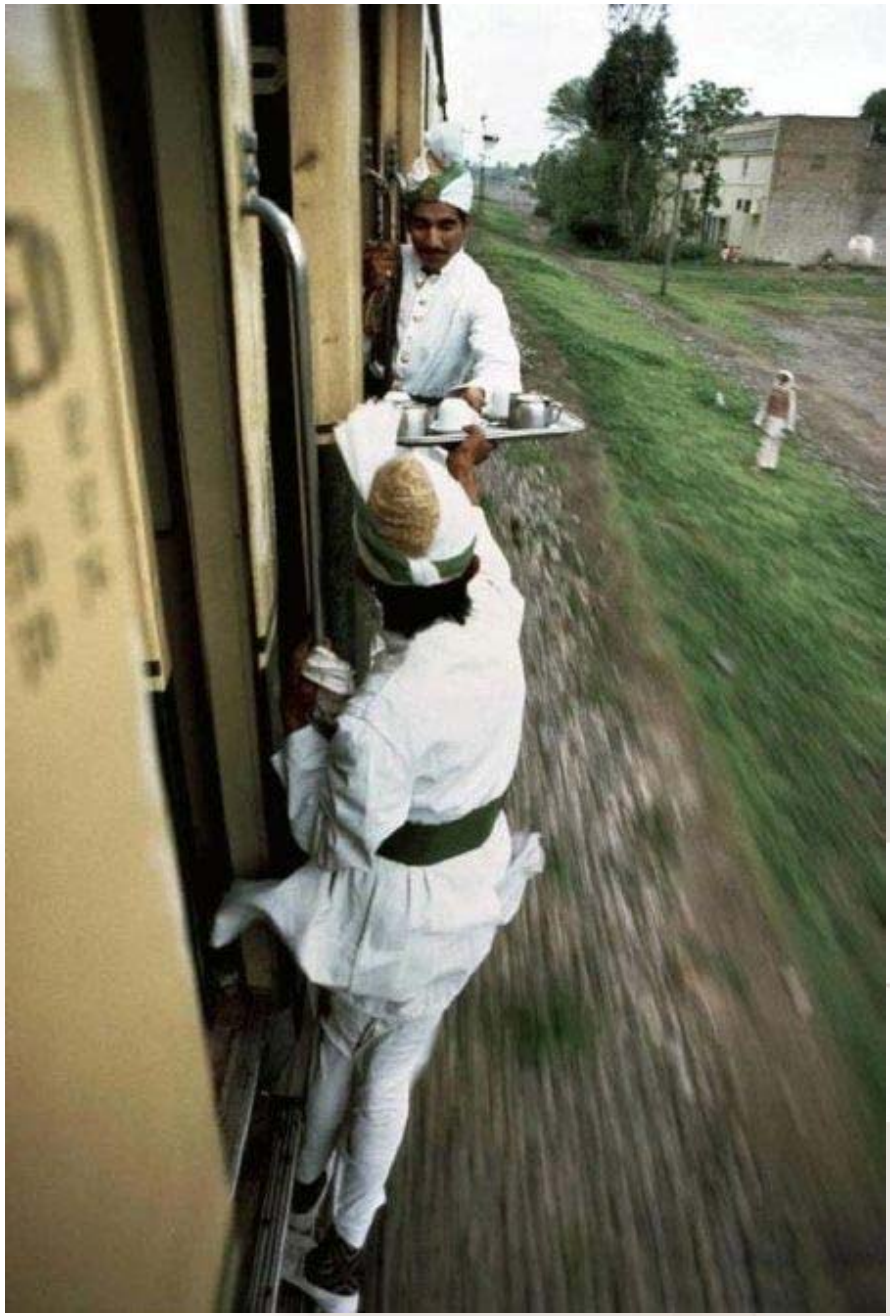
Thank you


Management Team Work is essential
in implementing SMS

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The Second MID Region Safety Summit

27- 29 April 2014
Muscat, Oman

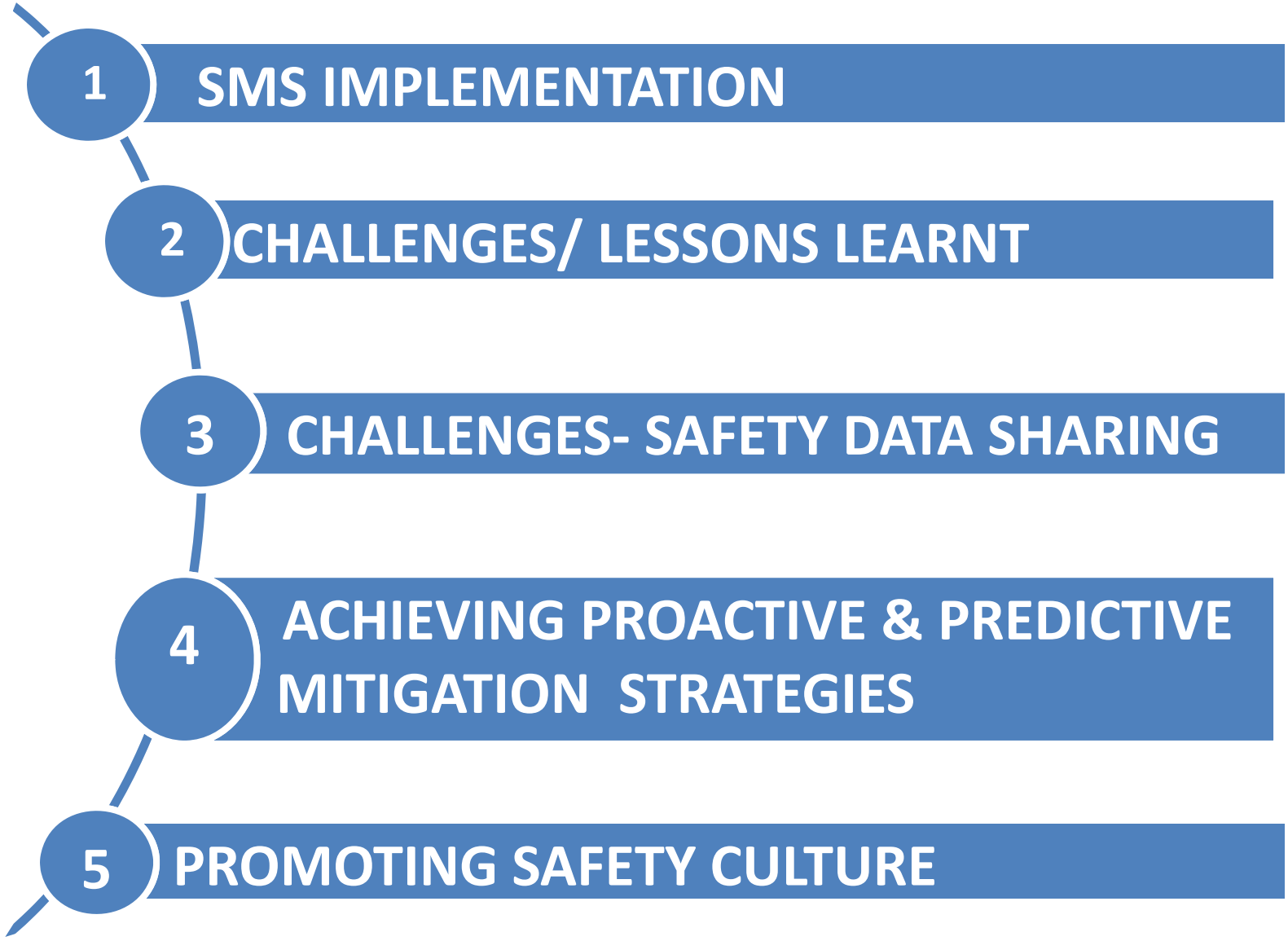
SSP/SMS Implementation

Session #8
Presentation #4

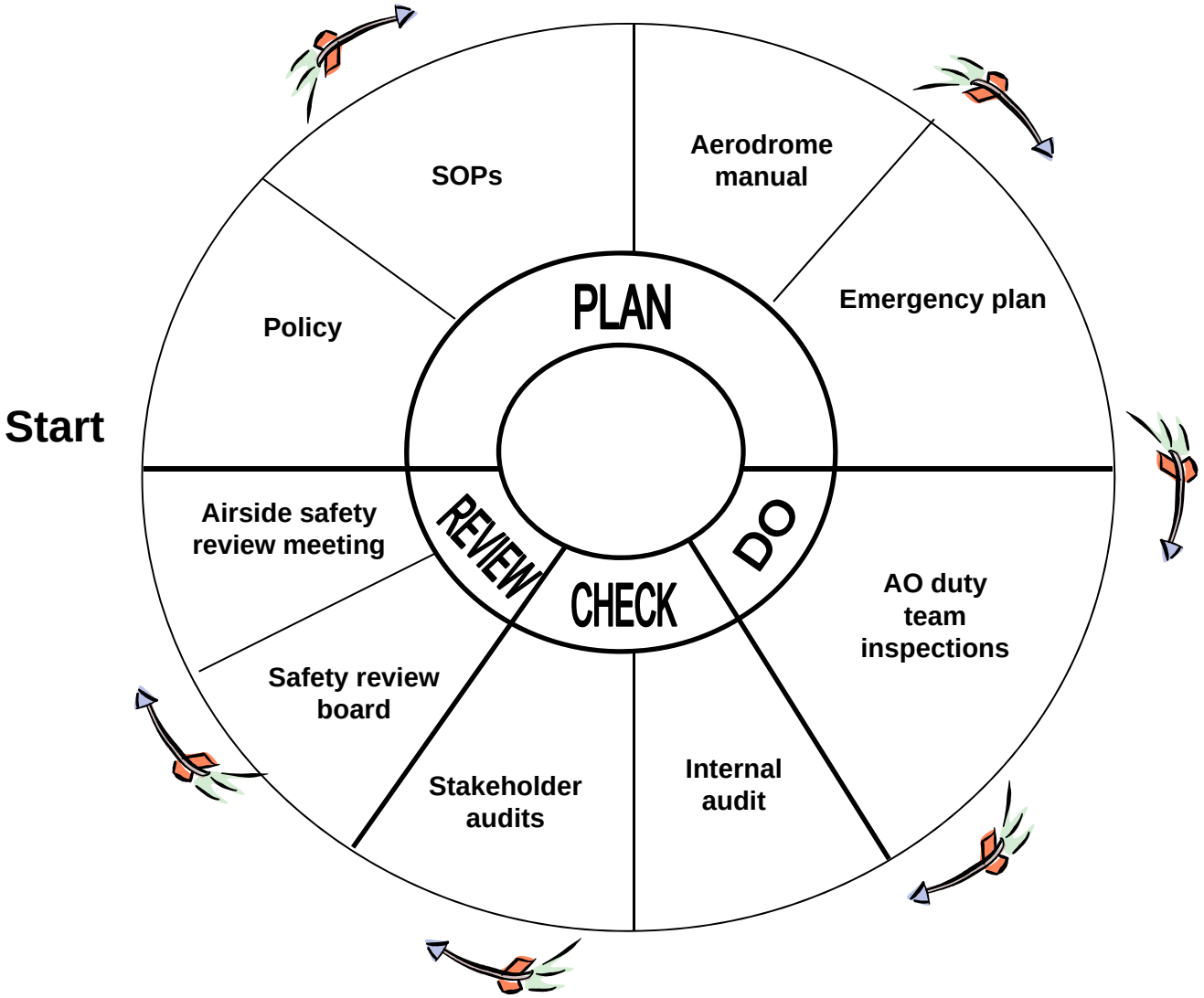
MID Safety Summit

Jamal Zaal

Vice President, Airside Operations


1
SMS IMPLEMENTATION
2
CHALLENGES/ LESSONS LEARNT
3
CHALLENGES- SAFETY DATA SHARING
4
ACHIEVING PROACTIVE & PREDICTIVE MITIGATION STRATEGIES
5
PROMOTING SAFETY CULTURE

1 SMS IMPLEMENTATION



1 SMS IMPLEMENTATION

1. Safety Policy and Objectives

- **Appointment of key personnel**
  - **SMS/Compliance/Planning/ Projects/ Emergency planning**
- **SMS documentation**

2. Safety Risk Management

- **Task specific**
- **Management of Change(MOC)**
- **Safety case**

3. Safety Assurance

- Inspections (Level 1/2/3)
- SOPs
- Regulations
- Meetings (5 types)
- Audits (10- 3rd party audits)
- KPI monitoring- Intelex

4. Safety Promotion

- Safety communications(5 types)
- Training
- Safety campaigns

1 SMS IMPLEMENTATION

SMS Element	June	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June
Hazard Ops Management Audit and Review						12th						
Head of Quality Airside Ops Audit												June 2011
Mtg. Safety Review Board - Monthly	Note: 3											
Mtg. Airside Safety Action Group - Monthly												
Mtg. Airside Safety Review - Monthly												
Mtg. Airport Emergency Planning Group	TBC											
Mtg. Airside Safety Committee – Quarterly												
Mtg. Runway Safety Team Meeting - Quarterly												
Mtg. Airside Working Progress Meeting - Weekly	Weekly											
Note 3: Meeting Safety Review Board – Joint meeting DWC & DXB												

1 SMS IMPLEMENTATION

Dubai International

I

Dubai Airports
Connecting the World

Airside Monthly Pe
Managing the k

2. REACTIVE SAFETY KPI's

2.1 Aircraft Related Incidents

- Runway Incursions
- FOD on Runway
- Bird Strike
- Tyre Burst
- Aircraft Roll back
- Unauthorised Pushback
- Aircraft-vehicle Conflict
- Aircraft Ground Damage -
- Aircraft Ground Damage -
- Other Critical Airside Safe
  (Runway excursion/Powe
  airside vehicles/Taxiway
  issues/VDGS issues/Mar

2.2 Personal injury

- Staff Injury
- Passenger Injury

2.3 Vehicle Accidents

2.5 Spillages

- Aircraft Spillages
- Equipment Spillages

2.6 Project related incidents

3. PROACTIVE SAFETY KPI's

3.1 Wildlife management

3.2 Inspections

3.2.1 Duty Team Inspections

- Runway Inspections
- Taxiway Inspections
- Apron inspections

3.2.2 SMS Inspections

- Aircraft Related Inspections
- Vehicle Related Inspections
- Project related Inspections

3.2.3 FOD Inspections

3.2.4 ADP Checks/Violations issued

3.2.5 Audits

- GCAA Audits
- Internal Departmental Audits
- Stakeholder Audits
- Turnaround Audits
- SUSA

3.2.6 Meetings

3.2.7 Campaigns

3.2.8 Communications

3.2.9 Risk register

3.2.10 Risk Assessments

3.2.11 Runway Friction Test

4. GENERAL PERFORMANCE KPI's

4.1 Staff Absence

- Airside Ops Duty Team
- ARFFS

4.2 Positions Vacant

4.3 Vehicle Serviceability

2 CHALLENGES/ LESSONS LEARNT

Huge data for Accident Analysis	→	Use Intelex software
Different risk assessment templates for AO and corporate	→	Revise risk assessment format
Fast paced project implementation	→	HAZOP meetings/ MOC
Regulatory non compliance	→	Monthly meeting with regulator

3 CHALLENGES- SAFETY DATA SHARING

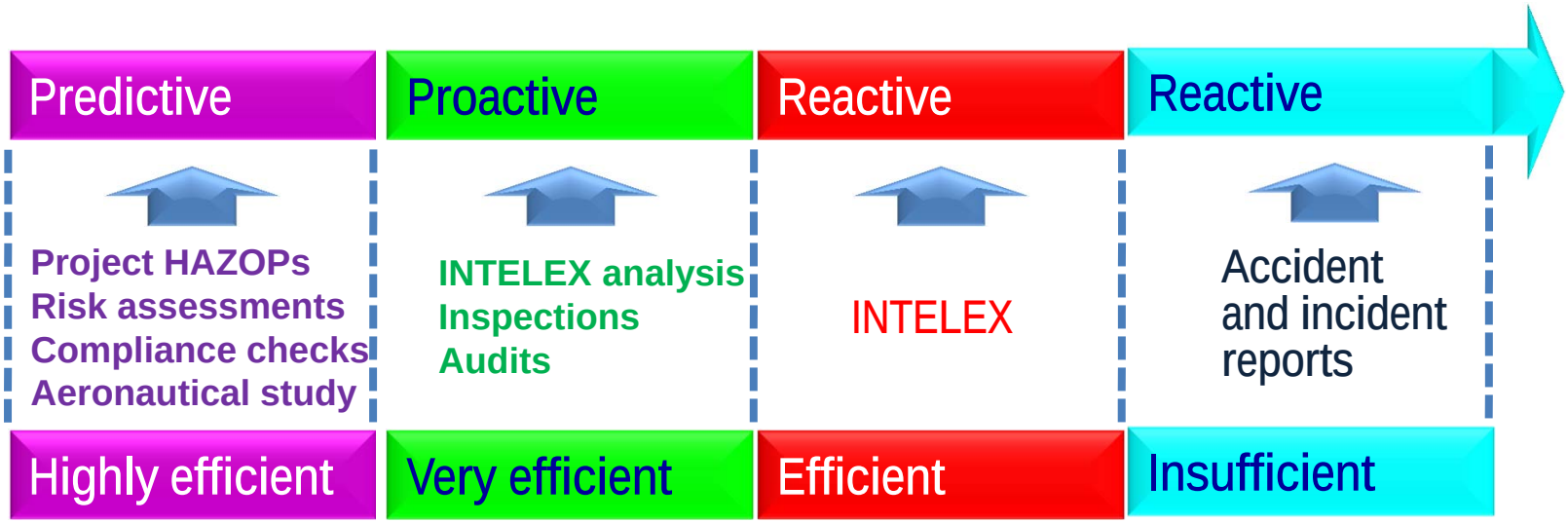
Within organization → Common tool- Intelex

With Stakeholders in airport → Open reporting in Safety committees.

DA participation in stakeholder safety committees.

With other airports → Coordination by regulator

4 ACHIEVING PROACTIVE & PREDICTIVE MITIGATION STRATEGIES



5 PROMOTING SAFETY CULTURE

FOD Campaign

The Safe Driving Campaign

DUBAI AIRPORT SAFETY MARATHON 2013

The Second MID Region Safety Summit

27- 29 April 2014
Muscat, Oman

SSP/SMS Implementation

Session #8
Presentation #5

CANSO Safety Management System Update

Maggie Geraghty
Safety Programme Manager,
CANSO

Organised by
canso

SMS Activities - Updates

Objective: Develop safety management guidance and tools which will assist Air Navigation Service Providers' (ANSPs') transition to increasingly automated service delivery.

- Aligned the CANSO Standard of Excellence (SoE) in SMS with ICAO Annex 19 and added two new elements under Safety Achievement: *Safety-by-Design* and *Fatigue-related Risk Management*
- Developed a new CANSO Standard of Excellence: *Common Safety Method on Risk Evaluation and Assessment for ANSP*
- Revising the SMS Implementation Guide to align with Annex 19 and provide additional guidance for *Safety-by-Design*, *Risk Management, Fatigue Risk Management, Safety Assurance*

Future SMS Development

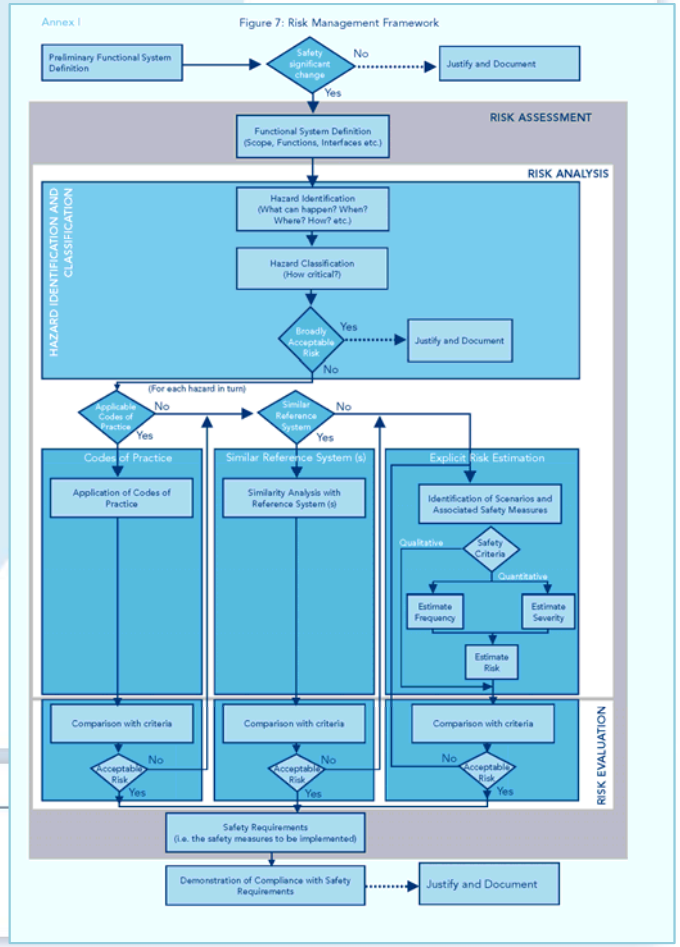
- The CANSO Standard of Excellence in SMSs aligns to ICAO Annex 19 and provides a framework for the implementation and continuous improvement of SMSs within Air Navigation Service Providers (ANSPs) that:
  - Exceeds the existing domestic and international regulatory framework
  - Allows ANSPs to build a system appropriate to their size and operational complexity
  - Captures the knowledge of ANSPs with mature SMSs already fully integrated into operations
- The SMS Implementation Guide aligns to the Standard of Excellence and provides guidance that:
  - Transfers learning across the industry
  - Builds a consistent approach to safety management across the globe within ANSPs
  - Allows ANSP management to plan for safety at the corporate, group and project levels to assure that risks to operational service delivery are reduced As Low As Reasonably Practicable (ALARP)

CANSO Standard of Excellence

- ***Common Safety Method on Risk Evaluation and Assessment for ANSP*** applies to all ATM/ANSP ground based functional changes, including people, procedures or equipment and changes to the interactions between them.

  Topics addressed include:

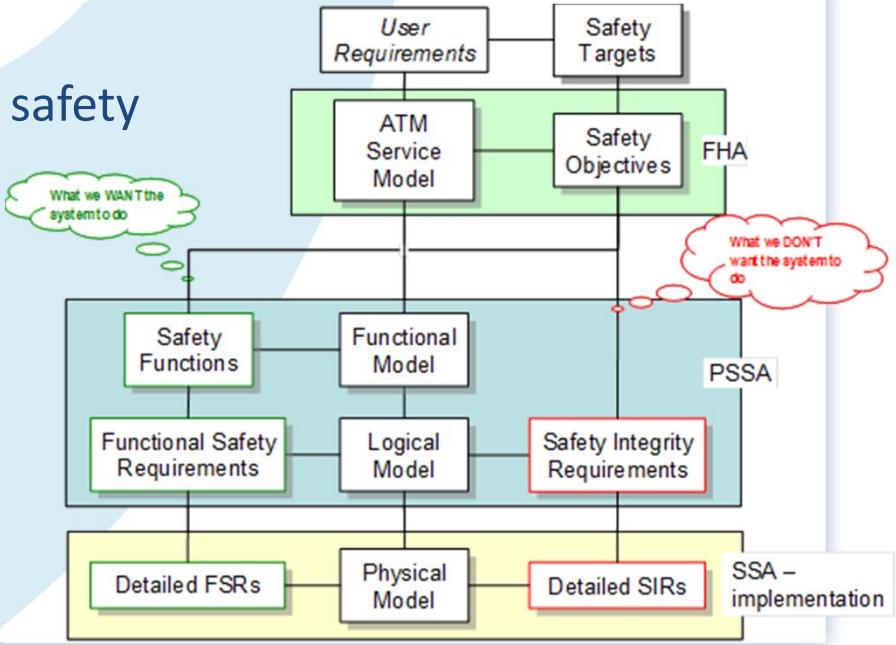
  — Determining the safety significance of a change
  — Risk management process
  — General ANSP obligations
  — Interface management
  — Description of the risk assessment process
  — Demonstrations of the compliance with safety requirements
  — Evidence from the application of the risk management process



SMS Implementation Guide

- ***Safety-by-Design*** provides detailed guidance, utilising a total system approach (e.g., examining the technical equipment, airspace, people and procedural elements involved), on two aspects of safety that must be considered throughout the design phase of a change (from initial concept to detailed specification):

  1. The 'failure case' – to minimise the safety effects of failures
  2. The 'success case' – to maximise safety benefit



SMS Implementation Guide

- ***Risk Management*** outlines the steps necessary to implement and conduct risk management for existing hazards and provides guidance on:
  - Risk management terminology
  - Risk management processes;
  - Practical examples (in the form of case studies)
  - Assessment tools (in the form of templates)

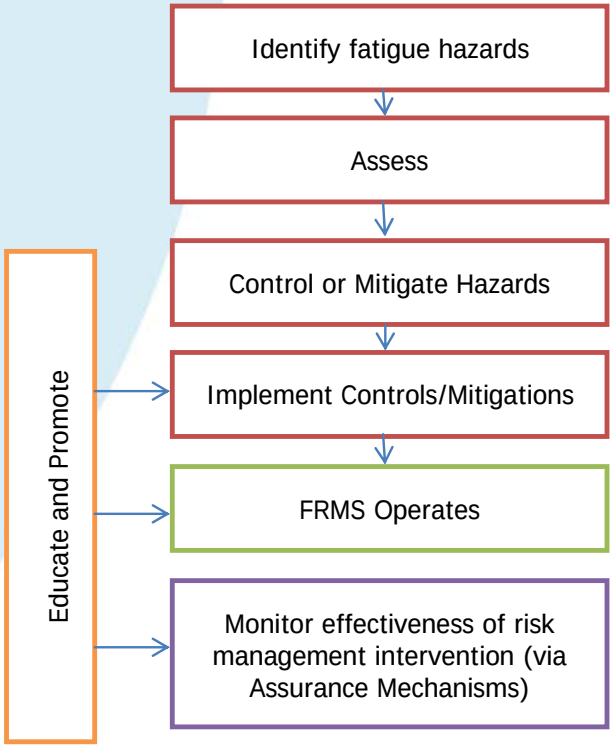
Severity / Probability	Catastrophic 1	Hazardous 2	Major 3	Minor 4	Negligible 5
Frequent A					
Occasional B					
Remote C					
Improbable D					
Extremely Improbable E	*				

High Risk
Medium Risk
Low Risk

* Unacceptable with Single Point and/or Common Cause Failures

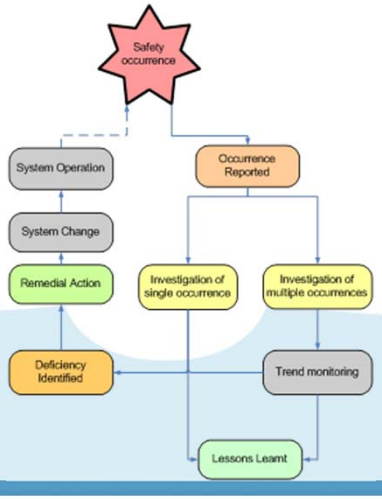
SMS Implementation Guide

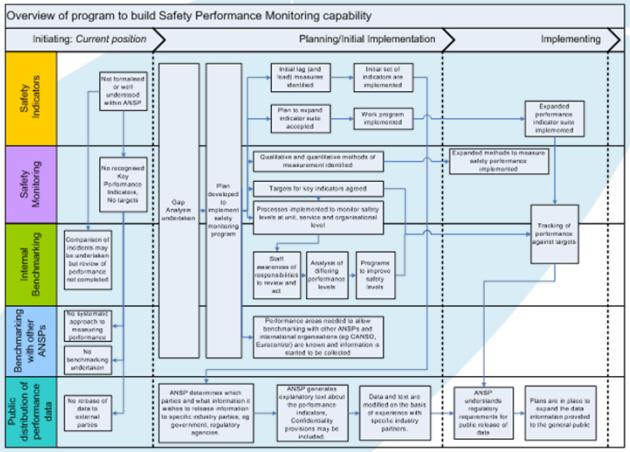
- ***Fatigue Risk Management*** defines and describes fatigue risk and provides detailed interim guidance (pre-ICAO) for development of fatigue risk management systems, including:
  - Scope
  - Structure
  - Risk identification, assessment, mitigation, and assurance
  - Education and promotion

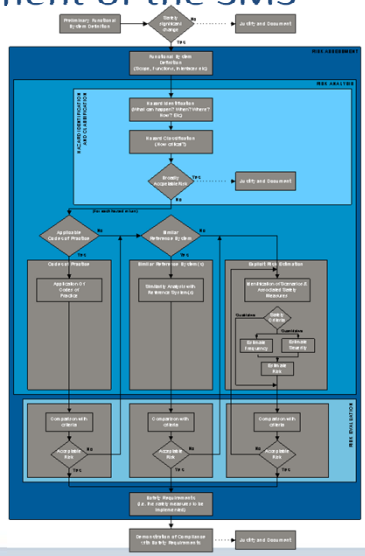


SMS Implementation Guide

- ***Safety Assurance*** provides detailed guidance on the reviewing and reporting mechanisms ANSPs use to determine how well their SMS is performing. Elements include:
  - Safety Occurrence Reporting, Investigation and Improvement
  - Operational Safety Surveys and SMS Audits
  - Safety Performance Monitoring
  - Management of Change
  - Continual Improvement of the SMS







The Second MID Region Safety Summit

27- 29 April 2014
Muscat, Oman

SSP/SMS Implementation

Session #8
Presentation #6

International Civil Aviation Organization

Implementation of SSP in the MID Region / Action Plan

(Support to Member States)

Nadia Konzali

Project Coordinator, COSCAP-GS

2nd MID region Safety Summit

Muscat, 27-29 April 2014

Flight Plan

1. References
2. Objectives
3. Action Plan & Schedule of actions
4. Challenges

REFERENCE

1. Annex 19 to the Convention (1st Edition, July 2013);
2. Safety Management Manual (3rd Edition, DOC 9859);
3. Revised Global Aviation Safety Plan (GASP) provisions;
4. ICAO training material (Material provided from ICAO);
5. ICAO / ANB (Air Navigation Bureau) recommendations;
6. Best Practices and Guidance Material from the experience of other Regions/COSCAPs Projects.

OBJECTIVE

Using best practices from Gulf States, provide assistance other MID region States (Under RASG-MID) for the harmonization of their approach to SSP implementation and Operators surveillance in respect of SMS implementation.

SSP Implementation

ACTION PLAN

egulations: *Review existent regulations and amend as necessary, including recent ICAO rovisions contained in Annex 19 (Develop and Issue Regulatory framework);*

uidance Material (Procedures & Check-lists regarding SMS implementation, uditing): *Development of Procedures & Check-lists for the CAA inspectors to audit the perators SMS implementation (Develop and Issue model check-lists);*

raining on Annex 19 & DOC 9859 (3 day training courses, *planned in the 3 member tates in 2014, with support of ICAO*);

udit of CAAs (Proactive oversight): *Conduct assessment missions (Gap Analysis) egarding CAAs present SSP implementation status;*

eminar on SSP implementation by CAAs, *2 days workshop planned in June 2014;*

raining on Advanced SMS Auditing: *Advanced training of CAA inspectors on the uditing of operators regarding the SMS implementation. Planned in October 2014;*

ollection/Analysis/Monitoring of safety data: Provide support to member States for he collection, Analysis and monitoring of safety data/Safety Reports *(ICAO training on CCAIRS in Bahrain and Kuwait, June 2014).*

SSP Implementation

DIPs (*Under RASG-MID*)

Model regulation **on SSP available for customization by other States;**

Model Procedures/Check-lists **for the surveillance of operators (SMS implementation);**

Training Program **available for 2014/2015:**

- ✓ **Training on Annex 19 / SMM Doc 9859;**
- ✓ **Seminar on SSP Implementation for CAAs managers;**
- ✓ **Advanced training on SMS auditing (to CAAs inspectors);**

P Implementation

Key Milestones (Deliverables)

Revised Regulation ____ End 2014

Guidance Material ____ End 2014

ocedures/Check-Lists)

Gap Analysis ____End 2015

sesment of States)

Training Program/workshops ____2014 *(recurrent)*

nex 19/SMM, SSP implementation, Advanced SMS Auditing)

SP Implementation

For your attention

The Second MID Region Safety Summit

International Civil Aviation Organization

27- 29 April 2014
Muscat, Oman

SSP/SMS Implementation

Session #9
Presentation #6






Second MID Region Safety Summit

SSP/SMS Safety Indicators and Targets

Mashhor Alblowi
Regional Officer, Flight Safety
ICAO MID Regional Office

Current SSP Indicators and Targets

Safety Indicator	Safety Target
nber of States having completed the gap analysis on iSTARS	a. 7 States by the end of 2014; and b. all the 15 MID States by the end of 2016.
nber of States having completed lementation of SSP Phase 1	a. 5 States by the end of 2014; b. 10 States by the end of 2015; and c. all the 15 MID States by the end of 2016.
nber of States having completed lementation of SSP Phase 2	a. 5 States by the end of 2015; b. 10 States by the end of 2016; and c. all the 15 MID States by the end of 2017.
mber of States having completed plementation of SSP Phase 3	a. 5 States by the end of 2016; b. 10 States by the end of 2017; and c. all the 15 MID States by the end of 2018.

Current SMS Indicators and Targets

Safety Indicator	Safety Target
Number of Service Providers having completed implementation of SMS Phase 1, as a percentage of all service providers required to implement SMS	a. 40% of the service providers having completed implementation of SMS Phase 1 by the end of 2014; b. 75% of the service providers having completed implementation of SMS Phase 1 by the end of 2015; and c. all the service providers having completed implementation of SMS Phase 1 by the end of 2016
Number of Service Providers having completed implementation of SMS Phase 2, as a percentage of all service providers required to implement SMS	a. 40% of the service providers having completed implementation of SMS Phase 2 by the end of 2015; b. 75% of the service providers having completed implementation of SMS Phase 2 by the end of 2016; and a. all the service providers having completed implementation of SMS Phase 2 by the end of 2017
Number of Service Providers having completed implementation of SMS Phase 3, as a percentage of all service providers required to implement SMS.	a. 40% of the service providers having completed implementation of SMS Phase 3 by the end of 2016; b. 75% of the service providers having completed implementation of SMS Phase 3 by the end of 2017; and c. all the service providers having completed implementation of SMS Phase 3 by the end of 2018

Proposed SSP and SMS Indicators and Targets

Safety Indicator	Safety Target
umber of MID States having ompleted the SSP gap analysis on TARS	a. 7 MID States by the end of 2014; and b. 13 MID States by the end of 2016.
umber of MID States that have eveloped an SSP implementation an	All MID States by end of 2014
umber of MID States with >60%, having completed nplementation of SSP Phase 1, 2 nd 3	a. all MID States with EI>60% to complete phase 1 by the end of 2015. b. all MID States with EI>60% to complete phase 2 by the end of 2016. c. all MID States with EI>60% to complete phase 3 by the end of 2017.
umber of MID States with >60% that have established a rocess for acceptance of dividual service providers' SMS	a. 50% of MID States with EI>60% by the end of 2015 b. 100% of MID States with EI>60% by the end of 2017

CAO UNITING AVIATION

The Second MID Region Safety Summit

27- 29 April 2014
Muscat, Oman

SSP/SMS Implementation

Session #8
Panel Discussion

Moderator: *Mr. Mohamed Smaoui, ICAO MID*
Panelists: *Mr. Walid Al Rahmani, GCAA*
Capt. Waheed Al Subhi, Oman Air
Mr. Kamel Awadhi, Kuwait Airways
Mr. Jamal Zaal, Dubai Airports
Mrs. Maggie Geraghty, FAA
Mr. Mashhor Alblowi, ICAO MID

The Second MID Region Safety Summit

27- 29 April 2014
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Lunch Break
1:00 – 2:00

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