SMS in Airbus Cabin Operations

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Safety Management System (SMS) in Airbus cabin operation
How many events are reported to Airbus each year?

<table>
<thead>
<tr>
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<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Between 500 and 1000</td>
</tr>
<tr>
<td>2</td>
<td>Between 1000 and 4000</td>
</tr>
<tr>
<td>3</td>
<td>More than 4000</td>
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</table>

4825 Events are scrutinized by all the safety panels. 13 per day
Safety is a global aviation business

Airbus domain

Safe Cabin

SAFE AIRLINE OPERATION

Airline domain

SAFE AIR TRANSPORT SYSTEM

Civil Aviation Authorities domain
SMS is a continuous process to improve safety
Airbus domain

1 - Airbus internal feedback

- Flight Tests
- Aircraft Design and Manufacturing
- Airbus Instructors

2 - In service feedback

- Safety Occurrences reported to Airbus
- Airline operational or engineering support
- Seminars, Symposiums

SMS

Collect

Monitor

Analyse

Enhance

IATA Cabin Safety Symposium – Istanbul 11-13 June 2019
SMS Consistency is a key factor to improve safety!

Collect

Operators

Monitor

Enhance

National Airworthiness Authorities

Analyse

AIRBUS SMS

Required by EASA

IATA Cabin Safety Symposium – Istanbul 11-13 June 2019
Analyse data

SMS data collection

Enhance

Monitor

Examples
What has been reported...

What we need...

Detailed cabin crew/pilot report with the exact circumstances

*And when applicable:* Current airline SOP
Number of sectors flown before
Crew qualification
Pictures, videos…etc
**ANALYSE**

Analyze all the available data and information to elaborate an action plan

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**Analysis example**

Inadvertent Slide Deployments (ISD) by Origin

- **48%**: CREW
- **30%**: Maintenance
- **20%**: PAX
- **2%**: Unknown

Source:
ISD reported to Airbus on A320 family
SMS data collection  Analyse data  Enhance  Monitor  Examples
IATA Cabin Safety Symposium – Istanbul 11-13 June 2019
IATA Cabin Safety Symposium – Istanbul 11-13 June 2019

SMS data collection
Analyse data
Enhance
Monitor
Examples
Monitor the effectiveness of the different actions.
SMS data collection
Analyse data
Enhance
Monitor
Examples
EXAMPLE 1: Operational Procedure and Design modification

REPORT
On A321, Slide at door 3R was reported deployed while the arming lever was in disarmed position with the safety pin installed.

ANALYSIS
The safety pin was inserted while the arming lever was not in the fully disarmed position.

ACTION PLAN

**CCOM SOPs MODIFICATION**

**DOORS DISARMING PROCEDURE**

SAFETY PIN (with red flag hanging)................................. REMOVE FROM STOWAGE
ARMING LEVER......................................................... LIFT FULLY TO THE DISARMED POSITION

DESIGN MODIFICATION
Handle assembly was modified via a Recommended SB.
EXAMPLE 2: Operational Procedure modification

REPORT
On A320, during a scheduled slide deployment, slide inflated between the door and the door frame.

ANALYSIS
The manual inflation handle was pulled while the door was not fully open and the slide did not deploy outside the aircraft.

ACTION PLAN

**CCOM SOPs MODIFICATION**

- If the slide is not inflated:

  *Note:* The Cabin Crew must only pull the red manual inflation handle if the slide is not inflated but is fully deployed.
EXAMPLE 3: Operational Procedure modification and training enhancement

REPORT
Further to a smoke event, the co-pilot performed an EMER call to the cabin to brief the cabin crew that they were diverting. When the EMER call was performed, the purser was not able to hear the conversation.

ANALYSIS
The purser hooked on the handset (which resets the call from his side) but the call was still active.

ACTION PLAN  

**CCOM MODIFICATION**

**Note**: if a Cabin Crew resets an EMER call from another station or from the cockpit, he/she must select the EMER key on the handset to re-enter the conversation.
EXAMPLE 4: Design Modification

**REPORT**
Fire involving Protective Breathing Equipment PBE PN 119003-11 upon activation

**ANALYSIS**
The oxygen generator starter may produce energetic materials. Hot particles may enter the PBE hood and possibly lead to spark production or PBE catching fire

**ACTION PLAN**
- Authorities issued an Airworthiness Directive
- Design was modified via a vendor SB
- Airbus communication was done via an Airbus OIT
In-service event detailed reporting…… is a key point for safety improvement

Safety in air starts from the ground
Communication

Worlwide Instructors News APP

Open platform for instructors

Cabin subjects are coming soon…
Communication

Safety First APP
Glossary

- Engineering & Maintenance:
  - SB: Service Bulletin
  - VSB: Vendor Service Bulletin
  - TSM: Troubleshooting Manual
  - AMM: Aircraft Maintenance Manual
  - IPC: Illustrated Part Catalogue
  - MPD: Maintenance Planning Document
  - TFU: Technical Follow-Up
  - ISI: In-Service Information
  - OIT: Operators Information Transmission
  - AOT: Alert Operators Transmission
  - IOS: Initial Operating Support
  - PN: Part Number
  - ACU: Air Cooling Unit

Flight and Cabin Operations:
- CCB: Cabin Crew Bulletin
- FOT: Flight Operations Transmissions
- CCOM: Cabin Crew Operating Manual
- OSD (EU): Operational Suitability Data (European Union)
- OLV: Operational Liaison Visit
- IOE: Initial Operating Experience

Common:
- EASA: European Aviation Safety Agency
- FAA: Federal Aviation Administration
- ICAO: International Civil Aviation Organization
- PBE: Protective Breathing Equipment
The OCC Classification

No airworthiness issue. Do not have to be analyzed, nor reported to EASA.

Lead to a reduction in functional capabilities or safety margins. Not reported to EASA.

Lead to a large or total reduction in functional capabilities or safety margins. Reported to EASA during Airworthiness Review Meetings.
The TOP Panel Outcomes

- 3387 OCC/SARI created
- 1371 OCC/SARI in weekly
- 24 OCC/SARI in SAG
- 2 OCC/SARI in TOP

TOP process

2015