



SMS - It is simple, keep it that way!

SMICG Industry day at EASA in Cologne

Agenda



1. Pilatus Company Overview
2. Pilatus SMS Overview
3. Experience

Presented by Andreas Betzoll, Director Quality & Safety Management



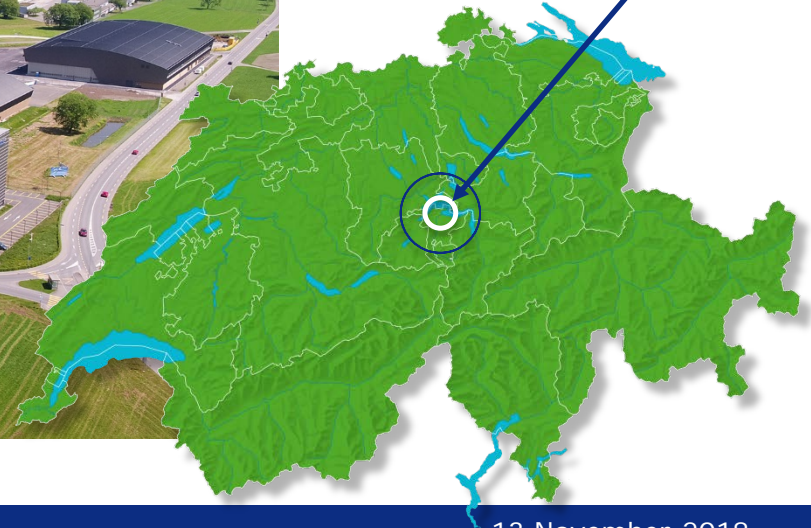
1 Company Overview

1.1 Company Overview

Location



Stans
Switzerland



Business Aircraft PC-24 and PC-12



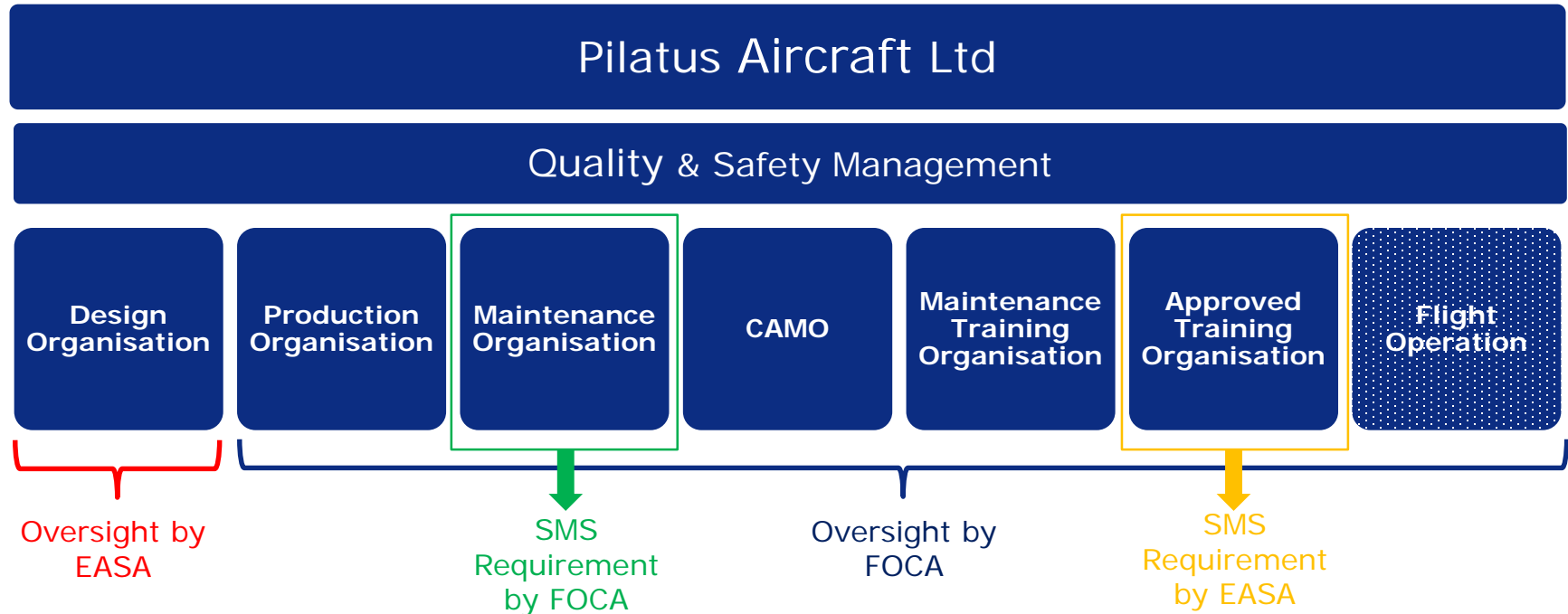
Training Aircraft

PC-21, PC-9 M and PC-7 MkII



1.4 Company Overview

Approved Organisations





2 SMS Overview

2.1 SMS Overview Approach

Full management commitment

- We do this for us not for the authority
- Decision to apply **one** SMS for all approved organizations of the company
- Occupational Health & Safety is part of the SMS

SMS Documentation:

- Implementation Plan
- SMS Policy
- SMS Manual
- SMS Promotion Policy
- Definition of SPIs

SMS Requirement:

- External (Authority) for MO
- **Internal**

Detailed Gap Analysis

- We used what was already in place
- Especially out of the DO like 23.1309 and Continued Airworthiness

SMS Training

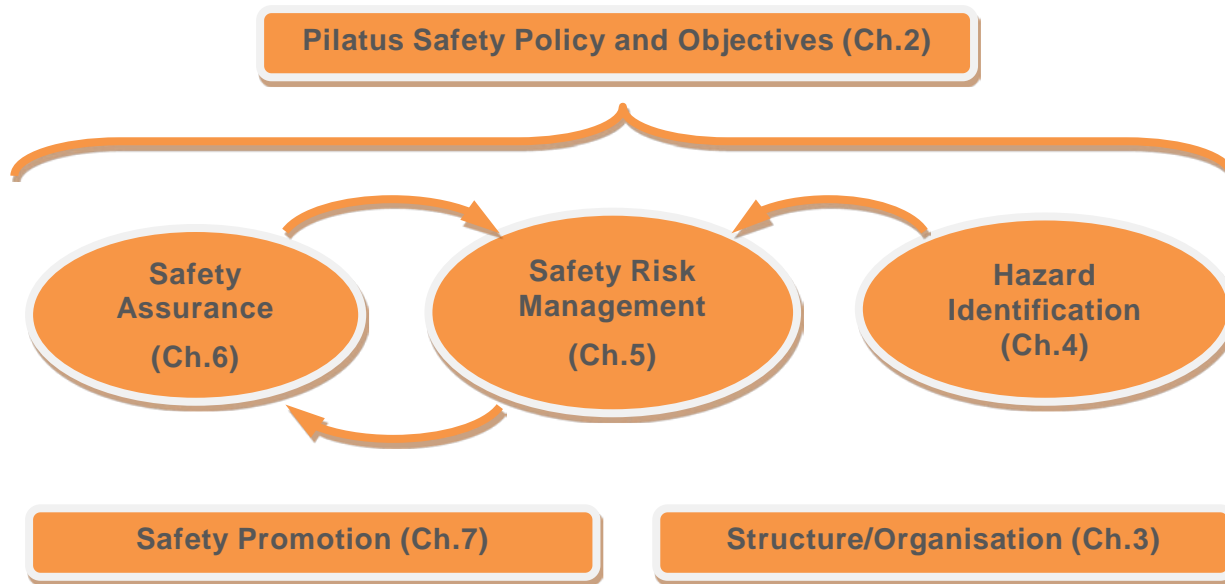
- Tailored to the different hierarchy levels

SMS Operative

1 Year

2.2 SMS Overview

Pilatus SMS Scope



2.3 SMS Overview

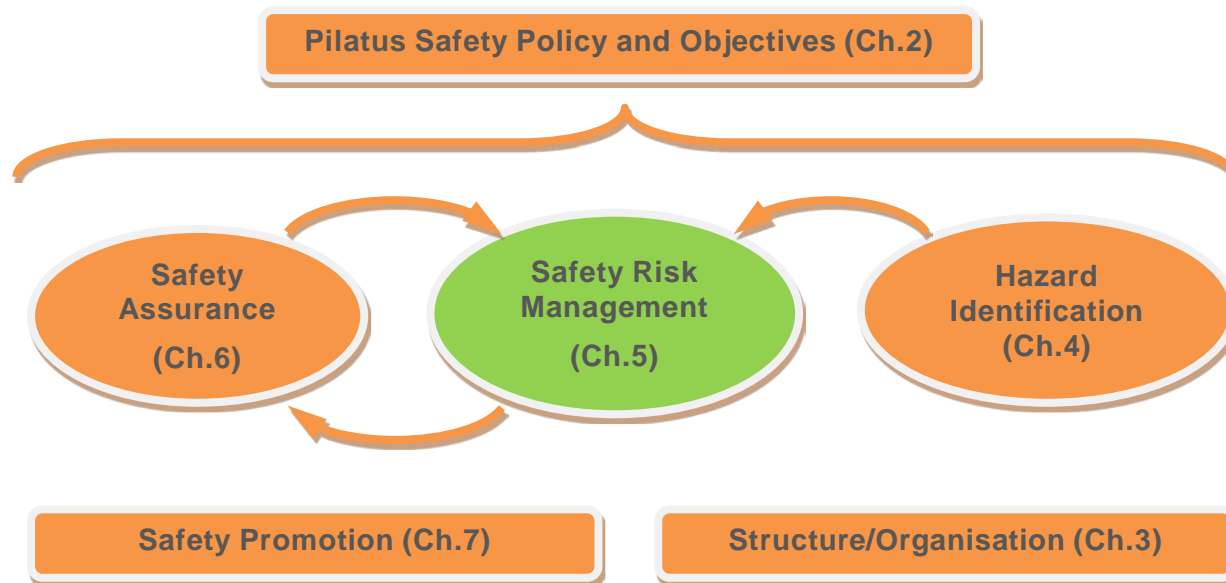
Safety Policy & Objectives

- Created by Pilatus using own words
- Easy to understand
- Signed by Accountable Manager
- Defines accountability and responsibility
- Clear commitment to the Safety Culture



2.4 SMS Overview

Safety Risk Management



2.5 SMS Overview

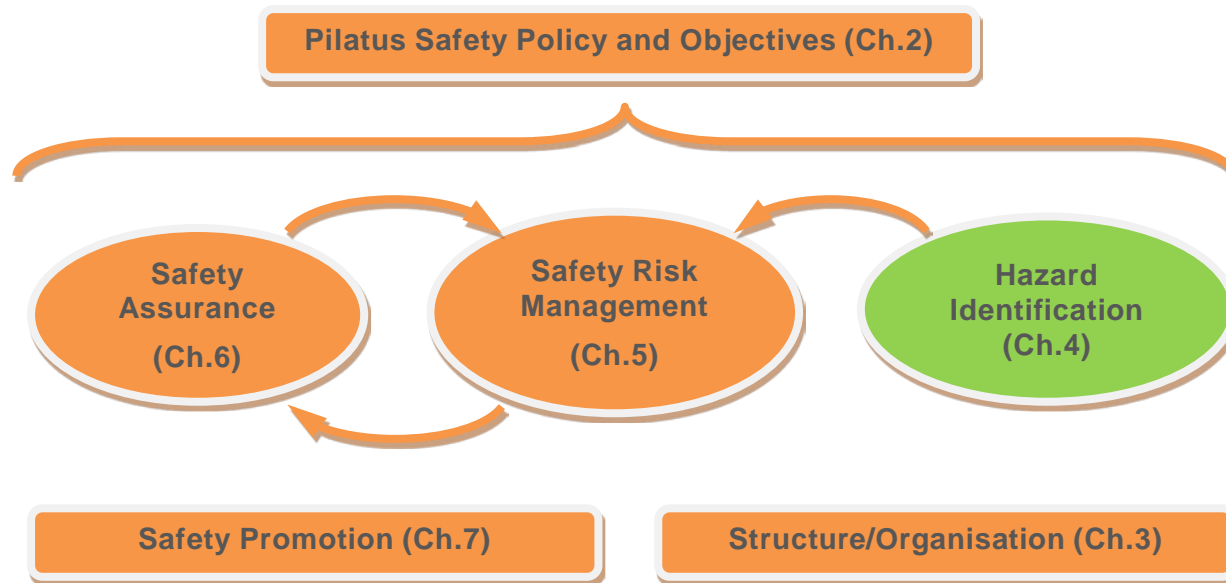
Safety Risk Management

- Risk Matrix is based on FAR/CS-1309
- Already in used for the Continued Airworthiness Process
- Severity/probability definitions expanded so that it can be used for all areas
 - Severity covers injuries, damage to properties & other damage such as reputation
 - Probability expanded with time based and event based
- Compliance time is driven by the risk level

		Probability			
		Probable	Remote	Extremely Remote	Extremely Improbable
Severity	Catastrophic	1	2	4	7
	Hazardous	3	5	8	11
	Major	6	9	12	14
	Minor	10	13	15	16

2.6 SMS Overview

Hazard Identification / Reporting



2.7 SMS Overview

Hazard Identification / Reporting

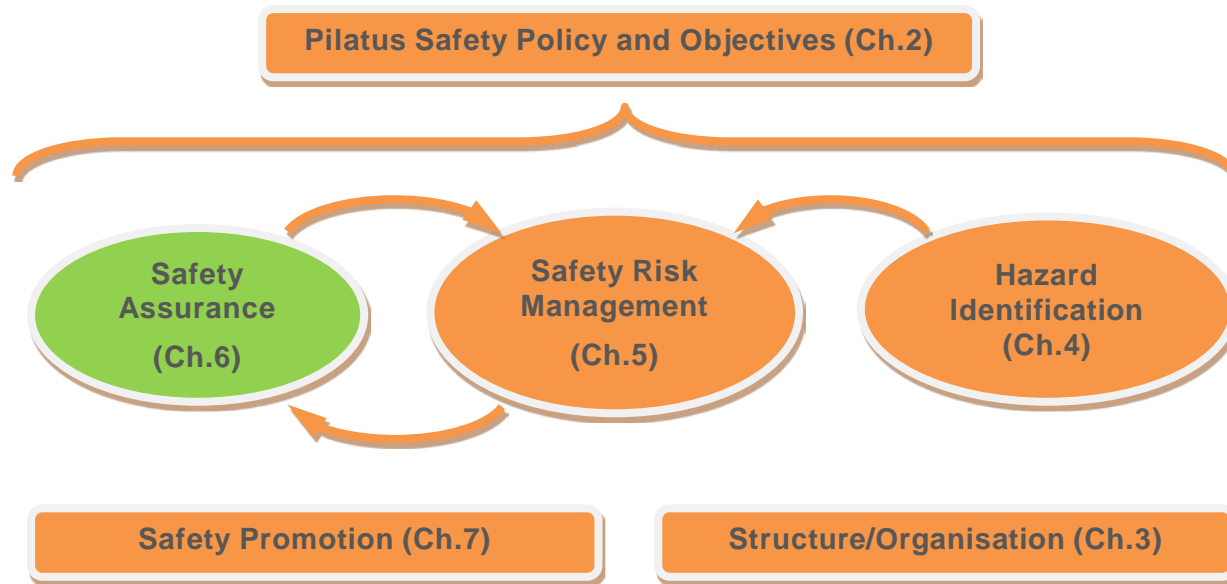


- Open Reporting
 - Reporting is easy
 - Information is treated confidential
 - Several ways (Intranet, E-mail, phone call or visit to the Safety Manager)
 - Anonymous reporting possible via Intranet
 - Intranet has interface to SMS Software
 - Feedback to reporter is essential and ensured (requirement of the Safety Policy)
- Reporting of safety related events
- External Sources (e.g. EASA SIB)

A screenshot of the "SMS Reporting Form" interface within the "INSIDE.PILATUS" system. The interface has a dark sidebar on the left with a navigation menu containing items like "Organisation", "Safety & Security", "Corp. Communications", "Support & Tools", "Around PILATUS", "Groups", "Enterprise Search", "Templates/Forms", and "Employee Search". The main content area is titled "SMS Reporting Form" and includes a "Summary" tab, a "Components" dropdown menu, an "Environment" text field, a "Description" text area, and "Affected Subject" and "SMB Field" dropdown menus. A "Submit" button is located at the bottom right of the form.

2.8 SMS Overview

Safety Assurance



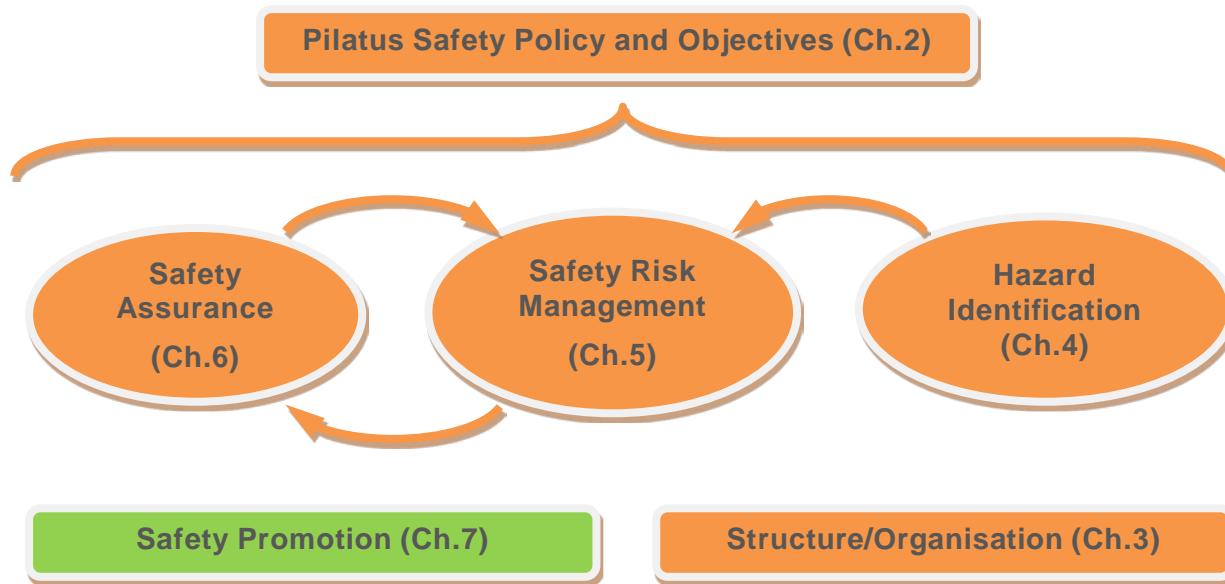
2.9 SMS Overview

Safety Assurance

- Safety Performance Monitoring
 - Safety Performance Indicators (in total 17) for each safety area
 - Each SPI has a target value defined
 - Investigation if target is missed
- Regular Safety Surveys (no audits)
- Change Management
 - Significant changes are assessed in SMS
 - BowTie used to define safety controls
 - Baseline for EASA Form 51 (application for a significant change) in PO

2.10 SMS Overview

Safety Promotion



2.11 SMS Overview

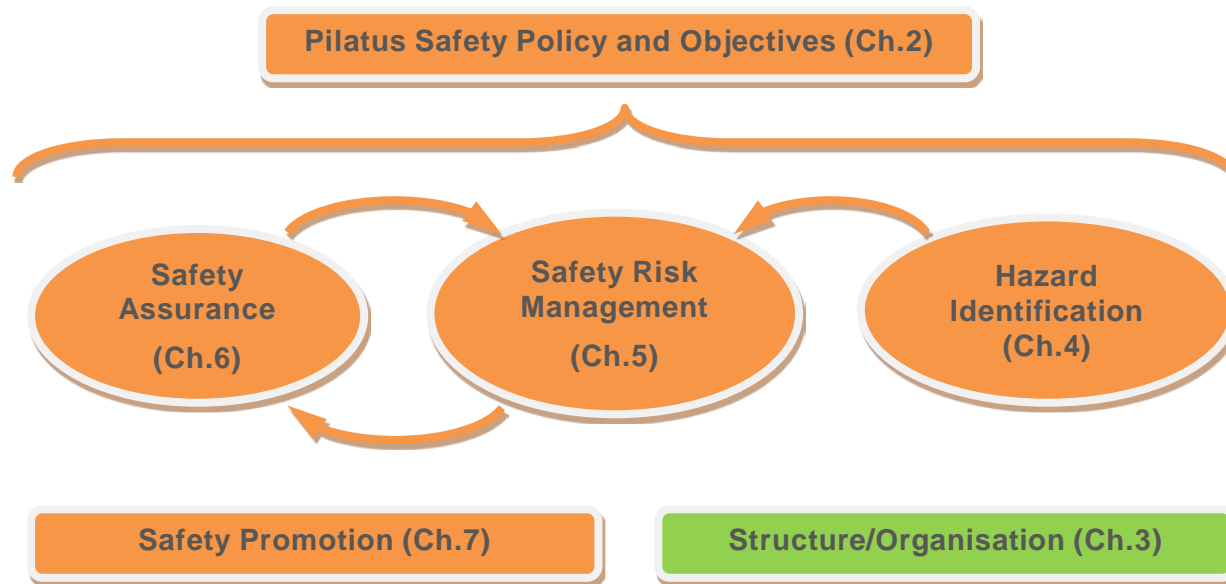
Safety Promotion

- Includes SMS training and communication
- Main communication means is the Pilatus Intranet
- 5 different training modules
- Duration of training for the basic SMS training 1 hour
- SMS training is mandatory
- Training is provided by a Pilatus-internal person who is a member of the Safety Board and intimately familiar with the Pilatus SMS



2.12 SMS Overview

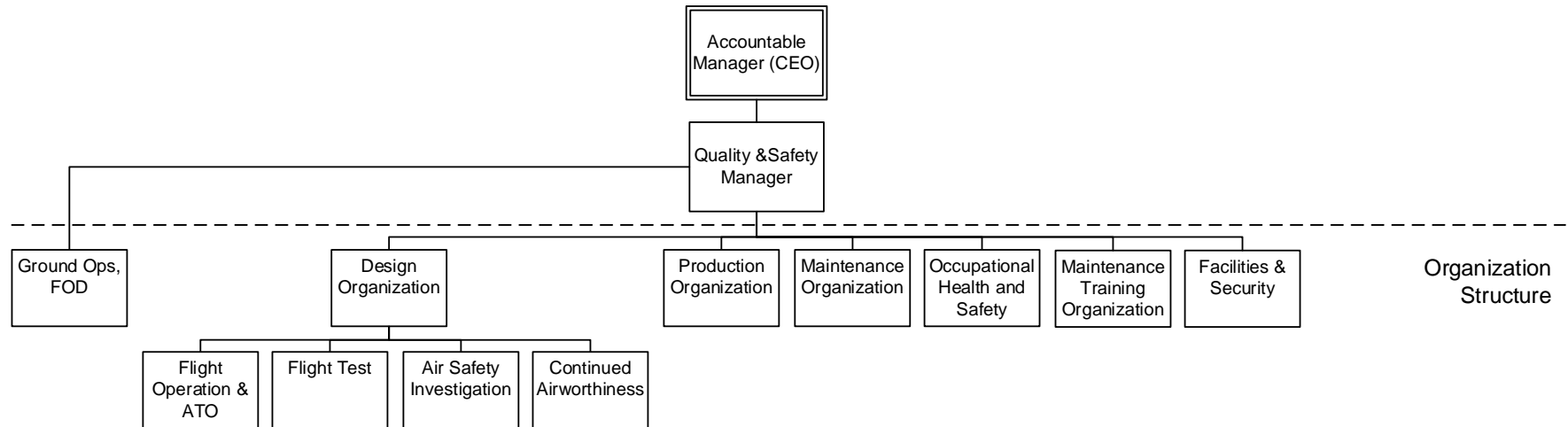
Structure & Organisation



2.13 SMS Overview

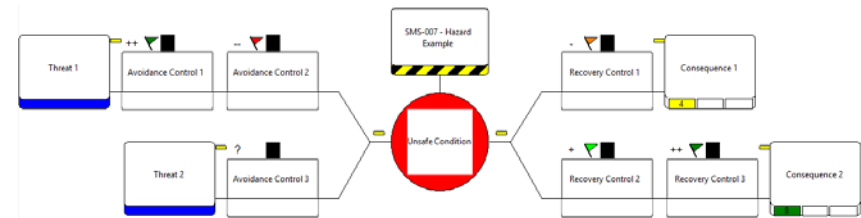
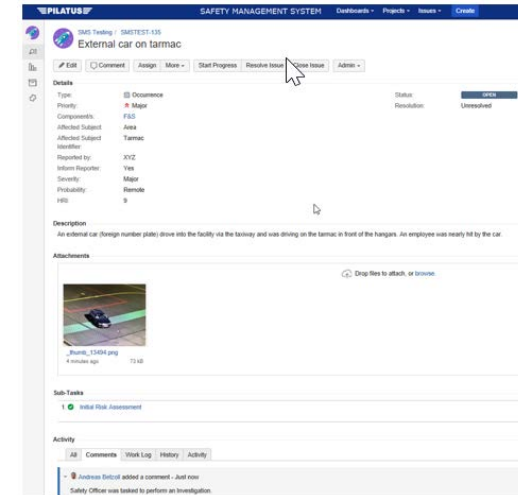
Structure & Organisation

- Defines all the roles and safety areas
- Each safety area is presented with a Safety Officer in the Pilatus Safety Board



2.14 SMS Overview Tools

- Instead of a dedicated SMS Software Tool the Issue Tracking Software already implemented at Pilatus was used (www.atlassian.com/software/jira)
- For complex risk assessments the BowTie Pro Software is used (<http://www.bowtiepro.com/>)





3 Experience

3.1 Experience

It works

- Full commitment and support from Accountable Manager and Senior Management
- Vast majority of the safety issues is reported by workforce, indicating that the SMS is used and trusted
- Nearly $\frac{3}{4}$ of the safety issues are pro-active
- Good communication across all the different safety areas
- At the start of the SMS most of the safety issues were related to O&HS but this has changed now to more complex issues
- SPIs and the associates safety targets work
- Results of the SMS are visible in the company



3.2 Experience Challenges

- Mitigation of risks outside your control
- Completion of safety issues sometimes takes too long
- Lack of support from line managers can kill safety/just culture
- Misuse of the system (e.g. employees using SMS instead of other processes)



3.3 Experience Oversight

- Integrated management system vs. multiple approvals
 - Multiple inspectors involved, different interpretations/understandings
 - Single point of contact is required
- Performance vs. compliance based oversight
 - Technical background of inspectors
 - Potential threat that safety information is abused during normal oversight (e.g. audit findings on reported safety issues)
- Acceptable level of risk vs. "highest safety standard"



3.4 Review of the SMS Implementation

Hints

- SMS is simple, keep it this way!
- Accountable Manager & Safety Manager must stand 100% behind the concept -> Top Down!
- Don't re-invent the wheel -> Apply structures/concepts which are already available (1309, etc.)
- SMS does not replace any existing processes -> SMS fills the gaps
- Use your own words when you create your SMS documentation (especially the Safety Policy) -> make it your own!



Any Questions?





Thanks for your attention!