

Managing Aviation Safety through SMS

Simon Roberts

SMS Programme Lead

UK CAA

SMS in Aviation



- Builds on a foundation of prescriptive rules
- Its how we stay safe
- It recognises human and organisational factors
- It's more than a manual
- Its what you do

“Through safety management systems, we can shape aviation’s future by continuing to drive down safety risk.” John Hickey, FAA

Prescriptive Rules are not a Complete Solution



- Aviation is diverse
- Regulations alone do not ensure safety
- Differing operating models and environments
- Large and Small
- Complex and Non-complex
- High Risk and Low Risk

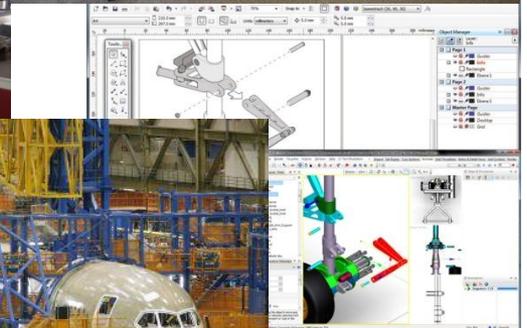
The Big Picture



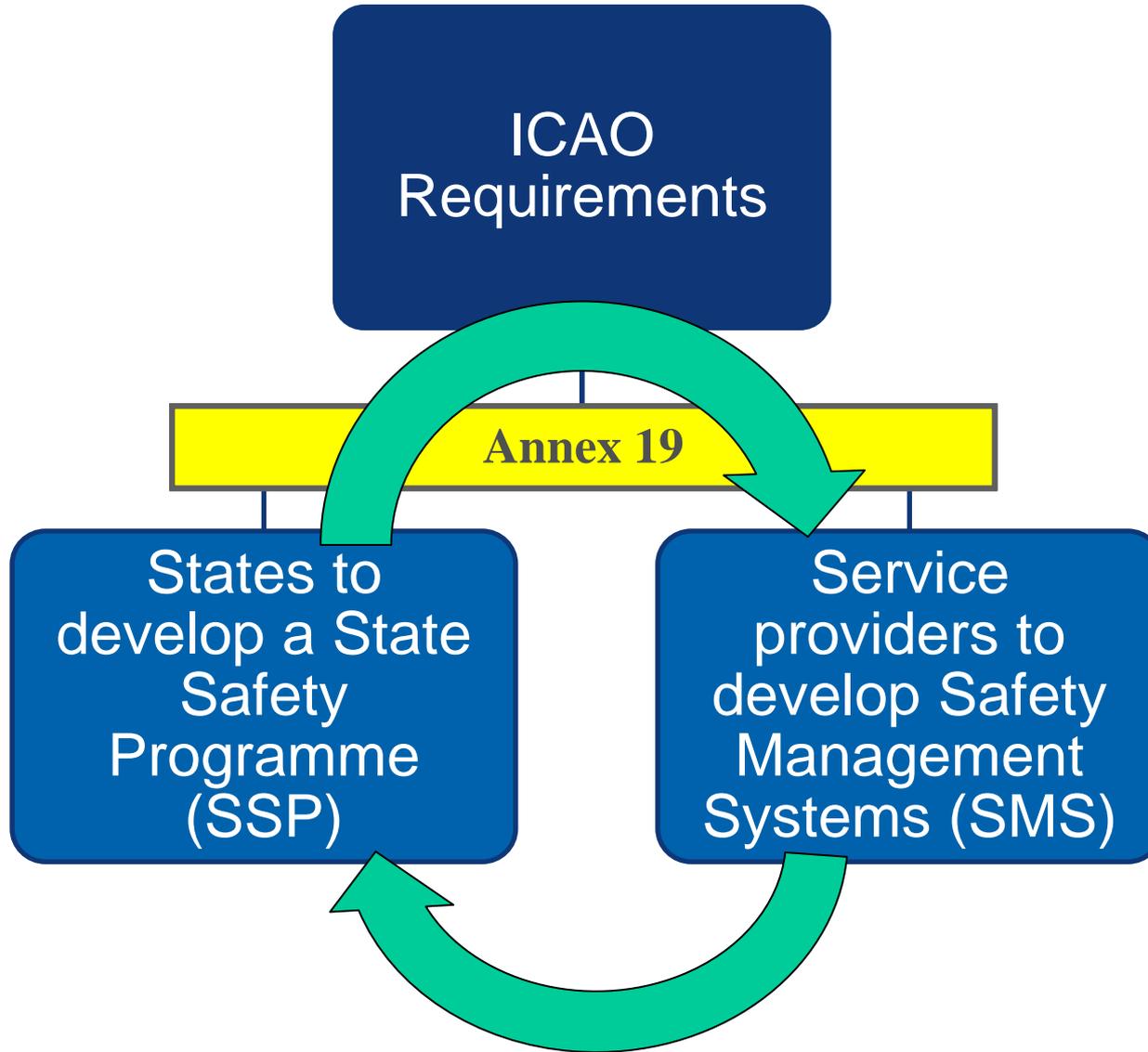
- Aviation is a complex system with lots of components and players
- Safety Improvements need to recognise the total system
- The sum of the parts don't necessarily equal the whole
- it needs collaboration, partnerships and the sharing of safety information.

The Total Aviation System

Civil Aviation Authority



International Safety Management Requirements



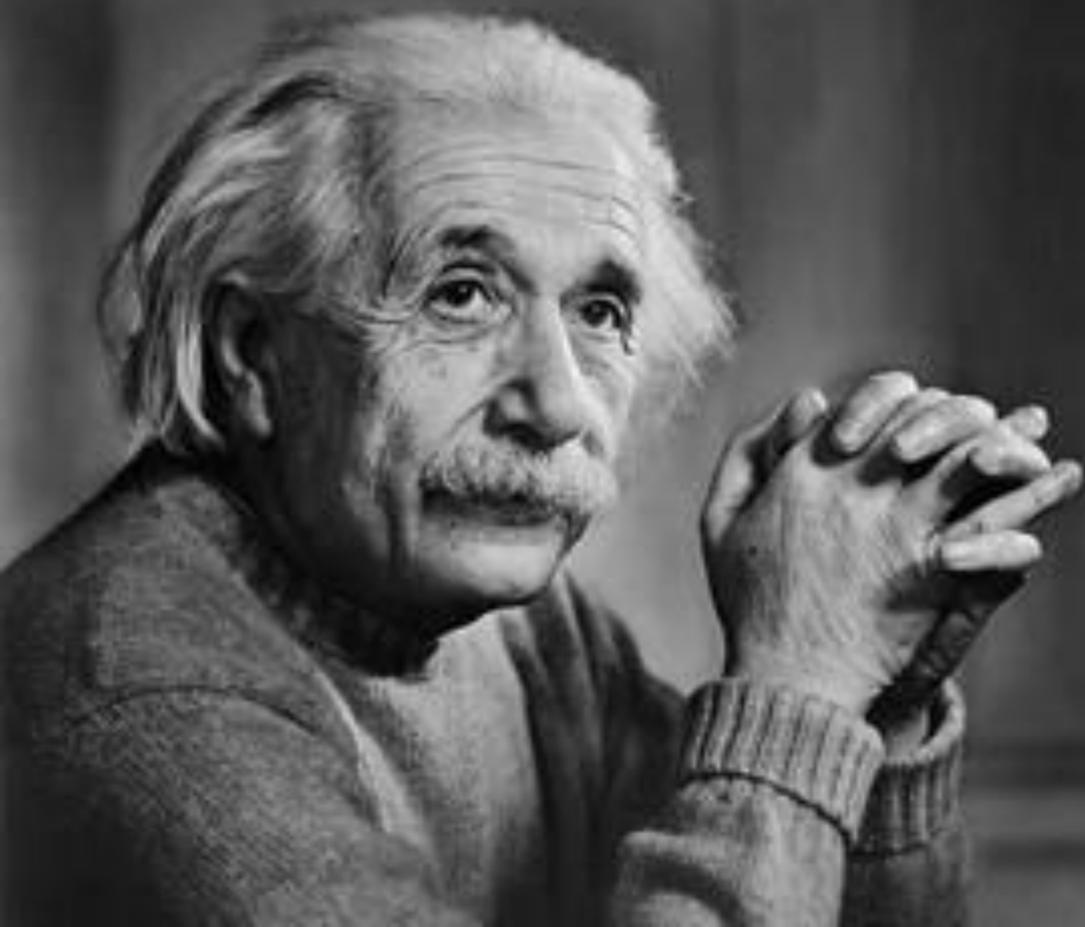
The EASA Management System

SMS in European Rules



If you can't explain it **simply**, you don't understand it well enough.

– Albert Einstein



SMS in its simplest form



- Actively look for safety issues in your operations, products or services
- Take action to reduce the risks of those safety issues becoming unwanted events
- Monitor your activities to be sure that you have appropriately controlled those risks.

An SMS does not have to be complicated to be effective.

SMS Integration



- It should be integrated across the organisation and with other systems
- Collaboration and information sharing with other organisations
 - ❖ Contracted organisations
 - ❖ Organisations you interact with
 - ❖ Customers and end users
 - ❖ The Regulator
- Communication, Communication, Communication!

Integrated risk management



Management of Contractors



- Your contractors generate risks to your organisation
 - ❖ You need to know what they are
 - ❖ Have a look at their risk register
 - ❖ What is their reporting culture like?
- Your contractors also protect you
 - ❖ Are they applying the risk mitigations you want them to?
 - ❖ How are you assessing how effective they are applying your risk mitigations?
- Assurance of your contractors
 - ❖ Compliance and Safety Risk Assurance
- Collaborate with your contractors
 - ❖ Share safety information

Safety Culture



- The effectiveness of an SMS hinges on your organisation's safety culture
- A positive safety culture is the result of safety leadership, effective Human Factors programmes, decision making and accountabilities at all levels
- A safety culture that includes a just culture promotes open reporting
- Safety management has to be a shared responsibility

Safety management feeds the safety culture of an organisation, which in turn feeds the data bases that give us insight into the risks our organisation faces.

Safety Culture Assessment Tools for the Regulator



- Questions for management
- Questions for workforce
- Questions on:
 - ❖ Risk assessment and Mitigation
 - ❖ Safety Reporting
 - ❖ Safety Investigations
 - ❖ Commitment and Responsibilities
 - ❖ Safety Assurance
 - ❖ Safety Awareness

How would your organisation answer the following questions?



- Is there managerial encouragement towards excessive risk taking?
- Are operational staff incentivized to bend rules to get the job done
- Are workarounds and excessive risk taking discouraged
- Are senior management making reasonable efforts to improve safety culture?
- Are safety risks being managed to an acceptable level?
- Are employee attitudes to safety compatible with corporate policy?

Can you senior management answer the following questions?



- How safe is your operation? (What worries you the most?)
- How do you know how safe you are? (How are you measuring and monitoring it?)
- What are your biggest business and safety risks?
- What are you doing about them?
- How do you know you are taking the right actions in managing your risks?
- What are you doing about the CAA's Significant 7?

Regulatory Oversight of SMS



- Our oversight should be joined up
 - ❖ Oversight of the parts does not equal the oversight of the whole system
- We will assess the compliance and performance of the SMS
- We are moving towards performance based oversight with SMS at its heart.
- Requires a different regulatory approach with new tools
- We are on our own journey

Integration of Regulatory Oversight?



- Across Aviation Regulators?
- Across Transport Modes?
- Across Industry Regulatory?
- Credit for International Standards?

The Global Challenge



 Transport Canada Transports Canada



Summary



- **Safety Management needs to be integrated at all levels of the Aviation System**
- **We want risk management to be at the centre of your future activities (and ours).**
- **Effective Safety Management requires;**
 - ❖ **Collaboration and Partnerships**
 - ❖ **Communication**
 - ❖ **Sharing of safety Information**
 - ❖ **A positive Safety Culture**

Thank you

Any Questions?