SMS in a Flight Training Context







Recurrent

& refresher training

(TRTO)





Training Captain courses (Advanced training)



Type rating training (TRTO)





Ab-initio training (NZ & USA)

Bridge training (Advanced training)



CTC Aviation an organisation with a global safety footprint



- Extensive global resources delivering airline focussed training
- Continuous development of a highly capable and proactive Safety Management System
- > A strong safety culture across the organisation







International Regulatory Approvals Maintained



New Zealand CAA

Hong Kong CAD

European EASA (40+ countries)

Singapore CAAS

Qatar CAA

Brunei CAA

India DGCA

Vietnam CAA

Oman DGAC

Russia CAA

British Airways

Jetstar

Monarch

Ryan Air

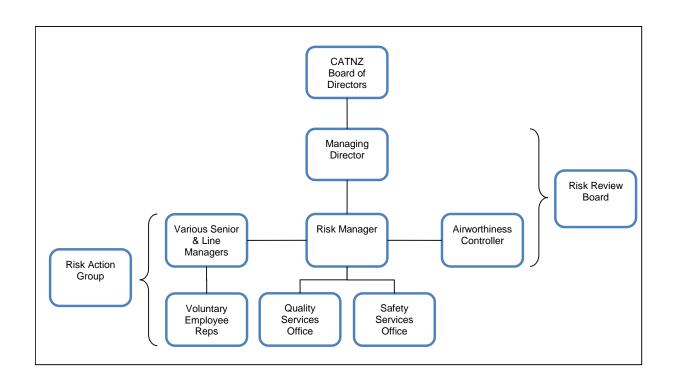
Easy Jet

Qatar Airways

Virgin Atlantic

Organizational Safety Chart





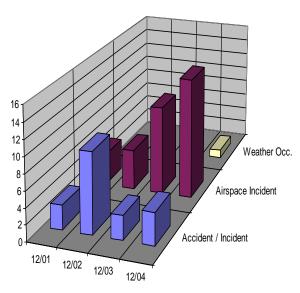
Where we came from - QSM



History - Quality Safety Management

- AQD Superstructure, movement away from paper based management
- · Measure of effectiveness through audit and safety KPI's
- QSM not inherent risk based system
- QSM Satisfied minimum regulatory requirements
- Captured data with primary analysis Reactive
- Root causes often unclear
- Safety Promotion often reactive
- Findings being silo'ed

Occurrence Numbers by Event Descriptors (Descriptor level)



Criteria: Occurrence Date From 1/01/2012 to 27/04/2012; Selected Event Descriptors;

Integration of a Safety Management System



- Why a move towards SMS?
 - · Enhanced Safety analysis and emphasis
 - · Evidence based safety promotion
 - Procedures/review of SOPs
 - · Productivity enhanced
 - Risk based approach through audit and Safety Performance Indicators
 - Aligns with our Training Philosophy

Training Resourcing Innovation Partnership

- How was this achieved?
 - Culture, Risk assessed; TEM; Collaboration and Measured results

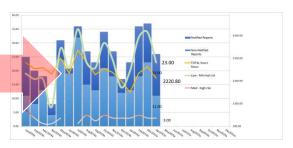
Challenges in an ab initio flight training context



- What makes the ab-initio flight training environment unique?
 - · Types of occurrence;
 - · Operating environment;
 - Language, including aviation standard phraseology (Example Professional Phraseology Campaign CTC & Airways)
- Data Analysis
 - · Streamline use of AQD, primarily an airline focused tool
 - Improved data and route cause analysis
 - · Threat identification and error management focus, human behavior







SMS action plan





Accurate categorisation through investigation

Change management/ safety promotion

Risk identification

Event & phase categorisation

Step one - Data Input

Step two - Syllabus input

Step Three - Top Five RCA



Data analysis that enables root cause analysis and proactive response

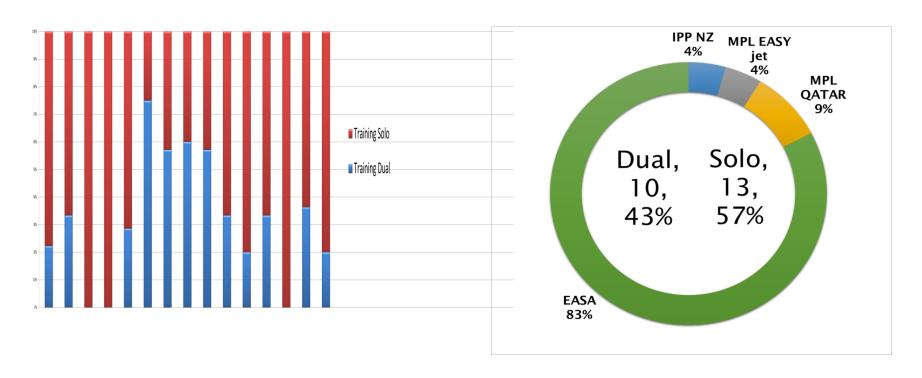
Data analysis - Example





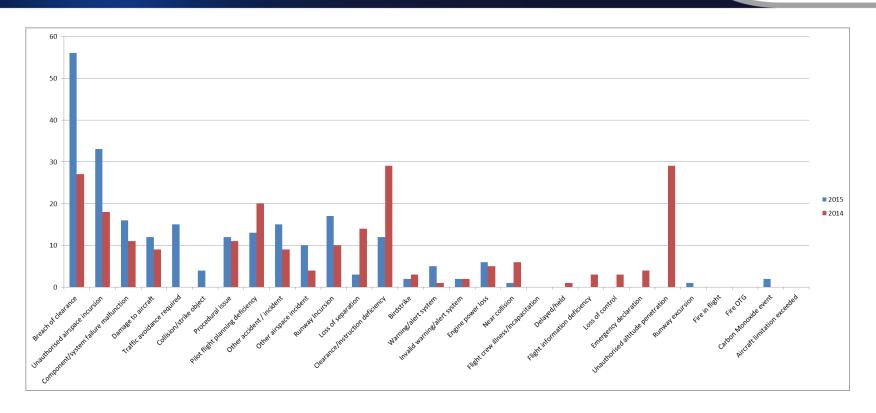
A closer look at the data - Example





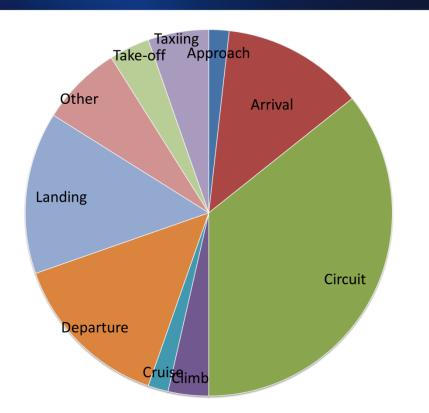
Data analysis - Example

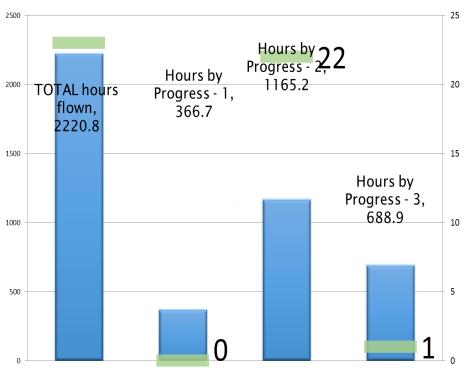




Data analysis - Example

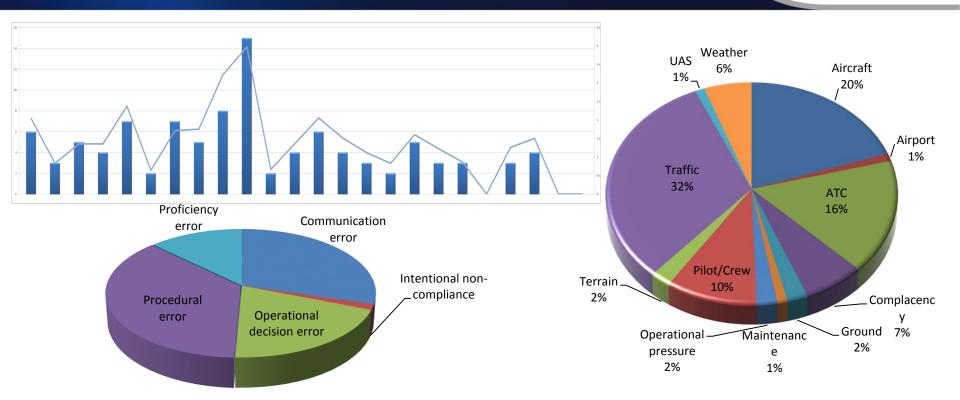






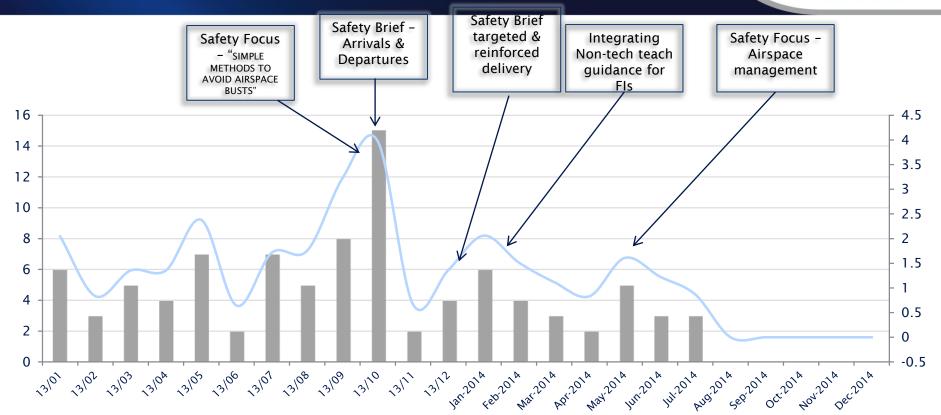
Example of data analysis





Measured effectiveness

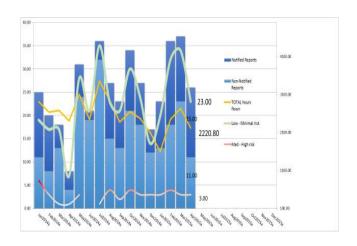


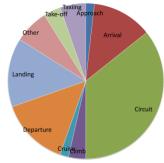


Safety Action Group – A Proactive Approach



- Safety data and investigation findings are collated and presented to the SAG.
- Team Managers are able to respond to their respective areas.
- Recommendations are considered by the SAG
- · Supports Evidence Based Training.





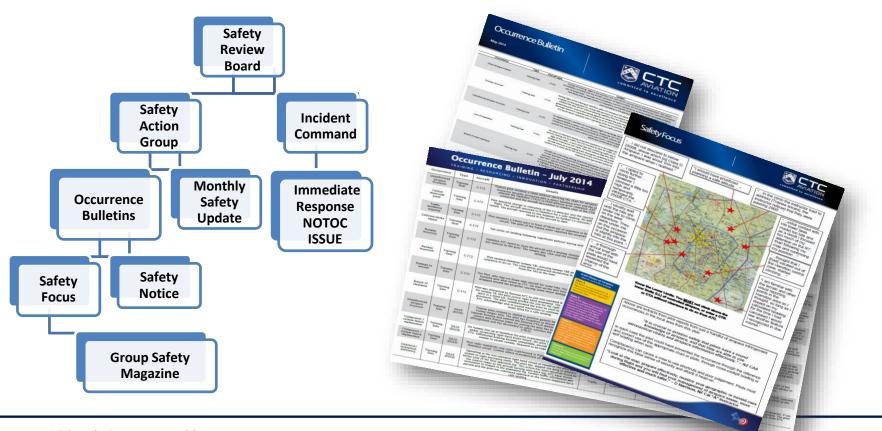
Initiatives and outcomes from the SAG



- Introduction of a Duty Instructor at Hamilton and Matamata (Sign-Out procedures and flight monitoring)
- New Tracking Device currently in test mode
- Standard Operating Procedures
- Traffic Advisory System (Progressive Installation)
 - In response to an increase in occurrence
 - Recognized the need for additional support systems
 - Phoenix Training Centre

Communications Framework





Current Developments



- Education/Training materials Embedding Threat and Error Management
- Challenges of Standardisation globally Alignment
- Development of Standard Operations Procedure publications
- Promoting SMS amongst the CTC Aviation group and wider Stakeholder community
 - Through engagement and collaboration
- · Safety Culture Promotion

Process of *continuous improvement*...

Summary



- Pro-active reporting culture
- Enhanced data analysis and risk based approach
- Measured effectiveness of interventions
- Partnership
- Recognition that the work never stops
- Movement from QMS to SMS enhanced overall safety and safety awareness