

Large MRO MSIT Group: Progress Report



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Where it Began – Quick Review

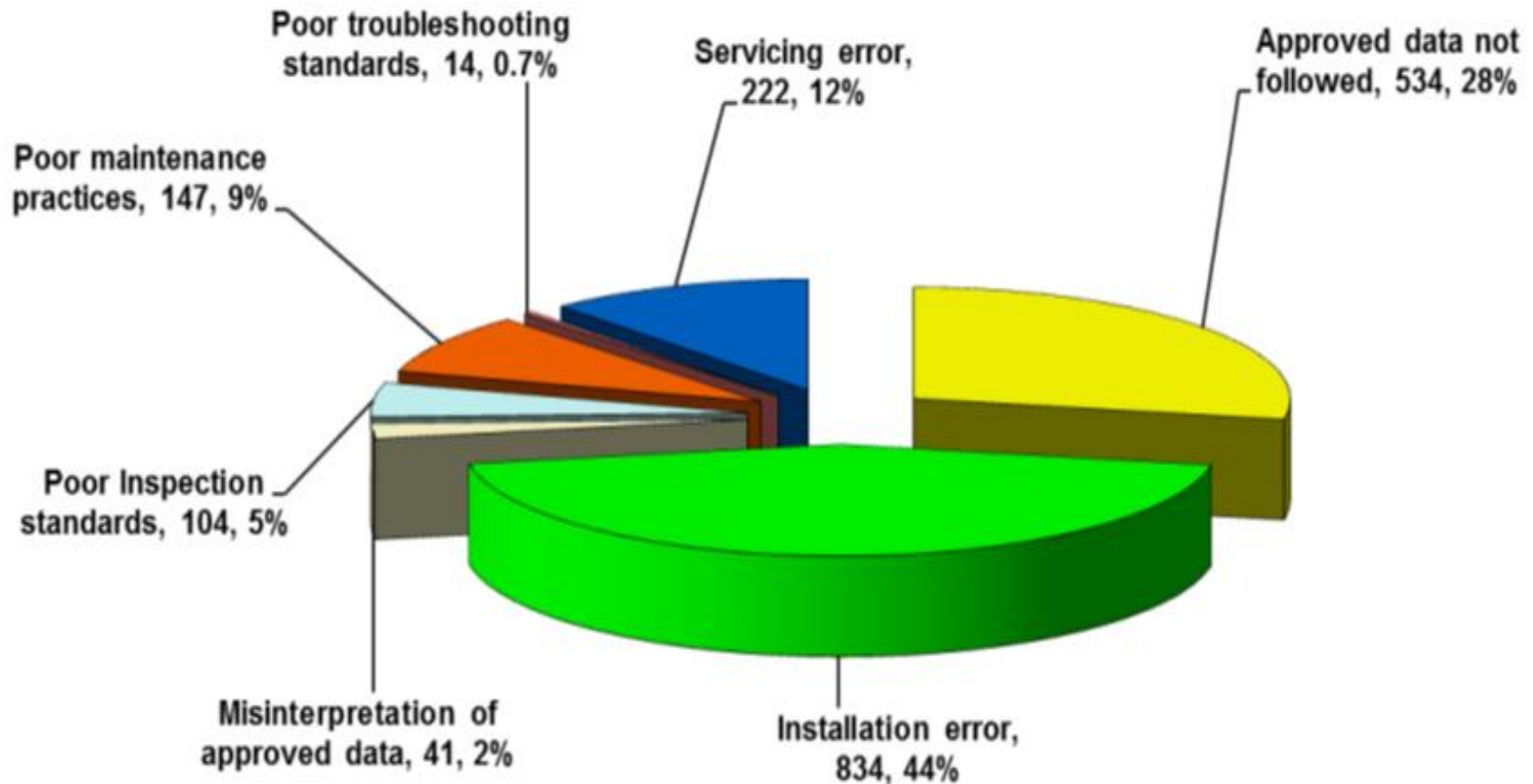


- CAP1145 Safety review of offshore public transport helicopter operations in support of the exploitation of oil and gas. Published February 2014
- UK CAA reviewed 25 UK incidents & accidents between 1992 and 2013
- Actions & Recommendations:
 - 32 addressed to UK CAA
 - 16 addressed to the Industry
 - 14 addressed to EASA

Where it Began

- Civil Aviation Authority – The Safety review of offshore public transport helicopter operations in support of the exploitation of oil and gas CAP 1145 included:-
- Action **31**
 - The CAA will form an Offshore **Maintenance Standards Improvement Team** with the offshore helicopter operators with the objective of reviewing the findings at Annex F to the CAA Strategic Review of the Safety of Offshore Helicopter Operations and **making proposals to achieve a step change in maintenance standards.**

Why? What is going wrong?



CAP 1367- Aircraft Maintenance Incident Analysis

Initial Activities



- Initial Meeting held at British Airways with MROs from both Fixed and Rotary Wing sectors. Consensus was there was many common issues which could be progressed with industry involvement.
- A31 Working groups (Industry & CAA) created to look at specific topics and provide potential solutions:
 - Improving Supervision & Production Planning (Ensuring Sufficient Maintenance Resources).
 - Implementing a Safety Culture & Ensuring Engineer Responsibility.
 - Improving the Effectiveness & Adoption of Procedures / Processes & Task Cards.
 - Improving Competency Assessment, Training & Induction.
- Output of working groups has been drafted into a report which will be shared with the new teams.

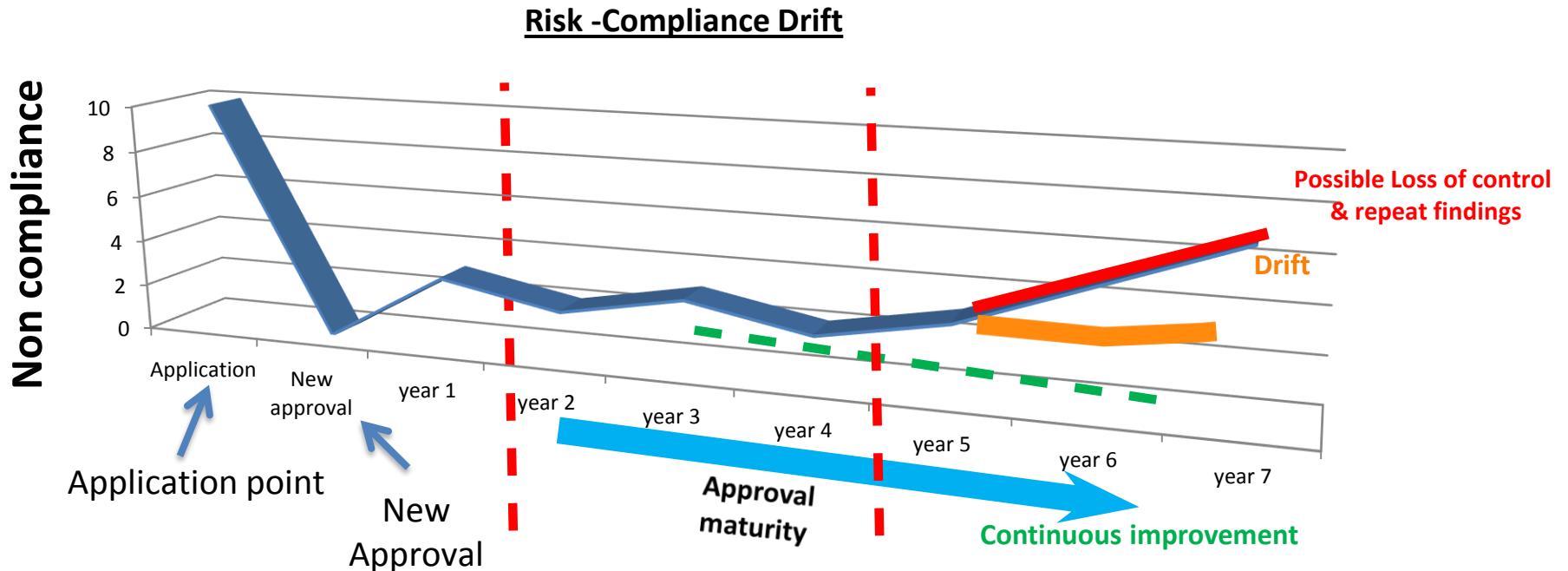
A31 – Step Change in Maintenance Standards to Improve Engineering Performance

Compliance Drift

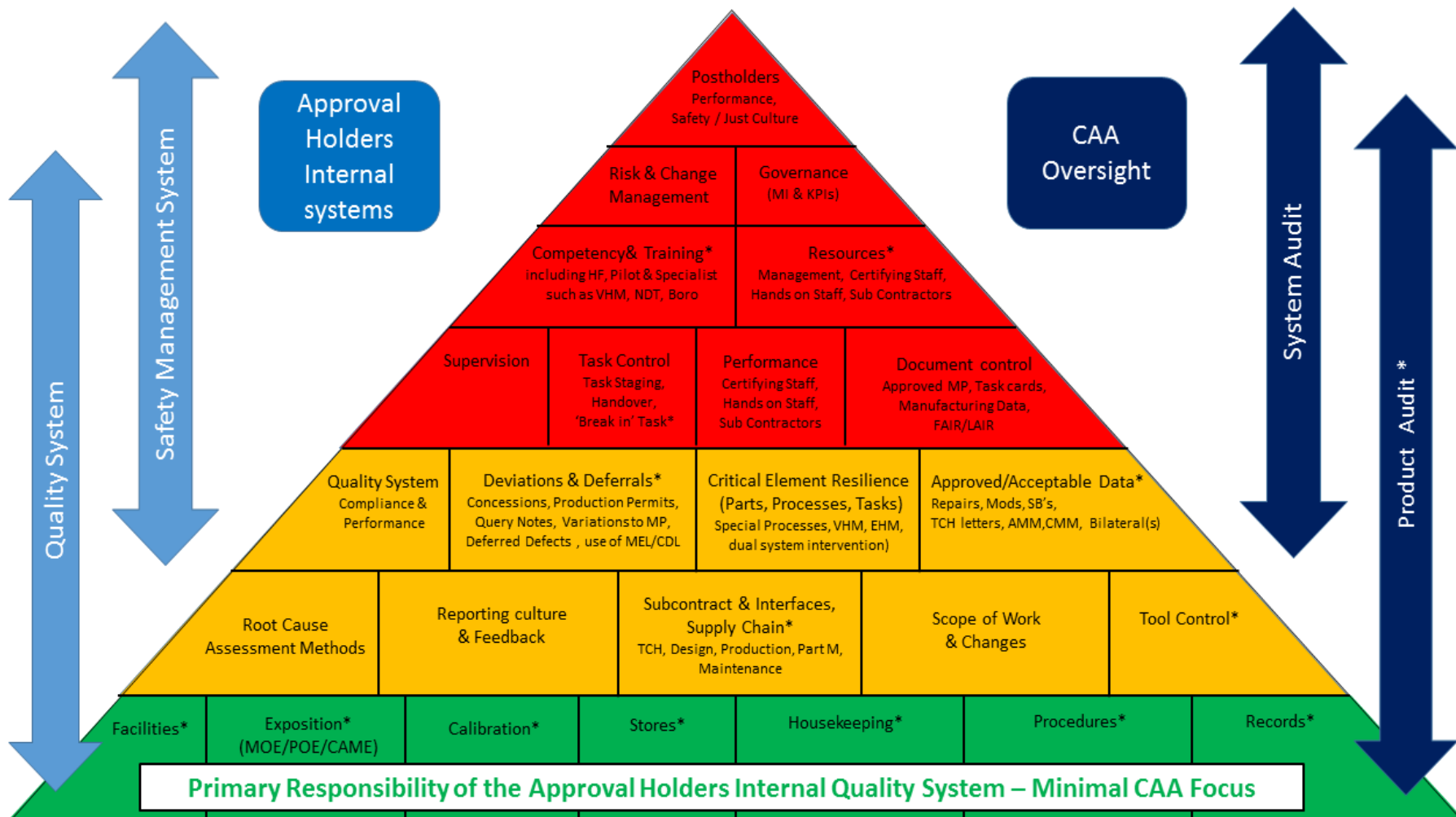
organisation and product non-compliance against the maintenance regulations appear to be relatively consistent

Compliance still a prime consideration, key personnel still focussed and systems, processes and procedures still current and relevant.

Key personnel changes, organisational changes, compliance now a minor focus. Systems, processes, procedures either out of date or too complex.



Airworthiness Sector Risk Pictures – Complexity Triangles



The A31 MSIT Groups

Engineering Performance
CAA / Industry AW Sector A31 Teams

Initial Airworthiness

Continuing Airworthiness

Production / Manufacturing

Fixed Wing

Rotary Wing

Prime /
OEMs
(Tier 1/2)

SMEs
(Supply
Chain)

CAMO

Corporate
Aviation

Large MRO

Part 147
Training

Offshore

On Shore

Potential Solution Areas

- Improving Supervision & Production Planning
- Implementing a Safety Culture & Ensuring Engineer Responsibility
- Improving the Effectiveness and Adoption of Procedures/Processes/Task Cards
- Improving Competency Assessment / Training & Induction

- All MSIT Groups suggested Topics
- Large MRO made choice from the 'bucket' Topics after adding new ones

5 Topics chosen at Meeting 2



1 Part 145.A.48(a)	2 Certifying Staff - Holders of AML	3 Production planning	4 HF - Fatigue Risk Management	5 Culture -
Tool control	Improving Supervision and Leadership, including the role of the LAE	Issues with production planning.	Management of human error. Human factors and fatigue risk management in maintenance	Commercial pressure from owners
Tooling – more pressure if the work covers many aircraft types.	Engineering Competency. Training, Knowledge, skills, attitude and culture in changing regulatory environment	Task Card Creation and use	Human Factors influence	Owner timescales creating commercial pressures
Note: includes control of Extraneous Material - effectively paragraph Part 145.A.48(a)	Engineer availability	Multiple Task Cards	Note : the group were keen for this to focus on Fatigue Management	Staff turnover both positive and negative
	Note: This is a summary of all the AML related issues that were listed and others that were discussed in the group . It was agreed that the Part 66 syllabus related issues, were 'passed on' to the Part 66.147 MSIT team.	Reliability programmes & implementation requirements need to be standardised across organisations - -definition.		Note: Discussion on numerous problem areas summarised the solution as an appropriate culture. Some of those are listed above, but it was a larger issue than the subjects listed.
		Production planning		

5 Topics – Vote – A ‘won’

A	Tool and Extraneous Material Control
B	Production Planning
C	Culture
D	Improving Supervision and Leadership
E	Management of Human Error & Fatigue

What is the intent?

- Publish best Guidance/Practice
- Possibly National AMC
- Industry Lead on solutions - Civil Aviation Authority facilitate
- Use of 'Skywise' to promulgate information
- Work of the groups will be shared with EASA
- Civil Aviation Authority Intern working with Industry - Airbus Helicopters
- Possibly suggest Regulation change to EASA

Other MSIT Group Topics



- Onshore Rotorcraft - Competency Assessment
 - including Part 145, VHM (HUMS), and Part M
- Offshore Rotorcraft - Management of Human Error
 - Human Factors and Fatigue risk management
- CAMO - Role of the Accountable Manager
 - across AOC's, Part M, Part 145 and the benefits of resourcing adequately within CAMO organisation
- Part 147 – Supervisory Training
 - passed from Large MRO
- Corporate – Production planning

Governance



- Groups co-ordinated by shared Civil Aviation Authority Governance – Dave Malins Off shore Review Airworthiness Lead
- Manages progress and aligns the tasks amongst the groups
- This facilitates assistance from other groups as necessary – e.g. questions can be passed to the Part 147/Licensing Group

Next Meeting



- 14th March 2018
- We will discuss Tool Control & Extraneous Material potential solutions and aids
- Discuss next subject – split the work
- Improving Supervision and Leadership
- Followed by Culture

Thanks for Listening & Attending

Questions?

