Just Culture – from aspiration to reality

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Airworthiness and Safety Solutions

Human Factors

Consultancy

Error Management

Training

Compliance

Civil Aviation

Airworthiness

Military Aviation

Safety

Aviation Authorities

Keven Baines
Managing Director
Baines Simmons Limited
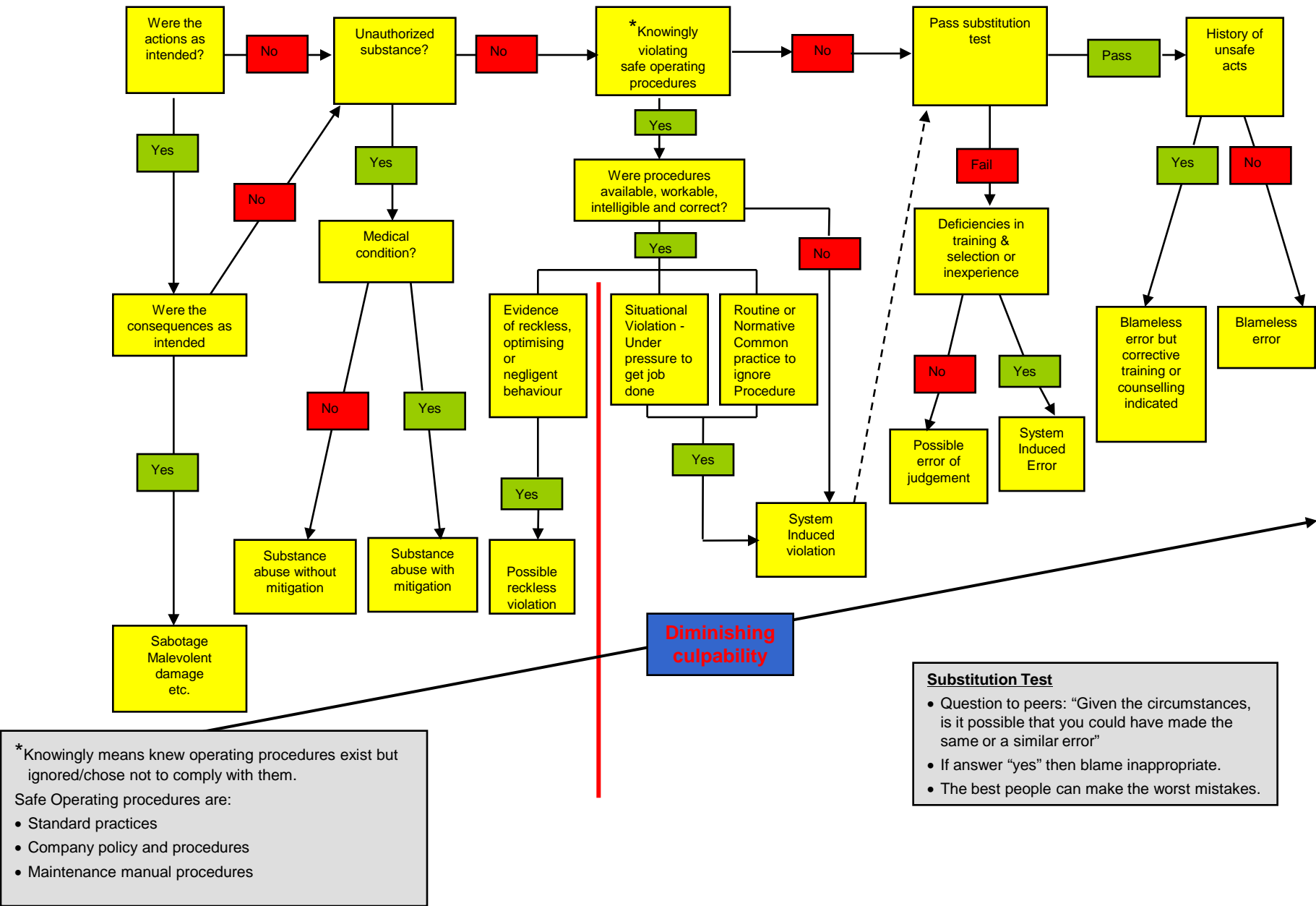
Background to this work

- The fragility of a Just Culture - inconsistency of Just Policy application is a common *killer* of a safety culture

- Our experience of the real-world application of extant culpability models taught us that there is a pressing need for a:

  - workable, straightforward toolset

  - toolset which can be repeatedly and credibly applied by non-HF specialists

  - toolset that does not require extensive training

  - tool that minimises variability, ensures consistency and stands the test of perishable training

- Outcome – The **FAIR™** system (*Flowchart Analysis of Investigation Results)*
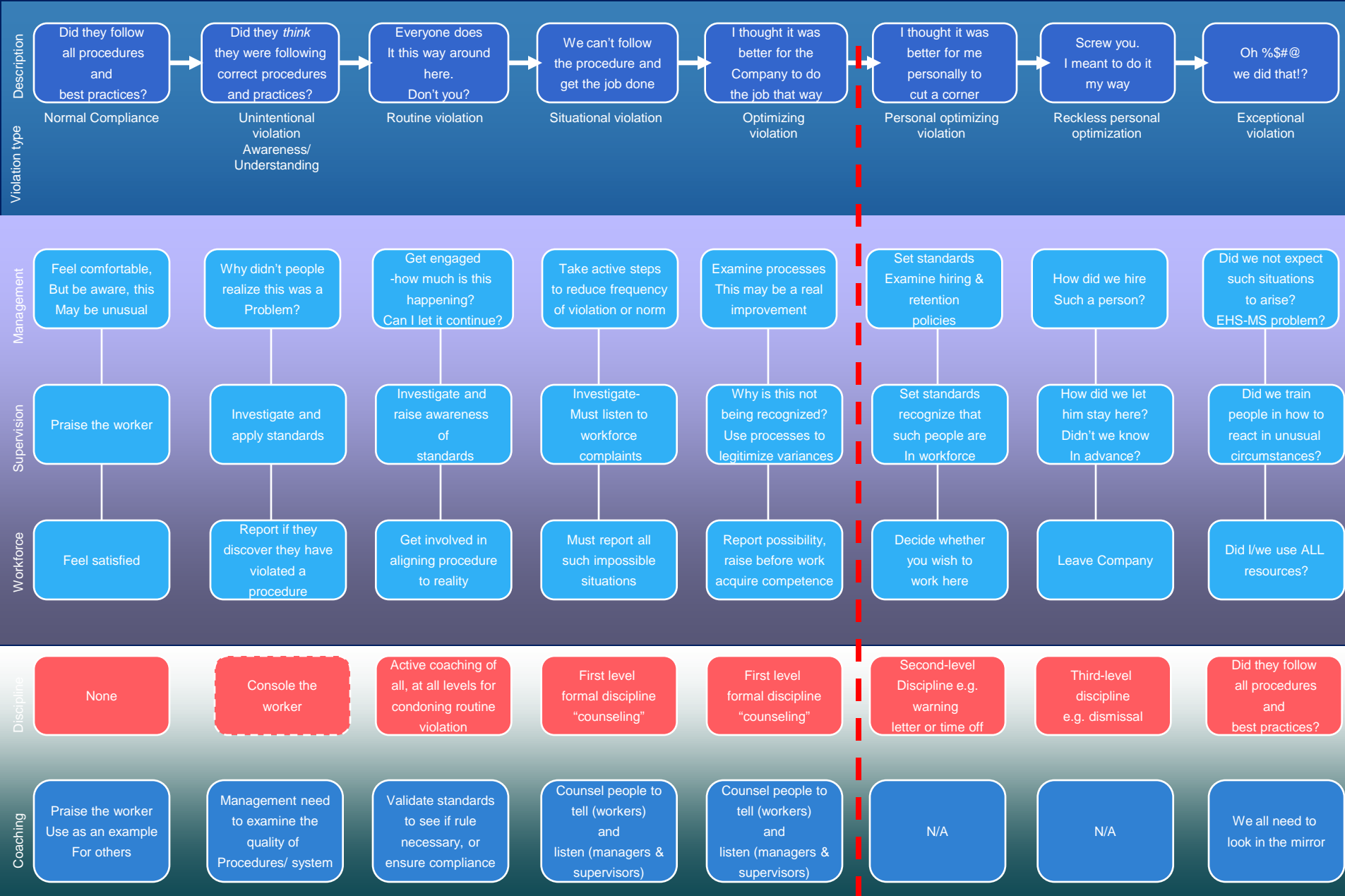
- **FAIR™** is free of charge

The basis of FAIR™

- The 'best practice' elements of the two main academic (Reason/Hudson) 'in-use' models

Prof. James *Reason - Culpability Model'*

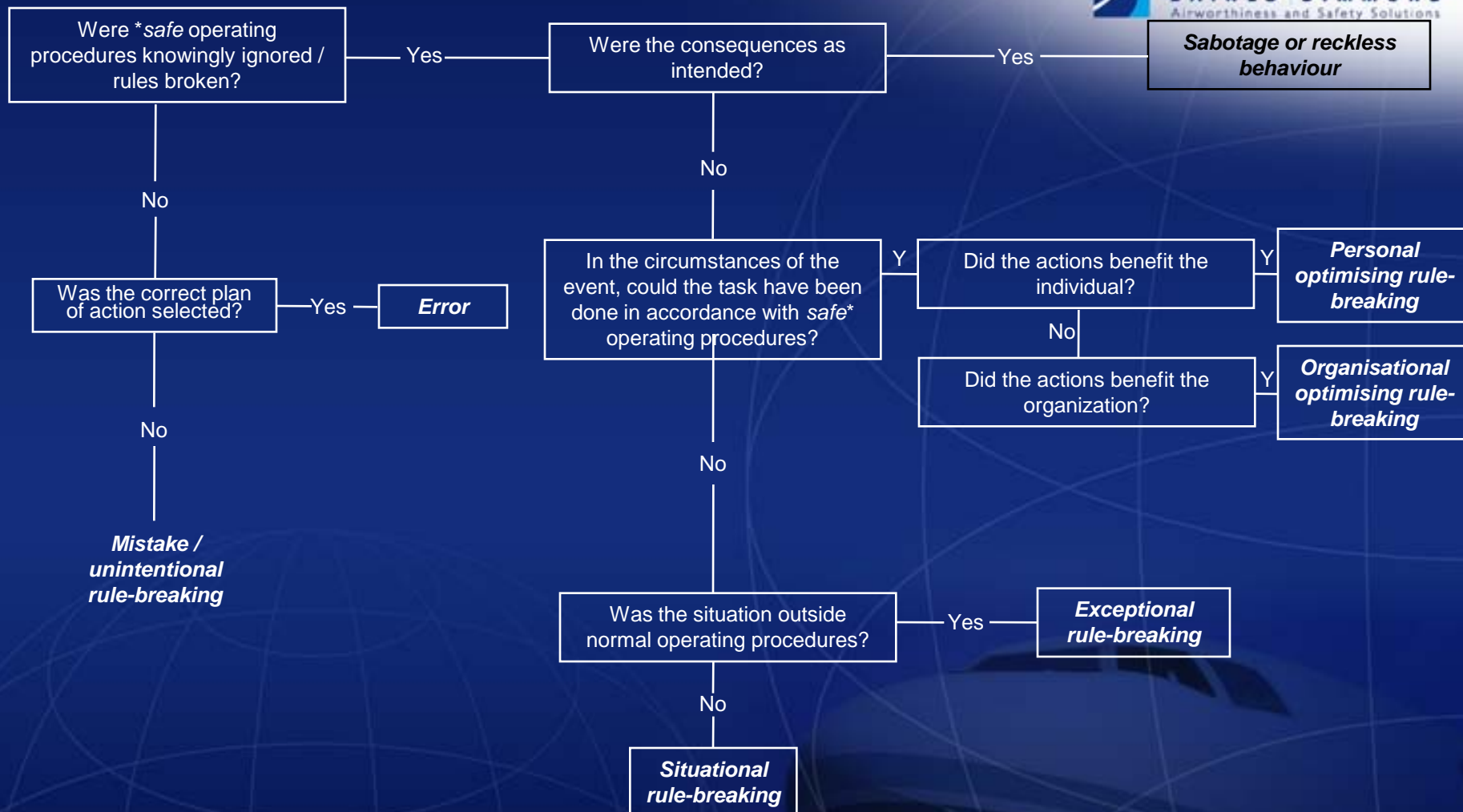*Further developed by QANTAS Airlines and Baines Simmons Limited*

Were the actions as intended? → **No** → Unauthorized substance? → **No** → *Knowingly violating safe operating procedures → **No** → Pass substitution test → **Pass** → History of unsafe acts

Were the actions as intended? → **Yes** → Were the consequences as intended → **Yes** → Sabotage Malevolent damage etc.

Were the consequences as intended → **No** → Unauthorized substance?

Unauthorized substance? → **Yes** → Medical condition?

Medical condition? → **No** → Substance abuse without mitigation

Medical condition? → **Yes** → Substance abuse with mitigation

*Knowingly violating safe operating procedures → **Yes** → Were procedures available, workable, intelligible and correct?

Were procedures available, workable, intelligible and correct? → **Yes** → Evidence of reckless, optimising or negligent behaviour / Situational Violation - Under pressure to get job done / Routine or Normative Common practice to ignore Procedure

Were procedures available, workable, intelligible and correct? → **No** → System Induced violation

Evidence of reckless, optimising or negligent behaviour → **Yes** → Possible reckless violation

Situational Violation - Under pressure to get job done → **Yes** → System Induced violation

Pass substitution test → **Fail** → Deficiencies in training & selection or inexperience

Deficiencies in training & selection or inexperience → **No** → Possible error of judgement

Deficiencies in training & selection or inexperience → **Yes** → System Induced Error

History of unsafe acts → **Yes** → Blameless error but corrective training or counselling indicated

History of unsafe acts → **No** → Blameless error

Diminishing culpability

*Knowingly means knew operating procedures exist but ignored/chose not to comply with them.

Safe Operating procedures are:
- Standard practices
- Company policy and procedures
- Maintenance manual procedures

Substitution Test
- Question to peers: "Given the circumstances, is it possible that you could have made the same or a similar error"
- If answer "yes" then blame inappropriate.
- The best people can make the worst mistakes.

Prof. Patrick Hudson Just Culture Model

Description	Violation type	Management	Supervision	Workforce	Discipline	Coaching
Did they follow all procedures and best practices?	Normal Compliance	Feel comfortable, But be aware, this May be unusual	Praise the worker	Feel satisfied	None	Praise the worker Use as an example For others
Did they *think* they were following correct procedures and practices?	Unintentional violation Awareness/ Understanding	Why didn't people realize this was a Problem?	Investigate and apply standards	Report if they discover they have violated a procedure	Console the worker	Management need to examine the quality of Procedures/ system
Everyone does It this way around here. Don't you?	Routine violation	Get engaged -how much is this happening? Can I let it continue?	Investigate and raise awareness of standards	Get involved in aligning procedure to reality	Active coaching of all, at all levels for condoning routine violation	Validate standards to see if rule necessary, or ensure compliance
We can't follow the procedure and get the job done	Situational violation	Take active steps to reduce frequency of violation or norm	Investigate- Must listen to workforce complaints	Must report all such impossible situations	First level formal discipline "counseling"	Counsel people to tell (workers) and listen (managers & supervisors)
I thought it was better for the Company to do the job that way	Optimizing violation	Examine processes This may be a real improvement	Why is this not being recognized? Use processes to legitimize variances	Report possibility, raise before work acquire competence	First level formal discipline "counseling"	Counsel people to tell (workers) and listen (managers & supervisors)
I thought it was better for me personally to cut a corner	Personal optimizing violation	Set standards Examine hiring & retention policies	Set standards recognize that such people are In workforce	Decide whether you wish to work here	Second-level Discipline e.g. warning letter or time off	N/A
Screw you. I meant to do it my way	Reckless personal optimization	How did we hire Such a person?	How did we let him stay here? Didn't we know In advance?	Leave Company	Third-level discipline e.g. dismissal	N/A
Oh %$#@ we did that!?	Exceptional violation	Did we not expect such situations to arise? EHS-MS problem?	Did we train people in how to react in unusual circumstances?	Did I/we use ALL resources?	Did they follow all procedures and best practices?	We all need to look in the mirror

Flowchart Analysis of Investigation Results (FAIR™)

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Were *safe* operating procedures knowingly ignored / rules broken?

——Yes——

Were the consequences as intended?

——Yes——

Sabotage or reckless behaviour

No

No

Was the correct plan of action selected?

——Yes——

Error

In the circumstances of the event, could the task have been done in accordance with *safe** operating procedures?

——Y——

Did the actions benefit the individual?

——Y——

Personal optimising rule-breaking

No

No

Did the actions benefit the organization?

——Y——

Organisational optimising rule-breaking

No

Mistake / unintentional rule-breaking

No

Was the situation outside normal operating procedures?

——Yes——

Exceptional rule-breaking

No

Situational rule-breaking

Apply routine and substitution test at each outcome to determine most appropriate intervention actions

Flowchart Analysis of Investigation Results (FAIR™)

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Unintended Action	**Intended Action**	**Intended Action**
Unintended Consequence	**Unintended Consequence**	**Intended Consequence**

Error (slips and lapses)

Skill-based

Memory or attentional failure

Unintentional rule-breaking

Mistake

Rule-based

Knowledge-based

Knowing rule-breaking

Situational

Organisational optimising

Exceptional

The line in the sand

Sabotage

Reckless behaviour

Gross negligence

Personal optimising

1 - Substitution test: Would someone else in the same situation have done the same thing? (if not, what is it about individual?)

2 - Routine test: Does this happen often to a) the individual or b) the organisation?

3 - Proportional punishment test: What safety value will punishment have?

4 - Intervention: What needs to happen to reduce likelihood of recurrence at a) an individual level and b) an organisational level?

Increasing culpability ⟶

Manage through improving performance influencing factors (PIFs) – person, task, situation, environment

Manage through appropriate disciplinary action

Managing The Three Behaviours

Normal Error

Manage through changes in the immediate 'system':

- Processes
- Procedures
- Training
- Design
- Environment
- Move or *manage* the person

At-Risk Behaviour

Manage through:

- Understanding our at-risk behaviours
- Removing incentives for at-risk behaviours
- Creating incentives for healthy behaviour
- Increasing situational awareness

Intentional Risk-Taking

Manage through:

- Disciplinary action

Where does FAIR reside in your Error Management System?

Flowchart:

Unwanted event/error or near miss → **Precautionary action?** → **Carry out 'Root Cause Investigation' (using tools such as MEDA, HFIT, PEAT, REDA) using trained investigators** → **Investigation Output - Event Review Team (ERT) convened** → ***FAIR system* See next page** → **Instigate disciplinary process**

Further 'unsafe act' information required → *FAIR system*

FAIR system → **No Further action regarding person**

←——— **Non-Judgemental** ———→ ←——— **Decision** ———→ ←— **Judgemental** —→

(developed) Substitution Testing

- This must be carried out by the Event Review Team (ERT) on at least three of the person's peers.

- The substitution test is designed to ascertain whether, in the circumstances, it is possible that another similarly skilled, trained and experienced individual would have done anything different.

- These peers must not be members of the ERT, investigation or any other committee that could bring in a pre-existing knowledge or bias that would be directly associated with the event/near-miss circumstances.

- If answer no then it is most likely a system problem, not necessarily an individual's problem, and blame is not appropriate. It proves that the best people can make the worst mistakes.

- *Ask other peers this q*uestion – *"Could you have made the same or similar error under similar circumstances?"*

- Peers must consider the event/near-miss contributing factors i.e. (maintenance) system failures, and circumstances beyond the individual's control as determined through the related investigation.

- If the peer group indicates a positive response *(yes)* the person is probably blameless.

- A review of their previous decision history is in order. If they have a previous history of poor decision-making, counseling may be in order depending on event/near-miss factors.

What is a Just Culture?

A Set of Beliefs

– A recognition that professionals will make mistakes

– A recognition that even professionals will develop unhealthy norms

– A fierce intolerance for reckless conduct

– An expectation that hazards and errors will be reported

– Accountability for choosing to take risk

– Expectation that system safety will improve

A Set of Duties

– To raise your hand and say "I've made a mistake"

– To raise your hand when you see risk

– To resist the growth of at-risk behaviour

– To participate in generating learning from our every-day *bad* experiences

– To absolutely avoid reckless conduct

Inspiration: David Marx   *© Baines Simmons Limited 2009*

Does a Just Culture deliver?

- *Some interesting lessons regarding the application of the Just Culture*

No of MEMS Raised Cumulatively - 4 RR sites
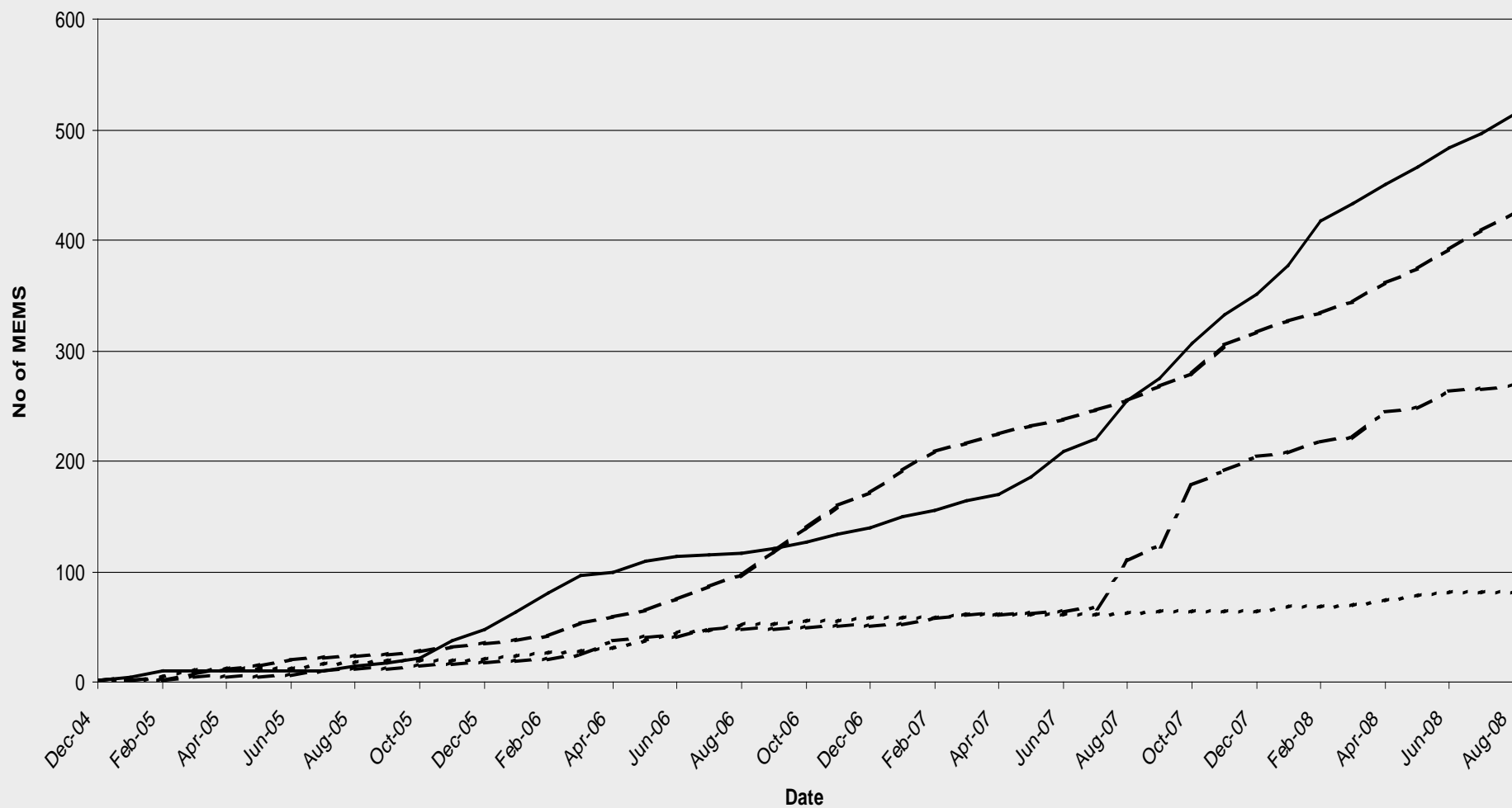
Internal Reporting
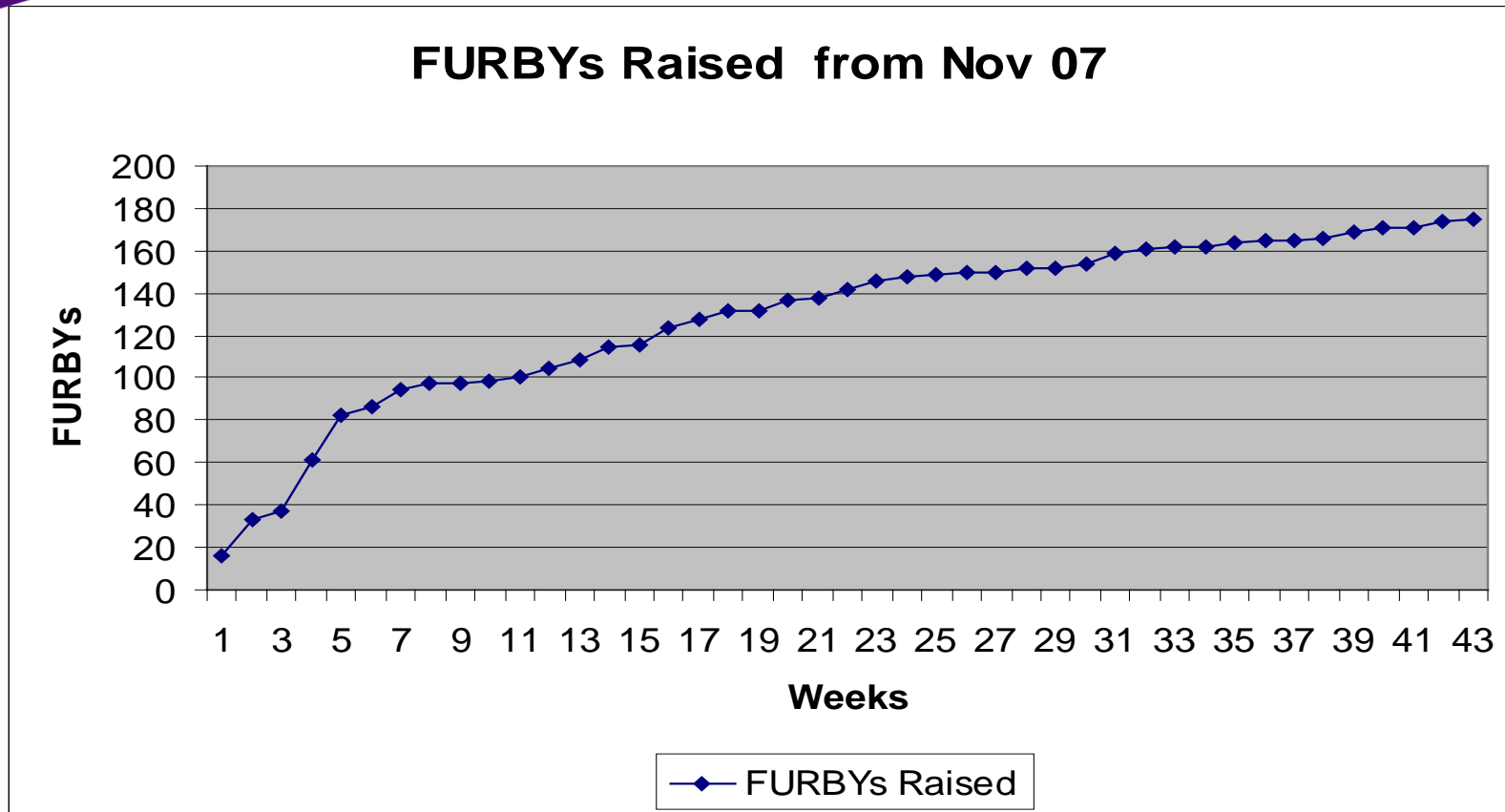
FURBYs Raised from Nov 07

The MAS Programme

	2005	2006	2007	2008
Senior Mgt HF Training	★			
HF Programme	★			
MEDA Training		★		
Continuation Training			★	
Safety Review Board			★	
Safety Action Groups				★
SMS Training				★
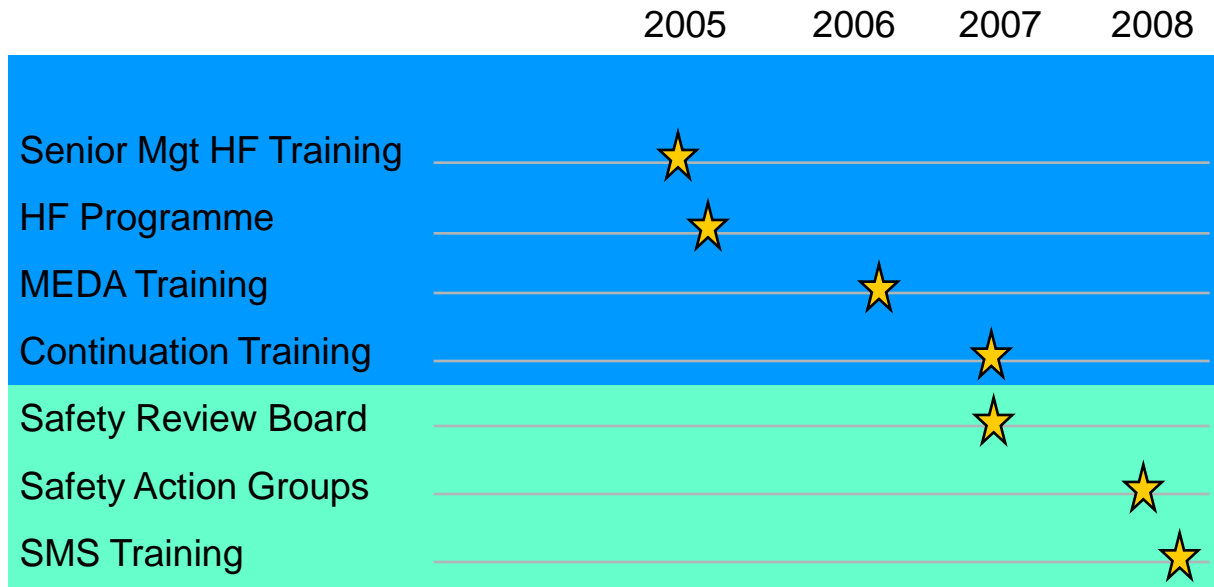
Reactive "Systems"

Proactive "Culture"

MEMS Report 700 +

MEDA Investigations 200 +

Initial HF Trained 2800 +
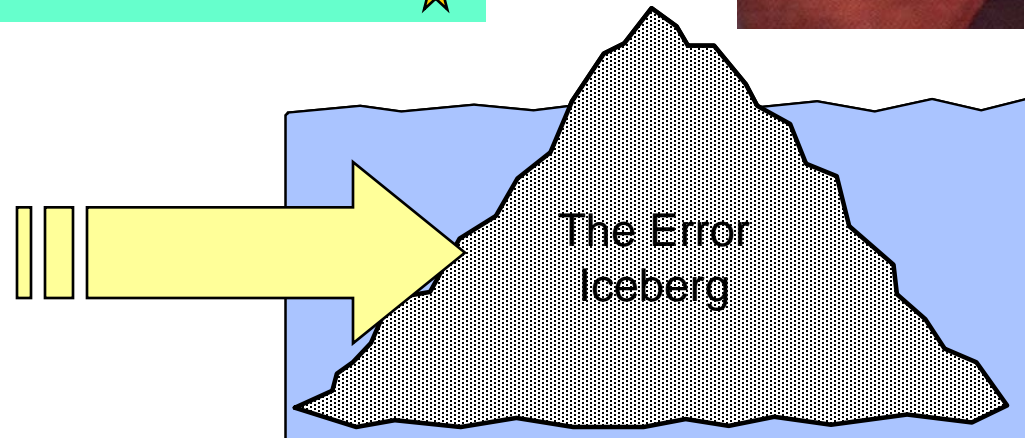
The Error Iceberg

Regeneration outcomes
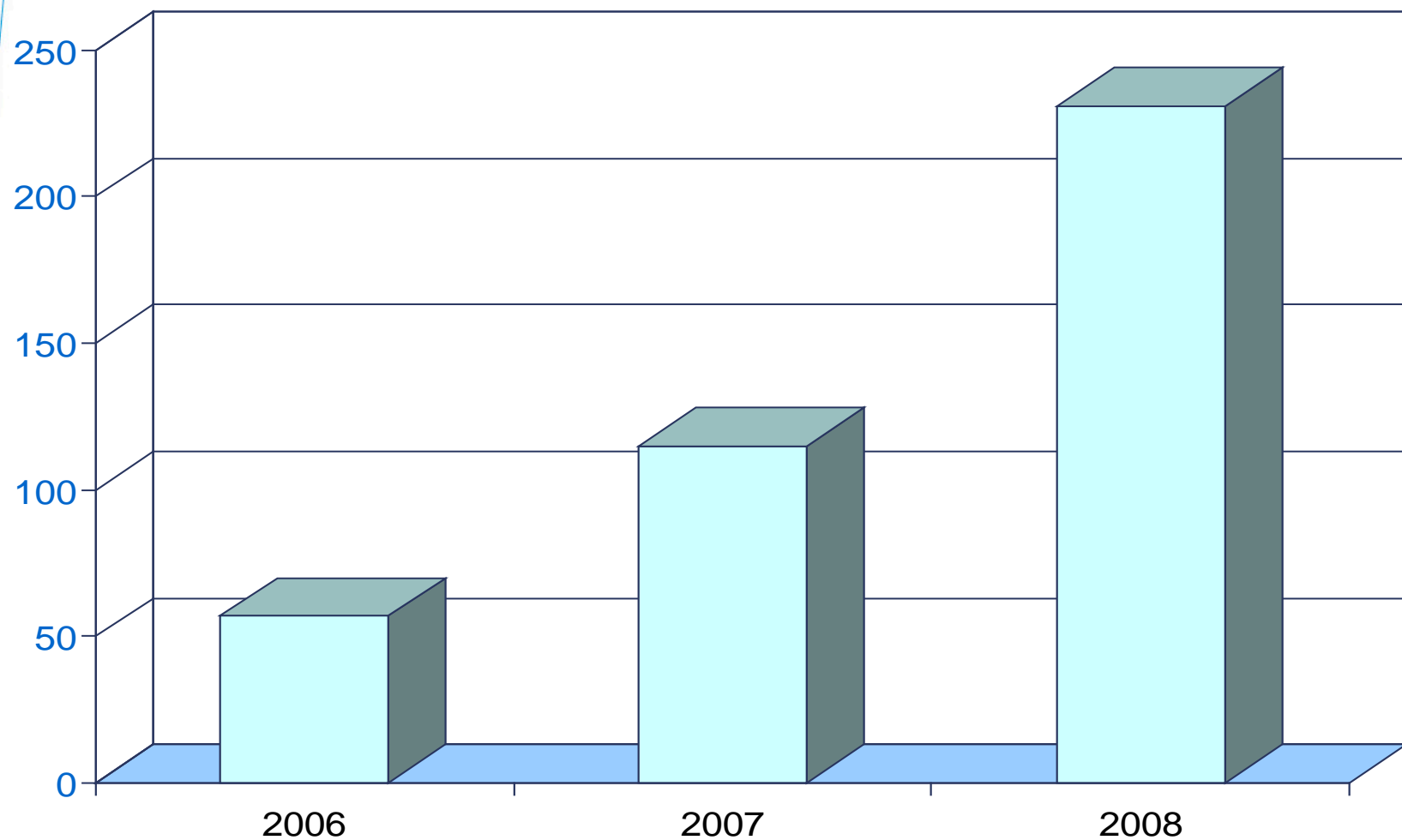
Annual Occurrence Reports Raised

A Journey to the Bottom of the Error Iceberg – MEMS Implementation 2005 – 2008

air safe
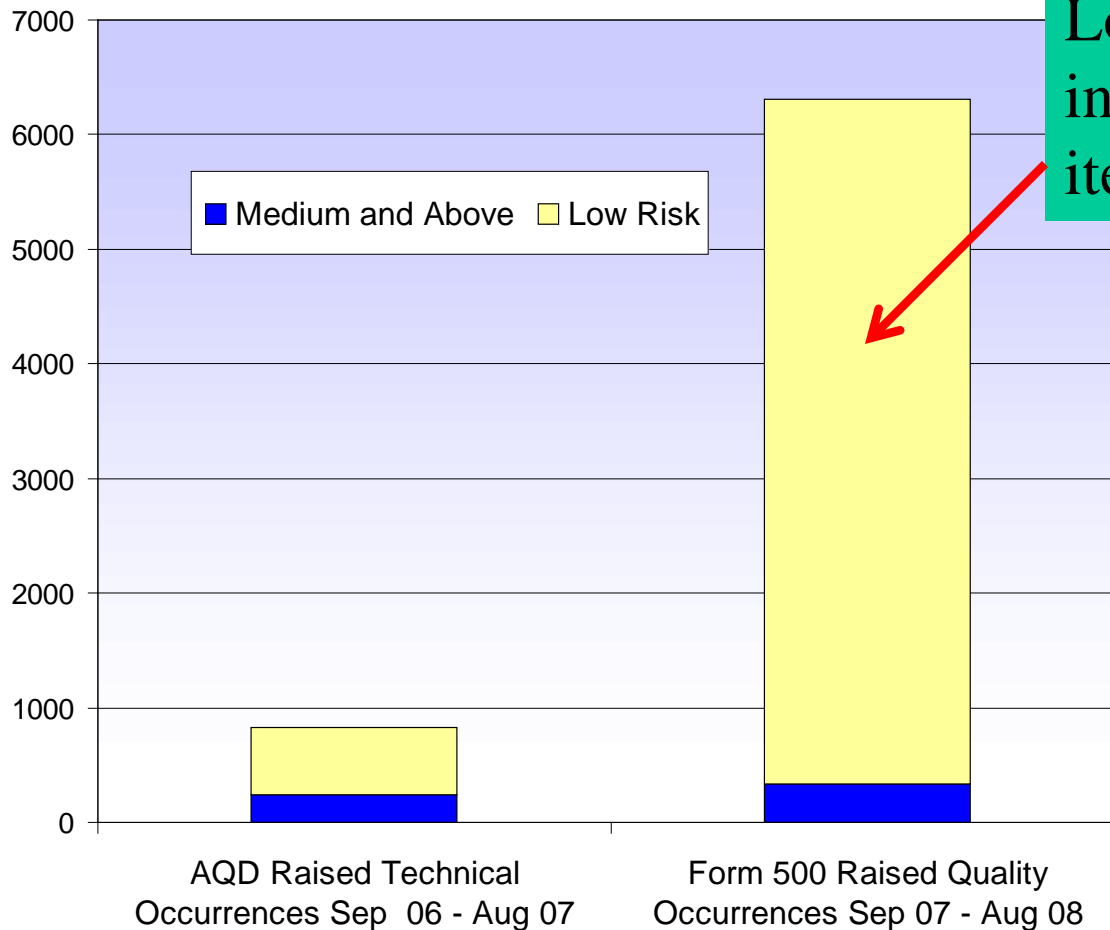
Low risk items including non event items/near miss

Chart legend: ■ Medium and Above ☐ Low Risk

Y-axis: 0, 1000, 2000, 3000, 4000, 5000, 6000, 7000

X-axis categories:
AQD Raised Technical Occurrences Sep 06 - Aug 07
Form 500 Raised Quality Occurrences Sep 07 - Aug 08

QANTAS Maintenance Error Management System

Qantas Engineering

air safe

- Reasons for Increased Reporting

  - Increased belief that Just Culture Principles will be followed

  - Changing belief in reporting making a difference

  - Better understanding of reporting via HF training

  - No Punitive actions outside of Just Policy

  - Much easier to report via online reporting system

  - Good MEDA Investigations and results

QANTAS Maintenance Error
Management System

Qantas Engineering.

Measures to protect Just Culture

- only one committee member to be technically knowledgeable

- only one investigator to be technically *knowledgeable*

- only one investigator to be *local*

- confidentiality maintained

- Investigators have limited participation in decision making process

- no secrets – published procedure promoted from the top

Measures to protect Just Culture

Train the Management Team (an example curriculum)

- An Introduction to Human Error

- Managing Error

- Managing At-Risk Behavior

- Managing Reckless Behavior

- Developing a reporting culture

- The Investigation Process

- Just Culture and its link to safety

- How to *do* just culture

- Making Smart System Changes

The reality of being Just

- As we move into the brave world of SMS, the actions that an organization takes for or against its people after an event occurs will continue to be the single biggest determiner of its success (in terms of managing safety proactively)

- Its the doing that's the undoing...

It's the doing that can be the undoing

USA TODAY

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Three airlines drop self-reporting safety program

Updated 12/5/2008 12:40 PM | Comments   86 | Recommend   E-mail | Save | Print | Reprints & Permissions |
14

By Alan Levin, USA TODAY

Three large airlines have abandoned a safety program credited with helping to lower accident rates, prompting criticism of the airlines and unions by safety advocates and government regulators.

American Airlines, Delta Air Lines and Comair have dropped programs that encourage pilots to come forward and report their own mistakes without fear of being punished. Known as the Aviation Safety Action Program (ASAP), the program has helped airlines and regulators uncover scores of potentially dangerous situations and make fixes before they caused crashes.

ASAP depends on a consensus among pilot unions, airlines and the Federal Aviation Administration (FAA), any of which can halt the agreement by refusing to participate.

Several leading safety experts and the FAA's acting chief criticized the companies and unions in recent days, accusing the two sides of letting politics and bargaining get in the way of safety.

By Frank Polich, Reuters

Union leaders have charged that airlines have gone back on their word and unfairly punished pilots who voluntarily disclosed problems.

THE WALL STREET JOURNAL. ONLINE

BUSINESS
DECEMBER 15, 2008, 8:23 P.M. ET

US Airways Pilots Halt Voluntary Data-Sharing Program

By ANDY PASZTOR

LOS ANGELES – In the latest setback for pilot-airline cooperation on safety initiatives, US Airways became the third mainline U.S. airline to discontinue voluntary programs for reporting operational incidents.

Following similar disputes affecting Delta Air Lines Inc. and AMR Corp.'s American Airlines, the collapse of the US Airways program underscores the difficulties of pursuing voluntary data-sharing in the face of the airline industry's rancorous labor-management relations. The move not only does away with a powerful tool for the airline and its pilots to spot all types of budding safety hazards, it also could slow the spread of such voluntary incident-reporting systems at some foreign carriers, safety experts say.

The US Airways program, which had been active for more than 10 years, ran into trouble over pilot complaints that the company was seeking to use voluntary reports to punish individual

Summary

- Being fair is a management accountability (be tough)

- Managing consistency is the real challenge, or being just most of the time – irrespective of output failure consequence

- Formally record how you responded - for performance review by seniors and independents

- The regulator should care too

Conclusion

- The FAIR™ tool – a workable, and straightforward toolset which can be repeatedly and credibly applied by non-HF specialists, without the need for extensive training

  So that our people tell us about safety

- Interested in trialling/using **FAIR™**?

- please leave your business card, or contact us through our website

- In return we would value your feedback as to its usability