FAiR3 SYSTEM®

A BEHAVIOUR-BASED SYSTEM FOR OPERATIONALISING AND SUSTAINING A JUST CULTURE

BAINES SIMMONS
SAFETY SERVICES

Contents

FAiR3 System — What's new?

Since its conception, the FAiR (Flowchart Analysis of Investigation Results) System has been widely praised, downloaded and shared by many aviation organisations and high hazard industries worldwide. It has been used by those organisations seeking help with implementing a Just approach to accidents and incident investigations within their organisations.

In recent years, during the delivery of countless investigation training courses and Just Culture workshops, our experience has led us to develop the model to include a number of enhancements.

IN SUMMARY, THE MAIN CHANGES WE HAVE MADE BETWEEN FAiR2 AND FAiR3 ARE:

- Clarification of the language in the flowchart to ensure that the wording of the questions and their purpose are not misinterpreted.
- Updating of the terms used to ensure they align with the latest academic thinking and industry best practice.
- Changes to language to reduce the inadvertent effects of unconscious bias such as hindsight, outcome and confirmation biases.
- Clearer separation of accountability and intervention development into a 4-step model: Classify the behaviours, identify effective interventions, review the additional tests and determine accountability (if required).
- Greater focus on the non-judgemental aspects of the FAiR System, in particular the development of effective interventions to ensure the output of root cause analysis investigations address human behaviour appropriately and are effectively implemented.

Just Culture — Balancing Safety & Accountability

WHAT IS JUST CULTURE?

A Just Culture is 'an atmosphere of trust in which people are encouraged (even rewarded) for providing essential safety-related information, but in which they are also clear about where the line must be drawn between acceptable and unacceptable behaviour'.

Professor James Reason, 1997

WHY HAVE A JUST CULTURE?

By treating people fairly, not rushing to blame and punish, and considering the real-world circumstances in which your staff found themselves encourages greater openness and proactive reporting of hazards. If we know more about the hazards we are exposed to, then the organisation is better placed to manage its risks and implement effective mitigations. An enhanced risk picture and a safety-conscious workforce, can improve safety-risk management, reduce rework, increase operational efficiency, and protect people and vital assets from harm. However, it must be noted that a Just Culture is not a blameless culture; people must remain accountable for any selfish or reckless behaviour.

HOW THE FAiR3 SYSTEM SUPPORTS AND SUSTAINS A JUST CULTURE

The Baines Simmons FAiR3 System is an innovative management tool designed to help organisations investigate events to determine the nature and causes of unwanted acts, and thereby ensuring appropriate and effective interventions are taken. Designed as a behavioural classification framework, the FAiR3 System ultimately helps organisations support and sustain a Just Culture.

However, it is important to note the FAiR3 System is not a replacement for an investigation. Only trained, impartial investigators can uncover an event's underlying causal factors that need to be addressed in order to reduce the likelihood of a reoccurrence. Applying the FAiR3 System without undertaking a systematic, impartial investigation means that behaviour assessment is based on personal perceptions, subjectivity and unconscious bias, and could consequently undermine the organisation's Just Culture.

It is also imperative that your Just Culture process, and the information in this guide, are aligned with your organisation's HR policy.

- Does your HR policy interface appropriately with Just Culture?
- Are your HR staff trained in Just Culture principles?
- Do all parts of your organisation understand what a Just Culture is and implement it consistently? Or is this something only the management understand and have implemented without a wider education programme?
- Who in your organisation instigates any requisite disciplinary action and how do you ensure that it is consistent?

These and many more questions need to be considered and a policy developed to ensure you grow a fair and Just Culture within your organisation. A Just Culture must be treated with care... it is very hard won but easily lost.

Training –
Enabling effective use of the FAiR3 System

While the FAiR tool is intended to provide users with a 'handrail' to guide them through making the best decisions possible to prevent reoccurrences of safety incidents, it is predicated on the **competence** of the users. The consequences of misunderstanding and / or misapplying FAiR3 can be manifold, leading to poor and ineffective interventions being enacted, a risk of faulty judgements being cast on individuals and the organisation's Just Culture being undermined.

FAiR3 has been devised to complement and support an organisation's wider safety management system. This means that its successful and effective application is reliant on the right policies and processes being in place, but also the support of key performance enablers. Vital for effective use of FAiR3 are what Baines Simmons refer to as the *Managed Competence and Proactive Culture Performance enablers* (see Figure 1).

MANAGED COMPETENCE

Organisations seeking to implement FAiR3 effectively should consider competence development programmes for key roles within the system, e.g. investigators and Review Group members. Any such plans should ensure that those fulfilling investigator and / or Review Group roles possess an intimate understanding of Human Factors and Error Management systems as well as FAiR3. This is instrumental in ensuring that interventions developed are effective and people are treated consistently and fairly.

PROACTIVE CULTURE

A proactive safety culture fosters an environment where people feel responsible for safety in their day-to-day activities. This translates to observable behaviours as people actively seek system improvements, vigilantly remain aware of hazards and utilise tools for continuous monitoring, analysis and investigation. A proactive safety culture is nurtured by a Just Culture that both positively influences behaviours and beliefs, and supports the development of Reporting, Flexible, Questioning and Learning cultures. An organisation's safety culture will only thrive by conscious and effortful commitment to successful implementation of a Just Culture. FAiR3 offers organisations the clarity and consistency to do so.

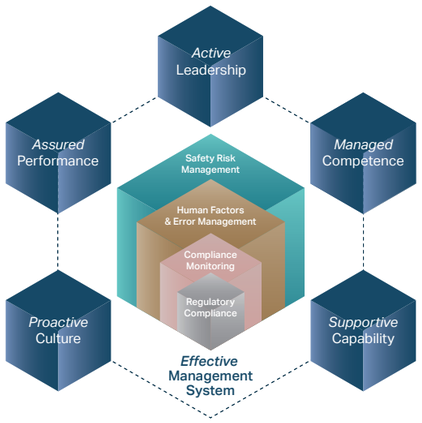

Figure 1: SMARRT MAP
Safety Management and Risk Reduction Tool

Using the FAiR3 System

Derived from existing academic models and leading practice, the FAiR3 System has been designed with ease of use and repeatability in mind. FAiR3 enables organisations to:

- **Focus on circumstances and intentions rather than outcomes** by offering a consistent impartial and objective approach to analysing events.
- **Identify effective interventions** that help prevent or reduce the likelihood of repeat events and near misses where systems fail to perform in the desired manner.
- **Ensure personal accountability is balanced** with the desire for learning and making safety improvements.

Practical application of the FAiR3 System supports management system continuous improvement and promotes the impartial assessment of acceptable and unacceptable behaviours, but requires a degree of sensitivity and discretion in its use. The tool is a guide and the context of individual circumstances must always be taken into account when making disciplinary decisions. The FAiR3 System is not intended to replace current HR disciplinary or administrative procedures but instead, to encourage a transparent and fair analysis of an individual's behaviour as well as all those factors that affected their performance. Experience has shown that alignment and harmonisation with an organisation's Human Resources department is an essential element in the successful implementation of the FAiR3 System.

THE FAIR3 SYSTEM – A 4-STEP APPROACH

STEP 1: Classify the Behaviours

STEP 2: Apply the Additional Tests

STEP 3: Identify Effective Interventions

STEP 4: Determine Accountability (if required)

The application of the FAiR3 Process Flowchart (Figure 2) shows how to apply the system from start to finish. In addition we have refined our 12 Golden Rules (See Table 1) to support your use of the FAiR system.

12 Golden Rules Of Using FAiR3

Table 1

PRE-EVENT REVIEW GROUP (ERG) MEETING

1. Use the FAiR3 User Guide. It is there to help and guide you and to provide consistency of results and / or Baines Simmons, bespoke training courses TS14 and TS112.

2. Ensure a Human Factors based investigation has been undertaken by at least two competent investigators; typically, one Subject Matter Expert (SME) and one non-SME, ideally independent from the work area involved. They should use a standardised taxonomy and report format, and replace the names of the individuals involved with 'tags' to maintain confidentiality.

3. Select competent and trained Event Review Group (ERG) members (ideally an odd number to aid decision-making). Note: To minimise bias and preserve impartiality the ERG board should ideally not include Managers from the department or area in which the event occurred (although they could be consulted as SMEs during the development of interventions).

4. Peer review the investigation report before circulating to the ERG members. The report can be issued to ERG members 5 working days before the ERG sit, thus allowing board members the opportunity to read the report, ask for significant clarifications or request that further investigation work is carried out before the ERG sit, postponing if necessary.

DURING-EVENT REVIEW GROUP (ERG) MEETING

5. Approve or reject the report recommendations or raise additional recommendations as required; ensuring they will be effective, efficient, sustainable and SMART. Assign ownership and timeframes for completion to all agreed recommendations and track progress to implementation.

6. When considering individuals' actions remember to review the event from the perspective of those involved with the information they had available at the time, taking into account their knowledge levels, focus of attention and competing goals. Staff at all levels of the organisation should be considered equally using the same systematic approach to ensure fairness and transparency.

7. Classify the behaviour types of key specific actions based solely on the facts contained within the report and not on personal opinion, perception and assumptions.

8. Review the results of the Substitution and Routine Tests conducted by the investigation team (see page 14) to support the behaviour classification - Step 7.

9. Reach a conclusion every time; there is no need to spend excessive amounts of time perfecting the spelling and grammar within the report. Although it is imperative that the requirements of each recommendation are crystal clear and cannot be misinterpreted.

10. The Chairperson should add additional remarks to the report explaining any split decisions on accountability or anything else specifically requested by senior leadership.

POST-EVENT REVIEW GROUP (ERG) MEETING

11. Ensure feedback is given to those involved in the investigation and, if appropriate, consider using the event as a 'lesson learned' example in training and safety communication programmes (whilst maintaining the confidentiality of those concerned):

    - To facilitate organisational learning by increasing the awareness of the contributory factors across the wider organisation, and not simply in the area involved.
    - To promote the value and consistency of your Just Culture.

12. Record all ERG proceedings for any future review, analysis and assurance purposes, as well as to hold the review group to account for their decisions.

FAiR3 is entirely predicated on information gathered during a 'human-in-the-system' investigation, conducted by trained investigators. It should not be used in isolation or without an objective, non-judgemental and comprehensive investigation being conducted first.

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FAiR3 Process Flowchart

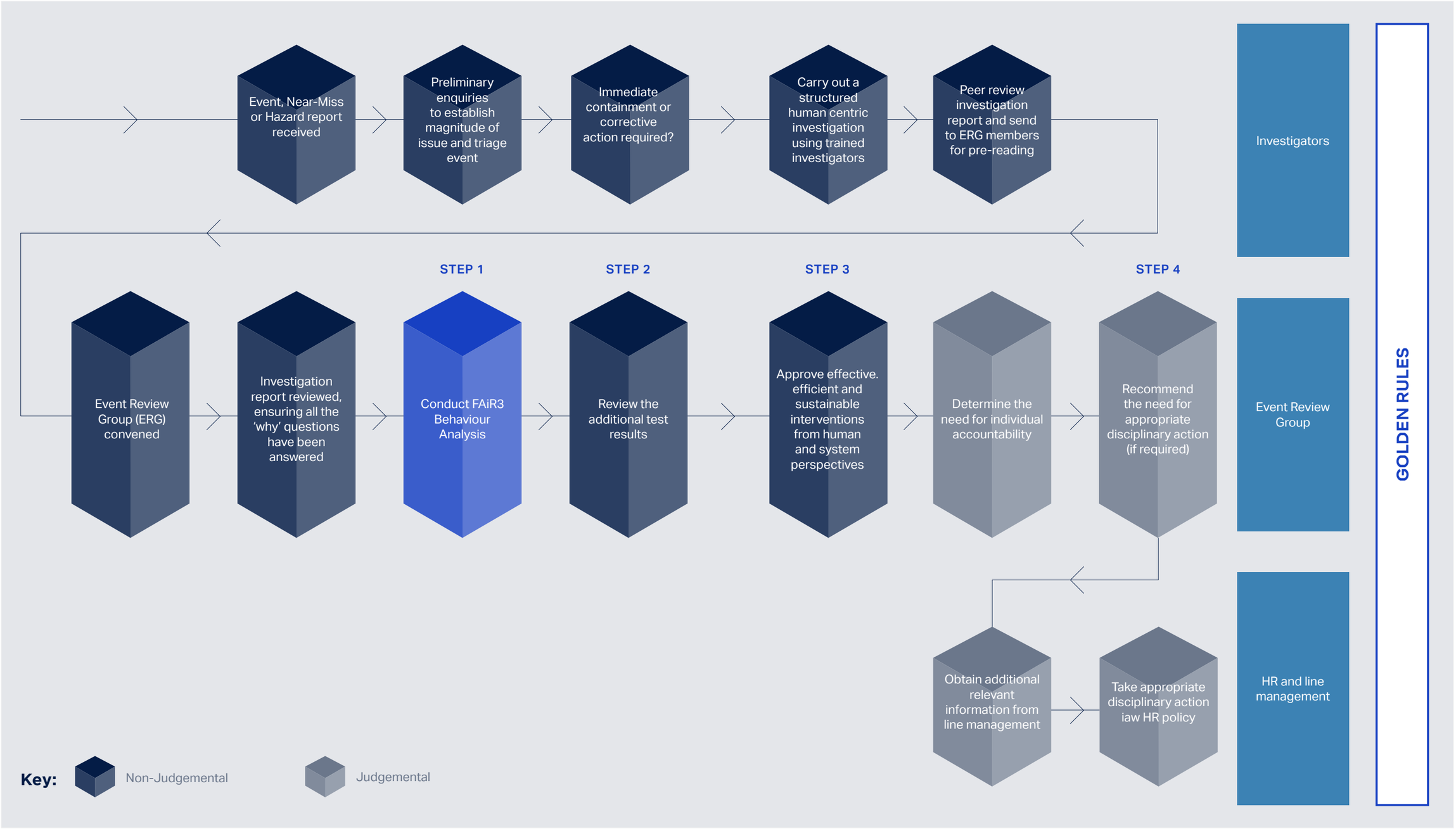

Figure 2: Application of FAiR3

Step 1: Classify the Behaviours

To apply the FAiR3 Behaviours Identification Flowchart (Figure 3) the answers to each question must be based upon the factual information gathered during the investigation. Should the investigation report require any clarification or further detail, the ERG should verify directly with the investigation team before continuing with the analysis.

It is also important to note that the flowchart should be used for assessing acts (or failures to act) one at a time and one individual at a time. It may be necessary to put one individual through the flowchart several times to consider several actions. It should also be noted that it is not necessary to put every individual involved in an event through the model. This should be conducted for all levels of seniority and roles of the organisation, and not be constrained to those immediately adjacent to the active failure.

In answering each of the questions, the following should be considered:

WAS THERE A CONSCIOUS AND SUBSTANTIAL AND UNJUSTIFIABLE DISREGARD FOR RISK?

Did the individual **knowingly** take a significant and unjustifiable risk whilst ignoring the potential for harm that could be caused? This decision should be based on the situation experienced at the time by the individual concerned, not based on the ERG's beliefs after the event now that they have greater knowledge about the situation and the outcome.

WAS THERE MALICIOUS INTENT?

Did the individual deliberately set out to cause harm or damage?

WERE THE RULES INTENTIONALLY BROKEN?

Did the individual **knowingly** contravene rules or not follow procedures? Remember people don't usually break the rules because they are bad people, they often do so because they think the action is necessary, or that their action will benefit the organisation in some way.

WAS THE ACTION INTENDED?

Did the individual consciously choose to engage in the incorrect action in the situation or was it a result of a slip of attention or lapse in memory?

IN THE CIRCUMSTANCES, WERE ALL APPLICABLE RULES AND RESOURCES AVAILABLE AND WORKABLE AND INTELLIGIBLE AND CORRECT?

In the circumstances of the event, was it possible to complete the task in line with all applicable rules or procedures, and with the available resources? Has the investigation taken due account of rules and procedures that are ambiguous or difficult to apply in practice?

WAS THE ACTION INTENDED TO BENEFIT THE ORGANISATION?

Did the individual consider their actions were for the good of the organisation or were they driven by self-interest?

WAS THE SITUATION AT THE TIME OF THE EVENT OUTSIDE OF NORMAL PRACTICE?

Did the individual find themselves in a situation which differed considerably from the expected operating scenario?

FAiR3 Behaviour Identification

START: Review the factual, non-judgemental, human performance oriented investigation data provided by your trained investigators

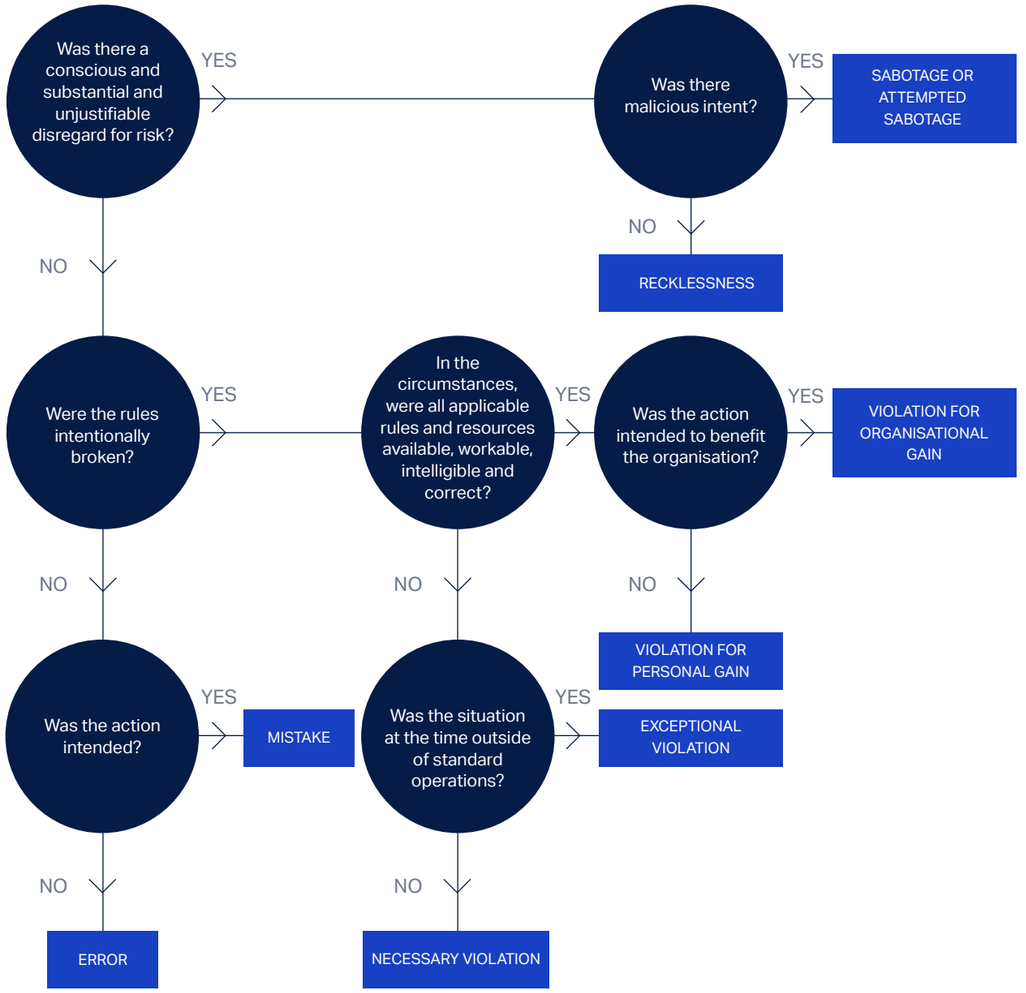

Figure 3

Step 2: Apply the Additional Tests

These tests and activities are designed to help the ERG confirm or modify the results of the behaviour analysis on page 21 (Figure 6). The Additional Tests are to be conducted with the peers of the individuals being reviewed and therefore cannot be conducted inside the ERG because the ERG board do not have immediate access to the individual's peers nor do they necessarily understand the culture in which the individual was operating. Therefore, the substitution and routine tests must be carried out by the investigators prior to the ERG sitting. The results should be provided to the ERG stating which organisations and how many people were consulted and the number of supporting statements received.

THE SUBSTITUTION TEST

Would another person with the same levels of professional education, training and experience behave in the same way in the similar circumstances?

This test is used to assess whether a peer might have reasonably followed the same course of action under similar circumstances. The term peer in this context means somebody of a similar grade, rank and/or certification standard and level of experience as the individual under review.

If the answer is yes, the recommended interventions need to primarily address systemic weaknesses in the organisation; they may also need to focus on the culture within the area involved.

THE ROUTINE TEST

Has this event happened before to either the individual or to the organisation in question?

The response to the routine test helps to verify the findings of the Substitution Test.

If the organisation has experienced similar occurrences previously and remedial actions put in place, then we need to ascertain why they have failed to prevent a reoccurrence. If the event has happened before to this individual that does not instantly mean that the individual is at fault or incompetent. It is important to assess the situation, task, etc. and understand why this individual has not performed as expected.

TEST RESULTS

Evaluating the results of both the Substitution and Routine Tests:

- Will have a direct influence upon determining the most appropriate interventions.
- May diminish the level of individual accountability.

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Step 3: Identify Effective Interventions

Interventions need to be SMART:

SPECIFIC:

Ensure the recommended intervention is a clear and specific action that includes a verb, i.e. somebody must do something.

MEASURABLE:

Is it clear when this action will be complete; have you made it quantifiable?

ASSIGNED:

The action needs an owner. This should be the person who is accountable for ensuring the intervention is implemented, and not necessarily the person responsible for physically doing it.

REALISTIC:

Ensure the intervention is achievable, within the scope of the actioned, and that they have adequate resources to complete it.

TIME BOUNDED:

Ensure that there is a time frame within which the intervention should be completed and then check that it has been.

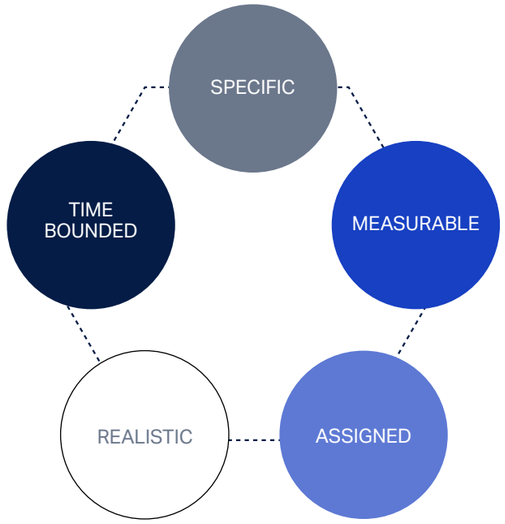

Figure 4

They also need to be:

EFFECTIVE:

They need to address the actual problem in order to prevent or at least reduce the likelihood of reoccurrence.

EFFICIENT:

If the recommendation eliminates the problem but the 'cost' to the business is that it cannot realistically operate then the recommendation needs to be reviewed. This is essentially a risk balancing exercise looking at the safety improvement versus the sacrifice (cost, time, effort) of implementation.

SUSTAINABLE:

The recommendation should be enduring over time and not something quickly forgotten. It must also remain effective despite staff churn.

ADDRESSING SPECIFIC ERROR TYPES

If we understand what causes specific types of *human error* then we can use that information to develop more effective interventions

- **Errors** are skill-based failures that occur at the point of execution. They are usually associated with tasks that require little conscious attention. Distraction is a common cause for these types of error.
- **Mistakes** are knowledge or rule-based and involve failures in decision making and judgement. Either the individual does not possess the requisite knowledge to undertake the task, was misapplying a rule of thumb, or the rules and procedures they were supposed to follow were misinterpreted for the situation.
- **Violations** are motivation-based and involve a conscious decision to deviate from the rules and procedures. Violations are often driven by the social context, which either directly or indirectly condones the behaviour.

It is important to note that although knowledge, skill and attitude are components of an individual's competence, errors, mistakes and violations should not necessarily be addressed as a problem with the individual's competence. For example, if a member of staff is over burdened with work and subsequently forgets a key task, then attempting to improve the individual's competence by training him/her in memory techniques is probably not an effective intervention. It is the SITUATION that needs addressing by reviewing the system and redistributing or removing the excess work burden, create checklist, etc.

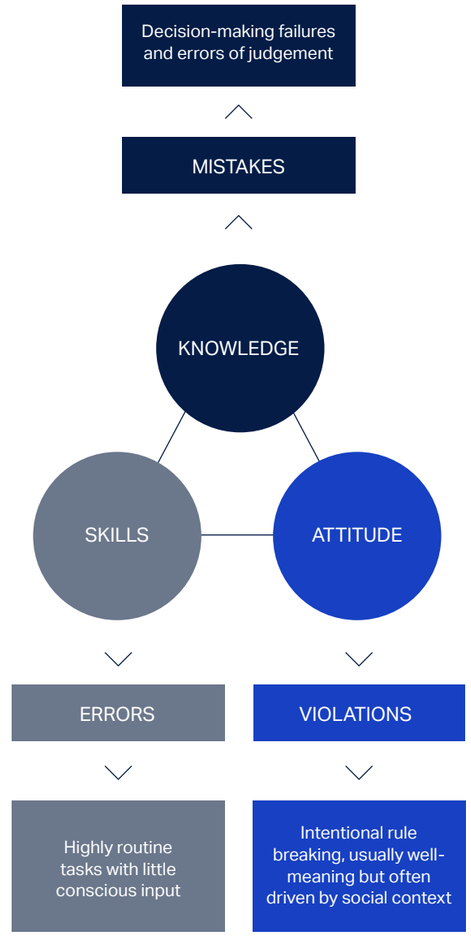

Figure 5

INTERVENTIONS BASED ON ERROR TYPES

Once behaviour types and their precursors have been determined, appropriate interventions can be developed using the table below as a guide complemented by your wider knowledge of Human Performance and Human Factors.

BEHAVIOUR TYPE	INTERVENTION
ERROR	**SYSTEM -** Review task for human performance issues esp. if errors occur regularly. Look at the system defences and conditions that are not optimised for human performance. What can be done to reduce the likelihood of the error or capture the error when it does happen. **INDIVIDUAL** - Console.
MISTAKE	**SYSTEM -** Look at the training and education system, understand why the individual lacked the correct knowledge or did not know how to apply it in the circumstances and address those issues. **INDIVIDUAL -** Address through performance management and training.
NECESSARY VIOLATION	**SYSTEM -** Find and follow the goal conflicts. Assess discordance between management priorities and staff understanding. Ensure management goal priorities are clearly and fully presented to all appropriate staff. Review processes and procedures, appropriateness and sufficiency of resources as required. **INDIVIDUAL -** Address through organisation-wide performance management and training.
EXCEPTIONAL VIOLATION	**SYSTEM -** Why was this situation unexpected? Ensure that appropriate procedures, equipment and training are in place for similar future occurrences. Brainstorm other potential but realistic unusual circumstances and develop processes and procedures for staff to deal with them and test them. **INDIVIDUAL -** Address through organisation-wide performance management and training.
VIOLATING FOR ORGANISATIONAL GAIN	**SYSTEM -** Review the normative behaviours and the cultural drivers for those behaviours across the organisation. Address the organisation's cultural issues. **INDIVIDUAL** - Address through organisation-wide performance management and training.
VIOLATING FOR PERSONAL GAIN	**SYSTEM** - Understand the context and underlying causes, address these to prevent reoccurrence with other staff. **INDIVIDUAL** - Manage through appropriate disciplinary action.
RECKLESSNESS	**SYSTEM** - Understand the context and underlying causes, address these to prevent reoccurrence with other staff. **INDIVIDUAL** - Manage through appropriate disciplinary action.
SABOTAGE	**SYSTEM** - Understand the context and underlying causes, address these to prevent reoccurrence with other staff. **INDIVIDUAL** - Manage through appropriate disciplinary action.

Step 4: Determine Accountability

The final role of the ERG is to assess any potential accountability of the individuals identified in the report. It should be noted that the focus of attention should not be placed only on those individuals at the sharp end but across all areas of the organisation identified in the investigation report (see Figure 6).

Once steps 1, 2 and 3 have been completed you will be in a better position to consider any accountability of the individuals involved. When reviewing accountability, it is important to be clear with the ERG which individual is being reviewed and for what specific action.

The tool should be used for one person and one action at a time. Indeed some people may need to be reviewed several times for their different actions. However, it is not obligatory to review accountability for every person named in the report, nor is it essential to review every single event if it is apparent that the individuals involved were simply victims of systemic issues.

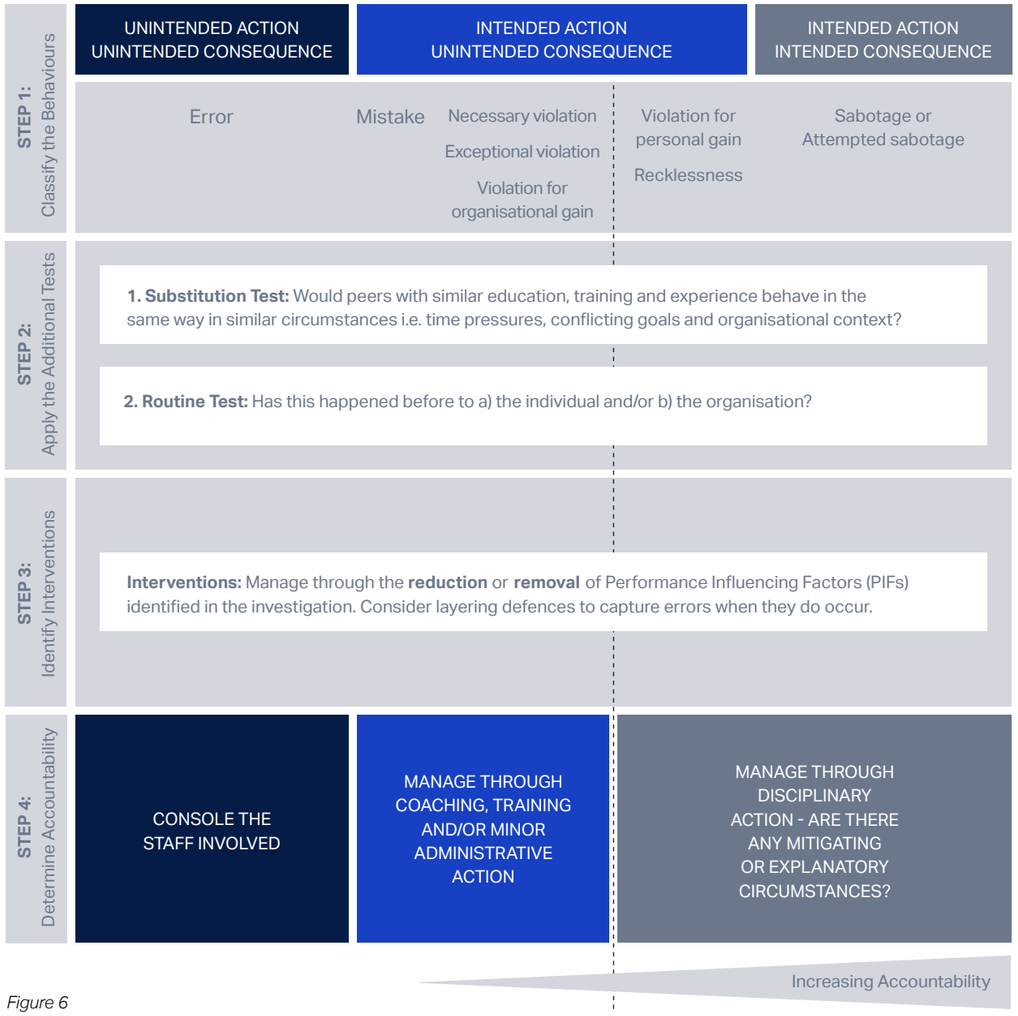

Figure 6

Appendix 1:
The Role of the Event Review Group (ERG)

The Event Review Group (ERG) has three key functions:

- To ensure a human factors-centric investigation has been completed to sufficient depth. The ERG should ensure that the contributing factors have been identified, and that the report clearly explains why the event happened and propose relevant interventions
- To ensure effective interventions are put in place following an event, to prevent or at least reduce the likelihood of reoccurrence
- To determine accountability if required
- Ensuring ERG proceedings have been documented to enable:
  - Ownership and tracking of interventions
  - Trend analysis – to learn from patterns of contributory factors and repeat events, and to collate data on the development of a Just Culture
  - Safety Assurance audit/review – internal and external
  - Aiding future Routine Tests
  - Reviewing any decisions around levels of accountability
  - Safety communications/feedback on Safety Performance

The Role of the ERG Chairperson

The ERG Chairperson is responsible for ensuring that the 4-Step FAiR3 Process has been followed according to the organisation's procedures by:

- Leading and facilitating the ERG and ensuring it keeps to the 4-Step agenda
- Holding the ERG to account for using the FAiR3 system appropriately and following the '12 Golden Rules'
- Ensuring the ERG has the appropriate composition and that everyone involved is appropriately trained with the right levels of competence

Typical ERG Composition

- An ERG board (ideally 3 but always an uneven number) who are trained and competent to carry out their role. The following may also attend the ERG in an advisory capacity to the board, or for training purposes:
  - Lead Investigator
  - The SMS Manager
  - Subject Matter Experts (as required)
  - ERG members under training
- **Note:** To minimise bias and preserve impartiality the Manager of the area in which the event has occurred should not be part of the ERG or take part in the related ERG decision(s).

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Appendix 2:
Behavioural Classification Definitions

ERROR	An error is the failure of a planned action to achieve its desired goal, where this occurs without some unforeseeable or chance intervention. In other words, the plan of action was entirely appropriate but the resulting performance was not as intended. Errors are associated with familiar activities that require little conscious effort: they are simple, frequently-performed physical actions that go wrong, and are caused by recognition failures (misidentifying information or not detecting critical information) attentional slips and memory lapses. For example, inadvertently flipping on the windscreen wipers when you meant to use the indicators, writing down the wrong digits when recording a telephone number, making your colleague a cup of tea when they asked for coffee, or forgetting to complete a step of a task because of an interruption or distraction.
MISTAKE	Mistakes are deficiencies or failures in judgement i.e the individual is aware of the issue and has chosen an action that is incorrect. Mistakes can be rule-based or knowledge-based in origin. Rule-based mistakes include misapplying a good rule (assumptions) or applying a bad rule (habits). Misapplying good rules can happen in circumstances that share common features for which the rule was intended but where significant differences are overlooked. For example, using known good information based on knowledge of one aircraft type but on a new type of aircraft where it is no longer applicable. Knowledge-based mistakes are the result of new problems or novel situations in which the individual finds themselves. For example, planning an unfamiliar route with an out of date road atlas.
VIOLATIONS	Violations are deliberate acts where people mean to break the rules or not comply with procedures, though they generally do not intend for the bad outcomes that sometimes result. Violations can be subdivided further into necessary violations, exceptional violations and violations for personal gain.
NECESSARY VIOLATION	Where deliberately not following the rules was the only way to complete the task i.e. it was necessary to violate the rules in order to finish the job with the resources available. Individuals may assert that, given the circumstances in which they found themselves, the only way to get the task done was to break the rules. For example, using incorrect equipment during a maintenance task because the correct equipment was unserviceable at the time, or logistics drivers speeding to complete the day's over ambitious delivery schedule.
EXCEPTIONAL VIOLATION	These are created by exceptional, unusual or one-off events, where staff feel they have to improvise because of a lack of clear instructions specific to that particular circumstance.
VIOLATING FOR ORGANISATIONAL GAIN	This is a catch-all term used for violations that are not covered elsewhere, which an individual believes is worth taking for the benefit of the organisation. They happen for a number of reasons, e.g. the individuals are often not aware of the risks they are introducing. They think that is what management wants, corner-cutting, get the job done quickly or everybody else is doing it that way.

Appendix 2:
Behavioural Classification Definitions (continued)

VIOLATION FOR PERSONAL GAIN	Deliberately not following rules with the aim of benefiting the individual in some way. 'Thrill-seeking' as a means of alleviating boredom or as a demonstration of ability or skill. For example, not completing a task properly to get away from work on time; not using the correct equipment because it requires effort to obtain or taxiing at excessive speeds to meet a personal deadline. Practical jokes or initiation rites are prevalent forms of these violations.
RECKLESSNESS	A conscious and substantial and unjustifiable disregard of visible and significant risk. Whilst there is no intent to do harm to others, recklessness implies that an individual knowingly ignored the potential consequences of their actions. For example, coming into work under the influence of alcohol or knowingly operating a sector in an excessively fatigued state having voluntarily not taken the required rest period.
SABOTAGE	A malicious intent to do harm to others or cause damage.

Baines Simmons FAiR Services

We are specialists in aviation regulations, compliance and safety management and partner with the world's leading civil and defence aviation organisations to improve safety performance.

Baines Simmons offers a range of consulting services, competence development and training support for anyone requiring assistance in understanding the FAiR System better or wanting help with building their internal management systems to support their investigation and review processes.

Visit bainessimmons.com for further information.
For more details, please contact **+44 (0)1276 855 412**
or email **training@bainessimmmons.com**

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Head of Product Portfolio, Baines Simmons Limited, 2 City Place, Beehive Ring Road, Crawley, Gatwick, RH6 0PA, United Kingdom.

Notes

FAiR3 SYSTEM®

Baines Simmons Limited
2 City Place, Beehive Ring Road,
Crawley, Gatwick, RH6 0PA,
United Kingdom

+44 (0)1276 859 519 | hello@bainessimmons.com

bainessimmons.com

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