



T-C-ALLIANCE

Delivering a Quality Future for Aviation

A Unified Call to Action

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Dear Aviation Colleagues & Stakeholders,

In our spirit of collaboration, progress and shared responsibility, it is paramount that we address vital areas of aviation advancement that require our enhanced focus and action. This commitment is key to shaping our collective success and resilience.

We acknowledge the challenges that we face as an industry and we continue to aim to work collaboratively towards delivering solutions that: enhance safety; support staff well-being; foster innovation, learning and sustainability in aviation; and, prepare the next generation of aviation professionals.

While outlining our shared concerns and awareness of the issues at hand, this industry communique seeks to offer proposed guidelines for improvement and support in key areas and a call to action for all stakeholders involved in shaping the future of aviation.

We acknowledge that we cannot analyse and investigate all of the issues; instead, we provide an overview of some of the critical subjects and extend recommendations for proactive solutions.

At the T-C-Alliance, we pledge to work collaboratively with all stakeholders to create solutions to critical issues outside regulatory compliance to improve the aviation industry for the generations to follow, and we ask that all who wish to join us in this endeavour pledge their commitment to support us.

Our aim, therefore, is to have all stakeholders work collectively towards making the solutions the norm in their respective organisations and to support each other in developing a quality future for aviation.

By pledging your support, you commit to providing feedback and annual reports on shared concerns with our collaborative endeavour.

For and on behalf of T-C-Alliance,

Signed: 

Name: Claudio Marturano

Title: Chairperson & CEO

Dated: 26th February 2024

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1. SAFETY IS MISUNDERSTOOD

1.1 Introduction

"If you think safety is expensive...try having an accident!"

This well-known quote by EasyJet's founder, Sir Stelios Haji-loannou, is unfortunately taken lightly these days. A lot of people say that 'Safety' is a priority, but the truth is that in most cases, it has become a buzzword, used casually as if it is common sense and taken for granted that it is incorporated within an organisation and its operation.

Unfortunately, the truth around safety in aviation is quite different.

1.2 Shared Concerns

Safety is often presumed to be a universally grasped concept, yet there exists a misalignment in understanding what safety truly encompasses across different aviation sectors. This discrepancy in the interpretation of safety's core values can lead to negative consequences.

Too often, workplace cultures and mindsets consider safety to be incident prevention and not the opportunity for continuous improvement and development - for individuals, teams and organisations, alike; as such, much of the industry is being reactive and not proactive. There is a deficiency of initial positive engagement with safety, creating an opening for occupational mediocrity. Potentially, exacerbated by staffing gaps and turnover rates, there is a tendency to "paper over the cracks" rather than identify and deliver fixed and substantial solutions.

The communication gap between aviation's C-suites and its frontline workers is at best complicated and at worst dangerous. We acknowledge that every managerial board wants safety in the operation, but how safety and the everyday functions and associated costs are managed to sustain the organisation's operations can become convoluted, which, in turn, could drive behaviours that negatively impact how safety is reported (or not...).

We discuss this later, but there is a direct correlation between organisational culture, psychological safety and safety (and, more critically, safety reporting). Physical, mental and emotional well-being impact any employee's ability to carry out their role efficiently and effectively and, therefore, have a direct impact on safety (in all its forms).

The reporting of incidents that relate directly to safety improvement is at an all-time low (as evidenced by promotional campaigns on safety and occurrence reporting). There is

often a fear of negative consequences and potential sanctions to safety incident reporting; additionally, reporting mechanisms and processes can often be time-consuming and unduly complicated. If an organisation's personnel see the safety reporting process as either tedious or arduous, without any intrapersonal fulfilment, then they are likely to not report in the first place. It is seen as merely a regulatory demand.

Organisational culture and mindset have a critical part to play, but this must be promoted and discussed at and between all levels of the organisation. At the board level, maintaining the organisation's commercial (fiscal) efficiency and prioritising the safety of the operation can often be competing demands, but Sir Stelios offers some sage advice.

1.3 Guidelines

Across many aviation domains, there is a misalignment of the idea of what safety *really* embodies and an assumption that safety's core values are universally understood. A solution to mitigate this is through continuous training on the safety issues within the industry as well as to prioritise safety concerns of the organisation within its specific domain.

- **Become (and continue to be) proactive:** continuous investigation into current organisational procedures and upcoming regulatory policies can help prevent incidents from happening by having a proactive approach and mindset to safety.
- **Regular internal communication (and dialogue) between C-suite, managerial personnel and frontline workers is key:** merely pushing information down is not enough. Regardless of where they sit in the organisation, it is essential that all staff understand the safety issues at hand and how these issues impact organisational culture and safety. Incorporating this into induction and periodic training is good practice to make sure that safety is understood.
- **Having simple and open (i.e. psychologically safe) ways for employees to report incidents without fear of repercussions:** making the process(es) simple and straightforward for all: e.g. having QR codes in various locations where staff can easily access them, without hassle will do much to encourage personnel to report more often.
- **Communicate tangible feedback on reports to all staff:** not just internal incidents but information and issues from around the industry. Learning from others' incidents can help prevent the same mistakes and/or incidents in your organisation. Have a look at the European Aviation Safety Agency's (EASA's) 'SafeWings – Conversation Aviation Magazine' for insights into organisational

safety within the European aviation sector.

1.4 Call to Action

- Prioritise safety above all and actively engage in industry initiatives to elevate safety standards.
- Strengthen safety protocols through advanced training, technology integration and fostering a culture of continuous improvement and communication throughout the organisational structure.
- Collaborate on sharing safety data, invest in predictive analytics, foster a culture of safety and leverage technology for proactive risk management.

2. SKILLS SHORTAGES AND THE INDUCTION OF PERSONNEL

2.1 Introduction

The aviation industry is renowned for its complexity and stringent safety standards. In such a high-stakes environment, the importance of well-trained, knowledgeable and competent staff cannot be overstated.

Beneath the wings of our vast and complex industry, however, there lies a growing concern: skills shortages. As air travel continues to expand, a shortage of skilled professionals in various sectors of aviation is becoming increasingly evident.

Staff induction, the process of welcoming and training new employees, plays a pivotal role in ensuring that aviation professionals are prepared to meet the industry's rigorous demands.

2.2 Shared Concerns

Shortages of skilled staff are of great concern. According to Boeing's Pilot and Technician Outlook 2021-2040, the aviation industry is expected to require 612,000 new commercial airline pilots and 648,000 new aircraft maintenance technicians over the next 20 years. There is also a current shortage of certified air traffic controllers and planning personnel.

The main causes include increased global demand for air travel, stringent training and

experience requirements and retirement. For example, in Europe over 73% of certified technicians are due to retire within the next 10 years.

Aviation is no longer considered 'cool' and, as such, it is increasingly more difficult to retain skilled staff due to competition from other industries as the skills obtained in aviation are very transferrable.

Physical, mental and emotional well-being are on many people's minds. These concepts, however, are often little understood by many personnel; as such, many of the industry's staff are unaware of the direct and indirect impacts of well-being. More critically, many organisations still overlook the vital link between staff well-being and staff retention.

Challenges persist in onboarding and integrating new hires into the aviation workforce. Staff induction processes are seldom reviewed periodically, often convoluted and have not evolved to suit the new cohort coming into the industry. Induction processes that do not evolve and mature often fail to manage expectations, for individuals and organisations, alike, which leads to a decrease in staff retention.

2.3 Guidelines

Organisations must establish and maintain proactive plans for the induction and retention of staff. Similarly, organisations must have effective knowledge retention schemes, such as mentoring and coaching, to allow more experienced staff to impart skills and expertise (before such wisdom is lost on retirement).

- Utilise staff according to their skills and needs: over or underloading staff with unnecessary functions outside their scope is not productive for anyone. Correctly use technologies and AI to support productivity and not replace competencies.
- When approaching the issue of induction of staff, there should be a clear journey in place for the new employee: create a streamlined plan that includes *all* departments, from recruitment, HR, and planning, the actual domain the personnel are involved with and how they contribute to the larger objectives of the organisation. Giving personnel a clear purpose and a development plan is a clear demonstration of the organisation's commitment to new personnel and will ensure the latter's continued commitment.

A simplistic guideline could be as follows:

1. **Think of the Journey.** What departments need to be involved and why? Is there a clear communication path between all involved?

2. **Make it People-centric.** Base the onboarding experience on the competencies and personality of the individual.
3. **Get Support.** What does the department management want and need? How can induction training contribute to a better awareness of department objectives
4. **Support and Motivate.** On-the-job support. What does the individual need and continue to strive for and why? How often is this reviewed?
5. **Regulatory Knowledge.** An understanding of aviation regulations and compliance is essential for every employee. Employees should know where to find relevant documents and whom to consult for guidance.
6. **Measure and Report.** Measuring feedback and productivity of new staff from each of the departments concerned will provide insightful reports that will help to improve communication and continuous development between all involved.
7. **Increase Competencies.** Ideally, there should be specialised people for induction, but each manager should know the basics and, as such, training programmes for managers should be included in the process.

2.4 Call to Action

- Share best practices in onboarding, support mentorship programmes and actively contribute to the improvement of induction processes within the industry.
- Leverage technology for efficient and continuous learning and development and assign experienced colleagues to guide new employees to adapt to the aviation environment and build confidence.

3. THE NEXT GENERATION OF AVIATION PROFESSIONALS

3.1 Introduction

The aviation industry, a symbol of human achievement and global connectivity, is on the verge of a transformative change, driven by the emergence of a new generation of aviation professionals (NGAP). These pioneers are well-equipped to lead the industry into a future filled with innovation, sustainability and adaptability. As an industry, however, how readily do we understand this NGAP and how prepared are we to manage their (and

our) expectations?

3.2 Shared Concerns

When we discuss NGAP, what are we referring to? Broadly, NGAP can be defined by the following groups:

Group 1. Professionals from post-education or without higher education, working in the industry and on their way to becoming the industry's next leaders; typically, the age group 25-35 years old.

Group 2. Students currently in higher education, typically, in the age group 18-25 years old.

Group 3. Teenagers looking to their future and possibly deciding on aviation as a career industry; typically, the age group 13-18 years old.

Group 4. Children who can be engaged and encouraged to enter the aviation industry in the next 10-15 years.

Arguably, one could posit that NGAP comprises all of the above; however, we must acknowledge that different age groups will have differing needs, expectations and challenges.

Are we prepared for these NGAP segmentations? Do we have to change our approach in the way we communicate and how we are seen by these groups? Are we willing to? Do we know how?

Currently, the aviation industry is facing a reduction (in some areas, a lack) of new entrants. Historically, aviation, like any other industry, has undergone fluctuations in recruitment levels, however, the recent crisis caused by the global pandemic has had a seismic impact on the aviation industry; the after-effects are still rippling. In essence, the aviation tap was turned off extremely quickly; staff were furloughed, their roles made redundant or their employment contracts terminated. Add to that the vilification of the industry as a polluter, it is little wonder that the aviation industry does not stand out immediately as a solid employment prospect for the social media-savvy and environmentally-conscious younger population, let alone those that we seek to attract.

3.3 Guidelines

The aviation industry is becoming more and more conscious that it needs to take action

to safeguard succession if it wants to succeed in its future transformation plans. Most of the present initiatives, however, tend to be informal and conducted in different and fragmented ways across the aviation system; accordingly, these initiatives may not be gaining the appropriate traction that aviation needs in the eyes of the public. Organisations like the International Civil Aviation Organisation (ICAO) and EASA are capitalising on some of these initiatives by trying to establish more cohesive programmes across all sectors and occupations in aviation at an international level. For example, the European Plan for Aviation Safety (EPAS) has established a Safety Promotion Task Team to work on SPT.0107 on the future of aviation professionals.

There are different ways to approach each of the NGAP segmentations:

Group 1. The Group 1 cohort has already decided that aviation is their chosen career, however, they will not thrive if they are not nurtured. It is imperative that the older generation pass on their skills and knowledge to this group through coaching and mentoring. There are a lot of very competent professionals nearing retirement, and the industry risks losing that experience. By enabling communication with and mentoring from the older generation, the industry can better ensure that its next generation of leaders are better equipped and informed.

Group 2. Like Group 1, the Group 2 cohort may have decided that the aviation industry is their chosen career, but they might not know how to get started/break in. Undoubtedly, science, technology, engineering and mathematics (STEM) students are a good fit for the industry, but students of more environmentally and sustainability-focused studies would also be great assets, given the industry's increased focus on sustainability in all areas (not just sustainable aviation fuel).

Reaching out to universities and colleges and actively promoting not only the benefits that the aviation industry has to offer but also some of the complexities and challenges it must meet in the future will help attract talent.

Groups 3 and 4. Social media campaigns for young people are a great way to engage - *inter alia* the Groups 3 and 4 cohorts. Have a look at the content from "*The Airport Guy*", Mohammad Taher, who showcases short, informative and interesting videos on platforms such as TikTok to engage with these groups of young people.

Considering the foregoing, what does your organisation have to offer? Do you have (or do you need) suitably qualified individuals and highly passionate individuals who can make a difference? Many children from less privileged and under-represented backgrounds do not instinctively consider aviation as a career; for many reasons, they consider it beyond their reach. Engaging local schools near your headquarters or place of work and inviting the children to learn and understand how they can become the next

generation of aviation professionals is an easy way to inspire them, and improve your local stakeholder engagement.

3.4 Call to Action

- Come up with a plan for your organisation that focuses on the near-, medium- and long-term development of your staff induction. Identify the NGAP group that your organisation believes is the priority for you to engage.
- Invest in STEM education, mentoring programmes and initiatives to engage, attract and prepare the next generation for our industry's challenges and sustainability. Collaborate with educational institutions, offer apprenticeships and provide clear pathways for individuals' career development and progression.
- Engage and collaborate with partner organisations to share resources (and rewards). These can include potential competitors (for example, airlines can support each other in creating careers fairs - what is good for one is good for all) or international organisations (such as EASA, EUROCAE, ICAO, EUROAVIA), academia (colleges and universities) and groups, associations and influencers working locally on aviation consciousness and awareness campaigns.

4. SOARING TOGETHER

4.1 Introduction

The aviation industry has long been a symbol of human ingenuity and progress. From the Wright brothers' first powered flight in 1903 to the modern marvel of air travel connecting people and places across the globe, aviation has brought the world closer together. As society has evolved, however so too has the need for diversity, inclusion and equity: the aviation industry is no exception.

Diversity, inclusion and equity in aviation are not only ethical imperatives but also essential for the industry's success and progress. By embracing people of all backgrounds, experiences and abilities, the aviation industry can continue to innovate, improve safety and provide a welcoming experience for passengers and employees from all corners of the globe. The sky is the limit when we soar together in unity and diversity.

4.2 Shared Concerns

Diversity and Inclusion seem to be used as 'buzzwords' to promote organisations in a positive light, but this is not always the case. Many parts of the industry still do not follow the principles of diversity and inclusivity from a safety perspective.

Although a huge simplification, giving everyone the same thing (equality) and giving what is fair (equity) are not the same thing and the principles of differentiation between both are often misunderstood, leading to confusion and potential friction between staff and organisations.

There is a great fear of reporting particularly across cases of sexual harassment in the workplace. 90% of individuals in the aviation industry have witnessed incidents targeted against women in the workplace, which offers a sad indictment of the levels of trust in the whistleblowing process, as the inability to remain anonymous throughout the reporting process can make many feel cornered. Also, if there are only a small number of females in the workplace, it can make it obvious where a complaint has originated from.

The term underrepresentation is perhaps more reflective than a minority classification, as it implies uneven power distributions as opposed to solely numbers.

4.3 Guidelines

Diversity in aviation encompasses a broad range of characteristics, including gender, race, ethnicity, age, religion, sexual orientation and physical abilities. Encouraging diversity within the industry is not just a matter of social justice, it is surely a practical necessity for safety.

Historically, aviation has been a male-dominated industry but, times are changing. Women are now making significant strides in various aviation careers, including pilots, air traffic controllers, engineers and executives. Organisations like Women in Aviation International (WAI) have been pivotal in supporting and inspiring women to pursue careers in aviation. Men are often excluded from movements in an attempt to seem progressive, however, this too can foster animosity and further division.

Aviation organisations play a pivotal role in embracing cultural diversity and this is crucial for an industry that connects the world. By having a workforce that truly represents various cultures and backgrounds, aviation becomes more inclusive, understanding and welcoming to passengers and employees from different parts of the globe.

Employers should take steps to ensure that individuals with disabilities can participate fully. This includes accessible facilities and accommodations that allow those with

physical or cognitive disabilities to work in aviation careers. This can be as simple as the clothing used. For example, typically, uniforms are created for domain-specific roles; cabin crew, technicians, ground handlers, etc. But are they suitable for all genders and potential physical disabilities?

Communication and training about diversity, inclusion and equity should be carried out and understood by all staff to avoid multiple forms of discrimination.

4.4 Call to Action

Like any other industry, in aviation, inclusion is more than just ticking boxes; it must be about creating a dynamic, vibrant and adaptable industry that reflects the world it serves - and all its societies and demographics. To achieve this, there are several key steps that we can take:

- Implement inclusive hiring practices and diversity training, and create an environment that values and respects differences. Enforce policies that prohibit discrimination.
- Encourage young people from all backgrounds to consider careers in aviation through outreach programmes, scholarships and mentorship opportunities.
- Provide training and sensitivity programmes to help employees understand and embrace the importance of diversity, inclusion and equity.
- Actively contribute to creating an inclusive culture and support initiatives that promote diversity and equity within the aviation sector.

5. BEYOND WELL-BEING: CHANGE THE WORKPLACE, NOT THE WORKER

5.1 Introduction

The aviation industry is a remarkable testament to human innovation, connecting and making the world more accessible than ever. Yet, the very nature of this industry, with its round-the-clock operations and high-stress environments, can take a toll on the well-being of those working within it. Prioritising well-being in aviation is not only an ethical responsibility but also a key factor in ensuring safety, productivity and job satisfaction.

With its intricacies and high-stakes operations, our industry demands and relies on

precision, teamwork and an individual and collective commitment to safety. As we soar to new heights, it is imperative that we recognise and address the less visible challenges that impact the mental and emotional well-being of aviation professionals.

5.2 Shared Concerns

Irregular working hours, long flights and frequent time zone changes can disrupt circadian rhythms, leading to fatigue and sleep disorders among aviation professionals.

The physical demands of aviation, such as lifting heavy cargo or standing for long hours, can lead to physical discomfort and injury.

Unconscious bias is the subtle and automatic judgments we make about others based on their race, gender, age and/or other characteristics, which can permeate every facet of our lives, including the workplace. In aviation, where teamwork and clear communication are paramount, the effects of unconscious bias can be especially consequential. From hiring decisions to day-to-day interactions with colleagues from other parts of the industry, these biases can influence the working environment negatively.

Unfortunately, there is still a stigma attached to the concept and discussion around mental health; misinformation and miscommunication continue to exacerbate that issue. There are far too many contradicting analyses that create confusion when trying to understand how to deal with these issues from both an individual and an organisational perspective.

Increasingly, airlines and aviation organisations are implementing stress management programmes to help employees cope with the pressures of their roles. Such programmes may include counselling services, relaxation techniques, and peer support programmes. In most cases, however, these programmes are only being created in certain sectors of the industry where there is a regulatory requirement to do so and the programme and their associated benefits are not available to all.

Psychological safety is the belief that one can express one's thoughts, ideas and concerns without fear of reprisal; psychological safety is a cornerstone of a healthy and effective team and working environment. In the aviation industry, where split-second decisions can be a matter of life or death, creating an environment where professionals feel psychologically safe is desirable. Unfortunately, in most cases, everything is scrutinised and investigated, usually pointing to someone to blame rather than finding the root cause analysis and implementing changes accordingly.

Suicide is not a topic that people like to discuss and there are no regulatory requirements

to deal with suicide prevention within the aviation industry. If not handled sensitively, possibly with professional support, this is a subject area where the well-meaning might do more harm than good. As such, it is usually, and unfortunately, avoided.

Overlooking these challenges won't resolve them; the key is to transform the workplace, not the individuals within it.

5.3 Guidelines

Employers should create awareness/training programmes that highlight the potential causes of employee well-being issues and how to mitigate them by understanding and rectifying the root cause in the workplace. Aviation employees should be trained to recognise and address stress, fatigue, and mental health issues in themselves and their colleagues. This can be done by:

- Implementing training programmes to raise awareness of unconscious bias, promote open communication about mental health and establish support systems for psychological safety. Training programmes should aim to reduce the stigma surrounding mental health.
- Offering wellness programmes that focus on nutrition, fitness and mental health. Providing access to gym facilities, healthy meal options, and counselling services can contribute to overall well-being.
- Creating strong support networks for aviation professionals is essential. This includes providing access to family counselling services, support groups and a culture that enables confidential channels to discuss personal issues.

The aviation industry has experienced a concerning rise in suicides among its professionals. The unique stressors and challenges faced by aviation personnel, from irregular working hours to the pressure of responsibility, contribute to mental health vulnerabilities. Recognising the potential signs, offering support and promoting mental health awareness are critical components of preventing suicides in this high-stakes industry.

5.4 Call to Action

- Focus on the workplace and not just the worker!
- Putting initiatives for the well-being of individuals into action is a great start, but

this all depends on the mindset, cultural and organisational cultures that surround such initiatives. Actively participate in initiatives that address unconscious bias, promote psychological safety, and support mental health awareness and suicide prevention within the aviation industry.

- Actively work towards creating a holistic working environment where the root cause of well-being issues is dealt with. Cure is always better than medication.

6. SAFEGUARDING THE SKIES

6.1 Introduction

The seemingly relentless rise in digital technologies and the internet has brought about great benefits to organisations making them more efficient and cost-effective, while highlighting the vulnerabilities of such organisations when these technologies are misused by malicious actors. Recent years have seen an alarming increase in incidents in cyberspace; the aviation industry is no exception.

6.2 Shared Concerns

Although information and cybersecurity have been strongly associated with safeguarding passenger data and privacy, there has been a growing realisation among both the ICAO and the EASA that information and cybersecurity risks can threaten safety and security. In its turn, this has resulted in the introduction of different legal instruments creating oftentimes binding obligations for both states and private organisations.

Unsurprisingly, the Chicago Convention on International Civil Aviation of 1948 (establishing the ICAO) makes no direct reference to information and cybersecurity that was then not an issue. For purposes of safety and security, however, there are several ways in which cybersecurity falls under the scope of the Convention. For example, cybersecurity might fall under the scope of the Convention by complementary bilateral or multilateral Air Service Agreements. The Chicago Convention assumes the sovereignty of individual states' airspace, where the overflown state needs to grant permission before the flight enters that airspace. In practice, such permissions are given by Air Service Agreements between states, whereby conditions such as safety and security are agreed upon. The growing awareness of incidents in cyberspace might move states to interpret cybersecurity as a safety and security requirement: for example, ADS-B transponders transmit unencrypted data, while aircraft maintenance organisations store maintenance

data on cloud servers which can be prone to hacking and ransomware attacks. Such risks could thereby impose different requirements in the future.

Despite the growing realisation that information and cybersecurity risks pose a significant threat to aviation safety and security, the international legal order remains troublesome in the sense that it does not cover all domains of information security in aviation, due to the misunderstanding of states to implement rules and those said rules being exceptionally fragmented.

6.3 Guideline

Annex 17, which discusses the safeguarding of international aviation against unlawful interference is very relevant; Annex 17 was enhanced by the 12th and 14th amendments, containing both standards and recommended practices, explicitly stating cybersecurity. Although there are positive results in the efforts that have been made because of the binding status of standards, the recommended practices remain debatable, and states can simply opt out by filing non-compliance to ICAO under the convention. Therefore, being actively involved with your member state in the implementation of cybersecurity rules is key to future safeguarding!

A very important regulation is regulation 2023/203 (EU), which will enter into force in February 2026 regarding information security in civil aviation. The regulation acknowledges that aviation is an interconnected system of systems and will apply to maintenance organisations, continuing airworthiness management organisations, approved training organisations, air operators, aircrew aero-medical centres, some flight simulation training device operators, air traffic control organisations, some air traffic control medical centres, certain air traffic navigation service providers, and parts of the civil aviation authorities within the member states and EASA.

The regulation further acknowledges that many organisations already have been implementing information security standards such as the ISO 27000 series but explicitly states that these might not be adequate to effectively deal with the specificities of civil aviation and that specific requirements need to be set out for the management of information security risks with a potential impact on aviation safety. Therefore, before the regulations come into force, it would be advisable to review and have training on the ISO 27000 series to gain an understanding of the three general objectives:

- 1.** To identify and manage information security risks with a potential impact on aviation safety which could affect information and communication technology systems and data used for civil aviation purposes;

2. To detect information security events and identify those with a potential impact on aviation safety;
3. To respond to and recover from those information security incidents.

6.4 Call to Action

- Integrate information security risks with your current safety risk management systems, as information security is a safety risk factor.
- Create learning and development for staff to understand the risks involved with cybersecurity.
- Develop comprehensive incident response plans to mitigate the impact of potential breaches. This includes strategies for identifying, isolating, and neutralising threats.
- Actively participate in industry-wide efforts to strengthen cybersecurity and contribute to the development of robust measures against cyber threats.

7. EMPOWERING EDUCATION: COMPETENCY VS COMPLIANCE

7.1 Introduction

Traditional education has often been defined by fixed timelines, rigid schedules, and standardised testing. However, the landscape is shifting. Competency-based learning has emerged as a transformative approach, prioritising the mastery of skills and knowledge over the conventional metrics of time spent in classrooms or on the job. This flexible and effective alternative is reshaping how we understand education and professional development.

7.2 Shared Concern

Within the aviation sector, particularly in-flight crew training, competency-based learning and assessment have shown remarkable effectiveness. Despite this, its widespread adoption faces hurdles due to misunderstandings, regulatory constraints, and the hesitation of some international bodies, emphasising the ongoing need for

methodological research.

The argument for prioritising competency over mere compliance is strong, especially in learning and development contexts. Passing an exam or 'ticking a box' does not inherently translate to the ability to perform roles in aviation safely and efficiently.

National Aviation Authorities enforce stringent training standards. While these are fundamentally robust, straying from prescribed training programs without a deep comprehension of how to develop effective and competent learning objectives and outcomes can prove both costly and ineffective.

However, possessing a deep understanding of the importance of competency over mere compliance can significantly enhance workforce productivity. This approach not only ensures that employees meet regulatory standards but also equips them with the necessary skills and knowledge to perform their roles effectively and safely, thereby contributing to overall operational excellence.

7.3 Guidelines

Competency-based learning champions the acquisition of specific skills or knowledge areas at the learner's own pace, moving away from a one-size-fits-all calendar. This model requires continuous assessment and learning, allowing for progress that reflects true understanding and skill mastery. To implement a successful continuous learning program:

- Create objectives based on a combination of both regulatory and organisational requirements. Remember that regulatory needs are a benchmark of the minimum requirements. What does the individual and organisation need?
- Develop a plan of action with technology that can enable continuous learning and development for any staff member from anywhere and blend online with in-person training and workshops. Remember that everyone learns differently and it is important to accommodate diverse learning styles and needs. Personalise the learning for individuals and departments accordingly.
- Continuously monitor and evaluate the progress of competencies and productivity and not just if the 'box has been ticked'. The focus should be on mastery, not just completion. Students must demonstrate a high level of understanding before moving on to the next competency.

7.4 Call to Action

Transitioning to competency-based learning is crucial for skills development and evolving training needs and methodologies in the aviation sector.

- Advocate for and actively participate in the adoption of competency-based learning, supporting initiatives that align organisational needs with individual development.
- Commit to continuous development, sharing insights and methodologies across departments for a cohesive understanding of needs.
- Develop standardised competency frameworks, incorporate real-world scenarios into learning and training, and encourage continuous skills assessment.

This holistic approach not only ensures regulatory compliance but also fosters an environment where employees are equipped with the necessary skills and knowledge, thereby enhancing overall operational excellence and safety in the aviation industry.

8. ENHANCING SAFETY: DISSEMINATION OF INFORMATION VS TRAINING

8.1 Introduction

The aviation industry, renowned for its stringent safety standards, employs a multifaceted approach to ensure the security and reliability of its operations. Two critical components of aviation safety management are the dissemination of information and training. Although they are interconnected and often employed simultaneously, they serve distinct purposes and are implemented differently within the industry. Understanding the difference between these two approaches is crucial for enhancing safety measures, compliance, and the overall effectiveness of aviation safety programs.

8.2 Shared Concerns

Both information dissemination and training are instrumental in promoting aviation safety, addressing shared concerns such as regulatory compliance, risk management, and the continuous improvement of safety protocols. They are essential in keeping personnel across all levels of the organisation informed about the latest safety standards, technological advancements, and procedural updates. The ultimate goal of both strategies is to mitigate risks, prevent accidents, and ensure a safe flying experience for

passengers and crew alike.

It appears there is a prevalent confusion or misapprehension regarding the distinction between information dissemination and training within the context of organisational and personal learning. Many organisations operate under the assumption that the dissemination of information equates to safety intelligence, thereby opting to replace safety training with safety promotion initiatives. However, it is critical to acknowledge that the mere distribution of information does not guarantee its comprehension by the recipient. Consequently, this approach does not serve as an effective substitute for formal training programs.

Guidelines

Distinguishing the difference between dissemination of information and training for learning purposes is key and as such numerous considerations should be taken into account.

Dissemination of Information

- **Purpose and Scope:** The dissemination of information in aviation safety involves the distribution of critical safety data, updates on regulatory changes, and new safety protocols to all relevant personnel. This can include safety bulletins, newsletters, and updates from aviation authorities.
- **Methods:** Effective methods include digital platforms, such as email and specialised safety management systems, as well as traditional methods like bulletins and meetings. The key is to ensure that the information reaches all relevant stakeholders in a timely and accessible manner.
- **Implementation Considerations:** Regularly update dissemination channels, prioritise information relevance, and adopt feedback mechanisms to gauge effectiveness and engagement.

Training

- **Purpose and Scope:** Training in aviation safety focuses on developing the skills, knowledge, and competencies required to implement safety protocols effectively. It is more hands-on and interactive, aiming to ensure that personnel can apply knowledge in real-world scenarios. This can and should involve assessment criteria and feedback from all concerned.
- **Methods:** Training methodologies include simulations, classroom-based learning,

on-the-job training, and e-learning modules. The approach depends on the complexity of the subject matter and the specific needs of the trainees.

- **Implementation Considerations:** Customise training to align with specific roles and responsibilities, employ engaging and interactive formats, and ensure ongoing evaluation and adaptation to keep pace with evolving safety standards and technologies.

Call to Action

For the aviation industry to further elevate its safety standards, a strategic, informed, and dynamic approach to both information dissemination and training is essential. Organisations are encouraged to:

- **Evaluate and Identify Needs:** Regularly assess the informational and training needs of your organisation to ensure that both strategies are aligned with current safety objectives and regulatory requirements.
- **Integrate and Innovate:** Leverage technology to integrate information dissemination and training processes seamlessly. Utilise innovative platforms and aim for methods that captivate and educate, ensuring information is not just received but retained and applied.
- **Commit to Continuous Improvement:** Implement metrics to evaluate the effectiveness of your safety information dissemination and training programs. Use feedback and performance data to continuously improve your safety practices.

9. CONCLUSION AND CALL TO ACTION

As we navigate the complexities and challenges presented throughout this document, it becomes evident that the path to enhancing aviation safety, advancing skills development, embracing the next generation of aviation professionals, fostering diversity and inclusion, promoting well-being, safeguarding against cyber threats, and prioritising competency over compliance, requires a concerted and unified effort from all stakeholders within the aviation industry.

To truly realise the vision of a safer, more inclusive, and innovative aviation sector, we must commit to a culture and mindset of continuous improvement, collaboration, and

shared responsibility. This involves not only adhering to existing safety standards and regulations but also actively participating in the development and implementation of forward-thinking policies, practices, and technologies that address the current and future needs of our industry.

Our collective action plan should focus on:

- **Enhancing Safety:** through a balanced approach to information dissemination and hands-on training, ensuring that all personnel are not only aware of safety protocols but are also proficient in their application.
- **Addressing Skills Shortages:** by developing comprehensive induction and retention strategies that attract, develop, and retain talented professionals, thereby securing the future of our industry.
- **Preparing the Next Generation of Aviation Professionals:** through targeted outreach, education, and mentorship programs that inspire and equip young people to pursue careers in aviation.
- **Promoting Diversity, Inclusion, and Equity:** by creating an environment where all individuals feel valued, respected, and empowered to contribute to their fullest potential.
- **Prioritising Well-being:** by implementing holistic and proactive measures that support the physical, mental, and emotional health of aviation professionals.
- **Safeguarding the Skies:** by enhancing our cybersecurity measures and protocols to protect against digital threats and ensure the safety and security of our operations.
- **Empowering Education:** through the adoption of competency-based learning and assessment, ensuring that our workforce is equipped with the skills and knowledge required for excellence in their roles.

We ask that you contribute by being part of a quarterly working group to discuss your findings and progress. By pledging your support to these initiatives, you not only contribute to the advancement and sustainability of the aviation industry but also to the creation of a safer, more inclusive, and innovative future. Together, let us take decisive steps towards achieving these goals, fostering a culture of excellence, and ensuring the prosperity of our industry for generations to come.

Let this document serve as a blueprint for action and a testament to our shared commitment to excellence, safety, and innovation in the aviation industry.