

CONVERSATION AVIATION

#02
2024



STARTING POSITIVE CONVERSATIONS ABOUT SAFETY





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#02
2024

Summer Edition

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Foreword by Florian Guillermet

EASA

Welcome to the 2nd Edition of Conversation Aviation for 2024. Let me first take a moment to introduce myself. Florian Guillermet - Executive Director of EASA since April 2024. Before my move to EASA, I served as Director Air Navigation Services at France's DSNA (the Air Navigation Service Provider). Prior to that I have had leadership roles both in France and at European level.

By background, I am a practical, operations person. Having been on the other end of the EASA system at a service provider, I have seen the aviation system from a user's perspective. I too have sat wondering what a rule actually means in practice and how my organisation is going to implement it. I have spent many hours with operational experts trying to understand the best way to mitigate a particular operational risk or implement a new technology or equipment into an ongoing operation without causing huge disruption.

My ambition as Executive Director of EASA is to take the organisation to the next level, making it a modern organisation fit for the digital age, while ensuring the highest standards of civil aviation safety and environmental protection are met across the entire aviation ecosystem. The Agency's core role is as a regulator, but to ensure that safety remains paramount, I want to build strong relationships with stakeholders, in Europe and globally, to ensure all air travel is safe for every EU citizen.

I count on the expertise of EASA's staff to support me in this task and to help our industry to thrive, while building on our strong recent safety record. However a good track record on safety does not guarantee a strong performance in the future. There is no doubt that we live in challenging times. We are living in a period of conflict and uncertainty that is creating new risks for us to manage. This comes at a time where the pace of technological change is increasing rapidly

and our travelling public expect us also to reduce our impact on the environment.

For me, these are challenges that we face together as an industry. Our ability to collaborate across borders, domains and organisations is one of aviation's greatest strengths. As we reach the end of the busy summer season, our ability to work together continues to be vital to maintain the safe, secure and resilient aviation eco-system. No individual organisation can achieve this alone.

This edition of Conversation Aviation is focused on a number of key summer challenges to serve as a reminder for the final part of the summer season. My teams will continue to work with you to monitor the operational situation and act to support when necessary.

We look forward to hearing your reflection on the summer season at our SAFE360° Conference in September. ■





What is **Safety Promotion** Anyway? (and other news about what is going on in the world of the European Aviation Regulator)

Is Safety Promotion the lost pillar of Safety Management?

We talk a lot about the 4 pillars of management systems - **Safety Policy**, **Safety Risk Management**, **Safety Assurance** and finally **Safety Promotion**.

You probably spent a lot of time as an organisation developing your Safety Policy – lots of fantastic manuals to impress the regulator with. Then there's likely whole teams of people doing Safety Risk Management and Safety Assurance. Tasks like occurrence reporting, investigation, flight data monitoring, analysis of SPIs and then lots of audits and checking.

But then what? After doing all this difficult safety work, how much time do you have left to communicate and promote safety to your workforce? Thankfully it's not that difficult to become a demon safety promoter, try these simple steps:

Create clear, actionable content:



The first thing to remember is that in the modern world of today, people don't have the time or attention span to read long, complicated

reports and information. Once you identify a safety risk or other topic that you need to promote, identify clear messages that give you staff specific actions on how to mitigate that risk in their operational context. A top tip if you want to make something look great, approach your IT team about getting Canva – anyone can make awesome safety promotion material in minutes (other web-based design tools are available, but the EASA team uses Canva and we love it – even John can use it).



Look for opportunities to share your safety promotion:

Once you have your content, the important thing is to get people to read it, watch it or do whatever they need to do with it. Find every opportunity you can to insert a clear safety promotion message. Briefings, trainings and even audits provide great moments to talk about important safety risks and discuss mitigations.



Listen, learn and involve your staff:

Safety is all about learning,

it is at the heart of our Safety Map. If your reporting system is working well, you should have lots of useful information from your operational staff and risks they face every day. Take the time to speak to them, find out more and tell their stories so that others can learn from things that have happened. Encourage open and honest conversations about safety at all time.



Just like the '4th jack' or 'Stabiliser', Safety Promotion is often the forgotten element of SMS.

Risk Management

Policy

Assurance

Safety Promotion

If you are ever looking for articles, videos or other safety promotion material, check out the different issues of Conversation Aviation or the EASA Air Ops Community. The material is created by associations like IATA, airlines, airports and other aviation experts – by people like you, for people like you. Here are some ways to reuse our Conversation Aviation material.

• **Reuse the magazine as a whole.**

Keep the articles you like, remove the ones you don't. If you have time, rewrite them a little to make them specific to your own operation. If not, maybe add a part at the beginning to explain why this topic is important to your organisation. We even provide the magazine as a raw Adobe Acrobat file so you can use it with standard design software. Keep the EASA, remove the EASA logo, add your own – do whatever you need to promote safety.

• **Use specific articles.**

You have our permission to use any article you see in the Conversation Aviation magazine or on the Air Ops

Community Site. Steal any visuals that we have made and use them in your own articles. Again, you can use an article as it is, although it's better to re-write them a little to make them more relevant for your staff.

• **Get involved in Conversation Aviation yourself:**

We would love you to be part of the Conversation Aviation collective. If you create any safety promotion material that you think would be of interest to others (which it probably will) then share it with us via email to safetypromotion@easa.europa.eu.

This summer - We're all in this together!

As the school holidays approach and we reach the peak of summer operations, it's important to focus our collective efforts on working together to ensure safe operations. When things get busy, one of the greatest challenges is to make sure that everyone has the same picture of what is happening. Clear and timely communication is vital. It's also important to take a moment to get out of the individual task bubble and see things from each other's point of view.



What's in this Edition of Conversation Aviation?

We have another interesting edition for you this time with lots of useful tips to help you through the summer season, all around the general theme of working together.

We start off with the leadership view of the summer, talking about the importance of creating a positive safety culture – especially when things get busy. If our staff don't trust the reporting system when they report hazards then your organisation will spend the summer totally blind to new risks. This is followed by the Safewings' Safety Manager provides his view on the summer challenges, with huge thanks to the Safety Team at TAP Portugal for creating that article.

The challenge for any organisation is to knowing what your top safety issues and risks are this summer. At the start of July, EASA will publish our Annual Safety Review to provide an overview of safety performance in 2023, which will hopefully help. Especially when read along with the Safety Issues in Volume III of the European Plan for Aviation Safety. To help you to prepare for the summer, IATA have provided an article on their Safety Issues Hub, which is a great industry resource.

We then move onto a number of more operational topics including communication between flight crew and ATC, data-driven training (thanks to CAE), mitigating the risks of people getting sucked into engines (thanks to Ryanair), other ground handling risks, summer challenges for Ops Support Teams, coping with Hot Cabins and Unruly Passengers.

Join us after the summer to review the summer season at SAFE360 and look ahead at the EASA Annual Safety Conference

Once the summer is over, EASA has two major events to review the summer season and look ahead to coping with future challenges.

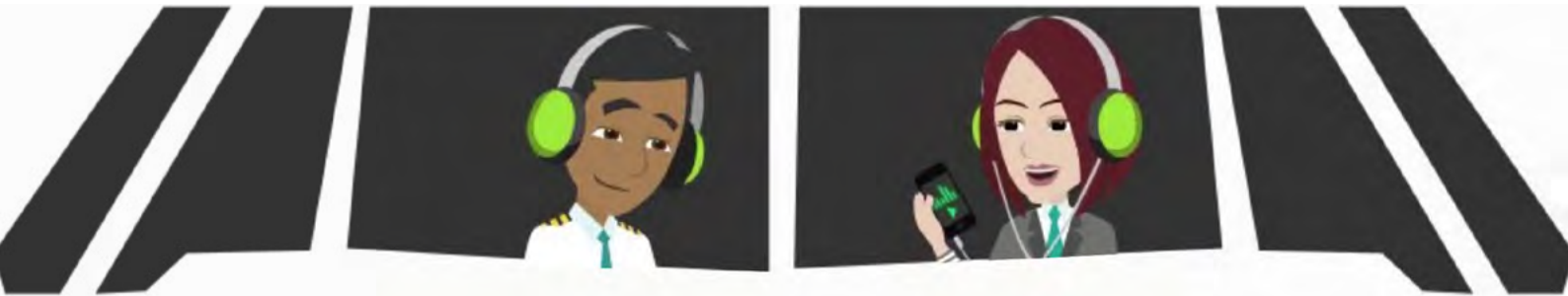
The first is our SAFE360 Conference that will take place in Cologne on 23-24 September (starting at lunchtime on the Monday). This event is targeted towards safety managers and other operational managers to review the safety landscape and discuss specific safety issues that are challenges for the industry today.

This will be followed on 30-31 October, when we will host the EASA Annual Safety Conference (ASC) in Budapest. The ASC is always hosted by the country that has the EU Presidency in the second half of each year. At this event we will focus on more strategic challenges that the industry faces – looking at the long term solutions that are needed to keep the industry safe.

Registration for both events will open soon – sign up for Air Ops Event updates on the EASA Website so you don't miss anything. ■



A Commitment to Safety and Teamwork



From Milena, Safewings CEO



As we gear up for another bustling summer season, it's a great time to highlight my commitment to safety and the importance of teamwork and communication for a safe and successful summer.

We know that the summer period will be our busiest time of the year. We have families to take on holiday and to visit their loved ones all over the world and we help keep the wheels of business and industry moving – we should never forget the impact our daily jobs have on the world and the communities we serve.

This also translates into a period of time where every facet of our operations are tested. From the maintenance crews ensuring our fleet is in top-notch condition to the flight crews navigating around busy airspace, cabin crew keeping our passengers safe, ground staff with many more challenges to deal with and many more - every team member's role is critical. Only together can we succeed in delivering safe and effective operations through this busy period and even in the face of challenging times we should always seek to maintain our safety standards. As a company, you have my commitment that we will support you for the decisions you make, often under huge pressure in difficult conditions.

Mindset: Always maintaining a Safety-First culture

At Safewings we like to think that the mindset of safety-first is ingrained in our culture. This mindset is not just about adhering to rules but embracing a proactive attitude towards identifying and mitigating risks. Every team member is encouraged to think critically about safety in every action they take and not just how this impacts what you are doing but also those around you. There are many key moments in our operation where our roles intersect and we always need to focus our mindset on being open to understanding each other, the situation we are each facing. By fostering such a culture where safety is our foremost priority in a collaborative atmosphere, we can protect each other, colleagues from other companies we work with and safeguard our passengers and operations.

People: Understanding the Importance of Human Factors

It is easy to say that people are our greatest asset but it is importance that we show that to each other every day and in every interaction with each other. You have all put a huge amount of work into preparing for a successful summer – we have the right number of staff in all the



right places and have focused our training to ensure we can face the challenges ahead. The final step is doing all we can both as a company and as individuals to ensure we can be “operationally ready and fit for duty”. It is important to recognise that fatigue, stress, and workload can and will impact performance, you have my commitment that we are there to support you throughout the summer (and throughout the whole year of course). This summer, we have implemented enhanced scheduling practices to prevent burnout and ensure that everyone is well-rested and focused. When problems do occur, I encourage you to report them through the Safenet SMS Platform so that we can learn and improve for the future.

Resources: Equipping ourselves for excellence

To meet the demands of the busy summer season, we always aim to ensure that you are equipped with the best resources possible. We have invested a great deal in new technologies, comprehensive training programs, and robust support systems. Given the size of the operation, we know that there will be times when we don't have the right tools in the right place. This is a good time to ask you not to blame other colleagues when things like this happen – work together to solve the immediate operational problem in hand and then, when you have the time, report about it in Safenet so that we can learn about what happened to help us improve for next time.

Compliance: Upholding standards is vital

Compliance with regulatory standards is non-negotiable at Safewings. We adhere strictly to EASA regulations and continuously review our procedures to ensure they are fit for purpose and kept up to date. This commitment extends to every aspect of our operations. Compliance is the baseline and by maintaining the highest standards, we guarantee that our operations are safe, legal, and efficient, thereby protecting our passengers and our reputation. For anyone in a supervisory or leadership position we rely on you to set the example for others to follow and to support your staff in doing their best. We appreciate that when the pressure on, it is not always easy to do the right thing – especially if there might be an easier way to get a job done. Again this is where we rely on you to talk continually about day-to-day operational challenges and solve them together, in the right way.

Risk Management: Taking proactive measures to identify and manage our risks

Effective risk management is at the heart of our safety strategy. We employ a proactive approach to identify potential risks before they become issues. You are all risk hunters and we rely on you to anticipate challenges where possible, work together to implement operational solutions

swiftly, ensuring that we are always one step ahead in maintaining safety and operational integrity. You are all empowered to take the decisions needed to keep our operation moving. When something bad happens, you will not be punished – our only interest is to understand what happened so we can all learn from it and make things better.

Learning: Continuous improvement is the only way

Learning from past experiences and industry best practices is essential for continuous improvement. At Safewings, we embrace a culture of learning and adaptation. Your safety reporting is at the heart of this. Hopefully we have made the process of reporting as easy as possible. When you do report, the more important you can provide to help us learn and improve the better. The information you tell us is then fed back into regular training sessions, debriefings, and our operational processes to help ensure that all our teams are prepared for any scenario. Additionally, we analyse incidents and hazards to extract valuable lessons and refine our procedures. By fostering a learning-oriented environment, we ensure that our safety practices evolve and improve over time. This magazine is full of such lessons, hopefully they are useful for you.

Safety - A shared responsibility

Safety in aviation is a shared responsibility. It requires the collective effort of every member of the Safewings family, collaboration with our many contracted partners and all the other organisations we rely on to ensure safe operations. It also requires the cooperation of our passengers and we have done a lot of promotion this summer towards them to encourage them to play their part by being nice to all the staff they meet, adhering to safety instructions, arriving at the airport on time, and being patient and understanding during peak travel periods.

As we soar into the busy summer months, I am confident that with our unwavering commitment to mindset, people, resources, compliance, risk management, and learning, Safewings will continue to set the standard for excellence in aviation. Together, we will ensure that every journey is not only efficient and enjoyable but, most importantly, safe.

Thank you for your continued dedication and support. Let's make this summer a testament to what we can achieve when we work together, communicate effectively, and prioritize safety above all else.

Safe travels,

Milena



Safety Manager's View of the Summer

Each season brings its operational hurdles, and summer is no exception. As Safewings' Safety Manager, my challenge it to help us all focus on the most important safety issues that lying ahead that will require our attention, particularly during the operational peak. The Safety Team has been out around all our bases talking to operational staff about their concerns and what they experienced in the past to pinpoint four things that are our most significant concerns. Of course, being the safety team, we took all the things you told us, ran everything through all our risk management tools, bow-tie models and other fancy things that involve lots of graphs. Then we discussed it at our different safety action groups and came up with a simple list to help keep you focused this summer. These are:

- **Atmospheric phenomena and adverse weather.**
- **Sudden disruptions.**
- **Fatigue management and being operationally ready and fit for duty.**
- **Ground operations challenges.**



From Nuno,
our Safety Manager

► Atmospheric phenomena and adverse weather

The increasing significance of adverse weather events due to climate change presents us with great challenges. This requires additional proactive measures to safeguard our operations, especially when our operations are stretched to their limits. With climate change making things continually more challenging, the areas we operate to have experienced hurricanes, major storms, flash flooding and extreme heat. We need to anticipate situations as early as possible and adapt to manage these conditions.



The task is to manage the safety of every flight from end-to-end. This starts with good flight preparedness and planning by Flight Operations Officers in the Ops Centre. It then follows with

thorough analysis of flight plans by crew and then enroute flight support that specifically monitors for weather threats and supports the crew decision making when needed. Together between the flight deck and the Ops Centre we can tactically manage flights together and help to steer clear of significant weather situations.

If adverse weather is present near any of our bases or destination airport this requires a great deal of close communication and coordination to ensure the safety and comfort of passengers and crew. Our goal is always to mitigate the weather's impact on our operations. The more we look ahead to potential weather threats and take action as early as possible the less impact we will face. For example, this might require us to tie down equipment or loose articles in strong winds. We might need to ensure access panels on equipment or doors are kept closed on vehicles in heavy rain. There are lots of examples and the Ops Team have a checklist of actions ready for different situations.

Knowing that we will have challenge with hot cabins over the summer, we have a specific article on that topic to help us to be prepared to keep our crews and passengers cool.



► Sudden disruptions

Adverse weather is just one source of sudden disruptions that might impact our operations this summer. When we combine a sudden event of any type with the increasing traffic of the summer season and a potentially larger number of less experienced, seasonal staff our safety risks increase considerable. As with weather, the more prepared we can be to understand what challenges we might face and have a plan to deal with the unexpected, the better we can manage those risks when things are busy.

What we do know from almost every previous summer is that something will happen that we need to be prepared for. Once you add in the increased level of stress that the summer season, the additional people flying around for the European Championships and Olympics, a few lingering effects of COVID-19 that causes an increase in staff sickness (we still have a few staff catching COVID) it is really important to have robust risk management strategies in place. We have set up our plans and now we rely on effective real-time decision-making involving various stakeholders, including pilots, cabin crew, air traffic controllers, and ground handlers, to effectively navigate potential disruptions. Don't make decisions in isolation if it impacts others.

When things do happen, we will activate our different contingency plans depending on the situation and even set up the crisis team if this is need. Effective communication is vital to swiftly address disruptions and mitigate their repercussions on our operations. It is also important we don't forget to communicate to our customers as well. It might be hard to have difficult conversations, especially with our passengers when we have bad news for them but communicating well in a crisis is a key part of customer satisfaction.



► Fatigue management and being operationally ready and fit for duty.

This summer is a marathon and we cannot get through it safely if we don't do everything we can to help sustain effective human performance. The busy summer season is going to test us all so we must do everything we can to ensure we are operationally ready and fit for duty throughout the summer. We have more detailed information in other safety promotion material on this topic but we'll cover the key points here..

The fatigue rules are just the first part of this. Compliance with the rules on fatigue are not enough by themselves to ensure everyone is fit for duty at all times. Together we need to do all that we can to identify where our scheduling causes fatigue challenge. Here at Safewings, our goal is to take a more risk-based approach to manage everyone's duty periods (for flight crew and shift workers) and workload (for office based staff).

We encourage you to use the reporting system to help us to closely monitor whether the implementation of our different initiatives to support effective human performance. Our fatigue risk management system and the team that run it, then use all



the information available to manage things as pro-actively as possible. This is a continual process to help us all to achieve our best throughout the summer.

We have expanded the analysis of fatigue factors to all areas, including ground operations and maintenance, utilizing bio-mathematical models is becoming increasingly important. Additionally, employing tools to identify periods of reduced alertness and then have a range of interventions during those periods to increase safety levels.

The other key thing is to support each other. We are one team with a common goal – monitor each other and support others when they need help and support. Also reach out to the mentors and support teams in your work teams – they are there to help you.

▶ Ground Operations Challenges

We all know that hiring and retaining enough staff has been a huge challenge, especially in ground operations. We have worked hard to train all the new people ahead of the summer for the tasks they will carry out using our specific operational procedures. The aim is ensure a balanced mix of experienced levels among teams while also fostering a positive safety culture. All with the goal to maintain our operational performance and to keep our passenger happy.

As well as training and supporting new staff, we also encourage everyone else to consider what additional training and support would help you in your daily roles. We also encourage managers to release your staff so they can take new training. Our industry, systems and processes are always changing

and its important that we build learning into our day-to-day activities. This all helps us to perform to the best of our abilities. It's hard sometimes to release people from the front-line of operations.

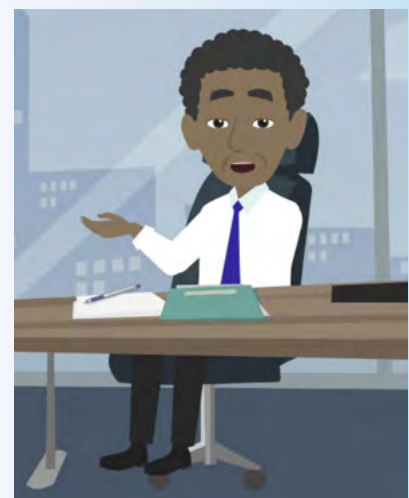
This summer will be the busiest since 2019 and there will be more happening on the ramp than ever before. Add to this the fact that many airports also have works programmes ongoing over the summer and things will get very challenging on the ramp especially. We have already seen a few incidents with vehicle collisions with aircraft so you are encouraged just to take a breath and slow things down a little. Easy to say when the pressure is but try your best to focus on the basics, maintain situational awareness and take a moment to make sure you are actually taking the right action for the situation.



To finish – take a risk based approach

To conclude this summer view from the safety team, our main goal is to take a decentralized risk-based approach. As individuals, you are empowered to anticipate and identify avoidance and recovery measures for their tasks in advance. Be like risk hunters, looking for situations that might cause a problem and solve them as you go. Where something happens, good or bad, that you think that others would learn from, report it! Hopefully we made the reporting system as easy as we can so this doesn't make your day even more complicated.

If you are an operational manager, promote this cultural shift from a reactive, compliance based approach to a more pro-active, risk based perspective. This shift extends to everything we do, every day. ■



IATA Safety Issues Hub



Earlier in the year, the International Air Transport Association (IATA) held its global [Safety Issue Review Meeting \(SIRM\)](#). With over 40 worldwide operators present it provided the opportunity to discuss topical safety issues the industry is facing, practical mitigations as well as lessons learnt. One key focus area was seasonal safety issues that operators are exposed to in the summer months.

The SIRM is a key feed into the IATA [Safety Issue Hub](#), a one-stop shop for accessing safety issues and supporting guidance documentation.

The [Safety Issue Hub](#) is made available to the entire aviation community and contains many safety issues that can help your safety team to supplement your safety risk management activities. The identified issues can be compared with your own operational experience and data from your own management system. Safety issues are grouped by Key Risk Area (such as 'Loss of Control' or 'Systemic') and Operational Areas (e.g. *Flight Operations* or *Ground Operations*).

IATA has worked with the industry to develop generic safety risk assessments for several of the safety

issues. These can be downloaded and tailored to your organisation's scope of operation.

Safety Issues are also assessed from a regional perspective. A world map view provides the ability to help filter issues relevant to where you operate and your own route structure. These regional assessments, known as regional risk pictures, are also a key input into the [IATA Operational Safety Audit \(IOSA\) program](#).

For States and national authorities, the [Safety Issue Hub](#) can supplement the identification of safety issues that may exist at a state level to support your National Aviation Safety Plan and State Safety Programme evolution.

Have you identified a safety issue you're exposed to that's not contained in the Hub? [Let IATA know!](#)





Back to the summer season, which issues did operators highlight from the SIRM as have with heightened exposure in the months ahead? Broadly the topics fell into two categories: weather-related issues and those related to increased traffic to match heightened passenger demand.

It is recommended that operators review and assess these issues as part of their management system. For a number of different safety issues, the topic of “flight crew operating in accordance with Standard Operating Procedures (SOPs)” is an important mitigation. Strong safety leadership ensures individuals are supported during times of high pressure with a culture that protects against taking shortcuts and deviance from SOPs.

Weather-related issues

High temperatures

- **Aircraft/Engine performance degradation:** Leading to an increase in take-off distance and a reduction in climb rate. As a result, payload capacity or range may be reduced.
- **Brakes, bleed system, and electronic equipment overheating:** This might increase MEL reports and cockpit workload. Spare parts planning and availability may be required to maintain aircraft airworthiness.
- **Human performance degradation:** High temperatures may cause front-line staff working outdoors on the ramp to deviate from SOPs and weaken safety controls. Operators should risk assess how operating in high temperatures may impact the ability of individuals to carry out safety-critical tasks.
- **Health risks to passengers:** Extremely high cabin temperatures can lead to heat cramps, heat exhaustion, heatstroke, and dehydration, as well as exacerbating existing health issues.

Convective activity

- **Turbulence:** Encounters with turbulence may increase due to the increased convective activity in the atmosphere.

- **Windshear/Microburst:** Can produce sudden changes in aircraft airspeed and lift, potentially leading to a loss of control in flight.

Flooding

- **Runway contamination:** Runway contamination remains a year-round safety issue. However, extreme weather events in the summer may specifically increase standing water on runways, reducing braking action and increase hydroplaning conditions that may lead to runway excursions. Operators should continuously monitor runway state, ensure flight crew remain competent in interpreting reporting conditions and the use of the Global Reporting Format (GRF).

Wildlife Migration

- **Bird activity:** From April to June in the northern hemisphere, bird migration increases the presence of wildlife in surrounding airfields, raising the likelihood of bird strikes during the take-off, climb approach, and landing. Operators should review the risk of bird strike at departure/destinations airfields that are in the vicinity of migration routes and collaborate with aerodromes to ensure effective wildlife management programs are in place.

Issues due to the Increase in Demand

- **Operational pressure:** This may create a sense of urgency and subsequent stress for frontline staff in order to meet ‘on-time’ performance, slot restrictions and busy schedules. Operational staff may be pressured to take shortcuts to save time, thereby deviating from procedures.
- **Flight crew pairings:** Some flight crew pairings, such as newly upgraded captains with inexperienced first officers, may represent a threat to overcoming high operational demands. Operator scheduling teams should actively plan to manage such pairings.
- **Carriage of lithium batteries:** With high load factors on aircraft, hand luggage may need to be taken from passengers at the gate and placed in the hold. Operators should ensure due consideration is given to dangerous



goods requirements such that lithium batteries in hand luggage are not being placed in the hold.

- **Shortage of qualified personnel - training standards:** The challenge of recruiting enough staff to match increased seasonal demand could result in a strain on training resources. Operators should commence recruitment as early as possible ensuring new colleagues are trained and operational in anticipation of increased demand.
- **Congested airports:** Increased activity on the ramp to service aircraft can create greater congestion, increasing

the risk of ground safety events such as collisions between ground service vehicles and aircraft.

- **Unruly (disruptive) passengers:** During the summer season with a higher volume of flights, there may be a corresponding increase in the number of unruly passengers' onboard aircraft and within airport terminals. As part of their SMS, operators should assess which routes may have a higher exposure. Operators are encouraged to work collaboratively with regulators to raise awareness of unruly passengers. ■

Call to Action – You are encouraged to...

- Review the above safety issues for exposure in your operation and consider undertaking safety risk assessments where needed.
- Providing strong safety leadership to create an environment where individuals are not pressured to take shortcuts and to prevent the normalisation of deviating from standard operating procedures.
- Reinforce safety performance monitoring through incident reporting programs, FDM, and other available mechanisms.
- Reinforce safety culture and safety risk awareness among the front-line staff, emphasizing the operator safety priorities and the importance of reporting near misses.



The Role of Recurrent Training in Aviation Safety



The often-heard mantra of the global aviation community is that “*safety is our number one priority*”. To support this statement, 'recurrent training' is one of the primary contributors to global aviation safety, helping to ensure ongoing safety for aircraft operators around the world.

Recurrent training is mandated by regulation: However, there is a large variation in how much, of what type, where and how often the training is delivered. Typically, pilots are required to complete recurrent training every 6 months consisting of two Full-Flight Simulator (FFS) sessions each of four-hour duration with an instructor/evaluator. However, some authorities require one session every three months, while others permit a longer interval if other measures are in place.

In addition to the simulator phase, technical training and assessment may also be required along with security, dangerous goods, firefighting, first aid, and human factors knowledge. Many operators have additional training requirements depending on their own operational needs and complexity. Most operators are also required to conduct an annual 'Line-Check' or observation of on-going competency with real operations on a revenue flight.

As well as refreshing and evaluating pilot knowledge, recurrent training also keeps each pilot up to date with the latest methods and procedures and allows such new knowledge to be practiced in the safety of the simulator. Other emergency procedures are also practiced and assessed over a period of several years enabling pilots to experience



events they would probably never encounter in their careers but would need to be prepared for in such an eventuality. Whilst rehearsing these extremely rare events, skills such as teamwork, decision making, and manual flying skills are practiced and measured and recorded by an experienced evaluator. Exposing professional pilots to such challenging events within the safe space of the simulator helps reduce the ‘startle effect’ should such an event suddenly occur during real flight.

Within the normal recurrent training cycle, there is little time or opportunity to deliver individual training for the needs of each pilot. Their unique strengths and weaknesses are seldom addressed within the existing structure and only limited data is captured for each pilot.

Sources of Information for Data-Driven Training

To adopt a risk-based approach to training, it is imperative that diverse sources of data are used to inform the recurrent training for the upcoming period. Traditionally data sources have only focussed upon when things have gone wrong in the time-period that proceeds the recurrent training cycle – or so-called “Safety I” information. However, Safety I information should be supplemented by data from normal everyday work and operations – or so-called “Safety II” information.

Rather than performing a ‘tick-box’ approach to recurrent training to satisfy regulatory requirements, the content of airline recurrent training programs will increasingly be driven by data collected from both operations and the training system itself. Having both Safety I and Safety II information further ensures that training interventions identified for airline recurrent training reinforce the presence of safety as well as addressing the absence of safety (Kennedy et al, 2023).

Safety I Information

The main sources of Safety I data to feed the recurrent training program will include:

- Accident and/or Incident Reports.
- Event investigations.
- Flight Data Monitoring (FDM).

Sources of Safety II Information

The main sources of Safety II data to feed the recurrent training program will include:

- LOSA (Line Operations Safety Audits).
- Other Surveys and Audits.
- Data from Training Devices (Such as Full Flight Simulator – FFS).



Recurrent Training Methods and Means for Evaluation

The Focus of Recurrent Training

It should be noted that from a regulatory perspective, and irrespective of what is discovered from operational data, certain items are mandated in recurrent training.

Traditional recurrent training, within the FFS phase, essentially divides into two parts: The prescribed task-based or 'manoeuvres' section and the LOE or 'LOFT' phase. The prescribed manoeuvres, described in Section 1, include engine failures and challenging weather situations, for example, with additional manoeuvres focusing on in-flight failures. The list is long and has been unchanged for many years. The opportunities to amend or adjust the prescribed training to respond to data-insights, such as those in Section 2, is very restricted. The limitations of the prescribed model initiated both the AQP (ATQP) and EBT paradigms.

Line Oriented Evaluation (LOE) or Line Oriented Flight Training (LOFT) are a more recent concept focusing on real-time complete-mission evaluation of the combined crew performance. Typically, LOE training utilizes 25% of the annual FFS training a crew would complete.

The LOE phase is less constrained by regulation and under the control of the operator or their assigned training provider. If, for example, in the preceding time-period before the recurrent training cycle there were several incidents in the airline associated with "go-arounds" then this would probably be a focus scenario in the upcoming recurrent training cycle. Or if, for instance, the FDM data indicates a prevalence of "hard" or "long landings" in an airline then a scenario related to approach in landing in challenging weather conditions would also most likely be a focus scenario in recurrent training.

Evaluating Performance via EBT/CBTA

Evidence based training (EBT) is a training and assessment method based on operational data characterized by developing and assessing the overall capability of a trainee across a range of core competencies rather than by measuring the performance in individual events or maneuvers. EBT aims to identify, develop and assess the competencies required by pilots in order to operate safely, effectively and efficiently in a commercial air transport environment by managing the most relevant threats and errors based on evidence collected in operations and training.

EBT is a subset of Competence-Based Training and Assessment (CBTA) that has been developed specifically for application to

the environment of airline recurrent training. CBTA is defined by the International Civil Aviation Organization (ICAO) as "training and assessment that are characterized by a performance orientation, emphasis on standards of performance and their measurement, and the development of training to the specified performance standards." With the goal of providing a competent workforce for the sake of a safe and efficient air transportation system, CBTA is a training methodology sustained by robust course design, instructor qualification and data collection - continuously enhancing training efficiency and effectiveness (Kennedy et al, 2024).

With the continuous advancement of aircraft technology and related technical instruction on flying them, pilots require training that enhances their problem-solving, decision-making, situation awareness, communication, leadership, teamwork, and workload management skills. The industry deploys CBTA programs to impart core competencies that complement and maximize a pilot's skills and technical aircraft knowledge.

Because it is impossible to foresee all plausible accident scenarios in aviation, CBTA principles move training towards the development and assessment of key pilot behaviours that can be used in any given situation. These behaviours are further organized into pilot competencies. Through a continuum of training devices which present scenario-based exercises at differing levels of fidelity, CBTA emphasizes training for both foreseen and unforeseen situations in the flight deck (i.e., emphasis is placed on managing uncertainty rather than just aircraft systems).

Design of Recurrent Training Scenarios

In CBTA, scenarios are designed in terms of specific competencies that need to be trained and evaluated. The following nine pilot competencies (PC) will thus most likely feature in any recurrent training program¹:

- PC0 - Application of Knowledge (APK)
- PC1 - Application of Procedures and Compliance with Regulations (PRO)
- PC2 – Communication (COM)
- PC3 - Aeroplane Flight Path Management, automation (FPA)
- PC4 - Aeroplane Flight Path Management, manual control (FPM)
- PC5 - Leadership and Teamwork (LTW)
- PC6 - Problem Solving and Decision Making (PSD)
- PC7 - Situation Awareness and Management of Information (SAW)
- PC8 - Workload Management (WLM)



1 Depending on the region of the world and/or the airline itself, additional competencies (e.g., 'airmanship') may also be trained and evaluated in recurrent training.

Competencies such as PC3 and PC4 will tend to be the major focus of 'regulated' recurrent training and performed within the Full Flight Simulator (FFS). However, with CBTA so called 'Non-Technical Competencies' (NTS) such as PC2, PC5, PC6, PC7 and PC8 will also need to be addressed in the FFS. Training and evaluation of non-technical competencies in the FFS will usually be supplemented by "unregulated" Crew Resource Management (CRM) recurrent training.

The design of recurrent training scenarios will be built around these Core Competencies and associated Observable Behaviours (OBs). For instance, the Competencies and OBs applicable to a training scenario for "Flight Path Monitoring" are suggested in Table 1.

Competency	Observable Behaviors (OBs)
PRO	<ul style="list-style-type: none"> Monitors aircrafts systems status. Applies relevant operating instructions, procedures and techniques in a timely manner.
COM	<ul style="list-style-type: none"> Uses appropriate escalation in communication to resolve identified deviations.
LTW	<ul style="list-style-type: none"> Applies effective intervention strategies to resolve identified deviations.
FPA	<ul style="list-style-type: none"> Monitors and detects deviations from the intended flight path and takes appropriate action. Maintains the intended flight path using automation while managing other tasks and distractions. Effectively monitors automation, including engagement and automatic mode transitions.
FPM	<ul style="list-style-type: none"> Monitors and detects deviations from the intended flight path and takes appropriate action. Maintains the intended flight path during manual flight while managing other tasks and distractions. Effectively monitors flight guidance systems including engagement and automatic mode transitions.
PSD	<ul style="list-style-type: none"> Identifies, assesses and manages threats and errors in a timely manner. Monitors, reviews and adapts decisions as required.
SAW	<ul style="list-style-type: none"> Monitors and assesses the state of the aeroplane and its systems. Monitors and assesses the aeroplane's energy state, and its anticipated flight path. Monitors and assesses the general environment as it may affect the operation.
WLM	<ul style="list-style-type: none"> Plans, prioritizes and schedules appropriate tasks effectively. Monitors, reviews and cross-checks actions conscientiously Verifies that tasks are completed to the expected outcome. Manages & recovers from interruptions, distractions, variations & failures effectively.

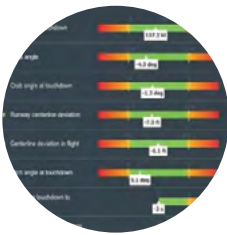
Table 1: Core Competency and Observable Behaviours for Flight Path Monitoring

Evaluating the Effectiveness of Training

Simulator Telemetry Data as a Measure of Outcome

In CBTA, grading of a competency places emphasis both on process and outcome (i.e., observable behaviors and aircraft state). With the ability to collect simulator telemetry data and make it available in real time to the instructor, CAE has been incorporating its CAE Rise™ training system into the CBTA workflow as an instructor support tool (CAE, 2023).

CAE Rise™ in simulator training allows the instructor's focus to remain on observing and evaluating pilot behaviors (process), with the knowledge that most parameters of specific pilot input were being captured and flagged by the system in real-time, available to the instructor moments after the maneuver is completed. One example might be the steps of a procedure: competed and in the sequence. When appropriate, it may also be deployed as a facilitated debriefing tool.



Simulator Telemetry Data

- Helps instructors detect parameter exceedances which would not be possible to monitor from the instructor seat.
- Supports the instructor in providing effective de-brief to pilots based on objective data.
- As the technical competencies are best evaluated through telemetry data it allows the instructor to focus more of their effort on evaluating the non-technical competencies.



Telemetry Data Analytics

- Provides the means to tailor training content based on objective training data.
- Facilitates insight into how a particular fleet / experience level of pilots responds to challenging situations in a training environment.
- Provides evidence for good performance, and mastery of specific competencies, as well as identifying where performance could be improved.

Simulator telemetry data used in real-time significantly enhances the quality of CBTA evaluation by the assessor and subsequently the efficacy of the subsequent training delivery.

Such data may also be harvested and processed at the fleet level or even industry level enabling benchmarking with global training insights. The process and discoveries such a system delivers will be the subject of the paper, 'Data Driven Training Design' which will be published in an upcoming edition of EASA Conversation Aviation later this year.

Summary & Conclusions

This article has described the role of operational data and data from the training system itself in driving the focus and content of airline recurrent training programs. This approach ensures that training is targeted on addressing the issues that most influence flight operations safety in the 'real world'.

The approach described in the article also ensures that limited resources for training are most appropriately deployed. Furthermore, telemetry data and other measures of outcome in CBTA can be used to validate training effectiveness and promote the elevation of training standards in general. ■

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Defining Operationally Ready and Fit for Duty

As organisations we always say that people are our most important asset and we know that effective human performance is at the heart of safe operations. But what does that really mean at a practical level for how we manage risks in our organisations? At the same time EASA has many different activities and initiatives surrounding the human in the aviation system, such as the recently completed MESAFE project on mental health. This article discusses will help you understand where people fit into the bigger picture of safety and how all the different rules and other activities fit together to help people perform to their best. It will also help to understand where initiatives such as MESAFE fit into the bigger picture.

Understanding the Safety Map

The best place to start is the “EASA Safety Map”. This covers the 6 building blocks of safety. The 3 parts on the left side, Mindset, People and Resources are the more strategic things that underpin your operational activities. You need things in place before the operation starts. If operations were like a football match, these are the things you do before the whistle blows to start the game.

Then once operations start (and the whistle blows), the 3 parts on the right side then support the safety of the active operation. You comply with rules and procedures – of course ensuring before things start that any organisational or local processes or procedures are fit for purpose. Then as you start whatever task you are doing, you continually manage risks through Threat and Error Management (TEM). Finally, you apply your learning to stay safe and help learning on the go.

The final learning part also applies at a strategic level. At both organisational and system level we talk about safety and have a positive approach to learning and continuous improvement at a system level.



The Safety Map



Purpose

Safety as the ability to create and maintain the capacity to enable safe and effective operations - as organisations, leaders/ managers and individuals.



Be Ready.

Defining and living by the values that creates the trust needed to support positive safety conversations.

Mindset



Having enough competent people who are operationally ready and fit for duty.

People



Ensuring safe aircraft products that are supported by the right tools, equipment and infrastructure

Resources



Stay Safe



Compliance

Encouraging people to do things right by following the relevant rules, procedures and practices.



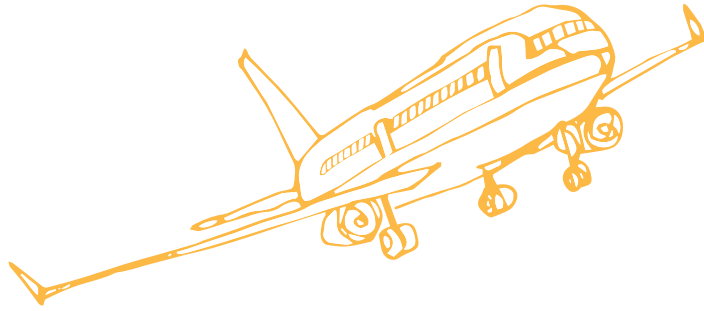
Risks

Effectively identifying and mitigating risks effectively as part of a resilient management system.



Learning

Talk openly about safety and have a positive approach to learning and solving problems.



Defining the “People” part of the Safety Map

For the “People” element – we define this as “Having enough competent people who are operationally ready and fit for duty”. This is a 3-part problem:

- **“Enough”.** Ensuring that we have the right number of people to support our operation. At a strategic level, EASA is working on this through EPAS Safety Promotion Task (SPT) 0097 – future workforce challenges. This covers topics such as organisational culture so that we have organisations that people actually want to work for, DEI (Diversity, Equity and Inclusion) to broaden the talent pool and finally reaching out and inspiring the next generation.
- **“Competent”.** It is also important that our people have the skills, knowledge and abilities to perform their role. We put a lot of effort into training our staff and enabling them to learn how to deal with the different operational situations they will face.
- **“Operationally ready and fit for duty”.** The final part of the people box is much harder to define and understand. This is what we are going to discuss in the rest of this article.

The concept of “Operationally ready and fit for duty”

This final part of the people box covers quite a broad area. On the face of it, if you took a purely aviation-focus, compliance-based approach to this part you might only consider how you applied the follow rules in your organisation:

- Fatigue and flight time limitations.
- Medical assessment of specific personnel who need a medical check as part of their licence.
- Peer support programme.
- Psychoactive substances.

Interesting though that is – consider likely just following these rules would help your staff to be “operationally ready and fit for duty” at all times so that they are able to perform to the best of their abilities, safely and for the duration of the time they will be at work. This last point is particularly important, your staff have to be able to fly, maintain, control etc for their whole duty period. Thinking it is enough for them just to be fit for duty at the beginning doesn’t really ensure safety.

The importance of taking a more risk-based approach to “operationally ready and fit for duty”

Instead of taking a purely, aviation-focused compliance based approach, the safety of your operation requires you to take a risk-based approach to this instead. Ironically, both the EASA rules on Management System in ORO.GEN.200 of the Air Ops Rules and your national Health and Safety Regulations already require you to do this anyway. They just make it easier not to, because neither really define what it looks like or how you would do it – unless you look very hard for it.

So what are we talking about? At a basic level a risk-based approach to “operationally ready and fit for duty” should lead you to asking pro-actively how to ensure that your staff are suitably mentally and physically able to perform to the best of their abilities for the duration of their duty.

Understanding the different types of staff in the aviation system

Before we get into slightly more detail on this part, it is useful to quickly define the different types of staff we have in the aviation system. Partly because the type of staff determines some of the levers that exist in the system to help manage particularly the mental health aspects. But also to ensure that you understand the importance of tailoring your physical and mental health activities to the different groups of staff you have in your organisation. They all do different things, in different places (some inside in the warm and some outside in the heat/ cold for example).

- **Licensed staff with medical requirements:** Specifically, pilots and air traffic controllers.
- **Licensed staff without medical requirements:** Maintenance personnel for example.
- **Non-Licensed staff with medical requirements:** Such as cabin crew who require a medical assessment as part of their attestation.
- **Non-Licensed staff without medical requirements:** Many other staff who may or may require formal training but have no official licence or ongoing medical fitness requirements.





01 Optimum Wellbeing

02 Risk Identification and Mitigation

03 Early Detection and Intervention

04 Recovery and reduction of the risk of future problems

05 Urgent Professional Help Needed

The “operationally ready and fit for duty” funnel

Hopefully now you understand that a risk based approach to “operationally ready and fit for duty” requires you to have a proper physical and psychological health and safety programme. You move beyond compliance to a primary, secondary and tertiary model that exist like a funnel.

(Graphic concept: Update the funnel below into a primary, secondary and tertiary model but perhaps with sub layers).

- Primary Level – Risk Identification and Mitigation:**
 You start at the primary level by pro-actively identifying hazards and risks so that you can mitigate them proactively within your operation. At a physical level, this could be proactive fatigue risk management similar to the examples provided at the recent EASA Fatigue Conference that you can [read more about here](#). It could be as simple as providing the right clothing and equipment to ramp staff. For psychological health and safety, the approach is the same – identify and mitigate specific risks in your organisation and its operation – a great place to start is ISO-45003, guidelines for managing psychological health and safety at work.
- Secondary Level – Early detection and intervention:**
 The secondary level provides the ability to detect situations early and intervene before things get worse and lead to a more serious medical or mental health issue. Peer support is an example of such an intervention and hence is also why it isn’t the sole

mental health solution that many people think it does. It’s also why peer support also needs to be made available to as many different staff groups as possible, not just pilots and air traffic controllers because they are licenced staff with medical requirements.

- Tertiary Level – Recovery and reduction of the risk of future problems:** At the tertiary level there is specialist intervention from medical experts and mental health professionals. One weakness of this part in aviation, is that like peer support it is mostly only available to pilots and controllers. As an organisation, you should also have ways to help all types of staff who need help. This is where the EASA MESAFE project comes in by providing information and best practice to help aeromedical professionals provide the best possible support to pilots and controllers that they are there to support.

Summary

Hopefully this article has helped you to understand more about the importance of tasking a risk-based approach to helping staff to perform to the best of their abilities. We miss so much when we look from purely a compliance approach and we leave so many risks unmanaged.

Consider the whole funnel of “operationally ready and fit for duty”, identify the mental and psychological hazards that your staff face in their daily work and then put in effective mitigations as early as possible. ■

Communicating Effectively from the Flight Deck

Safe and effective operations is a team effort. As pilots, there are two key relationships that are vital to the success of every flight.

The first is with the ground staff at the start and end of every flight. Our interactions with ground staff can be very small in terms of time but can have a huge impact on the flight or their safety on the ground.

Secondly, is the relationship with the controllers in air traffic control, who we don't really ever get to see.

As traffic hits its peak in the busy summer season, we all have a lot of complexities to deal with. The more we are aware of each other's points of view and work to make every interaction count, the better we can manage all the operational challenges that will come our way.

Communication is not one-way, for effective communication the other person needs to understand what we are saying, interpret it correctly and then take the right course of action. Sounds easy, but mis-interpretations or two different people having a different situational awareness picture is a huge risk this summer.

From Rachel, our Chief Pilot



Effective communication between ourselves as pilots and both ground staff and ATC is crucial for ensuring aviation safety, especially when things get busy. It's useful to explore some of these basic challenges and some of the practical solutions.

Communication Challenges

We know that the summer season will bring a significant rise in air traffic. For sure this will lead to congestion in both the skies and lots of challenge on the ground as well. This increases the potential for communication overload and miscommunication when we talk to either the ground staff or ATC. Language barriers are a key challenge and varying accents, while not new, become more pronounced under these stressful conditions, which can of course lead to misunderstandings. The reliance on standard phraseology means that any deviation or non-standard



**Effective pilot/ ATC
communication is vital**

communication can create confusion, especially for non-native English speakers. Also, when we are not talking in our native language, especially with ground staff, either us or them might not have the vocabulary to fully explain a situation or describe what is happening. This makes it even harder to ensure that everyone has the same mental model of what is going on.

Added to these challenges is the sheer complexity of the aviation system, that only gets worse when things get busier. Different airports or different airspace regions have unique layouts, procedures and other nuances that can be challenging for pilots unfamiliar with them. With a broad route network, it is likely that you don't fly into the same destination airports very often. This means that you are often dealing with new situations, under pressure and often in challenging conditions.

Which brings us onto environmental factors, including unusual weather phenomena that seem to occur more

often these days, thunderstorms, turbulence and even unseasonal conditions like hail and even snow that some crews have reported recently. All these can affect our ability to communicate effectively.

Another level of complexity is caused by the sheer volume of information that we have to deal with, especially during critical flight phases such as during pushback and start when we are likely to be talking to both ground staff and ATC, then also during take-off, landing, and when navigating complex airspace. Miscommunication can easily lead to serious safety risks, such as runway incursions, loss of separation, and even near-miss incidents.

Finally, we should never underestimate the risk of fatigue on all sides, both pilots, the ground staff and ATC. It might be your first flight of the day, but perhaps the person at the other end of your communication is at the end of their shift. Be aware that fatigue can impact our cognitive functions and hence the effectiveness of our communications.

Strategies for Effective Communication

There are lots of things we can do to help ensure effective communication this summer. The main thing is to make every interaction count. Here are 3 takeaways:



- **Be Ready:** Communicating is much easier when we are prepared. Regular training, including simulation exercises, can help to our enhance communication skills and prepare for real-world scenarios. We run regular collaboration sessions at our home bases with local ground staff and ATC to help open up discussions and enable us to see situations from each others point of view. We recommend all pilots to attend one of these sessions before the summer really gets going. Fostering a mindset of mutual respect and patience can help alleviate the stress and pressure associated with high-traffic periods, leading to more effective and safer communication. Finally, on this one, if you are flying to a new airport prepare yourself a little in advance to help be ready for any surprises.



- **Identify key moments to make a double check:** There are some moments where a misunderstanding might lead to a small issue or something annoying that needs to be fixed, but there are other key situations during a flight where it could lead to a much worse outcome. Examples on the ground include the moment when the brakes come off and then when the aircraft starts taxiing, both situations have led to a number of close calls for ground staff. With ATC, key moments include entering the runway, starting the take-off role of the final landing decision. These are ones particularly to maximise your CRM and make an extra mental check.



- **Use standard phraseology:** Finally, adhering to standard aviation phraseology significantly reduces the risk of miscommunication. Both parties should consistently use standardised phrases and avoid unnecessary jargon or slang. Strangely, English native speakers can sometimes make things more complicated in this regard. Communication should be clear and concise, with a strong emphasis on repeating back instructions to ensure messages are correctly understood. Maintaining situational awareness helps in anticipating potential issues and ensuring timely communication.

By focusing on these strategies and having a shared empathy for our common goal of safe and effective operations we can contribute to a summer where all our passengers can get safely to their destination. ■



Situational Awareness on the Ramp in the Busy Summer Season

The ramp is a busy place that is full of hazards to people, aircraft and equipment. In the summer things get even busier than normal and many of the extra people are seasonal staff who might be new to that airport or even to aviation. We know from our own safety reporting and analysis that summer brings many risks on the ramp that can sometimes lead to equipment or aircraft damage.

Most importantly, we must keep every team member on the ramp safe from harm. There have recently been some events in the media where ramp staff have had a close call. I am sure we all remember the shock of seeing the video of the poor guy who stepped out of the aircraft just as the steps were removed. An aircraft also ran over a staff member in Yekaterinburg recently. There have also been three fatalities in the past two years involving staff members being ingested by engines – we have a dedicated article on that topic as specifically.

The key point is that the ramp can be a dangerous place when we let our guard down and don't work together.

What the data from EASA says

EASA, the European Union Aviation Safety Agency, are in the process of introducing new safety rules for Ground Handling (under their Rulemaking Task, RMT/0728). In the Regulatory

From Valentina, our Ground Handler



Impact Assessment for these new rules an analysis of ground handling safety was carried out covering the period 2018-2022. From these occurrences, 20% were identified as “human factors and human performance”. Most of these were involved Situational Awareness and Sensory Events (60%) – how people interpreted the situation they found themselves in - or Personnel Task Performance Events (31%) – how people actually performed the task they were trying to complete.

The EASA document also cites another study, dealing with 87 accidents and serious incidents over 20 years where “lack of awareness” was the leading, most relevant human factor (62% of the cases).

Both these analyses show that when it comes to keeping people and operations safe on the ramp, the most important things to consider are performing every task in a mindful way, with deliberate actions and then continually focus our attention and vigilance to maximise the chance that our perception as individuals is the same as what is actually happening.



Some other factors that add to the challenge

- **New Staff Members:** Summer seasons always see an influx of new ground staff members who are taking their first steps onto the ramp at this time of the year. Their only experience may be what they learned during training and the initial reality of busy operations might be overwhelming for them. The training establishes the knowledge, but the expertise and skills are still developing. We encourage everyone to support our new colleagues. Also when you work with people from other organisations, consider that they might be new to the ramp and treat them with kindness and courtesy.
- **Experience and Complacency:** Statistically, it is just as likely that an experienced staff member will be involved in an incident than a new one. The longer we do something and everything goes well, the more this leads us to a false sense of security that there are no dangers on the ramp, or that nothing can go wrong. Also, the longer you perform a job, the more likely it will be that you find a quicker way to do something and norms set in that might be slightly different from the correct procedure. Beware of doing things on auto-pilot and if you find a better, quicker way of doing something, raise this as a procedure change so it can be properly assessed rather than doing things your own way.
- **Driving on the ramp:** If your tasks involve driving on the ramp, beware. Things will get really busy and sometimes it feels like you need eyes in the back of your head, there is so much going on. Take your time, follow all road markings and check you have sufficient clearance from all aircraft and equipment. Use a marshaller in tight spaces and use the radio when you need to get clearance from ATC. High wind conditions, when the cones have to be removed from around the aircraft, may pose another challenge – especially when visibility is low.

The role of training and continuous learning in safety

We provide a lot of continuous training to identify hazards, use our procedures and mitigate risks as part of your daily work. As an individual, you are a key part of the safety of our operation and it's important that you are aware of the key hazards you might face on the ramp.

Our training is just the start. For some key pieces of information such as engine ingestion and other hazard areas, aircraft specifications, applicable procedures and ways of working we continually make information available. We try to keep the changes and new information to a minimum, especially over the summer. We also try to provide lots of visual material and real-life examples and even occurrence stories to help you continually develop your knowledge.

We encourage you to make the most out of the opportunities available. Also, the ramp mentors and

supervisors are there to help everyone on their learning journey – please make use of them if you need to.

A positive Safety Culture is at the heart of everything we do

Everything we do at Safewings is underpinned by the concept that a positive Safety culture is the foundation for everything we do. This is part of our company values. It is something that we all need to think about every day as we perform our role – it should drive the decisions we make and the way we interact with our colleagues and others we come into contact with.

It means that safety starts with being compliant and following our local processes and procedures. But that in itself is not enough to cover every operational situation in a dynamic environment so we encourage you to also be risk hunters, looking continually for things that might be a risk to the safety of our staff, passengers and the aircraft. When you see a hazard, the first thing you should do is take action at the time to remove the hazard or prevent it causing harm or damage. Then, when you can, report it to our reporting system so that we can learn from it and do something to permanently mitigate the risk.

Summary

Here are the key takeaways on ramp safety this summer:

Safe operations relies on making deliberate and mindful actions, beware of losing situational awareness, especially when aircraft are about to start moving or when you are driving.

Follow all your local procedures.

Keep a safety mindset, look for hazards and take action to solve any dangerous situations as they happen to protect people, aircraft and the safety of the operation. Report when you can.



Keeping Cool in Ops Control



From Gemma, in the Ops Office

It takes a huge team effort to keep our whole Safewings operation running. Most of our safety articles have focussed on the front-line workers on and around the aircraft themselves. Behind the scenes there are so many people that don't always get the credit they deserve. These include the people in operational control, technical records, crewing, navigation services and all the other areas of the airline who are the unsung heroes, ensuring that flights operate smoothly and safely. Their roles become even more critical during the summer season when the operational tempo increases.

Hopefully this article helps us all to recognise the challenges that others will face over the busy summer season. Some of you might not be so familiar with these types of roles so hopefully you will also learn more about these amazing people. The more empathy we have for what we all go through in the operation, the better chance we have for success as one team united in the quest to achieve safe and effective operations.

Operational Control (Ops Control)

The Ops Control teams monitor and manage daily flight operations. They respond to real-time issues such as weather disruptions, technical problems, and air traffic delays – when things get difficult, they can really be under a lot of pressure.

They coordinate with flight crews, ground staff, and the maintenance teams to ensure timely and safe flight operations. The dynamic nature of this role requires quick decision-making and effective coordination with multiple stakeholders – it is often joked that people in Ops Control are superheroes, born with more than two hands, two ears and huge brains that enable them to have multiple conversations at the same time. Ops Control must anticipate potential disruptions and implement contingency plans swiftly to minimise the impact on flight schedules.

During the summer, Ops Control faces heightened challenges due to increase in the number of flights they



have to manage and the fact that the whole aviation system is working at capacity. This means that any issue, such as a weather problem or closure of an airport can cause total chaos to every airline. Their ability to swiftly reroute flights, manage airspace congestion, and communicate effectively with all involved parties is indeed the stuff of legend.

We encourage everyone to keep Ops Control in the loop whenever anything impacts their planning and the execution of that plan. You can never have too much information in Ops Control.

Technical Records (Tech Records)

Technical records, or tech records as everyone calls them – mostly because we have to abbreviate everything in aviation, are the people who maintain detailed records of aircraft maintenance and compliance with regulatory requirements. Their meticulous work ensures that all maintenance activities are properly documented and aircraft are airworthy. Maintaining accurate and up-to-date records is critical to ensure compliance with the regulations from EASA and ensures that we have a safe aircraft to fly.

Life for tech records is also more challenging during the summer peak because more flying means that the volume of records increases. Many parts of the aircraft are maintained based on the number of hours they fly or the number of landings they make. The team in tech records play a crucial role in ensuring that all aircraft meet safety standards and that any maintenance issues are promptly addressed. They also do a lot of preparation ahead of the summer to make sure our aircraft are in the best condition before the peak of operations to minimise the risk of technical problems when things are at their busiest.

Crewing

The crewing teams are responsible for scheduling the flight crew and cabin crew. They ensure that all flights are adequately staffed and that crew members comply with the EASA flight time regulations to avoid fatigue and ensure that everyone is operationally ready and fit for duty (we have a separate article on that as well).

The crewing team are the jugglers of the Safewings operation. It is important to never under-estimate the challenge of balancing crew schedules while adhering to regulations, meeting the needs of a whole airline's operational staff and managing unexpected absences or delays. The work can be extremely complex and at the heart of it sits our fatigue risk management system. The team do their best to identify different parts of our operation that might lead to additional fatigue challenges that cannot just be captured by the raw numbers. This is why fatigue reporting is so important.

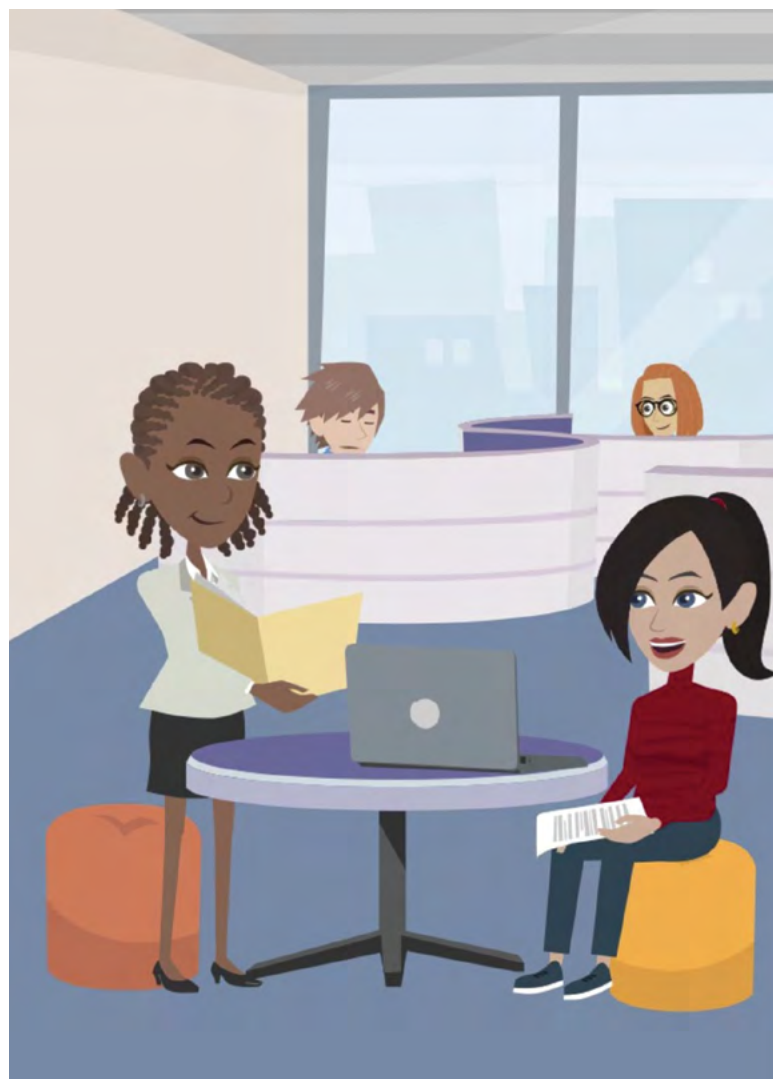
The team also manage crew training and certifications, ensuring all personnel are qualified and have the skills they need to perform to their best this summer.

The biggest message for everyone on the operational side of the house is, please be nice to the Crewing Team. They are doing their very best in challenging circumstances.

Navigation Services (Nav Services)

The Nav Services team (see the pattern with the abbreviations) provide flight planning and navigation support. They also look after aircraft performance calculations plus weight and balance. They ensure that aircraft fly the most optimal routes and comply with the wide range of regulations covering airspace, fuel management and performance requirements to name just a few.

Developing efficient flight plans that minimise fuel consumption and delays is a constant challenge, requiring thorough knowledge and attention to detail. They also stay updated on airspace changes and restrictions to ensure compliance and safety.



The summer season places a lot of demands on the Nav Services teams as they optimise flight routes to cope with the higher traffic volumes. A lot of their work has involved preparing for the summer routes and help ensure we are prepared for a wide range of situations that we might face in the coming months. They do a great job in helping to help in reducing delays and improving overall operational efficiency.

Finally, a word from the Safety Team...

Of course we cannot forget the Safety Team as well. Thankfully the days are gone where they were seen as the “Safety Police”, wandering around with clipboards scaring people with the threat of a finding in an audit or some additional training course. We are a progressive organisation that has embraced a modern, positive safety mindset where we all work together with a shared stake in the safety of each other and our passengers.

With an increase in operations, the safety team will be visible out and about around the operation, helping you to deal with operational problems and safety challenges. They will have safety reports to handle as well. We have recently

made a fundamental shift from talking about investigations to calling them learning opportunities. This shift in the words we use highlights the importance of viewing safety as a normal part of organisational learning and improvement, not something bad that results in punishment.

Safe Aircraft, Safe Operations, Safe System

Together we all make Safewings. All the people in these support roles and many others that are not covered here are a key part of a safe and successful airline. Their coordinated efforts ensure that every flight is safe, on time, and efficiently managed. Their ability to anticipate issues, adapt to changing conditions, and maintain rigorous standards underpins the overall safety and reliability of aviation operations. Please be nice to all your Safewings colleagues and work together over the summer to keep the operation moving. The same applies to the staff of all the other organisations you will interact with this summer. Ultimately the goal is to ensure we maintain these 3 things this summer; Safe Aircraft, performing Safe Operations as part of a Safe System. Take the time to understand your role in safety. ■



The Life of an Engineer in the Summer: Challenges and Solutions

Aircraft engineers play a critical role in maintaining the safety and reliability of aircraft, particularly during the busy summer season. The increased operational tempo and environmental challenges of summer present unique difficulties for aircraft maintenance personnel.

Some of the Summer Challenges Faced by Engineers

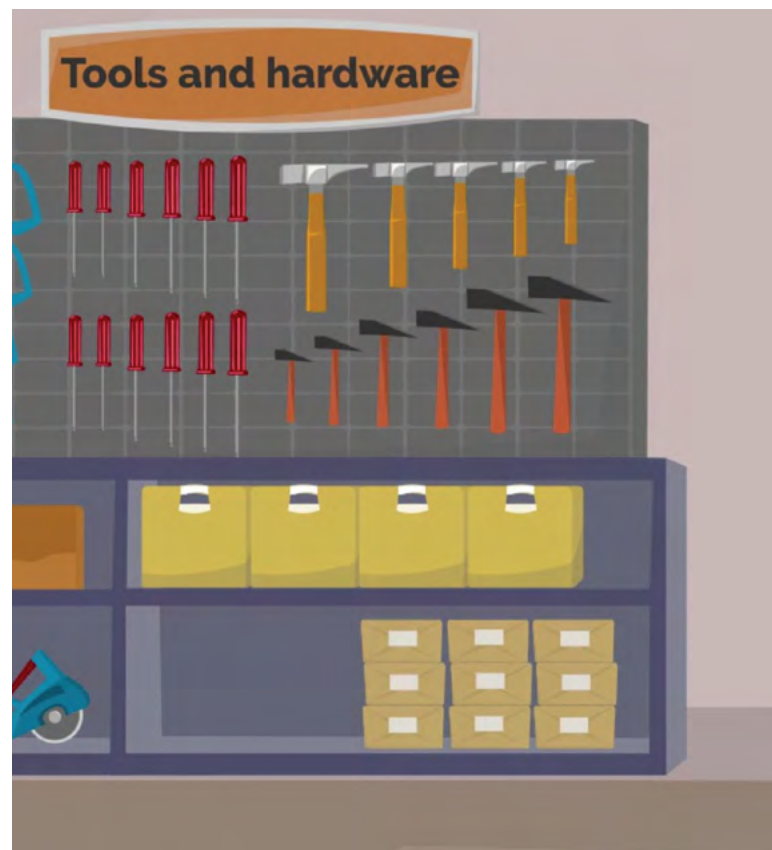
Summer heat can make working conditions on the tarmac and in hangars extremely challenging. High temperatures can affect both the engineers' performance and the equipment they use. The surge in flights during the summer season leads to a higher demand for both routine and unscheduled maintenance. This increases the workload for engineers, particularly in line maintenance – who are the people that do the routine maintenance that mostly takes place on the flight line.

Things are not helped by the fact that because many aircraft are flying during the day, a lot of maintenance takes place at night. Add to that the combination of long working hours and extreme temperatures it naturally leads to fatigue while operating lots of heavy equipment and moving components around if physically demanding as well. All this adds up, impacting engineers' ability to perform their tasks efficiently and safely.

From a technical perspective, high temperatures also can cause overheating of aircraft components, leading to an increased frequency of component failures and maintenance tasks. Engineers have lots of different people around the airline to communicate, including operations and logistics, to ensure timely maintenance and minimal disruption to flight schedules. Sadly, because their services are often needed when something doesn't work on an aircraft, they are often the bringer of bad news. If ever the phrase "don't shoot the messenger" was perfectly relevant, it is for engineers.

Maintenance work is also mentally challenging as engineers often have to diagnose complex faults and then make repairs under tight deadlines, all with the pressure to get aircraft back into service quickly and safely. The summer heat

From Helena, our Engineer



exacerbates these pressures, making it crucial for engineers to manage their workload and health effectively, this is something we can all contribute to.

Solutions and Strategies

Implementing shift rotations and ensuring adequate rest periods can help manage fatigue. While there are no specific working limitations beyond those in the European Working Time Directive, like there are Flight Time Limitations for Flight Crews, we try really hard to manage the working periods of engineers so they are also operationally ready and fit for duty.

There are some other things we can do at the planning stage. For example, scheduling more demanding tasks during cooler parts of the day or the evening can mitigate heat stress. We aim to also provide shaded work areas and cooling vests can further alleviate the effects of extreme temperatures. Providing easy access to hydration and ensuring regular breaks in cool areas helps engineers manage their fatigue and wellbeing. Finally, like everyone else at Safewings we aim to have a supportive work environment where engineers can voice their concerns and receive adequate support to help maintain morale and ensure high performance.

Continuous training in handling heat stress and using protective equipment can also enhance safety. Utilising advanced diagnostic tools and equipment that can withstand high temperatures ensures that engineers can perform their

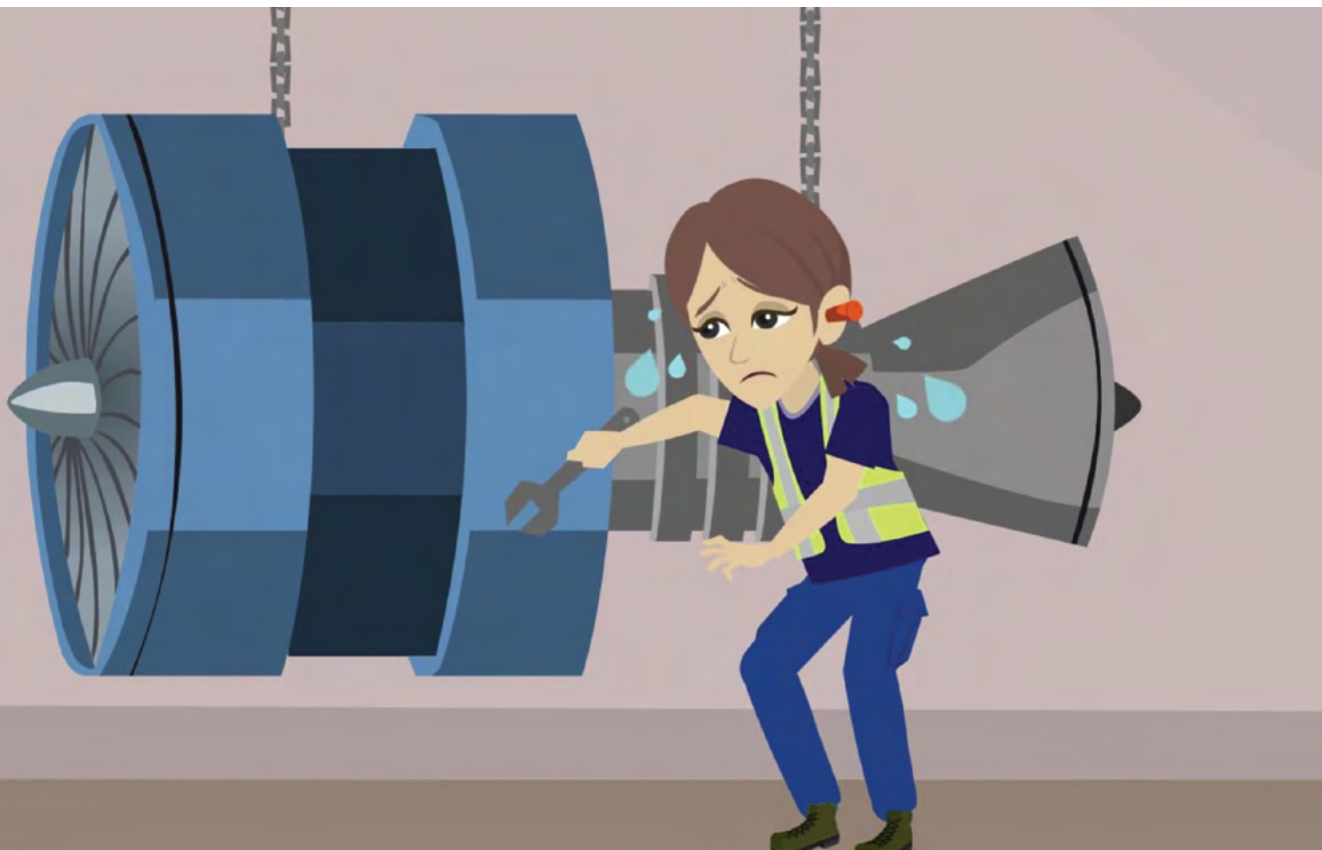
tasks effectively even in challenging conditions. We also invest in the best possible tools we can, so that engineers are able to do their jobs effectively with the best equipment available. Investing in ergonomic tools and equipment that reduce physical strain can also help engineers perform their tasks more efficiently.

Effective communication and collaboration with other departments is vital to ensure that engineers have the support they need to perform their tasks efficiently, including the timely provision of spare parts and necessary resources.

Engineer's Perspective:

"During the summer, the heat can be quite overwhelming, especially when working on the tarmac. We have to be extra vigilant about staying hydrated and taking regular breaks to cool down. Despite the challenges, it's rewarding to ensure that every aircraft is safe and ready to fly. We rely heavily on teamwork and clear communication to manage the increased workload and keep operations running smoothly."
– Helena, Aircraft Maintenance Engineer.

The life of an engineer during the summer is demanding, but with the right strategies and support, they continue to uphold the highest standards of safety and efficiency, ensuring the reliability of flight operations. Their dedication and resilience are crucial in maintaining the safety and integrity of the aviation industry, even in the face of challenging summer conditions. ■





Safewings

Safewings

Coping with Hot Cabins During the Summer

While we all hope that the summer brings some great weather, hot weather can make things in the cabin particularly unpleasant. We regularly see situations where ground temperatures on the ramp continually exceed 30 degrees and sometimes even beyond 40 degrees with the reflective effect of the tarmac.

From Sven - Cabin Crew



Hot cabins make things very uncomfortable for the passengers, particularly when there are delays. It also makes it difficult for those of us in both the cockpit and the cabin. Starting a duty period drenched in sweat doesn't make it easy to then operate the following flights. Our performance and fatigue are considerably impacted when we don't manage hot cabins together and do everything we can to keep the cabin cool.

We also identify an increase in unruly passenger situations when we take delays and have no effective way to cool the cabin. This places even more strain on the cabin teams, which makes it even more important that we do what we can to manage the situation throughout the summer.

Using the APU and working as a team

The most effective way to cool the cabin on the ground is by using the Auxiliary Power Unit (APU). We encourage the cabin and flight deck teams to liaise continually to help keep the cabin at an acceptable temperature, especially when there are delays with passengers in the cabin. Every fleet has specific guidance on the use of the APU.

Operating with unserviceable APUs

The Ops Control Team have identified routes that should not be scheduled with an unserviceable APU wherever possible and these have been communicated to all the Fleet Control Teams.

Each Fleet Control Team will continually check the aircraft defect lists for unserviceable APUs. They will notify the handling agents at all affected outstations via SITA message or Email that the APU is unserviceable and that an Air start, Ground Power Unit and Air Conditioning Unit (ACU) will be required for turnaround. They will also follow up via telephone to make sure that the message has been received and that the necessary equipment is available and in place for the aircraft.

The information will always be recorded in the Fleet Control Duty logs to help ensure that nothing is lost in communication. It is a classic example of how we all need to work together to keep things bearable for the cabin and flight deck teams.

Procedures for requesting an ACU

When things get busy, we know that things run more smoothly where there is a clear procedure to follow. This information is provided in a Ground Information Notice that all the relevant staff should have easy access to and is particularly important at our home bases where things can get really busy.

Normally a request for an ACU would come from either Fleet Control, Line Maintenance or the Flight Deck.

- Requests for the mobile ACU shall be made to the Apron Base Supervisor who will then contact the local Ground Support Equipment (GSE) equipment to arrange getting the ACU to the aircraft.
- If the GSE unit cannot respond to the request, the Ramp Supervisor will be called to help.
- The Ground Ops Agent will deliver the ACU to the aircraft in question (make sure to check aircraft type and suitability).
- When positioning the ACU to the aircraft, the agent shall park the ACU on the opposite side of the engine that will start on stand, or as per instruction by engineering, ensure that the hose will reach the connection point of the aircraft.
- Before connecting the hose to the aircraft, the agent will disconnect the tow hitch from the towing vehicle, and apply the parking brake.
- The engineering team then take over to connect and operate the unit at the aircraft side.
- When the unit is not required at the aircraft, it will then be switched off and disconnected from the aircraft and only then can the towing vehicle be re-connected to the ACU.
- The ACU is then removed from the aircraft side to the parking area by the ground ops agent.

Never underestimate the impact of hot cabins

Hot cabins can have a huge impact on our crews and the passengers. Let's try and think ahead as much as possible to make things as pleasant as possible for everyone. We know which home bases and outstations where the greatest challenges will occur. Avoid flying aircraft with U/S APUs to outstations where we have minimal options. At home bases, make sure to follow the procedure to keep things organised so everyone knows what should be happening. ■



Learning from Accident Recommendations

As we talk about regularly in this Conversation Aviation magazine specifically and more generally in a lot of our Safety Promotion, learning is one of the most important parts of safety. It is one of the 6 key pillars of our safety map.

Most of the learning is done through your organisation's own Management System. Additionally, the EASA Data4Safety project has now moved into the operational phase, enabling more organisations to be part of this collaborative data-sharing and analysis platform. You can learn more about Data4Safety [on the EASA website here](#).

However, another learning opportunity comes from Investigation Reports issued by the Accident Investigation Boards (AIBs) into accidents and serious incidents within the scope of ICAO Annex 13. This part of the magazine will provide information on recently published accident investigations and specifically will highlight topics where the relevant AIB addressed a Safety Recommendation to EASA and that resulted in the need for some specific safety promotion.

Recently published investigations:

Here are some new investigation reports that you might be interested in:

- [Boeing 757 \(N524AT\)](#) - Runway Excursion in Jamaica on 09/11/2018.
- [DHC-8-314 Dash 8 \(C-GJYZ\)](#) - Aft Fuselage Strike on Landing on 19/10/2022.
- [Boeing 767-322ER \(N649UA\)](#) - Turbulence Encounter on 08/12/2022.



Recommendations to EASA – Follow-up safety promotion

Passengers falling down aircraft stairs, especially integral ones – identify high-risk situations and ask the crew to intervene

Since the COVID pandemic, it seems many passengers are still afraid to touch surfaces where they might pick up germs. This is particularly a problem on aircraft steps, especially where aircraft have integrated airstairs with a steeper angle and smaller steps. It is also a problem when passengers try to carry too many things down the stairs and do not have a free hand to hold on. There have been some injuries to passengers from falling down aircraft stairs and it is a risk that cabin crew can help to mitigate.

- ▶ **Our Cabin Supervisor Sven says** - The main thing is for cabin crew to be aware when passengers are trying to carry too many things (or even small children) down the stairs and intervene to help in such situations to minimise the risk of them falling. It might be a small act but it has the potential to save many injuries.

Falling engine doors – the importance of following maintenance procedures and using the correct maintenance data

There have been a number of occurrences over the years where engine bay doors have not been correctly closed prior to take-off. The doors then open on take-off or in-flight and



in some cases have actually been ripped from the aircraft. A falling door poses a major risk to people on the ground.

Investigations into these occurrences have highlighted the need for maintenance personnel to both follow the relevant procedures and also to always make sure to use the correct maintenance data and information sources when carrying out maintenance work.

- ▶ **Our engineer Helena says** - From a human factors point of view, it is easy just to tell people to follow procedures and “do the right thing”. Much more difficult for that to become a reality on a dark, cold, wet day when a staff member is under pressure in a difficult operational environment.

This is where human factors really become organisational factors. It is not enough to just rely on your staff alone. Proactive risk management should focus on helping staff to do the right thing. Consider what procedures you have to minimise distracting staff at critical phases of maintenance. Make sure you have enough staff to cross-check important tasks and that you provide enough time for maintenance staff to do the job properly.

When it comes to data and equipment – maintenance staff should have access to the latest information, procedures and maintenance data as easily as possible. It’s hard to follow a procedure if it is locked in a cupboard in a technical library or is too far away it is impractical to use on the flight line while lots of people are expecting the aircraft to be back in service quickly.

Consider all the factors in your operation that might lead to such an error and mitigate them as much as you can as an organisation.

Sealing of aircraft parts to prevent unauthorised tampering

Some aircraft parts are sealed as units before being made available for fitting to aircraft. This is particularly where critical items require specific tightening, torquing, calibration or specific adjustment that should only be done by the Type Certificate holder or their approved representative.

- ▶ **Our engineer Helena says** – The responsible authors of instructions for continued airworthiness for products, parts and components that require special skill, equipment or facilities, and related items or components should highlight that such components should be sealed to protect against unauthorised interference. How this should be done, should be explained in the instructions and should involve applying torque seal, applying a sticker or a similar approved method.

When receiving such parts, engineers should check for such anti-tamper seals and make sure they are not damaged before the components are fitted to the aircraft. ■

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key safety issues from a 360° perspective



