



# Luxaviation Safety Matters

## Welcome to the Luxaviation Group Safety Matters Newsletter

We aim to publish this newsletter quarterly to enable information sharing across all Group entities. We will include safety reports submitted from across the Group as well as articles that we feel you may be interested in.

If you have any comments, suggestions or wish to contribute, please contact:

**Luxaviation Safety Matters**

[safetymatters@luxaviation.com](mailto:safetymatters@luxaviation.com)

[www.luxaviation.com](http://www.luxaviation.com)

# Safety Is No Accident

## 1. Safety is no accident; it must be planned.

30 years ago, I heard this motto when I attended an FAA A&P-IA seminar. It always stayed with me as an important reminder to put the spanner down, rethink what happened and think about what I was doing as a mechanic. Yes, you might have noticed, more than 30 years ago, I started my career in aviation as a mechanic. Even more humble than that, the first Monday of the summer break after High School I started a summer-break-job, sweeping hangar floors at our local airport. Fun fact: my boss had to teach me how to sweep hangar floors with a broom. But this is an important lesson. To excel in career and life one needs to learn and never stop learning. I had the opportunity to learn a lot about aviation in a short time. The broom became a toolbox and rather soon my boss told me the following: "If you want to fix them, you need to know how to fly them". So I did, got my PPL at the age of 19. But sorry my dear reader pilot friends, the flying career was not my "thing". I soon realized that while flying cross-country I was basically looking at gardens, sheds, and patches to see if I could localize some deserted classic cars that were in need of restoration. So yes, I'm much more a mechanic than a pilot and I did spend most of my younger years saving holiday time and money to learn and train myself to become a better mechanic. I still enjoy flying, but basically related to post assembly, repair, or overhaul check flights just to have the wonderful feeling of bringing all these nuts and bolts together into a flying symphony.

## 2. I broke a lot, so I learned a lot.

30 years ago, I never heard of Safety Management, so a lot of our actions were reactive. Something was broken or didn't work, so we fixed something. And ooh boy, while fixing things I broke a lot of stuff. But that's OK, as long as you learn something from your mistake you are constantly improving. (Note to the kind reader: Don't worry - I bet you that CFO's don't read this). But before all you Safety concerned professionals get upset about this kind of learning process: NO, we cannot allow ourselves to break or fail in our job, hoping this will improve our business. It doesn't. It is much more about common sense. Remember, safety is no accident, it must be planned.

## 3. SMS - all about common sense!

This brings us to today's reality. Safety Management Systems. Aviation is a wonderful industry. In the past we learned that safety could hardly get any safer from a technical point of view. This was based on the ratio between

technical failures and human factors. A lot of focus was given to Human Factors. But then we had a wake-up call with the 737MAX problems. Basically, we learned that technology had developed so much that it went faster than the people building, repairing & flying were able to grasp. So, we needed to make sure that common sense prevails, by "Managing" our Safety. But how do we "manage" Safety?

## 4. Report, Report, Report: The essentials of reporting.

We can only improve if we start by reporting safety issues. If we fail or in the worst case decide not to report, we decide to stand still. Which in our industry is accepting to stall & crash from a safety point of view. What might have seemed a simple technical fix to solve a minor technical variation had an enormous impact on the people certifying, building, and flying the aircraft. Imagine that one single person had raised a red flag and that their senior manager(s) had listened to the report? Lives could have been saved.

## 5. Root Cause Analysis

Another wonderful theme that we had never heard of at the turn of the century. But basically, it is a synonym for "common sense". It's human to jump into the matters and fix the problem. But it's so much wiser to take some time, investigate and think about the reason why something failed. This even more when aircraft and all the operating & supporting systems around the world have become one large web of technology. Hence the importance to embrace Cyber security, Human Factors, Compliance and all other aspects we as humans encounter into this process.

## 6. Safety Must be Simple

The challenge will be to make sure that SMS makes sense to the people involved. My last meeting with SMS experts from the local Authority sounded more like an academic drill rap contest. It's always amusing to see people trying to show how good of an expert they are while they completely lose their audience and forget the practical output. If we, as a company, as an industry, succeed to make every one convinced that we need to work together, that reporting is actually good, that reporting helps us to become better, that we need to think about root causes and why we do this and that we take all possible measures to protect our customers, ourselves, our colleagues, and our company we will succeed in our goals.



**David Van Den Langenberg**  
Chief Industry Affairs Officer

# Cybersecurity - A Safety Threat

**In 2018 EASA commissioned and published a Research Project: "Impact Assessment of Cybersecurity Threats" with the objective of developing a knowledge base for the impact assessment of security threats on the safety of flight operations with a focus on cyber-security threats to several critical aircraft systems.**

## Scope of the Project

The scope of the project encompasses the preliminary risk assessment at system and aircraft levels for potential cyber-attacks on the Flight Management System (FMS) and the Global Navigation Satellite System (GNSS) receiver, including GBAS and SBAS augmentations. The work is conducted considering generic functional architectures for aircraft systems and does not encompass the development of detailed system architecture. The assessment covers the analysis of potential failure cases and the characterization of the potential impact on flight operations (covering all flight phases) while considering the main (existing) mitigations at the level of flight crews' working methods and operational procedures."

## Conclusions

Within the IACT activity, seven simulation flights were performed with real pilots, emulating several cyberattacks on FMS and GNSS at different flight phases. The pilots were invited to the trials under false pretenses to obtain unbiased results. During each flight trial, three simulated attacks were conducted. No involved pilot associated the experienced effects to a cyberattack. Indeed, the pilots were very interested in the results afterwards and their awareness of cyber-security was increased.

Most of the considered cyberattacks were not detected by the crew at the time of the attack. Mis-detected attacks always led to an increased workload for the crew and of the ATCO, but they never resulted in critical situations during the flight exercises. However, the results of the flight exercises are limited to the considered flight route scenario and statistical considerations cannot be derived because of the limited number of tests. In fact, some pilots considered certain attacks as potentially dangerous in real scenarios.

Among the considered attacks, the two attacks that were considered most critical are the "Hacked database" attack and the "GNSS spoofing attack". The "Hacked database" attack was discovered 5 out of 6 times by the monitoring pilots, thanks to the cross-checking of the actual distance

altitude with the approach chart. Instead, in the undetected case the monitoring pilot did not perform the cross-checks, this resulted in a go-around at the minimum descent altitude.

"GNSS spoofing" attacks were performed both during the en-route phase (three times) and during the approach phase (one time). They were never detected at the beginning of the attack, indeed possible temporary losses of the GPS as a primary navigation method were disregarded as temporary problems, and they were not linked to a potential cyberattack.

Only in the experiment including an invited ATCO the GNSS spoofing attack has been detected while ongoing, because the ATCO noticed that the aircraft turned several nautical miles in front of the intended turn and informed the crew about their deviation and asked for their reason for deviating. In all the other cases, the effects of the spoofing attacks were discovered only at the end of the attacks, when the system recovered the authentic

GNSS position solution and the pilots realized they significantly deviated from the flight route. This suggests that a prolonged attack time could have led to even larger displacements, which in turn could have resulted in severe events, especially in lower altitudes with surrounding terrain. In the single trial with a GNSS spoofing attack on the approach phase, the GNSS-based approach was discontinued.

In addition to helping in understanding the cyber-attack effects during a flight, test exercises performed with real pilots were also useful in collecting feedback from the pilots, such as the most critical attack scenarios, differences in operations/procedures of different airlines, and recommendations for threat mitigation procedures.

The outcomes of the trials show that important mitigation procedures include altitude/height cross-checks, interaction among pilots and ATCO to confirm updates and aircraft positions, and pilots and ATCO awareness of the possibility of cyber-attacks."

Read the full report [here](#).

*Article continues on next page.*

## Nice to Know

Under the recent European regulation (EU) 2023/203 the operators are about to implement the Information Security Management System (ISMS) designing procedures to detect and manage the risk of information security events related to aviation safety. The Luxaviation Group is already planning a roadmap for the ISMS implementation with the joint effort of several AOCs as we are aware of the challenge ahead.



**Isabel Quina**  
LXEA OPS Safety Manager

(15) For the sake of completeness, Regulations (EU) No 1178/2011, (EU) No 748/2012, (EU) No 965/2012, (EU) No 139/2014, (EU) No 1321/2014, (EU) 2015/340 and Implementing Regulations (EU) 2017/373<sup>(12)</sup> and (EU) 2021/664 should be amended in order to introduce the information security management system requirements prescribed in this Regulation together with the management systems set out therein, and to set out the competent authorities' requirements as regards the oversight of organisations implementing the aforementioned information security management requirements.

### Article 1

#### Subject matter

This Regulation sets out the requirements to be met by the organisations and competent authorities in order:

- (a) to identify and manage information security risks with potential impact on aviation safety which could affect information and communication technology systems and data used for civil aviation purposes,
- (b) to detect information security events and identify those which are considered information security incidents with potential impact on aviation safety,
- (c) to respond to, and recover from, those information security incidents.

## GPS Spoofing – How Well Do We Know Our Airplanes?

Following the Safety department's article about unreliable position due to manipulated GPS signals, something came to mind. How well do we know our airplanes?

The article calls for deselecting the GNSS receivers and to use conventional methods to establish a higher certainty on our real position. Looking through the FCOMs, CODDEs and AFM, I found out that on the same type but with different avionics supplier, the procedure is different. Both call for deselecting the GNSS, and here is where it differs: one calls for VOR reception in Auto and the other calls for manual selection. Same airplane. one avionic is from Rockwell Collins, the other one from Honeywell.

Just a quick reminder on the subtleties that are often forgotten on the different variants we fly and that one procedure is not necessarily applicable to the other airplane.

For more information, please click [here](#).



**Robert Fisch**  
Chief Aviation Officer

# Ice, De-Icing And Anti-Icing Hazards. How Prepared Are You?

Autumn is here and Winter on its way are Flight Crew and Ground Handlers, Line Engineers are you prepared. Aircraft anti-icing and de-icing and ice detection. Aircraft de-icing is needed to clear ice / prevent ice build prior to take-off. If ice is allowed to build up on aircraft surfaces it can change the aerodynamics of the aircraft, creates more drag and adds additional weight. Ice could also affect angle of attack data by restricting the rotation of AOA probes and the reliability of airspeed and altitude by blocking pitot static systems.



For an aircraft to be allowed to fly in icing condition the aircraft must comply with design specifications (thanks to Robert Fisch for the regulatory details).

CS 23.2540 Flight in icing conditions An applicant who requests certification for flight in icing conditions must show the following in the icing conditions for which certification is requested:

- (a) the ice protection system provides for safe operation; and
- (b) the aeroplane design must provide protection from stalling when the autopilot is operating.

EASA asks that ice protection complies with CS.23.1419 and its AMC which refers to FAA AC23.1419-2D

## **Aircraft anti-icing and de-icing and ice detection.**

Depending on the aircraft type operated different methods for anti-icing are available e.g. de-ice boots, electrically heated spray mats, bleed air supplied to leading edges and or engine cowlings. Pitot heaters and AOA probe heaters, designed to prevent ice forming on them. Ice detector probes. CAMO teams if your aircraft are frequently being de-iced – how often do you require the aircraft to be checked for any residue de-icing fluid build up what does the OEM specify. Pilots, be prepared understand what your Aircraft Flight Manual details when icing is encountered along with any specific AOC Operator Manual requirements you may have to comply with. In short be prepared.

There is an interesting article published in AOPA Pilot from Feb 2020 Accident Analysis: A major icing foul up small mistakes can turn things ugly – fast. [Link to article.](#)



**Paul Green**  
Safety Manager ExecuJet A/S

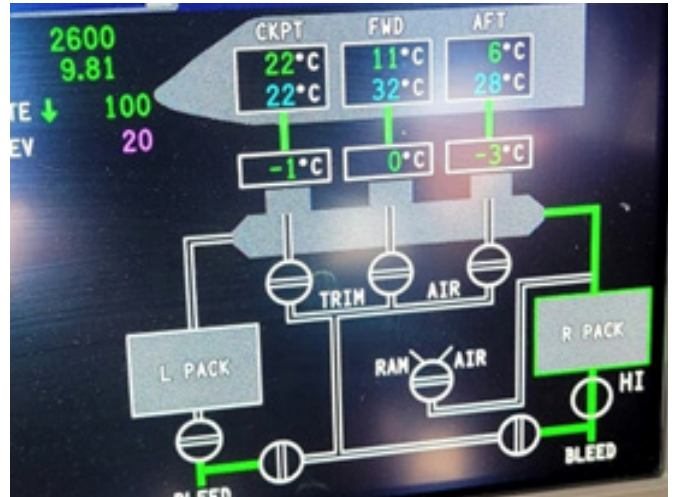
# Flight Operations And Airworthiness

## - Cold In The Cabin Who Thought About That!

One of Luxaviation group business jets recently had a problem with an air conditioning pack, the pack had failed and following the crew checklist and discussing with CAMO decided to dispatch using the MEL (10-day limit), this would allow the PAC to be replaced at the aircraft's home base.

CAMO tried to source a replacement pack but there were none available. Under the MEL the aircraft was limited to FL 410 with only one pack operating. With the time limit of the MEL now running out and the fact that the OEM could not forecast when a replacement would be available the MEL now required an extension. This was discussed with CAMO, Flight Operations and the AOC's NAA.

The OEM was approached and a letter of no technical objection to the extension request was received, the extension request with the associated justification was forwarded to the operators NAA and the extension request approved.



During this second extension, with the aircraft undertaking a charter flight the remaining air conditioning pack could not maintain the cabin temperature to an acceptable level, the clients were given blankets, but understandably they were not pleased with fact that the cabin was so cold. The crew discussed the problem and descended from FL400 to FL340 where 13 degrees was reached in forward and aft cabin, a safety report was raised by the captain following this event and the AOC imposed stricter limits than the MEL operating limits.

When MEL was applied no one had discussed cabin temperature, the limitations in the MEL restricted the operating altitude to FL410. When the extension was applied for processes and procedures were followed, however no one thought to ask the question of how effective would a single airconditioning pack be at maintaining the cabin temperature, there was no limitations from the OEM. Just because you can operate under the MEL, should you? Should you consider tighter operating restrictions than in the MEL. In this case the AOC was compliant with regulations but cabin temperature had not been considered especially for the second extension when there was no forecast of a replacement item. Flying at lower altitude uses more fuel and is not as efficient. Do you involve your Ops and CAMO safety managers in these discussions. All food for thought. Luxaviation relies on Charter / brokers / sales teams to sell flights, but this client clearly left with a poor experience of their flight.



**Luxury Business Jet Cabins are not meant to be cold for clients!!**



**Paul Green**  
Safety Manager ExecuJet A/S  
CAMO Safety manager Lux E.A.

# Airworthiness Nose Wheel Steering And Disconnecting Nose Landing Gear Torque Links

Earlier this year the crew of a Bombardier Global reported:

- “After a normal taxi, when we lined up ready for take-off, we encountered vibrations on NLG with “Nose Steer fails” in CAS. After applying the Check list, we rebooted the Nose Steer, but no action was able on it with the wheel. We taxi back to the apron thanks to braking action.”
- On exiting the aircraft, the torque link was found disconnected this had damaged the nose landing gear fairing and one of the torque link release pin handles.

The damage can be seen in the pictures below:



The aircraft had been towed by the FBO prior to the aircraft departing, and CCTV footage was provided by the FBO and this was reviewed by the AOC's Safety Department, the towing team were seen disconnecting the towing arm and reconnecting the torque link and no further disturbance of the torque link was found. During the pre-flight walk-round inspection the aircraft captain was seen checking the nose landing gear and torque link, and CCTV footage of the aircraft taxi out from the apron showed the nose wheel steering operating and the torque link connected.

The damaged door nose landing gear fairing was repaired and the torque link assembly replaced. Ground handling teams, if you have any concerns over the serviceability of the quick release mechanism for nose landing gear torque links raise them with your supervisor or the aircraft captain. Flight crew if you have any concerns at all over the security of the torque link, have it checked by an appropriately licensed engineer.



**Paul Green**  
Safety Manager ExecuJet A/S  
CAMO Safety manager Lux E.A.

# What Is Aircraft Marshalling And Why Is It Important For Business Aviation?

When an aircraft lands at an airport, it is the responsibility of the ground crew and available technology, to safely bring an aircraft from live taxiways and aprons, on to a designated parking stand. This is achieved by using visual guidance and audio cues (where available), to guide and manoeuvre aircraft around potential obstacles that the flight deck would otherwise have limited visibility of; and bring the aircraft to a controlled stop in the correct position to safely embark or disembark the passengers and baggage. Sounds easy right? Well, it's not that simple...

For those that have been lucky enough to operate large-bodied aircraft into Major airports or those that have worked on the ramp at International Hubs, you may have noticed that a Human standing with illuminated wands has become a less frequent sight. Instead, most stands are now equipped with Visual Docking Guidance Systems that use sensors to generate a visual representation of the aircraft's position in relation to the taxi and parking markers on the stand, as well as input corrections to steer the nose of the aircraft on to its final mark.



However, Business Aviation differs a fair bit as aircraft primarily operate to General Aviation Terminals and Ramps that usually don't have marked parking stands due to the variations in size of aircraft and traffic volumes which can differ year-round due to seasonal changes, public holidays and large events. Often, congestion is encountered at most General Aviation ramps meaning that ground handlers must be able to safely marshal aircraft into tight areas surrounded by obstacles and safely reposition aircraft post flight once all passengers, baggage and crew have disembarked.



To safely marshal an aircraft on to stand in a standardised and easily recognisable way, ground handlers must use the standard signals set out in ICAO Annex 2 – Rules of the Air, Appendix 2, Section 5. In Addition, Ground handlers should also be well rehearsed in the procedures and recommendations listed in the IATA Ground Operations Manual (IGOM – Chapters 3 and 4) and the IATA Airport Handling Manual (AHM – Chapter 7).

Ground handlers are also sent a link to the Company's Ground handling Manual on each handling request which lays out the expectations of the agent for the entire fleet including aircraft specific details. Nevertheless, what does this mean for our crew?

**1. Wingwalker/guide**

Raise right hand above head level with wand pointing up; move left-hand wand pointing down toward body.

*Note.— This signal provides an indication by a person positioned at the aircraft wing tip, to the pilot/ marshaller/ push-back operator, that the aircraft movement on/off a parking position would be unobstructed.*

**2. Identify gate**

Raise fully extended arms straight above head with wands pointing up.

**3. Proceed to next signalman or as directed by tower/ground control**

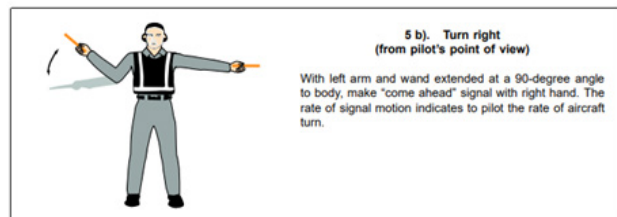
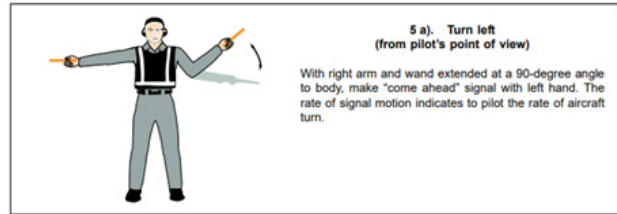
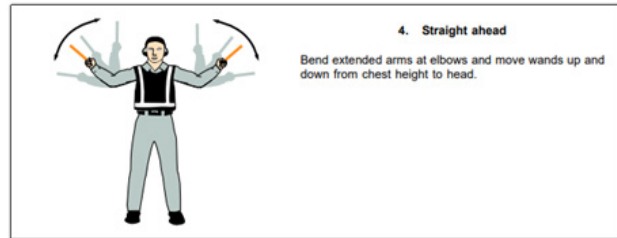
Point both arms upward; move and extend arms outward to sides of body and point with wands to direction of next signalman or taxi area.



Upon arrival at the airfield, the aircraft shall be Marshalled onto stand using illuminated wands or bats where practical unless operating in the hours of darkness where this becomes mandatory. The Marshaller/Signalman giving the hand signals must only use approved hand signals; must be clearly identifiable; maintain the same role throughout the procedure; and keep in constant visual contact of other ground staff and flight crew throughout the manoeuvre. If visual contact is lost, the operation must stop until it has been reestablished.

It's always recommended to have a 'wing-walker' signalling the lead marshaller when near obstacles as the wingspan can be perceived incorrectly at the nose of the aircraft due to a lack of rearward visibility and the sweeping nature of the wings. However, only the instructions given by the lead marshal should be followed unless handed off to another marshal via hand signal or ATC.

Remember, if there is ever any doubt, STOP the manoeuvre and consult the marshal using hand signals or on their frequency (where applicable). Please also remember to submit a safety report if you feel that a handling agent is not complying with these procedures.



**Mike Kokuz**  
Flight Safety Officer Lux UK

# Mini Updates

## Welcome To The Editorial Team



Ivona Ripoli

Ivona is from Slovakia. She recently joined Luxaviation group as Ground training manager and member of AVS team. Her academic background is in Business, and she holds an MBA from Alliance Manchester Business School.

Ivona started flying as cabin crew when she was 19 years old and worked in aviation ever since. She has experience both from commercial airlines (Smartwings, Czech Airlines, Emirates Airlines) and business aviation (Jet Aviation).

Ivona is passionate about safety, compliance, and training delivery which led her to become certified aviation auditor and CRM trainer. She is excited to start this new journey with you.



Nicola-Jane Sellers

Nicola-Jane joined ExecuJet in 2017 and specialised in managing multidisciplinary global charter and private programmes for the European mixed fleet. Prior experience focussed on curating luxury in-flight culinary experiences navigated by a meticulous aptitude for detail and client service. Having orientated her early studies to luxury travel, Nicola-Jane fully encapsulates these passions and combines them with her dedication to sustainability.

Currently working towards her Master's degree in Sustainable Business at the University of Cambridge Institute for Sustainability Leadership, Nicola-Jane was awarded the Sir Michael Marshall Award for Sustainability in Aviation in 2022 and was thereafter appointed as the first Group Sustainability Manager for Luxaviation.

# Mini Updates

## New Group Safety And Compliance Policy

You will all be aware that the Luxaviation harmonised Safety and Compliance Policy reflects the management's commitment to safety, and reflects the company's philosophy of safety management, as well as be the foundation on which the management system is built. It serves as a reminder of 'how we do business here'.

The safety policy reflects Luxaviation's intention to maintain and, where practicable, improve safety levels in all its activities and to minimise its contribution to the risk of an aircraft accident or serious incident as far as is reasonably practicable. The safety policy is reviewed at least annually and is a co-ordinated effort across all Luxaviation entities to ensure the policy reflects the requirements and the safety culture of all Luxaviation entities. Many thanks to all those involved in the latest review and the excellent suggestions for further improvement.

You will find a copy of the latest Safety and Compliance policy within your management System manual. If you have any questions or comments about the safety and compliance policy, please email [safetymatters@luxaviation.com](mailto:safetymatters@luxaviation.com)

### Safety and Compliance Policy

Luxaviation believes that safety and compliance are fundamental to our business. The safety and compliance policy is the means whereby Luxaviation states its intention to maintain and, where practicable, improve safety levels in all our activities and to minimise the risk of an aircraft accident as far as is reasonably practicable. Luxaviation are committed to ensure the allocation of appropriate resources, aimed at achieving the highest level of safety performance possible. All employees are required to use our internal reporting system to raise any concerns relating to the safety of aircraft operation, ground handling or aircraft crew activities. The purpose of safety reporting and internal investigations is to improve safety, not to apportion blame to individuals. Safety is a primary responsibility of each manager who are required to continually promote the safety policy to all personnel and demonstrate their commitment to it. Luxaviation shall ensure that flight crew and other staff are free from undue commercial pressure and are comfortable with exercising their professional judgment during flight activities, even if such actions do not support the flight schedule.

#### Our Commitment to Safety

- Support the proactive and systematic management of safety and compliance through the provision of appropriate human and financial resources that will result in an organisational culture that fosters safe and high compliance practices, and actively manages safety and compliance with the same attention to detail as for financial management.
- Continually reinforce the workload of the key safety personnel throughout the organisation.
- Apply our culture principles to internal safety reporting and the investigation of occurrences.
  - not to attribute blame to someone for reporting something which could not have been otherwise detected; or
  - to any purpose other than the maintenance or improvement of safety.
- While a non-punitive environment is fundamental to a good reporting culture, just culture also recognises that negligence and deliberate violations are not tolerated and therefore punitive actions can be taken where the 'line in the sand' has been crossed.
- Apply human factor principles and ensure human factors limitations are taken into account in all activities.
- Ensure that all employees cooperate with safety and compliance monitoring audits and investigations, when required.
- Where reports are submitted in confidence, all practical steps will be taken to safeguard the source of the report.
- Establish a risk based corporate culture which results in a stable and sound working environment for all employees.
- Enforce the management and training of safety and compliance as one of the primary responsibilities of all managers.
- Clearly defined responsibilities for all of our employees for the delivery of safety and compliance performance.
- Establish and implement a hazard identification and risk management processes in order to proactively eliminate or mitigate risks to a level that is as low as reasonably practicable.
- Comply with national and international regulatory requirements, standards and best practices.
- Ensure that all relevant employees are provided with adequate and appropriate aviation safety information and training, are competent in safety and compliance matters and are only allocated to tasks commensurate with their skills and qualifications.
- Establish and measure safety and compliance performance against realistic objectives and/or targets.
- Continually improve our safety and compliance performance and conduct management reviews to ensure relevant safety and compliance actions are taken and are effective.
- Check that externally supplied systems and services to support our business meet our safety and compliance performance standards.
- Take all possible steps to ensure the Health, Safety and Welfare of all employees, visitors and contractors engaged in work for the organisation.
- Monitor to ensure an industry leader in safe, competent and efficient provision of corporate aviation services.
- Enforce the management and training of cyber security to protect or defend the use of cyberspace from cyberattacks that can compromise the confidentiality, integrity and availability of data systems.
- Support sustainability as a core function of Luxaviation, and ensure that sustainability practices are interlinked into our business systems.

  
Frederick Hansen  
CEO

  
Suzy Gautrey  
Group Safety and Compliance Manager

Nasser Hattar  
Accountable Manager  
Entity  
August 2023  
Rev: 0001 August 2023



**Suzy Gautrey**  
Group Safety and Compliance Manager

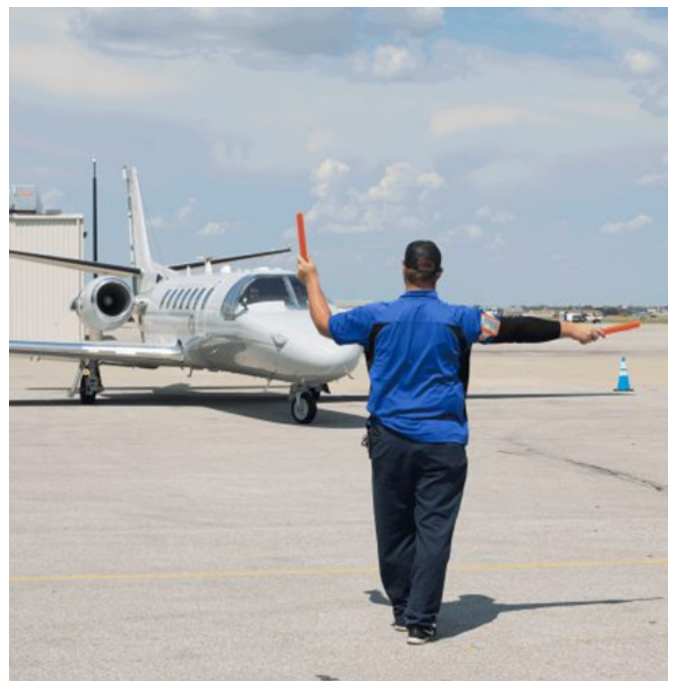
## New Ground Handling Requirements For A Safety Management System

EASA working paper RMT.0728 outlines the requirements for GH organisations to develop and maintain a safety culture within the safety management system has been one of the main purposes of the expert group. This has been considered within the larger framework of drafting rules for a management system that can be easily implemented and effectively conducted at individual aerodrome level.

The draft regulation proposes requirements for the organisations of ground handling service providers, their oversight, and the interfaces with air operators and aerodromes where the services are being provided. Those detailed requirements will be based on Annex VII Essential requirements of the Basic Regulation.

The proposed regulation is expected to increase the level of safety in ground operations by enabling effective communication and common interaction between ground handling and the other areas with which it interacts as a perfect interface – air operations and aerodrome operations. The benefits of this proposal are expected to become visible in the safety and level playing field areas.

Regulations (EU) 965/2012 on air operations and (EU) 139/2014 on aerodromes will be amended accordingly in order to ensure the necessary interfaces with the future (EU) GH regulation.



# Mini Updates

## Safety Survey 2023

The Safety Team at Luxaviation believe developing and maintaining a positive safety culture, also known as a “Just Culture”, is a vital part of our role. It is important that the safety culture of our working environment is measured, analysed and improved wherever possible. Therefore, we issue a safety culture survey annually, known as the Safety Culture Index.

Thank you to all of you who have completed the survey in the past. As safety culture is so dynamic, it is important that we measure our culture annually, so we kindly ask you all to complete the survey for the year of 2023 to date. The survey will take no more than 5 minutes to complete. Please click on the [link](#) and take a few moments of your day to provide us with your feedback.

As with last year, we are again asking for all Luxaviation group entities to participate in the survey.

Results will be handled in a confidential manner by our Safety Team and the results of the survey will be summarised and available for employees to read via the quarterly Safety Matters News Bulletin.

Please respond to all questions within the survey as this is integral to the final safety culture score for the company. When completing the survey, we ask that you only provide your own views - and not the views of colleagues and of your experiences for the year 2023.

Please ensure you complete the survey by Friday 15th of December 2023.

If you have any comments or concerns, please contact us directly.

Thank you in advance for taking the time to complete the survey. Your opinions matters!

Kind regards,  
Luxaviation Safety Team

## ES-30 Electric Airplane Update

The EASA-FAA International Aviation Safety Conference 2023 focused on how the aviation industry ensure safety while considering sustainability? One of the highlights was the introduction of the ES-30 Electric Airplane. The design focused on cost efficiency, low noise, and zero emissions as well as safety, reliability, and sustainability.

The ES-30 can fly 200 kilometers (124 miles) using only electric power. If the aircraft instead switches to hybrid mode, the range extends up to 400 kilometers (249 miles) with 30 passengers. However, if only 25 seats are occupied, the ES-30 can go as far as 800 kilometers (497 miles). The plane has a reserve-hybrid configuration for longer flights. The setup consists of two turbo generators taking in sustainable aviation fuel, making it a highly efficient aircraft for both short and medium-range flights.



Photo by [autoevolution.com](#) available [here](#)

# Mini Updates

## Sustainability Updates

This quarter, we welcome the contributions of Luxaviation's dedicated Sustainability Department and look forward to forthcoming contributions. We take the opportunity to explore the latest insights through a kick-off Q&A with Nicola-Jane, Luxaviation's Group Sustainability Manager. When we hear the term 'sustainability' what does this mean in an organisational context, and is it only applicable to specific teams?

When we refer to sustainability in an organisational context, we are referring to three core supporting pillars: environmental, societal, and economic, and how we conduct our business practices in conscious consideration of each to ensure a systemic equilibrium.

It's essential to recognise that each supporting pillar is incorporated into all business roles, functions and service offerings that transcend across our global Group, hence why sustainability is a cornerstone of Luxaviation. At the surface level, it may be perceived that these elements are not interwoven however, here are a few conceptual examples to flip the narrative.

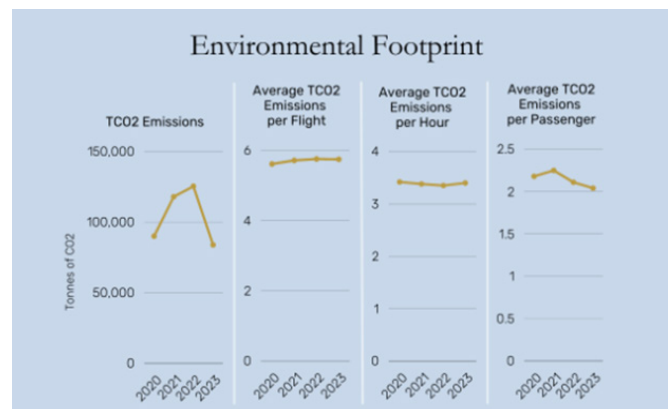
**Pilots:** ideally placed to improve efficiency through route optimisation and maintaining a cruising altitude – reducing flight time, fuel burn and emissions. In combination, pilots are perfect advocates for using SAF when available. All crew briefings now incorporate SAF trigger messages to display available SAF locations through Valcora to Luxaviation. Additionally, transitioning from conventional paper manufacturers' manuals to the digital iPad alternative can save significant consumption and weight, fuel burn, and emissions.

**CAMO:** optimising flight schedules and preventative maintenance procedures to reduce fuel consumption and emissions, advocating the use of eco-friendly cleaning products in maintenance procedures, and advocating eco-friendly procurement when sourcing materials from suppliers. Consider the footprint associated with the transportation of goods, can it be minimised?

**Luxaviation's Multi-Stakeholder Engagement Programme** illuminates many sustainable practices for adoption across stakeholder groups.

## Transparency and Awareness

Demonstrating transparency and awareness is our commitment to collect and share material information with our internal and external stakeholders regularly. You are encouraged to review and communicate our collective progress through a culture of openness on our one shared journey.



YTD:

Flight hours: 24,577

Flights performed: 14,701

Passengers flown: 40,959

TCO2 emitted: 83,880

## The Sustainability Edit

Every month, a dedicated sustainability column is shared on OneTeam and Viva Engage to raise awareness and share best practices for responsible behavioural shifts, in addition to the latest industry and organisational developments. A safe space for knowledge and resource sharing, the latest resource can be found [here](#) to support communications around forthcoming developments.

Your sustainability team welcomes your questions, collaborations and innovations; [sustainability@luxaviation.com](mailto:sustainability@luxaviation.com)

Think global, act local.



**Nicola-Jane Sellers**  
Group Sustainability Manager

# Mini Updates

## Circling Approach = RISK!

Between 2008 and 2023, there have been 10 accidents involving Part 91 and Part 135 operators that occurred during a circling approach. These accidents involved 17 fatalities. Following are three fatal accidents involving circling approaches:

- N880Z 2021
- N605TR 2021
- N452DA 2017

As much as these crews did wrong during their particular flights, if they had flown a precision straight approach versus a circling approach, they would likely have landed uneventful.

Circling approaches are an enigma to passenger jet operations. They are contrary to long-standing best-practices and professional codes of conduct to fly stabilized approaches. This is why I am hearing from the industry that leading scheduled passenger air carriers are doing everything practical to minimize exposure to these kinds of operations.

DO's: Review your SOPs. You might have a significant opportunity to lower your exposure to risk!

PILOTS: Manage your risk, look at all your options, and ALWAYS choose a straight in approach over a circling manoeuvre.



**Daniel Gordon**  
Group Flight Ops & Crew Training Coordinator (Europe)

## ExecuJet IS-BAO

ExecuJet Aviation (Pty) Ltd was established in 1991 at Lanseria International Airport (South Africa) and currently has 38 aircraft listed on their SACAA Part 135 OPS SPEC. This fleet comprises of 18 different aircraft types ranging from category A1 to category A3. Aside from holding SACAA Part 135 AOC certification, ExecuJet Aviation has achieved several local and international safety-related accreditations that set industry benchmarks for excellence in business aviation. The company obtained initial IS-BAO accreditation in 2011. Thereafter Stage II accreditation was obtained in 2013 and Stage III (highest level) in 2015. A Stage III renewal audit was done recently and, no findings were identified during this audit. The renewed certificate (with a three-year validity period) will carry ExecuJet Aviation (Pty) Ltd into a decade of IS-BAO Stage III accreditation. Remarkably, ExecuJet Aviation is the only operator in South Africa and on the African continent with a Stage III IS-BAO accreditation.



IS-BAO, the International Standard for Business Aviation Operators, is an accreditation programme managed and awarded by IBAC (International Business Aviation Council). Founded in 1981, IBAC promotes the growth of business aviation, benefiting all sectors of the industry and all regions of the world. As a non-profit, international trade association, IBAC proudly represents the interests of business aviation - for the industry, by the industry - through its official observer status at the International Civil Aviation Organization (ICAO), worldwide advocacy, and globally recognised, voluntary safety standards programmes, including International Standard for Business Aircraft Operations (IS-BAO™).

The ultimate goal in implementing IS-BAO is to build a culture that continuously strives for a better, safer way of operating by identifying areas where better risk management will improve safety. Conformity to IS-BAO raises the confidence of operations personnel, customers, and insurance carriers, and demonstrates the company's commitment to operational excellence.

# Mini Updates

As a non-scheduled business aircraft operator, ExecuJet identified the need to not only distinguish itself from local competitors in 2011, but also realised the value in subscribing to a voluntary safety programme that is recognised internationally. As most international voluntary endorsements relate to scheduled and airline operations, the IS-BAO framework was identified as an appropriate programme to promote and exceed industry best practices. IBAC describes the benefits of IS-BAO as :

- Integrated Management System recognised by ICAO as a holistic safety approach for business aviation - ICAO Global Aviation Safety Plan
- Enhances operational safety through predictive and proactive methods
- Provides a framework to measure safety performance
- Improves operational effectiveness through an integrated SMS
- Improves confidence by stakeholders
- Builds teamwork and pride of achievement among personnel
- Simplified generic company operations manuals for EASA Part NCC requirements or in any regulatory framework are provided at no additional cost from our alliance with Aviation Manuals
- Can lead to reductions in insurance premiums / enhanced support from some major insurance providers (see USAIG and Global)

The IS-BAO framework is continually monitored by IBAC to identify areas where the framework can be improved. These improvements are focussed on practical outcomes and aim to manifest substantial and pro-active progression of safety standards that are beneficial to both IS-BAO members and its passengers.

The attainment of IS-BAO Stage III accreditation has played a pivotal role in elevating flight safety standards and fostering a culture of safety at ExecuJet. This achievement has had a profound impact on the organisation, promoting a comprehensive and systematic approach to safety management. By successfully implementing the rigorous standards and practices outlined by IS-BAO Stage III, ExecuJet has demonstrated its unwavering commitment to operational excellence and the protection of its passengers, crew members, and assets.

The accreditation has not only enhanced the company's safety protocols but also fostered a continuous improvement mindset, encouraging proactive risk assessment, and promoting the adoption of best practices. Ultimately, IS-BAO Stage III accreditation has been instrumental in solidifying ExecuJet's position as a leader in the aviation industry and has significantly contributed to the promotion of an enhanced safety culture within the organisation.



**Dr Estie Serfontein**  
Quality Assurance Manager – Africa

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# Regularly Operating From An Airport – Do Not Let Complacency Creep Up On You!!

## Investigation Into A Missed Approach And Non-standard Go Around Which Also Resulted In A Flap Overspeed.

PIC was PF and experienced in operating from XXXX, the PNF FO was inexperienced.

Crew were sufficiently rested and reported a KSS score of 3 after landing.

PNF was in contact with ATC and there were dialect problems in communication between ATC and PNF this in conjunction with resetting waypoints increased the workload on PNF and PF during IMC conditions.

The investigation identified that callsign REDACT had been initially vectored to avoid thunderstorms in the area, and anticipated vectors for ILS 25R, at this point XXXXX was not entered in the FMS.

REDACT had been cleared RNAV transition ILS 25R via XXXXX, altitude 4500' and minimum speed 180 kts by approach control. At this point the PNF loaded the RNP 25R instead of the RNAV transition ILS 25R.

The aircraft had been cleared after XXXXX direct to YYYYY, however the RNP approach 25R does not show YYYYY. PF had not noticed FMS RNP 25R was loaded in the FMS, instead of RNAV transition to ILS 25R.

When the clearance was received after "ZZZZZ you cleared for ILS 25R approach" the crew realised VNAV/LNAV was in the FMS and proceeded to correct this to ILS 25R. This took some time to perform, and when the ILS 25R was finally inserted into the FMS the Auto Pilot approach mode disengaged close to ZZZZZ and PF did not note the disconnection, not being on the localiser the AP was now in roll mode and a left turn by the auto pilot commenced.

The crew stated that when realising they were descending left of the intended track away from the centre line and that they would not be able to recover for a stable approach they initiated a go around. Very soon after this ATC transmitted urgent instructions to climb.

A nonstandard go-around commenced and during the go-around a Flap overspeed occurred.

The aircraft landed safely on the second approach.

The results of the safety investigation have concluded that the root cause:

- was inserting the wrong approach into the FMS,
- contributory factors –
- complacency experienced PF was complacent (also admitted by the PF)
- communication – ATC – REDACT inexperienced PNF difficulty in understanding ATC communications / dialect.
- Corrective actions to prevent a reoccurrence:
- The Lead captain has briefed all pilots who fly this aircraft on this incident.
- All pilots that operate this aircraft will review XXXX approach plates to understand where and why this happened.
- This incident will also be published in Safety Matters for other Luxaviation Group AOCs awareness.

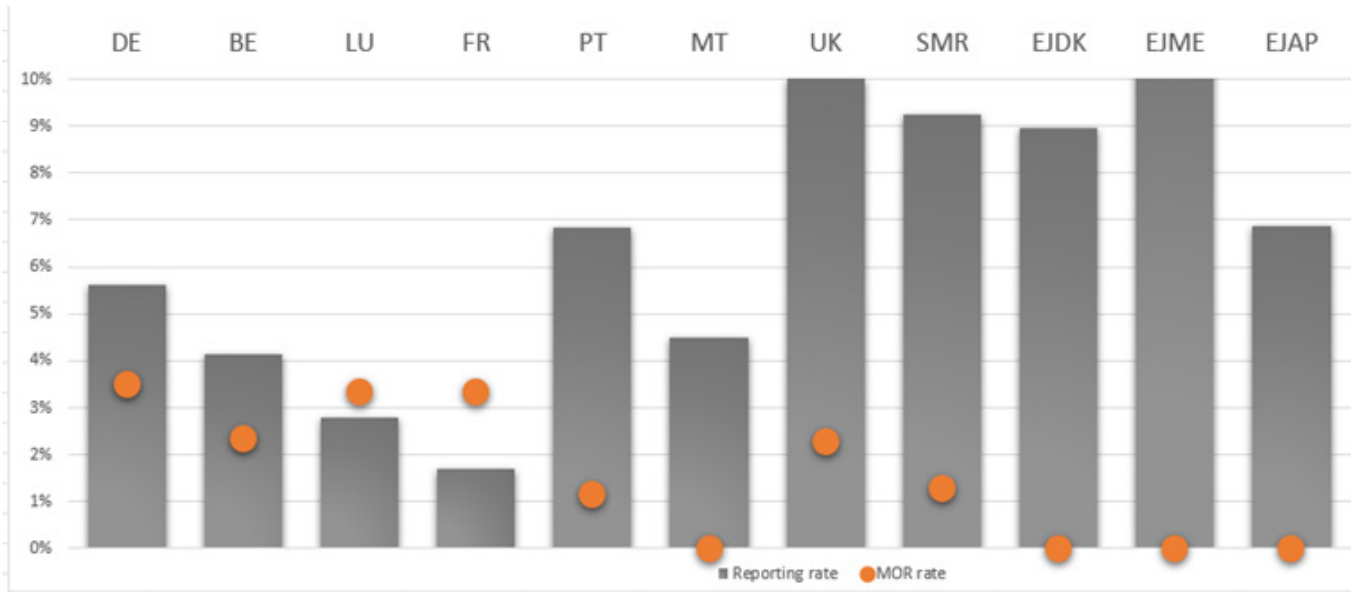
The safety team would wish to pass on their appreciation for the honesty of the crew involved in this incident which shows how quickly things can go wrong.



# Safety Report Summary Q3 2023

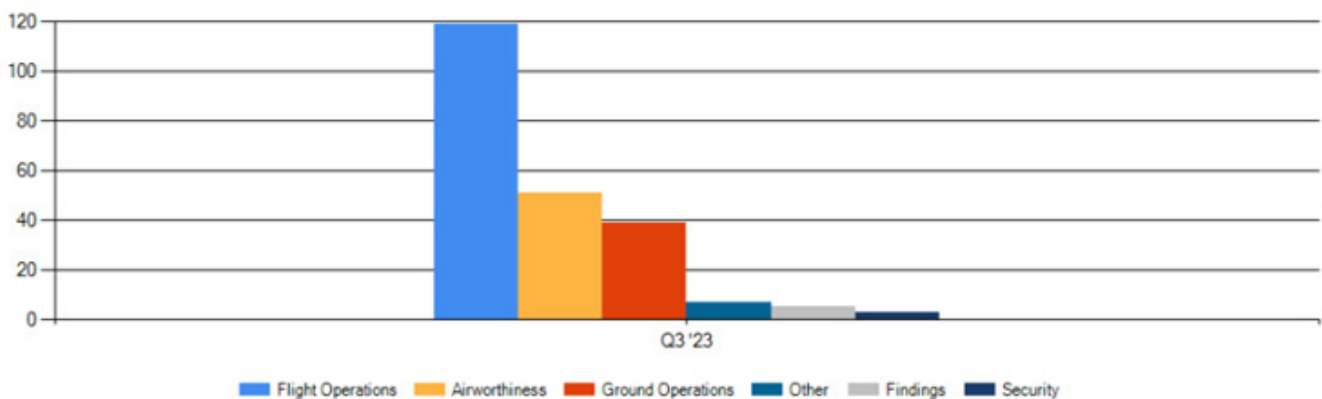
A positive reporting culture is an important indication of an effective safety culture. Therefore colleagues are encouraged to report hazards pro-actively so that they can be assessed and monitored. There was a total of 288 safety reports submitted in Q3.

Figure 1: Total number of reports submitted in in Q3 2023



The following is a breakdown of the reports broken down by operational area.

Figure 2 Reports broken down by Operational Area in Q3 2023



## Summary of Reports

The section below gives some examples of the safety reports submitted across the group in Q3 2023. Comments from the respective AOC's safety department are added, where appropriate.

# Safety Reporting

## Rag Inside Engine Cowling

During a visit to the aircraft and oil level check on engine no.2, a rag was found placed inside of bottom of engine cowling, under oil reservoir. No traces of damage or leakage were found, and the rag was removed from the engine.

### Safety Comments

The safety team thank the reporter for their vigilance in identifying this hazard within the engine cowling. An investigation has been initiated and we are working with the MRO to establish a root cause.

## Partial Install Non-Compliance

The operator was alerted to a possible issue concerning suspected partial installation/compliance with relevant SB and 31875. This alert came from the customer in the form of a photograph on WhatsApp. Without positive identification of the suspected cable, thought to be a part of the SB, we requested further details/photographs from the engineers with the aircraft.

### Safety Comments

This investigation is ongoing but initial investigations show that there were no records for any kind of installation on the aircraft. The maintenance organisation confirmed that the request had been cancelled by the CAMO and the aircraft had been returned to normal with no wiring installed. When challenged, and presented with photographic evidence, a work pack was produced showing that this wiring loom had been installed but not certified. The organisation has been asked to obtain design office approval from Leonard for partial installation.

## Passenger Stepped Out Of The Airplane And Sprint To The Terminal

A passenger requested to board the airplane before the lead passenger arrived in order to prepare the cabin. We approved her boarding to the aircraft. After she came, all of a sudden she stepped out of the aircraft and started sprinting to the Harrods terminal as if she had forgotten something and came back escorted by the personnel of Harrods.

### Safety Comments

The crew confirmed that the passenger had entered the cabin and made their way to the kitchen area. As this happened, the passenger suddenly turned and sprinted out of the door in an attempt to retrieve an item from the FBO. This was done without announcing her intentions to the crew. The FA followed her down the steps in an attempt to warn the passenger of both the hazards and potential security risk. The passenger was stopped but the FBO staff that were on their way to the aircraft - she was then brought back onboard.

As the above was completely unexpected, and with this being a single occurrence - it may be worth crew and or FBO staff reminding passengers as they leave the FBO and board, not to enter the ramp area unaccompanied in any circumstances other than an in emergency and instructed to do so.

## LFMP ATC Not Available

The airport handler, fuel staff, security staff all was on time opening the airport but the only one controller in service did not arrived this morning to the airport. No one of the before services has information about what happened, neither Montpelier radar.

### Safety Comments

The aircraft was scheduled for a flight, where, upon arrival at destination, no contact could be made with the relevant ATC unit. Remaining in contact with the previous frequency, that ATC unit could not establish contact using ground communications either. With continued co-ordination with the current ATC unit and continuing in Class G airspace and making blind calls, the aircraft successfully landed at destination and, with a phone call to the ATC unit once on the ground, the flight was closed. Thankfully a very rare incident that was very well handled by the crew and ATC, but none the less, something we should all be prepared to encounter when operating to smaller airfields at the extremity of their opening hours/extension times. Guidance for times when communication is not as expected can be found in CAP413. Although more applicable to en-route failure, some points are still valid. As a summary, the following is recommended;

Air – Ground

Check the following points:

1. The correct frequency has been selected for the route being flown.
2. The Aeronautical Station being called is open for watch.
3. The aircraft is not out of radio range.
4. Receiver volume correctly set.
5. If the previous points are in order it may be that the aircraft equipment is not functioning correctly. Complete the checks of headset and radio installation appropriate to the aircraft.

## Wing Tip Strike On FBO Apron

On entry into the empty apron in LFPB the captain was marshalled so the left-wing tip struck with the blast fence. On entering the apron, there two aircraft marshallers. One stood by the blast fence the other stood in the middle of the apron in front of the hanger. The one in the middle of the apron didn't have any correct marshalling Bats he used his hands. They marshalled the aircraft parallel to the fence with an empty apron. The marshaller by the fence put his thumb up to indicate wing clearance and the marshaller in the middle of the apron marshalled to continue straight ahead.

The wing tip then struck the blast fence and walking speed.

Both pilots were following the instructions of the marshallers as you cannot see the wingtip easily from the flight deck and follow marshallers instructions.

### Safety Comments

The investigation is currently ongoing, however it is strongly emphasize the importance of exercising extreme caution during all ground operations, and encourage you to incorporate this into your Threat and Error Management (TEM). When aircraft are entering or leaving the apron, no actions other than keeping a vigilant eye outside should be undertaken. Once left the apron and it is safe to proceed, this should be communication and required checks be initiated. The information from Skybrary on Occurrences and Prevention for Ground Operations, highlights the significant risks associated with our ground operations. Click [here](#) for the details

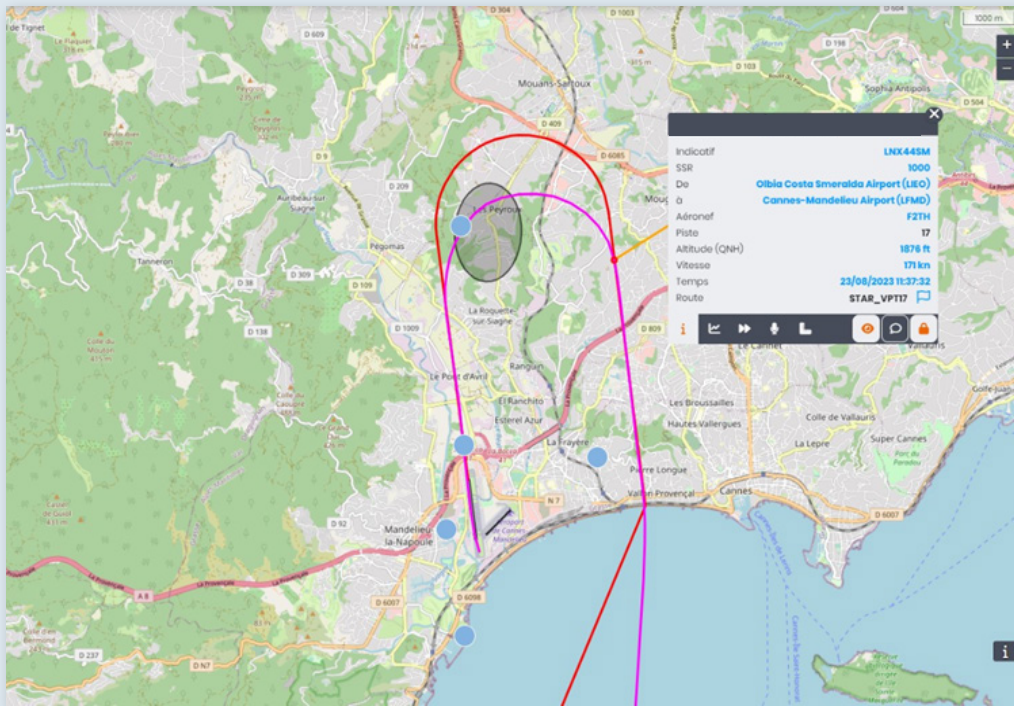
## Fuel Contamination

Report submitted by Cannes Airport: You will find attached the flight path in purple colour. In red you can see the nominal trajectory that pilots should follow as closely as possible.

As you can see on the picture, it appears that the aircraft flew the right path from LUXUS to PIBON, then turned too short to line up the runway axis and did not respect the overflight of point A. Instead, it overflew a sensitive area where residents complained about the trajectory. For next time, please remember that the overfly of point A is mandatory, to avoid these areas. The visual reference point to find the A point is the NW/SE motorway axis: aircraft should fly along the SW side of the motorway.

To sum up, in compliance with safety conditions and ATC instructions, please proceed as follows:

- Fly LUXUS-PIBON at 2000ft (regulatory altitude), with minimum clean speed or a less noisy configuration,
- Descend after PIBON down to the runway slope and axis;
- During the turn, make sure to identify and overfly the A point; do not fly beyond the NW/SE axis motorway,
- After the A point, be careful not to turn too fast and overfly the industrial zone to avoid sensitive areas



### Safety Comments

Feedback was provided to the crew and awareness raised in the safety newsletter.

# Good Call

Welcome to this edition's Good Call, where we recognise and celebrate pro-active, safe behaviour. All nominees for the good call have been contacted in advance of publication and have given their permissions for the details to appear in the bulletin. Nominees will each receive a Luxaviation travel mug. If you know someone who goes out of their way to promote safety or acts proactively to prevent arising safety issues, then please let us know by sending your nomination to [safetymatters@luxaviation.com](mailto:safetymatters@luxaviation.com).

This quarter, the award goes to a department, rather than an individual, a first in the history of the Safety Matters Newsletter! I am sure you will agree that all of our safety and compliance colleagues all do a tremendous job, however a special mention goes out to the safety and compliance team within Luxaviation E.A., S.A., It was announced in October 2020 that Luxaviation Portugal became the first business aviation operation to come under the safety oversight of the European Union Aviation Safety Agency (EASA). The Safety and Compliance team went above and beyond to ensure the success of this transition. Thank you all, past and present, your thermos' are on their way to you!



# it's designed to withstand extreme stress



## you're not.



**If you are feeling stressed, anxious or depressed you are not alone.**

These are difficult times and the aviation industry recognises the need for increased investment in mental health and well-being services.

MAPS is a co-operative Peer Support Programme, offering you independent and confidential one to one support with a like-minded, non-judgemental peer. Funded by your industry, the service is free to you.

For further information visit [www.talktoapeer.com](http://www.talktoapeer.com) or scan the QR code.

