Safety Information Bulletin

Operations – ATM/ANS – Aerodromes

SIB No.: 2023-05

Issued: 06 June 2023

Subject: **Possible Risks Emerging During Summer 2023**

Ref. Publications:

- Commission Regulation (EU) 2018/1139 dated 04 July 2018
- Commission Regulation (EU) 139/2014 dated 12 February 2014
- Commission Regulation (EU) 376/2014 dated 03 April 2014
- Commission Regulation (EU) 965/2012 dated 05 October 2012
- Commission Regulation (EU) 1321/2014 dated 26 November 2014
- Commission Regulation (EU) 373/2017 dated 1 March 2017
- Commission Regulation (EU) 1178/2011 dated 3 November 2011
- EASA SIB No.: 2022-06

Applicability:

National Competent Authorities (NCA), air operators, aerodrome operators, ground-handling service providers (GHSP), ATM/ANS service providers, maintenance organisations, continuing airworthiness management organisations (CAMO) and approved training organisations (ATO).

Description:

After two years of significant traffic reductions, the aviation industry in Europe experienced a strong recovery in summer 2022. However, the recovery came together with significant travel disruptions. Travel demands and traffic levels for summer 2023 are forecast to be significantly higher than in 2022. Air operators, aerodromes, ATM/ANS service providers, maintenance organisations, and training organisations continue to face significant challenges in having sufficient qualified personnel, availability of aircraft, spare parts, and traffic slots to cope with the increased demand. Precursors of possible disruptions have already been evident in April and May 2023 with some time to go until the peak of the summer operational season.

EASA is monitoring the situation by collecting and analysing relevant data and information, as well as developing a risk portfolio taking into account information coming from different sources. Among the identified risks, the following issues that may lead or contribute to travel disruptions should be highlighted:

- Ineffective management of change
- Shortage of operational and technical staff (not limited to flight and cabin crew)
- Various aspects of cyber-attacks
- Loss of knowledge, expertise and transfer of experience following staff turnover

- Ground handling training programmes disruption
- Missing suppliers and low availability of parts
- Lack of time to properly train staff
- Disruptive passengers
- Capacity issues

With this SIB, EASA aims to raise awareness of the potential consequences of these disruptions with a view to ensure that potential emerging safety risks are promptly detected and adequately mitigated. While the root causes for the possible disruptions are different for each aviation domain, EASA is concerned about potential safety risks emerging from, or being amplified by, a potential lack of qualified personnel, particularly in combination with commercial pressure. This in turn could lead to increased levels of fatigue among the aviation personnel with potential consequences on safety.

Although there are no immediate safety concerns at this moment in time, the recommendations in this SIB aim to mitigate the latent safety hazards associated with large-scale, enduring disruptions to flight schedules, at least in part by working to minimise the disruptions themselves.

At this time, the safety concern described in this SIB is not considered to be an unsafe condition that would warrant Safety Directive (SD) action under Commission Regulation (EU) 965/2012, Annex II, ARO.GEN.135(c), or under Commission Regulation (EU) 139/2014, Annex II, ADR.AR.A.040.

Recommendation(s):

1. Safety Risk Management:

All stakeholders should**:**

- As part of their safety risk management process, consider conducting a specific risk assessment to identify areas where safety risks may increase as a result of the issues listed above, or as a result of traffic disruptions generally.
- When performing risk assessments, consider interactions between different safety issues (e.g. potential lack of qualified staff and fatigue) that are relevant to their activities or operations.
- Based on the results of the safety risk assessment, strengthen their monitoring of the affected areas, and take appropriate mitigating measures.
- Ensure that operational pressure will not adversely impact the reporting and safety culture in their organisations.
- Emphasise, at all levels, the importance of fostering a positive safety culture that encourages staff to report occurrences and hazards with confidence.

2. Air Operators:

2.1 Flight Time Limitations (FTL)

Air operators should:

- When planning crew monthly rosters, consider operational disruptions (e.g. provision of ground services, ATM congested area) with a known high proportion of flight delays and cancellations (e.g. time needed for crew security check, taxiing, longer turnaround times), in order to avoid reaching duty period limits that may potentially impact crew fatigue.
- Consider that the exercise of commander's discretion is an exceptional measure. Extension of flight duty period when operating to and from aerodromes with a known high propensity for delays should not rely on excessive use of exceptional relief solutions. Furthermore, any scheduling of crews, with commander's discretion already included is not acceptable and the planning of extensions should be limited as much as possible. Moreover, commander's discretion should be avoided at the air operator's home base and/or hubs, where standby or reserve crew members should be sufficiently available.

2.2 Operations

Air operators should:

- Frequently review and adjust the schedule to take into account the availability of qualified crews (flight and cabin), maintenance and technical staff, availability of aircraft and spare parts, ATM network performance, adequacy of ground services at the airports where they operate.
- Avoid pairing of newly upgraded commanders with inexperienced first officers.
- Avoid scheduling cabin crew together where all have less than 6 months experience.
- Avoid potentially challenging crew training activities so that the quality of training is not adversely impacted by operational disruptions (e.g. introduction of new aircraft, operators conversion courses, initial SPA training, etc.) during the summer months.
- Anticipate an increase in the number of unruly passengers and ensure that crew and, where applicable, ground handling personnel are trained on how to detect, defuse and prevent critical situations, including the causes of unruly behaviour, and how to handle and report these situations.
- Remind all staff of their roles, including line supervisory level, in ensuring that safe and reliable operations are given first priority.

2.3 Planning

Air operators should:

- Carefully plan the availability of aircraft to cover the summer schedule. If wet leased aircraft are to be used, operators are recommended to notify their competent authority in due time. This will allow a smooth process and potentially avoid delays.

- Plan activities considering a realistic availability of qualified personnel (operational personnel and crew).
- Adapt the flight plan (e.g. discretionary and/or additional fuel) to the available information related to possible delays en-route or at arrival in order to avoid any unnecessary diversions.

3. Aerodromes:

Aerodrome operators, which fall under the scope of Commission Regulation (EU) 139/2014, and NCAs are recommended to consider the following actions, if applicable:

3.1 Collaboration

- Aerodrome operators should increase collaboration with ground handling service providers, air operators, security service providers and other Member State agencies to ensure the best use of all available human resources and of the aerodrome infrastructure.
- In order to optimise the use of ground handling personnel, aerodrome operators with several ground handling service providers could consider supporting the allocation of aircraft at stands grouped for each ground handling service provider, provided that the characteristics of the aircraft are also taken into account.
- Aerodrome operators should coordinate the management of overflow traffic on the ground with the air traffic services by identifying possible areas where overflow traffic can wait until aircraft stands are available.
- Aerodrome operators should apply a collaborative decision-making process with the relevant aerodrome stakeholders based on actual operational information, to identify any emerging operational or capacity issues due to staff shortages and implement actions to mitigate the impacts. Local Runway Safety Teams, Airport Security and/or Facilitation Committees and Apron Safety Committees may increase collaboration and monitoring.
- Aerodrome operators should assess safety risk performance data in their safety committees and share it with other stakeholders during meetings of the local runway safety teams or during other meetings with other organisations with safety relevant activities at the aerodrome.

3.2 Training

- Aerodrome operators should identify the necessary training for each person (initial, recurrent, refresher) in accordance with ADR.OR.D.017 of Commission Regulation (EU) 139/2014.
- With regards to training of ground handling personnel in relation to aerodrome safety procedures, aerodrome operators should collaborate with ground handling service providers to obtain an overview of training performed for ground handling personnel in order to take benefit of past trainings.

4. Ground handling

- Ground handling service providers should ensure that their personnel are adequately trained and qualified and their competencies are maintained.
- Ground handling service providers should inform their customer airlines and the aerodrome on the training provided to its personnel to ensure their continued competence, especially when the organisation experiences a high turnover of staff or increased workload, which could negatively impact the capacity for training.

5. ATM

ATM/ANS providers, which fall under the scope of Commission Regulation (EU) 2017/373, and NCAs are recommended to consider the following actions, as applicable:

5.1 Collaboration:

ATM/ANS providers should maintain and potentially enhance collaboration with air operators, aerodrome operators and the Network Manager who should be made aware in advance about anticipated sector capacity issues.

5.2 Planning:

ATM/ANS providers should**:**

- Meet rostering obligations to avoid potential fatigue for all duty staff and to balance workload and rest, especially in sectors close to maximum capacity.
- Roster the team in a manner such that newly qualified ATCO are supported by experienced staff (e.g. planners) when managing busy sectors.
- Ensure that there are sufficient personnel on stand-by shifts in case there is a need to manage busy sectors.
- Be prepared to react to potential severe weather phenomena, which could, amongst others, impact ATC operations in case of en-route rerouting and/or diversions.
- Anticipate and mitigate against a possible lack of spare parts, to ensure that the ATM system can maintain full operational capability.

6. Continuing Airworthiness Management Organisation (CAMO) and Maintenance Organisation

Safety issues arising from the lack of sufficient qualified personnel and problems with the supply chain can be increased by the commercial pressure of operational circumstances. This commercial pressure can pose a potential safety risk by increasing the levels of fatigue and leading to shortcuts in internal procedures.

CAMO and maintenance organisations should:

- Raise awareness to staff about safety risks emerging from increased commercial demand.
- Plan activities based on a realistic manpower plan, including CAMO subcontractor staff and all Part-145 staff.
- Nominate adequate deputies for the essential activities to ensure the necessary continuity.
- Establish a pro-active supply chain management.
- Remind staff that there are no shortcuts to safety (e.g. continually apply the internal procedures and to report any deviation or event).
- Continuously adjust the hazard identification based on the available data (e.g. availability of spare parts, extension of MEL, staff fatigue).

7. Approved Training Organisations (ATO)

The Approved Training Organisation (ATO) must take into account potential disruptions in training caused by the insufficient availability of qualified instructors or the unavailability of suitable Flight Simulation Training Devices (FSTD). In particular, ATOs should anticipate that qualified instructors, who also fly for Air Operators, may not be available to provide training during peak periods.

The ATO should consider the following actions:

- Engage in collaborative efforts with Air Operators to ensure the presence of instructors.
- Establish standardised procedures for instructors regarding Air Operator operations, ensuring their qualifications align with the training requirements.
- Coordinate and proactively address training needs in coordination with Air Operators, giving priority to training tasks that minimise disruptions in operations.
- Plan training sessions by optimizing the utilisation of FSTDs.
- Explore the possibility of utilising alternative training facilities to enhance the availability of suitable FSTDs for training purposes.

8. Cybersecurity

According to data collected and reviewed by the EASA Cyber Threat Intelligence Team, DDoS attacks and ransomware are currently the most common threats to the aviation industry. DDoS and defacement attacks rarely have a major impact on critical systems of the targeted organisations and are often carried out by cyber activists. However, successful ransomware attacks are more complex and sophisticated, and therefore could be extremely damaging.

In Q1 2023, ransomware gangs targeted all aspects of the aviation industry and current data suggests that this trend is likely to continue for the foreseeable future. Cybercriminals target the aviation industry primarily by means of initial access for resale and credential theft.

Airlines and airports were the most targeted parts of the aviation industry by a considerable margin. This is likely due to several factors, including that both sectors handle commercial and

strategically sensitive information. Airlines hold significant amounts of proprietary data and customer identifiable information (PII- Personally Identifiable Information). The publication of both data types could have reputational and regulatory consequences for the victim organisations and can also be sold for competitive sums on criminal dark web forums.

Recommendations for proactive measure that could help prevent a ransomware attack:

- Conduct regular security assessments.
- Develop a robust and customised cybersecurity policy.
- Implement a multi-layered security approach.
- Perform regular updates and immediately patch systems.
- Apply robust authentication mechanisms and access controls.
- Implement on separate network segment, regularly backup of critical data.
- Establish detailed incident response plans specific to ransomware attacks.
- Implement real-time monitoring and log analysis systems to detect and respond.
- Carry-out regular and innovative employee awareness trainings.
- Engage in information sharing and collaboration with other aviation partners.
- Establish clear internal and external communication plan.

9. National Competent Authorities (NCA):

- NCAs should prioritise oversight activities based on the results of organisational risk profiling and should consider the identified potential contributors to possible disruptions (e.g. delays and possible consequences of staff shortages and fatigue). As an example in the OPS domain NCAs should focus on the implementation of Subpart Flight Time Limitations of Annex III (PART-ORO of Commission Regulation (EU) 965/2012) monitoring how air operators are planning flight duty periods and, in particular, how air operators ensure that crew members remain sufficiently free from fatigue in order to operate at a satisfactory safety level under all circumstances.
- NCAs should be aware that possible urgent operational needs might be requested by air operators which might require approval process that need specific consideration about qualified inspectors' availability.
- NCAs should consider holding the meeting with the organisation's Accountable Manager sooner than normal, in order to increase awareness regarding possible operational difficulties and to assess the organisation's preparedness.
- NCAs should consider this SIB during the risk-based oversight planning activities.

Additional EASA Guidance Materials

Stakeholders should consider relevant EASA guidance material and safety information bulletins, notably SIB 2020-13, SIB 2020-07R2 and SIB 2022-06 that are relevant to the possible summer disruption situation. EASA has also published systemic and conjunctural safety issues in EPAS Volume III – Safety Risk Portfolios, edition 2023, some of which might be relevant to the possible summer disruption situation. Furthermore, stakeholders should consider the safety promotion material of the EASA Safety Weeks of 2022 and 2023 and safety material on the EASA Air Ops Community developed as part of the Stronger, Safer, Together Campaign.

Contact(s):

For further information contact the EASA Safety Information Section, Certification Directorate, E-mail: ADs@easa.europa.eu.