

GACA Safety Bulletin

GACA SB-2023-01

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Possible Safety Risks Emerging During Summer 2023

Applicability:

Aerodromes:	All Certificated Aerodromes under GACAR Part-139
Air Traffic:	The provider of Air Traffic Services in KSA (SANS)
Airworthiness:	All Certificated Aircraft Maintenance Organization under GACAR Part-145
Flight Operations:	All Certificated Commercial Air Operators under GACAR Part-121
Ground Services:	All Certificated Ground Services Providers under GACAR Part-151
Others:	All Training Centers Certificated under GACAR Part-142

This document is available at: <https://gaca.gov.sa/web/en-gb/content/miscellaneous>

General:

GACA Safety Bulletins (SB) are issued under the authority of the GACA Executive Vice President of Safety & Aviation Standards. GACA Safety Bulletins contain important safety information and may include recommended actions. Besides the specific action recommended in a GACA-SB, an alternative action may be as effective in addressing the safety issue named in the GACA-SB. The contents of a GACA-SB document do not have the force and effect of law and are not meant to bind the public in any way. GACA SBs are intended only to provide clarity to the public regarding existing requirements under GACA regulations.

Background:

In the summer of 2022, the aviation industry experienced a strong recovery after two years of significant traffic reductions. However, this recovery was accompanied by significant travel disruptions. It is expected that travel demands and traffic levels for summer 2023 will be significantly higher than in 2022. Despite this, air operators, aerodromes, ATM/ANS service providers, maintenance organizations, and training organizations continue to face significant challenges due to a shortage of qualified personnel, availability of aircraft, spare parts, and traffic slots to cope with the increased demand. Thus, there may be more challenges to come before the peak of the summer operational season.

GACA is monitoring the situation by collecting and analyzing relevant data, information, and risks from different sources. The following issues may lead or contribute to travel disruptions thus, 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 programs disruption.
- Missing suppliers and low availability of parts.
- Lack of time to properly train staff.
- Disruptive passengers.
- Capacity issues.

With the aid of this Safety Bulletin, GACA is aiming to increase public awareness of the possible effects of these interruptions to ensure that any potential new safety risks are quickly identified and effectively addressed. GACA is concerned about potential safety issues that could emerge from, or be compounded by, a potential lack of competent staff, particularly in combination with commercial pressure, even though the underlying reasons of the potential disruptions vary for each aviation area. This might therefore cause the aviation personnel to become more fatigued, which could result in a negative impact on safety.

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

Recommendations

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 organizations.
- Emphasize, 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 and Duty Limitations: 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., the time needed for crew security check, taxiing, longer turnaround times), 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 the commander's discretion already included is not acceptable and the planning of extensions should be limited as much as possible. Moreover, the 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 consider the availability of qualified crews (flight and cabin), maintenance and technical staff, availability of aircraft and spare parts, ATM network performance, and adequacy of ground services at the airports where they operate.
- Avoid pairing newly upgraded commanders with inexperienced first officers.
- Avoid scheduling cabin crew together where all have less than 6 months of experience.
- Avoid potentially challenging crew training activities so that the quality of training is not adversely impacted by operational disruptions (e.g., the introduction of new aircraft, operators' conversion courses, specific operation 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 behavior, 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 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 to avoid any unnecessary diversions.

3. Aerodromes: Aerodrome operators, 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 agencies to ensure the best use of all available human resources and of the aerodrome infrastructure.

- To optimize 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 considered.
- 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 organizations with safety-relevant activities at the aerodrome.

3.2 Training:

- Aerodrome operators should identify the necessary training for each person (initial, recurrent, refresher).
- With regards to the 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 to take benefit of past training.

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 of the training provided to its personnel to ensure their continued competence, especially when the organization experiences a high turnover of staff or increased workload, which could negatively impact the capacity for training.

5. Air Traffic Services: ATM/ANS providers, 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 of 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. Aircraft Maintenance Organizations and Air Operators Performing Aircraft Maintenance Activities:

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.

maintenance organizations should:

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

7. Approved Training Organizations:

The Approved Training Organization (ATO) must consider potential disruptions in training caused by the insufficient availability of qualified instructors or the unavailability of suitable Flight Simulation Training Devices (FSTD). 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 standardized 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 minimize disruptions in operations.
- Plan training sessions by optimizing the utilization of FSTDs.
- Explore the possibility of utilizing alternative training facilities to enhance the availability of suitable FSTDs for training purposes.

8. Cybersecurity:

Ransomware gangs targeted all aspects of the aviation industry, and 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.

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

- Conduct regular security assessments.
- Develop a robust and customized cybersecurity policy.
- Implement a multi-layered security approach.
- Perform regular updates and immediately patch systems.
- Apply robust authentication mechanisms and access controls.
- Implement on a separate network segment, regular 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 training.
- Engage in information sharing and collaboration with other aviation partners.
- Establish a clear internal and external communication plan.

Additional Related Information:

- EASA SIB No. 2023-05- Possible Risks Emerging During Summer 2023 available at [file:///C:/Users/hatim/Downloads/EASA_SIB_2023-05_1%20\(1\).pdf](file:///C:/Users/hatim/Downloads/EASA_SIB_2023-05_1%20(1).pdf)

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EVP, Aviation Safety and Environmental Sustainability

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