



International Civil Aviation Organization

MIDANPIRG/20 and RASG-MID/10 Meetings

(Muscat, Oman, 14-17 May 2023)

Agenda Item 5.2: Outcome of SEIG

UAE ALOSP PROCESS

(Presented by United Arab Emirates)

SUMMARY

This paper presents an overview of UAE's GCAA ALoSP process for Air Navigation Service providers and Aerodrome operators.

Suggested actions are presented in paragraph 3.

REFERENCES

- *Annex 19 on Safety Management.*
- *RASG-APAC/8*
- *Safety Management Manual (Doc. 9859)*
- *Global Aviation Safety Plan 2014-2016 (GASP) (Doc.10004).*
- *Working Paper A38-WP/255*

1. INTRODUCTION

1.1 The Acceptable Level of Safety Performance (ALoSP) is a concept used in aviation safety management to establish a target level of safety performance that is acceptable for a given set of aviation operations. ALoSP is designed to ensure that the level of risk associated with aviation operations is reduced to a level that is considered acceptable to all relevant stakeholders, including passengers, crew, regulators, and the general public.

1.2 Safety is a fundamental aspect of aviation, and the ICAO recognizes the importance of establishing and maintaining acceptable levels of safety. To achieve this goal, it is essential to have effective safety performance management systems in place. Regular reporting and analysis of safety data are critical components of safety performance management systems, and this paper aims to highlight the importance of monthly reporting in achieving acceptable levels of safety and its application within framework of the UAE State Safety Program.

1.3 ICAO defines the acceptable level of safety (ALoS) as "the level of safety that is deemed to be acceptable in a given system or activity, such that the overall risk of harm to persons, property or the environment is judged to be tolerable." ALoS is determined based on a comprehensive risk assessment of aviation activities, and it takes into account various factors such as the severity of potential accidents, the likelihood of occurrence, and the impact on the aviation system.

1.4 The GCAA subsequently developed the ALoSP framework, which included a risk assessment process, a safety management system framework, and a performance monitoring and reporting system and the establishment of safety performance targets and indicators detailed in **Appendix A**;

- a) Runway Incursion
- b) Damage to Aircraft
- c) Manoeuvring Area Excursion
- d) Taxiway Incursion
- e) ASMI
- f) Level Bust
- g) Loss of Runway Separation

1.5 The ALoSP framework was designed to ensure that the level of risk associated with aviation operations was reduced to a level that was considered acceptable to all relevant stakeholders, including passengers, crew, regulators, and the general public.

1.6 The UAE has a rapidly growing aviation industry that has been expanding in recent years. The country is home to two major airlines as well as several smaller airlines and a number of airports.

1.7 The implementation of ALoSP in the UAE's aviation industry began in the early 2000s. The GCAA recognized the need to establish clear safety targets and performance indicators for the aviation industry in order to improve safety performance and reduce risk.

1.8 In summary, ALoSP is a crucial component of aviation safety management that helps to establish a clear target for safety performance and promote a culture of safety within the aviation industry, as well as ALoSP is always promoted and discussed through the National committees such as the Aerodrome Operators Technical Committee, National Runway Safety Team, National ATC Technical Committee, and Safety and Quality committees that were established to promote the aviation safety.

2. DISCUSSION

UAE'S ALOSP PROCESS

2.1 Monthly reporting of safety incidents is a critical component of a proactive SMS. By tracking and analysing safety incidents, aviation organizations can identify emerging risks and take corrective actions before accidents occur. Regular reporting also helps organizations to monitor their safety performance and identify areas for improvement.

2.2 ICAO recommends that aviation organizations report safety incidents on a monthly basis. The reporting should cover all safety-related events, including accidents, incidents, and hazards. The information provided in the reports should be comprehensive, accurate, and timely, and should include details such as the date, time, location, and type of event, as well as a description of the circumstances surrounding the event.

2.3 The GCAA collects safety data from aviation service providers through the Reporting of Safety Incidents (ROSI) National database and the Safety Performance Measurement Tool data collected from the organisations on a monthly basis. The Safety Performance Measurement Tool is analysed to identify safety performance trends and patterns and inform safety performance improvement initiatives.

2.4 The monthly report provides a summary of safety performance data collected through the SPMT. The report highlights any significant safety-related events that occurred during the reporting period and provides an analysis of safety performance trends and patterns.

2.5 The GCAA Safety Performance Measurement Tool provides a mechanism for monitoring and measuring safety performance in the aviation industry in the UAE and supports the ICAO mandates and guidelines to maintain or continuously improve safety performance. The monthly report based on the Safety Performance Measurement Tool data provides a valuable tool for identifying safety risks in a timely manner and informing safety performance improvement initiatives.

2.6 The Safety Performance Measurement Tool and Alert levels are based on 3 previous years' data. This results in more realistic settings and eliminates dramatic changes in the Safety Performance Tool due to "good" or "bad" years. SPI is calculated using 12 months of incidents and movements (current month plus the previous 11). This eliminates erratic SPI swings, especially during the early months of the year.

2.7 The monthly report also identifies areas where safety performance has improved and areas where further improvement is required. The report concludes with recommendations for safety performance improvement initiatives to address identified safety risks, any emerging safety risks are captured with any proactive mitigations tabled and managed through ongoing oversight activities.

2.8 In conclusion, the acceptable level of safety is a critical component of the aviation industry, and ICAO has established various policies and guidelines to maintain or improve upon this level. Monthly reporting of safety incidents is an essential part of a proactive SMS, and it enables aviation organizations to identify emerging risks and take appropriate corrective actions. By working together, we can ensure a safe and secure aviation environment for all.

2.9 The GCAA remains committed to achieving acceptable levels of safety in the aviation industry in the UAE and encourages all stakeholders to work together towards this goal through its safety promotion programs.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Consider and note this working paper.
- b) The UAE is able to provide virtual training and support required to establish or enhance a State Safety Performance Management Tool.

Appendix A

GCAA - Air Navigation & Aerodromes Safety Performance Measurement Tool Monthly Report – May 2023

Reported Serious Incidents / Accidents (ANA):

ALoSP Summary - Air Navigation & Aerodrome Domain related SPT's:

Air Navigation & Aerodromes Safety Performance Data is captured in accordance with CAR SMS and the UAE State Safety Program Appendix 6, 2. Aerodromes and Air Navigation.

Safety Performance Indicator – Per 100, 000 movements	Alert Level Triggered?	ALoSP Breached?
<i>Lagging Indicators – Higher Consequence Events</i>		
Runway Incursion A+B		
Damage to Aircraft A+B+C		
Manoeuvring Area Excursion		
Taxiway Incursion A		
ASMI A+B		
Level Bust – ATC Contributory A+B		
Loss of Runway Separation A+B		
<i>Lagging Indicators – Lower Consequence Events</i>		
Runway Incursion C+D		
Taxiway Incursion B		
ASMI C+D+E		
Level Bust – ATC Contributory C+D		
Loss of Runway Separation C+D		

*Notes: - Preliminary data only until all ROSI is classified and closed

ALoSP Triggered Alert Level Analysis

Higher Consequence Events:

Lower Consequence Events:

Additional Identified Safety Concerns

Conducted and Safety Promotion Activities (Internal and External)

Accepted By:	
Date:	
Distribution:	Internal only