



ICAO

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Agenda Item 5: ICAO / Member State / Industry Presentations

MALAYSIA SDCPS: CAAM AVIATION REPORTING SYSTEM (CARES)

(Presented by Civil Aviation Authority of Malaysia)

SUMMARY

CAAM has embarked into online safety reporting as part of our digitization initiative. This working paper is presented to share and discuss Malaysia's experience in collecting and managing safety data through its Mandatory Occurrence Reporting (MOR) and Voluntary Reporting (VOR) system called the CAAM Aviation Reporting System (CAREs). CAREs is an online safety reporting system which is in compliance with the ICAO ADREP (Accident/Incident Data Report) taxonomy.

1. INTRODUCTION

1.1 The establishment of a robust Safety Data Collection and Processing System (SDCPS) is a fundamental aspect of an effective State's safety oversight system. This system serves to facilitate the collection, collation, and analysis of safety data within the aviation industry, thereby enabling States to implement targeted and timely intervention actions to address safety concerns.

1.2 The SDCPS, with trending analysis capabilities, empowers States to transition from reactive safety program to proactive and predictive approaches. This aligns with the key features of the State Safety Programme (SSP) and the Safety Management System (SMS)

2. DISCUSSION

2.1 Previously, Mandatory Occurrence Reporting (MOR) and Voluntary Reporting (VOR) were received in hard copy, and safety data were manually entered into a common database without coding or a standardized taxonomy. This manual process made analysis laborious and challenging. The data will be manually entered by using ECCAIRS 5 (European Coordination Centre for Aviation Incident Reporting System) introduced by the European JRC.

2.2 In addition, since 2020, ECCAIRS 5 lacked support for updating from the developer on ICAO ADREP taxonomy, complicating data utilization since moving into cloud-based system called ECCAIRS 2.

2.3 CARES is an online web safety reporting system covering MOR and VOR, replacing the hard copy process with digital forms accessible via computer or mobile phones, facilitating faster reporting to CAAM.

2.4 Successfully launched in March 2023 after six months of development, CARES draws from an in-depth feasibility study of ECCAIRS 5 for a "query builder" function and data storing security.

2.5 CARES data will automatically tabulate and analyse reporting data graphically, providing statistical insights to monitor occurrence trends seamlessly, aiding CAAM in mitigation efforts.

2.6 Since CARES implementation, there were 40% increase in VOR data received, enriching hazard records in Malaysia's aviation scene, and the cumbersome data entry processes has been eliminated.

2.7 CARES development continues, evolving into a comprehensive reporting and notification system, including Safety Performance Index (SPI) and Safety Performance Target (SPT) functionalities. Stakeholders can track reports, facilitating communication with CAAM.

2.8 CARES aims to incorporate machine learning (ML) and artificial intelligence (AI) in the future, enhancing its predictive capabilities to foresee occurrence trends. This aligns with the proactive and predictive approach of an effective State's safety oversight system and the key features of the SSP functions which will be completed in stages.

3. CONCLUSION

3.1 Malaysia emphasizes the importance of a harmonized approach among States in managing safety data information. The establishment of digital system using online platform is encouraged to facilitate regional sharing of safety data.

3.2 Malaysia is open to sharing its experience and collaborating in developing and utilizing CAAM Aviation Reporting System (CARES). This includes insights into the adaptation and customization to meet specific requirements in a cost-effective manner.

4. ACTION BY THE MEETING

4.1 The Meeting is invited to:

- a) note the information contained in this paper;
- b) encourage member States to share their knowledge and experience on managing safety data; and
- c) discuss any relevant matters as appropriate.

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