



DIRECTORS GENERAL OF CIVIL AVIATION-MIDDLE EAST REGION

First Meeting (DGCA-MID/1) (Abu Dhabi, UAE, 22-24 March 2011)

Agenda Item 5: Aviation Safety Issues

ENHANCEMENT OF AERODROME OPERATIONS SAFETY IN THE MID REGION

(Presented by the Secretariat)

SUMMARY

This paper highlights the need for States to take appropriate measures in order to enhance aerodrome operations safety in the MID Region. This includes, certification of aerodromes, safety management of aerodrome operations, preparedness for aerodrome emergencies and Runway safety.

Action by the meeting is at paragraph 3.

REFERENCES

- 37th ICAO Assembly Resolutions A37-6, A37-8 and A37-15
- High Level Safety Conference (HLSC) - 2010 Report Doc. 9935
- MIDANPIRG/12 Report (Amman Jordan, October 2010)

1. INTRODUCTION

1.1 Resolution A37-6 of the 37th ICAO General Assembly on Runway Safety, invites States to monitor runway safety events and related precursors as part of the safety data collection and processing system established under their State Safety Programmes.

1.2 ICAO encourages regional cooperation and assistance to resolve safety-related deficiencies and recognized that not all Contracting States have the requisite human, technical and financial resources to adequately perform safety oversight.

1.3 MIDANPIRG/12 Meeting supported the outcome of the High-Level Safety Conference relevant to runway safety and the need to raise the awareness of MID States on the requirement for development and implementation of runway safety measures and to share worldwide experience, as appropriate, on the use of new technology relevant to runway safety.

2. DISCUSSION

Certification of aerodromes

2.1 There is a growing trend for aerodromes to be operated by autonomous entities. The obligation of States to ensure safe aerodrome facilities and services remains unaffected.

2.2 The importance of aerodrome certification and the continuous monitoring of safety in aerodrome operations are recognized. Gap analysis should be carried out to identify an action plan that assist States to ensure the effective implementation of ICAO requirements in the aerodrome area and ultimately increase implementation of aerodrome certification and safety management of aerodrome operations in the MID Region.

2.3 MIDANPIRG/12 noted the status of implementation of certification of aerodromes in the MID Region as of October 2010 (30% of MID Intl Aerodromes have been certified and 50% of MID International Aerodromes will be certified before the end of 2011) and encouraged States that have not finalized their certification process to give priority to complete implementation.

Safety Management of Aerodrome Operations

2.4 The High Level Safety Conference (HLSC), 2010 through Conclusion 2/1 requested States to undertake the necessary legal and structural adjustments required to manage a phased transition to the implementation of SSP with the integration of safety data management activities and risk reduction strategies, and that States require a phased transition to the implementation of SSP with the integration of performance-based processes and practices into the prevailing prescriptive environment.

2.5 MIDANPIRG/12 meeting noted the status of implementation of safety management requirements for certified aerodromes in the MID Region (28% of MID Intl Aerodromes have implemented SMS, 65% of MID Intl Aerodromes will be implementing SMS before the end of 2011) and noted that the level of introduction and implementation of safety management of aerodromes in the MID Region have progressed, however it is still below required and expected level.

2.6 The difficulties encountered by States in the implementation of SSP requirements are recognized and a step -by-step approach is recommended for managing the transition to an SSP environment. The first step is to carry out a gap analysis. The Second Edition of ICAO Safety Management Manual (Doc 9859) contains guidance material related to SSP, SMS and Acceptable Level of Safety (ALoS), as well as their relationships.

Preparedness for aerodrome emergencies

2.7 An aerodrome emergency plan is required to be established for each aerodrome open for public use. The plan should contain procedures for periodic testing of the adequacy of the plan and for reviewing the results in order to improve its effectiveness. Many States and/or aerodrome operators in the MID Region do not periodically assess the effectiveness of the planning, although an aerodrome emergency plan is a component of a certified Aerodrome.

2.8 There is a need to foster and expedite the proper implementation of ICAO requirements relevant to establishment and continuous assessment of the aerodrome emergency plans and emergency operating centres' effectiveness in the MID Region. Regional collaborative efforts and sharing experiences and knowledge would enhance MID Region States preparedness for aerodrome emergencies.

Runway Safety

2.9 Runway safety continues to be one of the aviation's greatest challenges and recent serious runway incursions and excursions around the world provide clear evidence that this remains a serious safety issue.

2.10 Runway excursions are the highest single occurrence category of all accidents over the last ten years for all commercial and general aviation operations of fixed-wing aircraft above 5 700 kg certified maximum take-off mass.

2.11 The result of statistical analysis based on the data contained in the ICAO ADREP system shows that runway-related accidents and serious incidents continue to be a serious safety concern and that runway excursions alone are the highest single occurrence category of all accidents over the last ten years for all commercial and general aviation operations. The percentage of all runway excursions accidents continues to increase with a twenty-year average of 21.4 per cent, a 24.1 per cent average over the last five years and 24.5 per cent for 2009. It is also noted that in the past ten years there have been twenty-five runway incursions (RI) accidents and ninety-eight serious incidents reported to ADREP.

2.12 Runway safety is a collective responsibility. This responsibility extends to organizations (aerodrome operators, the air navigation service provider and the aircraft operator) as well as to individuals (e.g. controller, pilot, vehicle operator). While there are several incidents due to Runway Incursions (RI) and Runway Excursions (RE) that may have catastrophic consequences, these events continue to happen and airport authorities need to maintain their efforts to reduce the incidence. A wide range of factors contribute to runway incursions and excursions, including less-than-perfect aerodrome design, technology, procedures, training, regulations and human error.

2.13 In addition to Runway End Safety Area (RESA), Runway stripes, Runway surface conditions, including friction characteristics as potential threats to runway safety; contamination and foreign object debris (FOD) and bird/wildlife strike issues are not identified as separate ADREP occurrence categories, however, they are major contributors to runway-related accidents and serious incidents and are also addressed within the ICAO Runway Safety Programme. As the frequency and severity of RE became more apparent through the analysis of ADREP data, it was appropriate to address all runway-related safety issues in a comprehensive manner. Therefore, the ICAO Runway Safety Programme has been expanded to cover both RI and RE, as well as other runway-related safety occurrences and activities. An updated version of the Runway Incursion Severity Classification Calculator (RISC) constitutes part of the ICAO Runway Safety Toolkit and can be downloaded from the ICAO-Flight Safety Information Exchange website: http://www.icao.int/fsix/res_ans.cfm

2.14 MID States are urged to monitor runway safety events and related precursors as part of the safety data collection and processing system established under their State Safety Programmes.

2.15 MIDANPIRG/12 supported the outcome of the High-Level Safety Conference relevant to runway safety and the need to raise the awareness of MID States on the requirement for development and implementation of runway safety measures and to share worldwide experience, as appropriate, on the use of new technology relevant to runway safety.

2.16 A Runway safety workshop is tentatively scheduled for the MID Region in November 2011 with a focus on runway excursions prevention measures.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) encourage collaborative efforts, sharing experiences and knowledge to enhance MID Region States preparedness for aerodrome emergencies;
- c) urge MID States/Administrations to:
 - establish and effectively implement aerodrome safety management requirements;
 - take measures to to establish and implement a profile of appropriate prevention measures and risk reduction strategies in relation to runway safety, as part of the runway safety programme; and
 - monitor runway safety events and related precursors as part of the safety data collection and processing system established under the State Safety Programme.

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