

International Civil Aviation Organization

Third Meeting of the RASG-MID Steering Committee (RSC/3)

(Cairo, Egypt, 9 – 11 December 2014)

Agenda Item 3: Regional Performance Framework for Safety

LASER ATTACKS ON AIRCRAFT

(Presented by ASRT Rapporteur, IATA)

SUMMARY

This paper presents the results of the Laser Attacks Analysis performed by the MID-ASRT as a result of Conclusion 3/3 made during the RASG-MID/3 meeting in Kuwait in 2014.

Action by the meeting is at paragraph 3.

1. INTRODUCTION

1.1 The RASG-MID/3 meeting (Kuwait, 27-29 January 2014), noted that the MID Region has recently experienced an increase in Laser Attacks on aircraft, which is considered as a threat to the aviation safety and security.

2. DISCUSSION

2.1 The RASG-MID/3 meeting agreed that a survey should be conducted under the MID-ASRT to collect additional information on the subject for the assessment of associated risks and development of mitigation measures.

2.2 The RASG-MID/3 meeting also agreed to the following Conclusion:

CONCLUSION 3/3: LASER ATTACKS ON AIRCRAFT

That, in order to support the MID-ASRT in conducting a survey on Laser Attacks to aircraft, States be urged to provide necessary information to the ICAO MID Regional Office on Laser Attacks incidents that have been reported during the past 3 years.

2.3 Part of the information on Laser Attack incidents was available in the IATA safety databases. The information available covered the following items:

- a) Number of Laser Attack incidents reported in the MID Region over the past 5 years.
- b) Number of Laser Attack incidents reported per MID State over the past 5 years.

- c) Top five airports in which Laser Attacks were reported in the past 5 years.
- d) Laser Attacks per phase of flight in the past five years.

2.4 To complement the data gathering for Laser Attack incidents, the ASRT designed a Questionnaire addressed to the States to collect information on the availability of any existing measures to mitigate Laser Attacks. The Questionnaire consisted of 10 questions is at **Appendix A**.

2.5 Seven States (out of 15) responded to the Questionnaire. Those included: Jordan, Oman, Qatar, Bahrain, UAE, Egypt, Saudi Arabia and Kuwait.

2.6 The results of the Laser Attacks analysis and survey are at **Appendix B**, which are included in the MID Annual Safety Report-Third Edition. The guidance material collected from some States would help the RAST team to develop regional best practices in mitigating Laser Attacks for the MID Region.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
 - a) review and endorse the results of the Laser Attacks Analysis and Questionnaire;
 - b) urge States to keep record of the Laser Attack incidents reported by the different stakeholders. Voluntary reporting should be encouraged and a database should be established to keep record of such incidents;
 - c) urge States to formalize the State actions against Laser Attacks and violations by incorporating necessary legislations/regulations; and
 - d) task the MID-RAST team to develop guidance material that would serve as best practices for mitigating Laser Attacks.

APPENDIX A

LASER ATTACKS QUESTIONNAIRE

	Questions	Yes	No	Remarks
1-	Are Laser Attacks on increase in your State? (please indicate the number of the reported incidents for the last 3 years: 2011: 2012: 2013:			
2-	Has your State established a mechanism to monitor and record Laser Attacks on Aircraft?			If yes, please briefly explain the mechanism
3-	Has your State conducted any study on laser attacks hazard and the associated mitigation measures to minimize its risk on aviation safety?			If yes, please provide details
4-	Has your State promulgated particular Legislations/ Regulations related to Laser Attacks and violations?			If yes, please provide a reference
5-	Has your State issued any guidance materials (circulars, instructions, etc.) related to the mitigation or prevention of the Laser Attacks?			If yes, please provide a reference
6-	Have roles and responsibilities related to Laser Attack incidents been defined for the Civil Aviation Authority, aircraft operators, ATC and Airports?			If yes, please provide details
7-	Have roles or responsibilities been assigned to other agencies such as police, municipalities, governmental bodies, etc. to support CAA for the control of laser attacks?			If yes, please provide details
8-	Was there any effort to educate the public about the dangers of targeting aircraft with laser beams?			If yes, please provide details
9-	Do you have warning signs around airports to address the prohibition of using lasers pointers?			
10-	Do you agree that a more collaborative effort is necessary to counteract the emerging risk of Laser Attacks and the development of mitigation strategies in the MID Region?			

APPENDIX B

On Demand Analysis of Identified Emerging Risks – Laser Attacks

Following the RASG-MID/3 Meeting, the risk of increasing laser attacks has been highlighted by the different states and therefore a study was launched to assess this risk. The following data was collected from the IATA STEADES database which captures Air Safety Reports submitted by the airlines related to laser attacks.

a) Trend of laser attack incidents reported in MID region (Source: IATA)



b) Laser attacks reported per MID state (Source: IATA)



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c) Top five airports in which laser attacks are reported (Source: IATA)



d) Laser attacks per flight phase (Source: IATA)



A survey was also launched to collect necessary data to verify the severity of Laser Attacks and get necessary information from the States on any existing measures to mitigate such risk. The survey was launched as per RASG MID (conclusion 3/3), the survey was circulated to 15 States in the Region and 7 responses were collected. Upon analyzing the survey results, the following points were concluded:

- 1. 71% of the States agreed that Laser Attack incidents are of an increasing trend in their respective States.
- 2. 86% of the States have established a mechanism to monitor and record Laser Attacks on aircraft, and have published guidance material for the mitigation and prevention of such threats, yet the trend of such incidents is still increasing.
- 3. Only 57% of the States promulgated particular legislations/Regulations related to Laser Attacks and violations. Remaining States do not have a legal framework which supports Laser Attacks mitigation strategy to prevent such violations.
- 4. 43% of the States indicated that no warning signs exist around the airports to address the prohibition of using laser pointers.
- 5. 86% of the States agreed that a more collaborative effort is necessary to counteract the emerging risk of Laser Attacks and the development of mitigation strategies in the MID Region.

The detailed results of the survey results will be shared with the Regional Aviation Safety Team (RAST) to come up with the required safety enhancement initiatives and detailed implementation plans. It is worth mentioning here, that there is a need to:

- 1. Raise the awareness among the states to keep record of the Laser Attack incidents reported by the different stakeholders. Voluntary reporting should be encouraged and a database should be established to keep record of such incidents.
- 2. Establish a guidance material for mitigating and preventing laser attack incidents. Best practices shared by the different States should be taken into account.
- 3. Formalize the state actions against Laser Attacks and violations by incorporating necessary legislations/regulations.

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