



International Civil Aviation Organization

Runway and Ground Safety Working Group

Second Meeting (RGS WG/2)
(Cairo, Egypt, 19 - 21 May 2015)

Agenda Item 2: Implementation of Aerodrome Safety Priorities and Objectives in the MID Region

**DETAILED IMPLEMENTATION PLAN (DIP) RELATED TO RGS
ON LASER ATTACKS**

(Presented by Egypt)

SUMMARY

This paper presents the proposed SEIs and DIPs for MID Region to address the laser and light hazards on aviation safety.

Action by the meeting is at paragraph 3.

REFERENCES

- ICAO Annex 14
- ICAO Doc 9815

1. INTRODUCTION

1.1 The First meeting of the Runway and Ground Safety Working Group (RGS WG/1) (Cairo, Egypt, 7 – 9 April 2014) discussed various ways to mitigate the Laser Attacks including, but not limited to: regulation development and enforcement, training and awareness, coordination with police and other governmental bodies, use of technology such as special protection aircraft windshield, in addition to procedures to be implemented by pilots and aerodrome operators in case of Laser Attack.

1.2 The RGS WG/1 reported in its conclusion that additional RGS SEIs on Laser Attacks to be developed by Egypt as Champion supported by UAE.

2. DISCUSSION

2.1 The meeting may wish to note that in developing the required SEIs and DIPs for MID Region to address the laser and light hazards on aviation safety, the following was taken into consideration:

- a) Egypt's experience with different stakeholders related to Laser Attacks in particular the mitigation measures that have been adopted, in addition to the new law and guidance materials provided by UAE to control Laser Attack against aircraft.

- b) The survey that was launched as per RASG MID/3 (Conclusion 3/3) to collect necessary data to verify the severity of Laser Attacks and get necessary information from the States during the past 3 years on any existing measures to mitigate such risk. The survey was circulated to 15 MID States and 7 responses were collected as at **Appendix A**.
- c) The RASG-MID Annual Safety Report – Third Edition, in Trend of Laser Attack incidents reported in MID Region (Source: IATA) which revealed the increase of Laser Attacks reports, with about 71% of it during the approach phase as at **Appendix B**.

2.2 Furthermore, the Regional Aviation Safety Group - Middle East Fourth Meeting (RASG-MID/4, Jeddah, Saudi Arabia, 30 March - 1 April 2015) reviewed the RSC/3 outcome and meeting agreed that Laser Attacks will be addressed under RGS WG activities.

2.3 The proposed SEIs and DIPs for MID Region to address the laser and light hazards on aviation safety have been developed as at **Appendix C**.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information in this working paper;
- b) agree on the proposed SEIs and DIPs on Laser Attacks; and
- c) take appropriate actions to support implementation of the RGS DIPs.

APPENDIX A

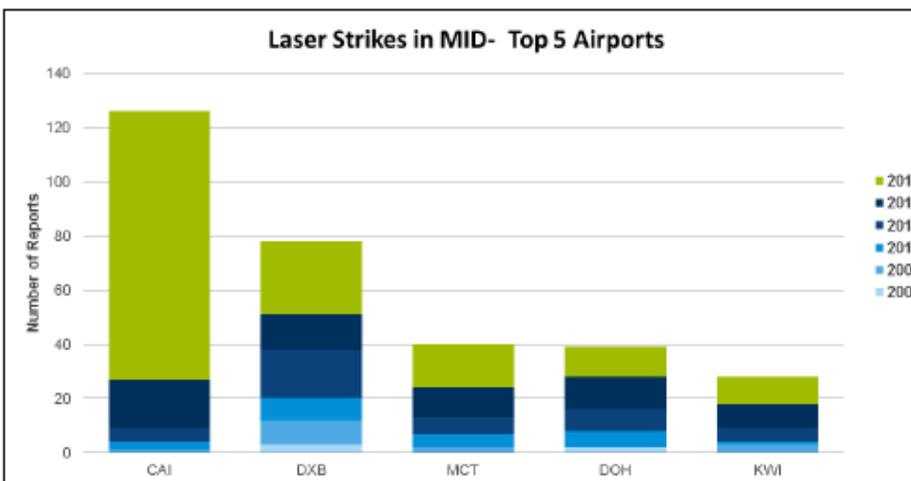
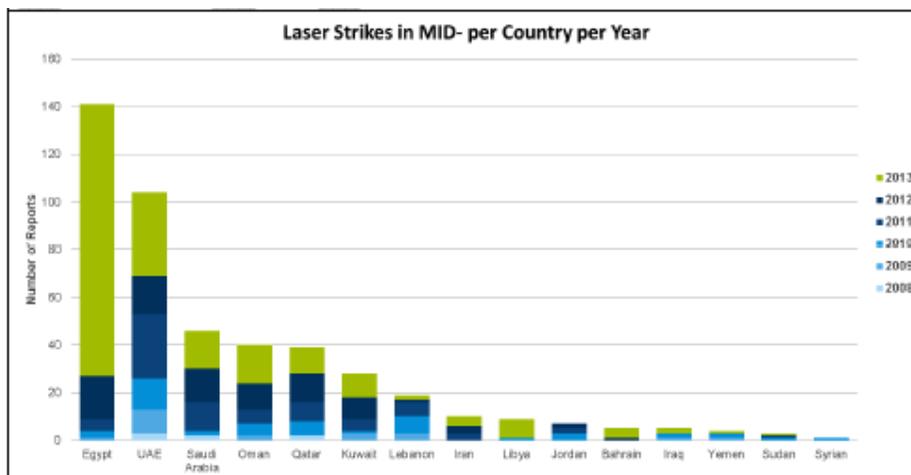
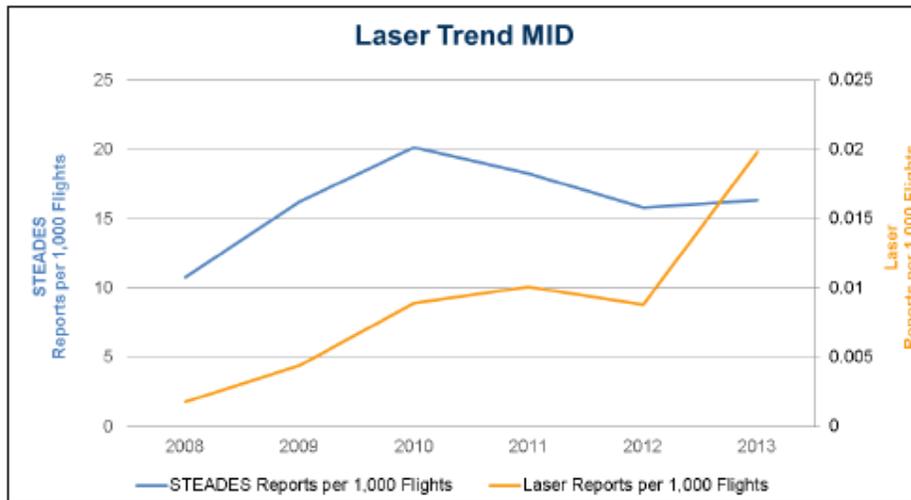
RESULTS OF THE MID STATES SURVEY ON LASER ATTACKS

#	Question	Yes	No
1	Are Laser attacks on increase in your state?*	71%	14%
2	Has the State established a mechanism to monitor and record Laser attacks on aircraft?	86%	14%
3	Has the State promulgated particular legislations/Regulations related to Laser attacks and violations?	57%	43%
4	Has the State issued any guidance materials (circulars, instructions, etc.) related to the mitigation or prevention of the laser attacks?	86%	14%
5	Have roles and responsibilities related to laser attack incidents been defined for the Civil Aviation Authority, aircraft operators, ATC and Airports?	86%	14%
6	Was there any effort to educate the public about the dangers of targeting aircrafts with laser beams?	86%	14%
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?	86%	14%
8	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?	57%	43%
9	Do you have warning signs around airports to address the prohibition of using lasers pointers?	43%	57%
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?	86%	14%

* One State did not answer this question (neither yes nor No).

APPENDIX B

MID ANNUAL SAFETY REPORT LAZER ATTACKS



APPENDIX C

ICAO MID (RGS) LASER ATTACKS SEI & DIP- EGYPTIAN CAA

Rast No	Safety Enhancement Action	GASP Safety Initiative (ICAO Doc 10004)	Best Practices Supporting GASP Safety Initiative (ICAO Doc 10004, Appendix 2)	Safety Impact	Changeability	Indicator	Priority	Time Frame
MID-RAST/RGS/6	1) Encourage voluntary reporting related to Laser Attacks.	Consistent Implementation of Safety Management Systems			Moderate	P2	1	Medium Term
	2) Establish a guidance material for mitigating and preventing laser attack incidents.	Implementation of Risk-Based Standardization Initiatives	BP-GEN-1 BP-GEN-2 BP-GEN-3 BP-STD-I-1	High	Easy	P1	2	Short Term
	3) Formalize the state actions against Laser Attacks and violations.	Compliance with National Regulations and Adoption of Industry Best Practices			High		3	Long Term

Safety Enhancement Action (expanded)	<ol style="list-style-type: none"> 1) Encourage voluntary reporting related to Laser Attacks and a database should be established to keep record of such incidents, and raise the awareness among the States to keep record of the laser attack incidents reported by the different stakeholders. 2) Establish a guidance material for mitigating and preventing laser attack incidents and best practices shared by the different States to be taken into account. 3) Formalize the state actions against Laser Attacks and violations by incorporating necessary legislations/regulations.
Statement of Work	<p>ICAO Actions</p> <ol style="list-style-type: none"> 1. Ensure SEI is added to the MID-Region Strategic Plan. 2. Publish the Proposed Guidance for States. <p>States' Actions</p> <ol style="list-style-type: none"> 1. Review regulation and guidance material to ensure the materials of the ICAO SARPs and ICAO MID proposed Guidance are adequately reflected. 2. Promote Establishment of national awareness about negative effect of LASER attack on safety. 3. Ensure the Operators are capturing Laser Attacks approach through effective SMS practices - specifically Safety Risk Management and Safety Promotion activities. 4. Raise the issue of the unsafe use LASER's for relative governmental entities to limit the trade and use of LASER pointers to those which are accepted from CAAs. <p>Operators' Actions</p> <ol style="list-style-type: none"> 1. Review and ensure that induction, training initiatives specifically address understanding of LASER risk to aviation industry through ICAO guidance. 2. Ensure that SMS include dealing with the risk of Laser Attacks through adding to Local Runway Safety Teams agenda and the SMS process has identified the above risk as part the formal Safety Risk Management process. 3. Develop a program to conduct simulation for the effectiveness of different responsibilities assumed for parties dealing with Laser Attacks similar to emergency drill. <p>IATA Actions</p> <ol style="list-style-type: none"> 1. Review and ensure that regional strategy and awareness initiatives specifically address the pilot adherence to Operating Procedures in relation to dealing with Laser Attacks.

Champion	ICAO MID, Egypt & UAE.
Human Resources	<ul style="list-style-type: none"> • ICAO - International Civil Aviation Organization (MID) • States: CAA's & Operators experts. • IATA - International Air Transport Association (MENA and HQ)
Financial Resources	
Relation with Current Aviation Community Initiative	ICAO Runway Safety Program
Performance Goal	<p>Reduce relative number of incidents.</p> <p>MID-Regional Safety Strategy: Reduce Laser Attacks related incidents by 50% by the end of 2017.</p>
Indicators	Reduction of Laser Attacks as a percentage of total movements for 2013 and 2014.
Key Milestones (Deliverables)	<p>Publish a related electronic toolkit available on RASG-MID website by the end of next Dec., that includes the following:</p> <ol style="list-style-type: none"> 1) Model Legislation; 2) Guidance material; 3) Awareness session (presentation); 4) Response Scenario; 5) Case Study for Air Navigation at Cairo International Airport; 6) Hurgada In'l Airport Best Practices; and 7) ... Etc.
Potential Blockers	<p>Communication mechanism from identified organizations</p> <p>Financial resources</p>
Responsible	<ul style="list-style-type: none"> • ICAO - International Civil Aviation Organization (MID) • IATA - International Air Transport Association (MENA) • Egypt & UAE • MID-Region MID States • MID-Region Operators
DIP Notes	MID Annual Safety Report 2014: 4. 3.3 (a) - Trend of laser attack incidents reported in MID Region– average of (0.0175) LASER reports per 1000 flights.