



International Civil Aviation Organization

**First Meeting the Runway and Ground Safety Working Group
(RGS WG/1)**

(Cairo, Egypt, 7-9 April 2014)

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

**LASERS & LIGHTS WHICH MAY ENDANGER
THE SAFE OPERATION OF RUNWAY**

(Presented by Egypt)

SUMMARY

This paper presents the Egyptian Civil Aviation Authority (ECAA) plan to address the laser and light hazards on aviation safety.

Action by the meeting is at paragraph 3.

REFERENCES

- Egyptian Advisory Circular (EAC) 00-23
- Egyptian Law 28/1981 and amendment 136/2010
- Egyptian Civil Aviation Regulation Part 139
- ICAO Annex 14
- ICAO Doc 9815
- Second MID Region Annual Safety Report

1. INTRODUCTION

1.1 A growing threat to air transportation safety involves non-aeronautical Laser and Light directed at commercial airplanes by people near flight routes and airports, that can distract flight crews.

1.2 Lasers can produce a beam of light of such intensity that causes permanent physical damage to human tissue, in particular the retina of the eye, which happens instantaneously, even at distances of over 10 km, or with lower intensities, laser beams can seriously affect visual performance.

1.3 Another danger faces the air transportation safety which is listed under the same source is dazzling lights in the vicinity of the airports specially within the final approach or take off zones. Any light specially those similar to approach light can confuse pilot in his final approach and could cause high risk to safety.

2. DISCUSSION

2.1 To protect aircrafts against hazardous effects of Laser and Lights emitters that may endanger the safe operation of Civil Aviation, ICAO Annex14 recommended that protected zones should be established around aerodromes in order to mitigate the risk of operating laser emitters in the vicinity of aerodromes. Also ICAO advises to remove the danger of light which found to provide unsafe operation of aircraft in the vicinity of aerodromes. (Para. 5-3-1-1 to 5-3-1-3).

2.2 ICAO Doc 9815 is considered an expert information and advice for the regulatory authorities and decision makers' level, but it doesn't include what to be done from the perspective of an aerodrome operation.

2.3 The meeting may wish to recall that the Second MID Region Annual Safety Report, on its proactive safety information section, revealed that the highest reported unsafe occurrences by airlines to IATA MENA during the period 2011 till the mid 2013 was Laser & Light strikes. It also stated that a survey will be conducted and the assessment of the associated risks will be included in the next edition of the Annual Safety Report.

2.4 Egypt experienced the issue of Laser Strikes and Dazzling Lights mainly with two of its primary International airports, serving the most two populated cities, during the past few years.

2.5 Egyptian Civil Aviation Authority dealing with this issue is working on the effective implementation of series of actions comprising of the following:

2.5.1 Monitor and record Laser & Light occurrences, including short notice reporting via e-mail, and analysing data, thus taking quick response actions as issuing cautionary NOTAM's up to limiting operation to daylight depending on the continuity of such occurrences.

2.5.2 In addition to the legislative requirements by aviation law and regulation that provides obligations to protect pilots from Laser & Light Hazards in the vicinity of aerodromes. Promulgation was made to a particular Guidance Material of interest to aerodrome operators, and to the operators of Laser/Light/Firework shows, and also be of interest to Air Traffic Controllers and air carriers, that describes instructions and defines roles and responsibilities related to the mitigation or prevention of the Laser Strikes. An electronic copy of this guidance material in PDF format is free to obtain via internet using the following address: http://www.civilaviation.gov.eg/Regulations/Eac-new/EAC00_23.

2.5.3 Reflect suitable internal procedures at the service provider's level, dealing with the dangers of targeting aircrafts with laser beams, to be contained in the Aerodrome Certification Manuals, and activities as monitoring areas within the vicinity of the airport especially in the approach has to be done regularly.

2.5.4 Coordination with different parties among Civil Aviation and other agencies outside the aviation industry (*i.e.*: Municipalities, Police, and Trade) in order to have a positive impact for the protection from such hazards, and to come together to identify the related safety issues and develop solutions.

2.5.5 Continuous surveillance and site visits has to be done to the complaint areas and endorsing necessary correspondence as warning letter, and decree of violation with an order to close these hazardous activities, as applicable.

2.6 The meeting may wish to consider that it will be of great help arranging for a Workshop/Seminar focusing on that issue to exchange views and experience concerning this issue, and help to reduce the existence of such hazards in our MID Region.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) encourage States to adopt as appropriate similar plan that is discussed above;
- b) 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;
- c) urge States to coordinate with all Stakeholders to provide necessary safety measures; and
- d) note that Egypt is willing to work closely with MID States and ICAO MID Office to mitigate the risk of laser and light attacks in the MID Region.

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