



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**

**SAFETY MANAGEMENT SYSTEM IN RELATION
WITH AERODROME CONSTRUCTION**

(Presented by Egypt)

SUMMARY

The aim of this paper is to ensure implementation of construction safety standards at airports through implementation of the change management as an element of a safety management system to ensure operation safety at Movement area.

REFERENCE

- ECAR 139.335 (i)
- EAC 139.33
- EAC 139.25 chapter (8)
- FAA AC 150/5370-2F

1. INTRODUCTION

1.1 Airports are complex environments, and procedures and conditions associated with construction activities often affect aircraft operations and can endanger operational safety. Safety considerations are essential and may make operational impacts unavoidable. However, careful planning, scheduling, and coordination of construction activities can minimize disruption of normal aircraft operations and avoid situations that compromise the airport's operational safety. The airport operator must understand how construction activities and aircraft operations affect one another to be able to develop an effective plan to complete the project and to enhance the day-to-day airport maintenance operations.

1.2 Operational safety on the airport remains the airport operator's responsibility at all times. However, everyone has a role in operational safety on airports during construction. This includes the airport operator, the airport's consultants, the construction contractor and subcontractors, airport users, airport tenants, ARFF (aircraft rescue firefighting) personnel, Air Traffic personnel,

including Technical Operations personnel, and others. Close communication and coordination between all affected partners is the key to maintaining safe operations.

1.3 One immediate and obvious generic area of concern is the movement of construction vehicles to and from the work site, which could lead to **runway incursions**.

1.4 Also Construction activities considered as a source of **FOD** (foreign object debris) such as Waste and loose materials, are capable of causing damage to aircraft landing gears, propellers, and jet engines in addition to create **wildlife hazards** on airports.

1.5 In order to implement safety management system at airports, its important to implement management of any change at airfield in order to ensure safety of operation at Movement area.

1.6 In accordance to ECAR (Egyptian Civil Aviation Regulation) part 139.335 (i), EAC (Egyptian Advisory Circular) No. 139.25 chapter (8), a Work safety plan should be prepared by the Aerodrome Operator prior to commencement of any aerodrome construction/development project, so as to ensure that necessary precautions shall be undertaken with the aim to accomplish highest safety levels during construction/ development works.

1.7 Penalty provisions for noncompliance with airport rules and regulations should be included in a safety plan.

1.8 To this end, Aerodrome operators are, hereby, required to fill in all the necessary information required in WIP (Work In Progress) checklist form – one separate form for each project- and provide it to ECAA, in duplicate, at least 30 days prior to the planned commencement date of the project.

1.9 Aerodrome Operators are also kindly requested to attach project drawings to the checklist to be reviewed and approved by ECAA (Egyptian Civil Aviation Authority).

1.10 So, Egyptian Airports Company is prepared guideline of Construction Safety at airports in order to help the airport operator and contractor in the preparation of Safety Construction documents, in case of performing of any projects within Movement area at airports with taking into account the obligation to implement legislation and regulation of Egyptian Civil Aviation Authority.

2. BASIC SAFETY CONSTRUCTION PLAN CONSIDERATION

- 1) Scope of work to be performed, including proposed duration of work.
- 2) Possible safety problems.
- 3) Work control measures.
- 4) Limitations on equipment height.
- 5) Location of airport operational areas.
- 6) Location of and access to stockpiled construction materials and equipment.
- 7) Inspection requirements.
- 8) Trenches and excavations, and cover requirements.
- 9) Threshold marking and lighting.
- 10) Closed runway marking.
- 11) Vehicle operation and pedestrian access in airport movement areas.
- 12) Construction site access and haul roads, includes maintenance of and keeping open ARFF access routes.
- 13) Limitations on construction.
- 14) Radio communications.
- 15) Foreign object debris (FOD) controls provisions.

- 16) Hazardous materials (HAZMAT) management.
- 17) Wildlife abatement.
- 18) NOTAM issuance.
- 19) Vehicle identification.
- 20) Vehicle parking.
- 21) Use of temporary visual aids.
- 22) OFZ (Obstacle-free zones).
- 23) Approach clearance to runways.
- 24) Runway and taxiway safety areas.
- 25) Procedures and equipment, such as barricades (identify type) for closing portions of the movement area.
- 26) Required compliance of contractor personnel.
- 27) Procedures for notification of ARFF if deactivating water lines or fire hydrants, or if emergency access routes are rerouted or blocked.
- 28) Emergency notification for fire, medical, and police response.

3. EGYPTIAN'S COMMITMENTS TO AVIATION SAFETY

3.1 Egyptian has shown its commitment to safety and security by undergoing all relevant ICAO and ECAA.

3.2 In order to ensure safety, EAC 139-33 (Operational safety on airports during construction) is prepared by ECAA.

3.3 Egyptian has completely prepared construction safety guideline as a local guideline and aims to achieve full compliance in the ICAO SARPs and ECAA regulations.

4. RECOMMENDATIONS

4.1 Kindly requested to prepare Operational Safety on Airports during Construction by ICAO as a reference to the Member States like advisory circular of FAA No.150/5370-2F.

4.2 Encourage MID States to adopt Safety management system to include construction safety procedures at airports.