



Egyptian Air Navigation Circular

**EAC**

**No.311\_2**

**AERODROME OPERATING MINIMA**

**Egyptian Civil Aviation Authority**

*November, 2016*

**TABLE of CONTENTS**

| <b>ITEM TITLE</b>                                | <b>Page</b> |
|--|-------------|
| INTRODUCTION                                     | 3           |
| OBJECTIVE  | 3           |
| RULES  | 3           |
| Applicability                                    | 4           |
| AUTHORITY  | 4           |
| AERODROME OPERATING MINIMA                       | 4           |
| BASIC INFRASTRUCTURE AND FACILITIES REQUIREMENTS | 4           |
| BASIC PROCEDURAL REQUIREMENTS                    | 5           |
| SERVICES AT AERODROMES                           | 5           |
| VISIBILITY CONDITIONS                            | 5           |
| TRAFFIC DENSITY                                  | 6           |
| PROMULGATION IN AIP                              | 6           |
| DEVIATIONS                                       | 6           |

## INTRODUCTION

1. Aerodrome operating minima is established in order to ensure a desired level of safety for aircraft operations at an aerodrome by limiting these operations under specified weather conditions.
2. This EAC contains specifications regarding the appropriate combination of airside infrastructure, facilities, procedures and services for aerodrome operator to determine the aerodrome operating minima.
3. The system of visual aids, non-visual aids, procedures and services made available at aerodromes shall be adequate and effective to prevent collision[s] between aircraft, between aircraft and ground vehicles, between aircraft and obstacles, between vehicles and obstacles and between vehicles as well as to safeguard against unauthorised or inadvertent entry onto operational runway[s].
4. This Circular has been written in general terms. Detailed Information could be obtained from the following references at:

| References     |              |                        |
|----------------|--------------|------------------------|
| ICAO documents | ICAO annexes | ECAA regulations       |
| Doc 7300       | Annex 2      | ECAR 91                |
| Doc 8126       | Annex 6      | ECAR 121               |
| Doc 8168       | Annex 14     | ECAR 171               |
| Doc 9157       | Annex 15     | ECAR 173               |
| Doc 9365       | Annex 4      | ECAR 172               |
| Doc 9613       |              | ECAR 139-<br>EAC139/30 |
|                |              | ECAR 303               |
|                |              | ECAR 311               |

## OBJECTIVE

5. This EAC is intended to serve guidance concerning the visibility condition[s] which the aerodrome operator intends to maintain operations at the aerodrome.
6. The implementation of this Circular will ensure safe and efficient operations at the aerodrome for the movement of an aircraft from the landing runway to the parking position on the apron and back again to the take-off runway, as well as other movement on the aerodrome surface.

## RULES

7. Aerodrome operator may declare aerodrome operating minima expressed as a minimum Visibility or Runway Visual Range [RVR].
8. Aerodrome operator shall determine the aerodrome operating minima based on combination of visual aids, non-visual aids, procedures and services available at the

aerodrome based on the specifications contained in this Circular.

9. The aerodrome operator shall prohibit the commencement or continuation of aerodrome operations when the minimum Visibility or RVR is less than the specified aerodrome operating minima.
10. Aerodrome[s] that do not meet the visual aids, non-visual aids, procedures and services specified in this Circular shall fly the VMC unit in visual contact with ground.
11. Notwithstanding all of the above, the following shall be observed –
  - i. that aircraft landing and taking-off at an aerodrome shall be governed by ICAO Annexes and the Egyptian Civil Aviation Authority Regulations and Circular mentioned in item 4 in introduction section or any amendments thereof;
  - ii. that aircraft operating under Visual Flight Rules [VFR] landing and taking-off at an aerodrome shall be governed by rules as published in the Egyptian Aeronautical Publication Information [AIP]; and
  - iii. That the Low Visibility Procedure [LVP] established at any aerodrome shall be executed at visibility condition[s] as specified in those procedure.

### **APPLICABILITY**

12. The specification in this Circular shall apply to all aerodromes open for all operation aircraft.

### **AUTHORITY**

13. The Authority referred to in this Circular is the Egyptian Civil Aviation Authority.

### **AERODROME OPERATING MINIMA**

14. The reason for providing an aerodrome operating minima is to enable an aerodrome to operate safely in the intended conditions.
15. Horizontal visibility is the common factor in aerodrome operating minima for take-off and landing.
16. The horizontal visibility for aerodrome operating minima shall be either minimum Visibility or Runway Visual Range [RVR].
17. Visibility used as aerodrome operating minima shall be that reported by the Meteorological Office.
18. RVR used as aerodrome operating minima shall be obtained from Instrumented Runway Visual Range, Reported RVR and Converted RVR.

### **BASIC INFRASTRUCTURE AND FACILITIES REQUIREMENTS**

19. The infrastructure and facilities required at a particular aerodrome will depend both on the traffic density and visibility conditions in which operations should take place.
20. Specifications for the required infrastructure and facilities are contained either in the relevant Egyptian Circular(s), (ECAR139) or ICAO Annex 14 Volume I.

## **BASIC PROCEDURAL REQUIREMENTS**

21. Procedures are an important and integral in the application of aerodrome operating minima. The required procedures shall be implemented partly by the aerodrome operator, partly by the air traffic control units, and partly by the pilots.
22. The procedures to be employed at a particular aerodrome will be dictated by both traffic density and visibility conditions.

## **SERVICES AT AERODROMES**

23. Aerodrome services provide the essential ground support elements. The lower the visibility conditions and the greater the traffic volume, the more complex and extensive are the aerodrome services required to support the intended operation.
24. The basic services which shall be available at aerodromes are –
  - i. Air traffic services
  - ii. Apron management services
  - iii. Meteorological services
  - iv. Aeronautical information services
25. Air traffic services: Control and guidance of aircraft and vehicles on the manoeuvring area via radiotelephony communications.
26. Apron management services: Regulate the safe activities of aircraft, vehicles and personnel on the apron.
27. Meteorological services: Accurate and timely reporting of meteorological conditions is essential. Current meteorological information must be available.
28. Aeronautical information services: Ensure timely dissemination of information on the availability and serviceability of aerodrome facilities, procedures and services.

## **VISIBILITY CONDITIONS**

29. The visibility conditions to be considered are –

### **Visibility Condition 1**

Horizontal visibility sufficient for pilot to taxi and to avoid collision with other traffic on the taxiways and at intersections by visual reference, and for personnel of

air traffic control units to exercise control over all traffic on the basis of visual surveillance. The visibility shall not be less than 800 m or 550 RVR

### **Visibility Condition 2**

Horizontal visibility sufficient for pilot to taxi and to avoid collision with other traffic on the taxiways and at intersections by visual reference, but insufficient for personnel of air traffic control units to exercise control over all traffic on the basis of visual surveillance. The visibility shall not less than 400 m RVR

### **Visibility Condition 3**

The horizontal visibility less than 400 m RVR [low visibility operations]

### **TRAFFIC DENSITY**

30. Traffic density to be considered are -

#### **Light**

Not greater than 15 movements per runway or less than 20 total aerodrome movements in the mean busy hour.

#### **Medium**

Of the order of 16 to 25 movements per runway or between 20 to 35 total aerodrome movements in the mean busy hour.

#### **Heavy**

Of the order of 26 or more movements per runway or more than 35 total aerodrome movements in the mean busy hour.

### **PROMULGATION IN AIP**

31. Infrastructure and facilities provided at aerodrome that determine the aerodrome operating minima shall be published in the Aeronautical Information Publication.
32. Specific type of observation system and number of observation sites used to observe and report Visibility or Runway Visual Range shall be promulgated in the Aeronautical Information Publication.
33. Position of RVR instruments shall be shown on aerodrome charts

### **DEVIATIONS**

34. The Egyptian civil Aviation Authority shall notify and publish deviations from any Standards and Recommended Practices contained in ICAO Annex 14 in the Aeronautical Information Services publications in compliance to the Article 38 of the Convention on International Civil Aviation.

