



## NOTICE TO AERODROME CERTIFICATE HOLDERS (NOTAC)

Number 04/2012

Effective Date: 1<sup>st</sup> September 2012

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### Status of NOTACs

Valid: 01/2009, 03/2009; 04/2009; 01/2011, 02/2011, 03/2011, 04/2011, 01/2012, 02/2012, 03/2012

Cancelled: 02/2009

Incorporated in CAR: 02/2009

### Code Letter F Requirements and Guidance

#### 1 INTRODUCTION

- 1.1 Reflected in the Mission Statement, the GCAA is to regulate and to oversee aviation safety with the aim of serving the general public and the civil aviation industry. Consequently, this NOTAC is focused on achieving that aim.
- 1.2 With increasing number of Code F aircraft using or planning to use the facilities of aerodromes within the UAE, it is acknowledged that physical characteristics are currently being reviewed by many aerodromes to accommodate these larger aircraft. This NOTAC is based on guidance provided by ICAO (Circular 305 AN/177: Operation of New Larger Aeroplanes at Existing Aerodromes) with reference to CAR Part IX and Annex 14 Volume 1.
- 1.3 Annex 14 Volume I, defines aerodrome facility standards for Code F operations and this is reflected in CAR Part IX.
- 1.4 The GCAA, along with counterparts across the world, have recognised that Code F aircraft could present significant difficulties at existing aerodromes, owing potentially to the large amount of development required to meet Code F requirements.
- 1.5 Current CAR Part IX runway/shoulder requirements for Code F aircraft, are that runways should be of 60m paved width with shoulders extending symmetrically 7.5m either side, making a total width of 75m.

## **2 PURPOSE**

- 2.1 The purpose of this NOTAC is to clarify to Aerodrome Certificate Holders, the aerodrome design criteria for runways and shoulders to be applied for Code F aircraft at both destination and alternate aerodromes.

## **3 CODE F AIRCRAFT REQUIREMENTS**

- 3.1 In accordance with CAR Part IX, the width of a runway for Code F aircraft operations shall be not less than 60m.
- 3.2 Aerodromes which do not meet Code F requirements in all other areas on the airport will require the use of special operating procedures to limit movement of aircraft, to those parts of the aerodrome that are Code F compliant.

## **4 NEW CONSTRUCTION OR RUNWAY REHABILITATION**

- 4.1 If it is the intention to operate Code F aircraft, then fully compliant Code F facilities shall be provided on all relevant parts of the movement area whenever new construction of runways, runway rehabilitation or major development is undertaken, regardless of frequency of use.
- 4.2 When planning such construction or redevelopment, it may be prudent to consider the requirements of future aircraft types needing facilities in excess of Code F.

## **5 INTRODUCTION OF CODE F OPERATIONS ON CODE E RUNWAYS**

- 5.1 Infrastructure limitations at existing aerodromes, have been acknowledged by the GCAA allowing restricted / limited operations of Code F aeroplanes using 45m wide runways, provided that inner and outer shoulders are provided (CAR Part IX).
- 5.2 Whilst CAR Part IX does not currently mandate that shoulders shall be paved; operations of new larger aircraft on 45m runways will likely aggravate the problem of shoulder erosion.
- 5.3 The GCAA therefore requires that any Aeronautical Study supporting limited operations on 45m runways, include paved "inner" shoulders of at least 7.5m of a load bearing strength that will support an unintended Code F aircraft run-off and an additional minimum 7.5m of preferably paved, but suitably stabilised "outer" shoulders. This "outer" area must provide protection from engine jet-blast, ingestion and soil erosion and able to support RFF vehicles and equipment.
- 5.4 In all cases aerodromes should assess the hazards arising from different types of material used in shoulder construction emphasising that irrespective of the material used, the shoulders should be prepared or constructed so as to resist erosion from engine blast and minimize the hazard from foreign object ingestion and to aircraft which may run off the runway.
- 5.5 In order to satisfy the GCAA, comprehensive studies will have to be undertaken and presented to the GCAA in the form of an Aeronautical Study. This must include all aspects of the operation, for example: aerodrome infrastructure, rescue and fire fighting, emergency planning and air traffic services. The Aeronautical Study shall encompass the risk management process, with particular emphasis on probability,

severity and exposure of any adverse consequences resulting from Code F operations where Code F requirements are not met.

- 5.6 The GCAA is responsible for approving Code F aircraft to operate on a 45m width runway, provided that the aircraft is certified to do so (in accordance with ICAO Annex 6).
- 5.7 However, this approval is regarded as an interim measure for limited use only (for example, alternate aerodromes). A statement of the limited use shall be presented to the GCAA as part of any Aeronautical Study.
- 5.8 Approval will be provided on a case-by-case basis, dependant not solely on frequency, but also regarding the complexity of the operating environment and the outcome of the aerodrome operators Aeronautical Study, specifically the risk management process.
- 5.9 Should movements increase above the projected number as per the Aeronautical Study, then full regulatory requirements for Code F should be met. It is essential to maintain the currency of the supporting Aeronautical Study and seek GCAA approval of any planned changes to operations.
- 5.10 The aerodrome must satisfactorily address all safety and compliance issues arising from Code F operation assessments prior to service entry.

## **6 SUMMARY OF OPERATIONS ON CODE E RUNWAYS**

- 6.1 Circumstances may arise where existing runways with a lesser width may be supported by an Aeronautical Study; for example, where an aerodrome is nominated as a Code F alternate, or where the frequency of operations is very low.
- 6.2 For Code F operations the combined 75m runway/shoulder width should normally be paved; however as a minimum, the inner combined 60m runway/shoulders shall be paved. This will be subject to an assessment process and feature within the Aeronautical Study, supporting Code F operations on a Code E runway.
- 6.3 Where a reduced paved runway width is accepted and the outer 7.5m shoulders are unpaved, then the runway shoulders must be stabilised. In such instances, a programme of inspections of the shoulders and runway shall be implemented to confirm its continuing serviceability and ensure that there is no deterioration that could create a risk of FOD or other hazards to aircraft operations.
- 6.4 The bearing strength of the shoulders, shall comply with the requirements in CAR Part IX. Unpaved surfaces must be regularly assessed as being suitable strength.
- 6.5 As movements of Code F aircraft increase in number above that agreed with the GCAA, then full regulatory requirements for Code F operations is required. Where alternative measures, operational procedures and operating restrictions are implemented, these should be reviewed periodically and be considered only as a temporary alternative means of CAR Part IX compliance.
- 6.6 For all circumstances, aerodrome operators shall ensure that a robust Aeronautical Study has been produced in support of Code F operations.

## **7 Amendment to CAR Part IX (additions highlighted)**

### **Appendix 8.3.7: Width of Runways**

When new or rehabilitated runways are planned, then each shall be designed an Aerodrome Reference Code for the largest aircraft type intended to operate.

### **Appendix 8.3.9.8: Runway Shoulders**

ii) Code E runways used for Code F aircraft operations shall be provided with shoulders that extend symmetrically on each side of the runway and consist of:

A) Paved inner shoulders 7.5 metres in width of a load bearing strength on either side that are able to support an unintended aircraft run-off; and

B) Outer shoulders 7.5 metres in width on either side, paved or stabilised that are resistant to engine blast erosion, prevent engine ingestion and are able to support emergency and service vehicles.

A programme of inspections of the shoulders and runway shall be implemented to confirm continuing serviceability and ensure that there is no deterioration that could create a risk of FOD or other hazards to aircraft operations.

Proposals for the use of Code F operations on Code E runways shall be supported by an Aeronautical Study with a statement of the limited use. Approval will be provided on a case-by-case basis, dependant not solely on frequency, but also regarding the complexity of the operating environment and the outcome of the aerodrome operators risk management process.

## **8 SCOPE**

The content of this NOTAC applies to all UAE Certified Aerodromes.

## **9 IMPLEMENTATION**

This NOTAC is effective from: 1<sup>st</sup> September 2012.

## **10 PROMULGATION**

10.1 Current NOTACs are published on the GCAA website.

10.2 Aerodrome Certificate Holders should promulgate NOTACs promptly to those persons within the organization/aerodrome that need to be made aware of the content and the impact on their role and responsibilities.

## **11 QUERIES**

Any queries, further guidance or a request for NOTAC action should be submitted by email to the Director of ANA Department at the following address [ana@gcaa.gov.ae](mailto:ana@gcaa.gov.ae).