



NOTICE TO AERODROME CERTIFICATE HOLDERS (NOTAC) Number 02/2009

Effective Date: 01 July 2009

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Status of NOTACs

Valid: 01/2009 02/2009
Cancelled: Nil
Incorporated in CAR: Nil

RUNWAY DECLARED DISTANCES - INTERSECTION TAKE-OFF

1. INTRODUCTION

- 1.1 ICAO requires that aerodromes publish declared distances for each runway and the United Arab Emirates publishes requirements for declaring runway distances in Civil Aviation Regulations (CAR) Part IX, which meet the Standards and Recommended Practices (SARPs) provided in ICAO Annex 14, Volume 1. The GCAA approves the declared distances for each certificated runway, which are recorded on the form GCAA 001C "Calculation of Declared Distances", and these distances are published for each certificated aerodrome in the AGA section of the UAE Aeronautical Information Publication (AIP)
- 1.2 ICAO does not stipulate requirements for the publication of declared distances from runway intersections. Accordingly, neither does CAR Part IX. Several UAE aerodromes publish declared distances from runway intersections in the AIP, but, due to lack of guidance, the origin of these distances is often unknown.

2. PURPOSE

- 2.1 The purpose of this NOTAC is to clarify to aerodrome certificate holders the origin of the declared distances from intersection take-offs and the process to be followed for their notification in the UAE AIP.

3. SCOPE

- 3.1 The content of this NOTAC applies to all UAE certified aerodromes that notify intersection take-off declared distances.

4. ORIGIN OF INTERSECTION DECLARED DISTANCE

- 4.1 Aerodromes make use of intersection take-offs to maintain runway capacity and efficiency.

- 4.2 Due to the lack of consistent guidance, aerodromes have chosen 3 different origins to calculate the distance:

- a) The downwind edge of the taxiway, extended ahead to meet the runway centreline;
- b) The upwind edge of the taxiway extended ahead to meet the runway centreline;
- c) The tangent point where the taxiway centreline curve meets the runway centreline.

- 4.3 When deciding on the origin of the intersection declared distance, consideration must be given to understanding that the origin of full-length declared distances is, in most cases, the end of concrete/asphalt; therefore, following aircraft line-up, the origin is behind the aircraft. An allowance for the length of the aircraft is taken into account when calculating the remaining distance. ICAO publishes the following in Annex 6 Part I, Chapter 5, paragraph 5.2.8.1: "In determining the length of the runway available, account shall be taken of the loss, if any, of runway length due to alignment of the aeroplane prior to take-off." Aircraft performance manuals make the same calculation for line-up allowance irrespective of where that line-up occurs along the runway. Therefore, flight crews would expect to calculate a similar correction distance at an intersection departure as for a full-length departure, regardless of where the origin is located.

- 4.4 The use of the downwind origin as the basis for calculating declared distances from a runway intersection provides consistency with the full-length calculation.

Consequently, following research the GCAA has elected to support the downwind origin option.

5 IMPLEMENTATION

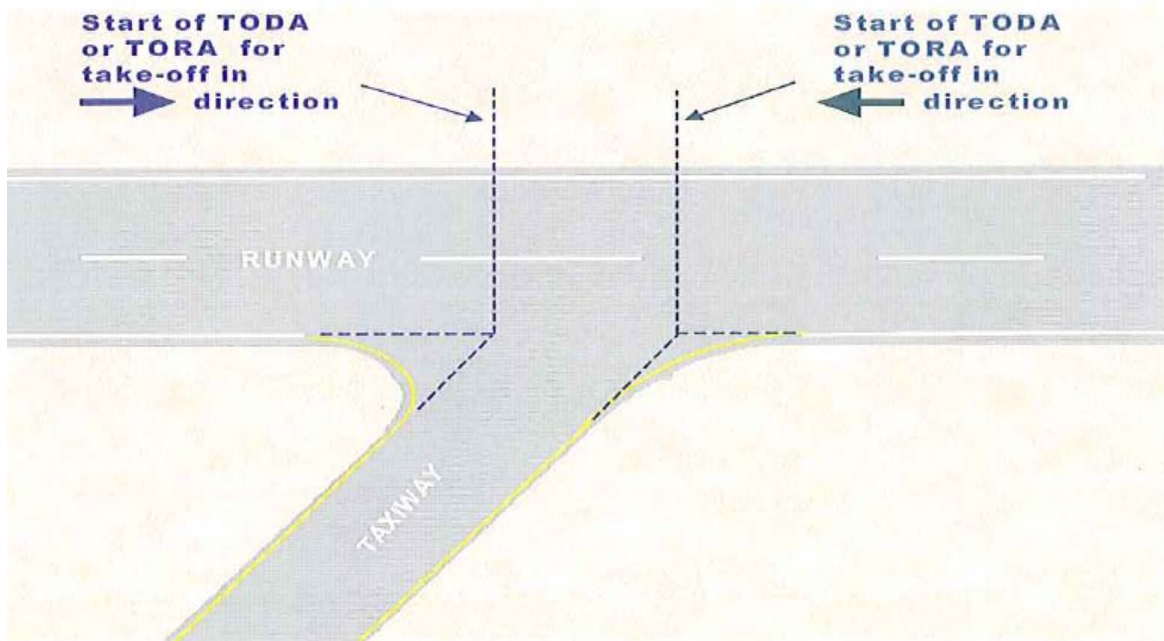
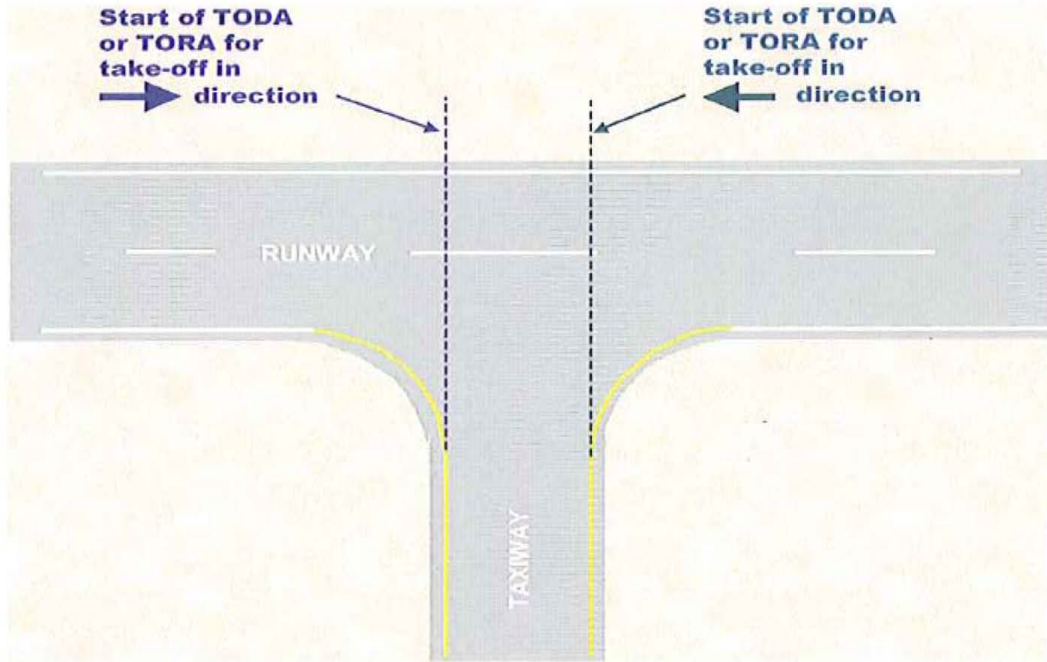
- 5.1 With immediate effect, declared distances from a runway intersection shall be calculated from the downwind edge of the taxiway (see Appendix A)
- 5.2 Appendix A illustrates how to determine the origin of intersection departures. Aerodrome Operators/Certificate Holders should use this method to determine the origin of the Take-Off Run Available, in order to measure the distances for intersection departures accurately.
- 5.3 Appendix B illustrates how to format the information for submission to the Chief AIP Officer.
- 5.4 All Aerodrome Operators/Certificate Holders must review and amend all relevant AIP charts (2.21), section AD 2.13 and submit changes to Chief AIS Officer, ais@gcaa.ae, 02 599 6889 (F) not later than AIRAC 83 closure date 10 September 2009.
- 5.5 Aerodrome Operators/Certificate Holders should liaise with their Aerodrome Inspector in order to notify intersection take-off distances in the AGA section of the UAE Aeronautical Information Publication (AIP). A NOTAM should be issued to cover the period up to publication of the revised AIP entry in the event of not being able to meet AIRAC 83.

6. QUERIES

- 6.1 Any queries, further guidance or a request for NOTAC action should be submitted by email to the Chief of ANS Regulations Department at the following address: ans.reg@gcaa.ae .

Declared Distances for Intersection Departures

The following diagrams illustrate the method of calculating the take-off distance available or take-off run available where departures are allowed from taxiway intersections.



For each take-off intersection departure, the Runway designator, Taxiway designator along with TORA, TODA and ASDA shall be promulgated within AIP.

Example:

DECLARED DISTANCES

Runway Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
09L 27R	3901 3884	3901 3961	3901 3884	3595 ⁺ 3884	+ 09L landing threshold displaced by 306m
09R 27L	3660 3660	3660 3660	3660 3660	3353 ⁺	+ 09R landing threshold displaced by 307m
09L	3365	3365	3365	-	Take-off from intersection with A12
09L	2840	2840	2840	-	Take-off from intersection with A11
27R	3555	3632	3555	-	Take-off from intersection with A4

Where intersection departures are provided, information signs advising the available TORA shall be provided at each taxiway permitting a departure. The information signs must be in accordance with CAR Part IX (11.3.5 and 11.3.29) on the left hand side of the taxiway in accordance with CAR Part IX 11.3.14.

Example:



The following NOTAC's remain effective:

08 June 2009

01/2009 PROCEDURES FOR THE ISSUE OF A NOTICE TO AERODROME
CERTIFICATE HOLDERS

02/2009 RUNWAY DECLARED DISTANCES - INTERSECTION TAKE-OFF