



*International Civil Aviation Organization*

**MIDANPIRG/21 & RASG-MID/11 Meetings**

*(Abu Dhabi, UAE, 4 – 8 March 2024)*

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**Agenda Item 5.3: ANS (AIM, PBN, AGA-AOP, ATM-SAR, CNS and MET**

**UAE PREPARATION FOR SIGNIFICANT CHANGES IN NOTAM SPECIFICATIONS**

*(Presented by United Arab Emirates)*

**SUMMARY**

This information paper highlights UAE experience in preparation and implementation of the changes in the NOTAM specifications specified in the Seventh Edition of Doc 8126, focusing specifically on the calculation of Q-Line Lower/Upper Limits.

**1. INTRODUCTION**

1.1 This paper delves into the UAE's experience in preparing and implementing amendments to NOTAM specifications in accordance with ICAO Doc. 8126 Ed.07. The paper focuses on the Qualifiers Lower/Upper Limit within the Q-Line, it explores the mechanisms employed by the UAE to apply these changes efficiently. Offering practical insights, this paper contributes valuable knowledge to enhance comprehension and implementation of updated NOTAM specifications in the aviation community.

**2. DISCUSSION**

2.1 ICAO Doc.8126 Ed.07 amended some NOTAM specifications and provided guidelines to facilitate understanding of the message and support automated PIB processing while maintaining clear readability.

The change which had a very significant impact is on the following items:

- Q-Line: Qualifiers Lower Limit and Upper Limit

2.2 Qualifiers Lower Limit and Upper Limit

The Qualifiers Lower Limit and Upper Limit “LLL/UUU” indicate the vertical limits of the airspace. These are expressed in thousands of feet below the transition altitude and flight levels (FLs) above it. In the case of navigation warnings and airspace restrictions, the values must be consistent with those entered under Items F) and G). In the case of airspace organization management (NOTAM related to structure of ATS routes, terminal control areas (TMAs), control zones (CTRs), aerodrome traffic zones (ATZs), etc.), the specified lower and upper values correspond to the vertical limits of the concerned airspace. The use of the default values 000/999 should be avoided whenever possible.

Vertical Limits may be presented in Flight Level (FL) or a specific vertical distance either Above Mean Sea Level (AMSL) or Above Ground Level (AGL).

*Note - These values are linked to the identifiers [F Item & G Item].*

Based on the Vertical Limits in Items F) and G), the values in the qualifier Lower Limit are rounded down to the nearest 100 ft., while the values in the qualifier Upper Limit are rounded up to the nearest 100 ft. Addition of buffers to these qualifiers should be avoided as it increases the airspace considered for PIB purposes.

The various scenarios are as follows:

- I. If the values in Items F) and G) are expressed as flight levels, then the same FL values are entered as the lower limit and upper limit values in Item Q).
- II. If the values in Items F) and G) are expressed as an altitude above mean sea level (AMSL), then the corresponding FL values are entered (based on the standard atmosphere) as the lower limit and upper limit values in Item Q).
- III. When the values in F) and G) are expressed as a height above ground level (AGL) and when the corresponding altitude can be calculated based on the terrain elevation of the affected area, the corresponding FL values are entered (based on the standard atmosphere and AMSL values) as the lower limit and upper limit values in Item Q).
- IV. When the values in F) and G) are expressed as a height (AGL) and no corresponding flight levels can be defined, i.e. the terrain elevation of the affected area is unknown, despite all possible action taken to obtain the data, the highest terrain elevation of the State, or of the FIR or the region concerned, is added to the value in Item G) for calculating the qualifier Upper Limit and the default value 000 is entered in the qualifier Lower Limit in Item Q).

Hence, the resultant values of the Qualifiers Lower/Upper may not correspond to the same inserted in the F) & G) items, as these two items will have their respective values i.e. Qualifiers Lower/Upper as calculated and items F) & G) as actual.

### **3. PREPARATION**

3.1 Evaluation: The NOTAM team did a thorough evaluation of the changes in ICAO Doc 8126 edition 7 and listed the significant changes to the NOTAM specifications. The items that would require changes in procedures were listed and procedure changes were prepared.

3.2 Discussion with Regulator: The changes to NOTAM specifications and the prepared procedure changes were discussed with the regulator for inputs and acceptance.

3.3 Presentation at National AIM Technical Committee meeting: The changes that would impact NOTAM requesters and NOTAM users were presented and discussed in detail at the National forum where AIM technical issues are discussed.

3.4 Guidance chart: A chart encompassing the UAE Territory was prepared displaying the highest terrain elevation value in each 15x15 Minutes quadrilateral. This was agreed to be used as a guidance to get the most appropriate Qualifiers Lower/Upper values where the Data Originator did not have the correct surveyed values. The values in each quadrilateral were based on the official UAE eTOD Area 1 terrain data.

3.5 Briefing and training of NOTAM requesters: Sessions were conducted with NOTAM requesters to clarify the changed procedures and prepare them to implement their own internal procedures.

**4. ACTION BY THE MEETING**

4.1 The meeting is invited to note the information regarding UAE experience preparing for the significant NOTAM Specifications Changes.

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