



International Civil Aviation Organization

MIDANIRG AIM Task Force

**Seventh Meeting (AIM TF/7)
(Cairo, 25 - 27 September 2012)**

Agenda Item 3: Global development related to AIM

REVIEW OF THE AMENDMENT 37 TO ANNEX 15 AND COMMENTS THERETO

(Presented by the Islamic Republic of Iran)

SUMMARY

The aim of this paper is to review proposal for amendment 37 to annex 15 and Iran comments thereto.

Action by the meeting is at paragraph 3.

REFERENCES

- ICAO Letter REF AN 2/2.3-12/52 dated 23 August 2012
(Proposal for Amendment to Annex 15)

1. INTRODUCTION

1.1 This proposal presented by Iran for the purpose of reviewing main changes to the annex 15 proposed by ICAO ANC and Iran comments to the mentioned amendment.

2. DISCUSSION

2.1 The air navigation commission, at the fourteenth meeting of its 190th session held on 26 June 2012, proposed amendment 37 to annex 15. The proposal has posted to the member states on 23 August 2012.

2.2 **Main changes** proposed include the followings:

- a) Defining terms and concepts related to AIM.
- b) Expanding the automation concepts of AIM and database requirements for data management.
- c) Aeronautical data and aeronautical information quality.

- d) Introduction of Aerodrome Mapping Database (AMDB) as a new chapter (Chapter 11) including the introduction of a **single GIS** for Aerodromes terrain and obstacle data.

2.2.1 Iran comments to the proposal for amendment 37 to annex 15:

Page No.	Section	Comment
A-3	1.1 Definitions	<p><i>Aeronautical information management (AIM). The dynamic, integrated management of aeronautical information through the real-time provision and exchange of quality-assured digital aeronautical data in collaboration with all parties.</i></p> <p>In the definition of AIM, the term “Real-Time” should be added;</p> <p>(Rationale: AIM would results in the provision of right digital aeronautical information, at the right time and to the right person. Within the context of the proposed definition, “...quality-assured digital aeronautical ...” is referred to DIGITAL, “...integrated management ...” is refered to the right person, but there is nothing about right time delivery of services)</p>
A-4	1.1 Definitions	<p><i>Confidence level. The probability that the true value of a parameter is within a certain interval around the Estimated or measured of its value.</i></p> <p>The term <u>measured</u> should be added;</p> <p>(Rationale: According to the definition of accuracy the word ... measured should be added or otherwise the definition of accuracy should be amended)</p>
A-4	1.1 Definitions	<p>According to this page, the definition of Database has been deleted. Although eTOD (electronic Terrain and Obstacle <u>Database</u>) has been amended to electronic Terrain and Obstacle <u>Dataset</u>, Database is a general term, which should be defined for aviation experts. The terms database and data set have been used within the context of Annex 15 and it is proposed that the differences of database and data set be defined in the definitions section clearly in a manner that an expert knows that what the database is, what the data set is and what are the differences between these two terms.</p> <p>Generally, aeronautical information and data are geospatial data and information, so it is proposed that <u>spatial database</u>, <u>geo database</u> or <u>aeronautical database</u> terms be defined separately.</p>

Page No.	Section	Comment
A-4	1.1 Definitions	<p>In this section, the definition of Aerodrome mapping database (AMDB) is noted as “<i>a collection of aerodrome mapping data <u>organized and arranged</u> as a structured data set</i>”. According to this definition aerodrome mapping database is a structured data set, while it should be noted that a data base is designed and developed for storing and <u>managing</u> the data sets, the latter has been missed in the definition.</p>
A-10	Chapter 2	<p>3.3.4 2.3.4 States shall, wWherever To the extent practicable, establish direct contact between aeronautical information services shall be established in order to facilitate the international exchange of aeronautical data and aeronautical information/data.</p> <p>The term Whenever should be replaced by “To the extent possible”</p>
A-14	3.4 Metadata	<ul style="list-style-type: none"> • In the ISO 19115 standard, there are core metadata elements, which have been proposed for geospatial data. based on mandatory elements of core metadata from ISO 19115 standard, the below elements are proposed to add the metadata of aeronautical data: <ul style="list-style-type: none"> - Title - Abstract - Language - Topic - Contact Information • It is proposed that, a standard structure be defined for metadata of aeronautical data with specific elements and structure. A fixed structure could improve the understanding of the aeronautical data in different states.
A-16	3.6 Use of Automation	<p>In this section, Unified Modeling Language (UML) has been presented for Aeronautical Information modeling. It is proposed, UML term be defined in the Definitions section.</p>

Page No.	Section	Comment
A-17	Original section 3.6.6	<p>The original section 3.6.6, <i>Identification and delineation of prohibited, restricted and danger areas:</i></p> <p>I propose not to remove all materials related to the subject because most parts of this title is related to the format and manner of publication/ notification of aeronautical information regarding P/R/D areas in AIP, etc. Removing this section wholly from annex15 may rely a misunderstanding to some states that AIS departments are not yet involved in civil/military coordination or in a broader scope in airspace management and/or FUA and this function is completely delegated to ATS (Because of repositioning of this section from annex 15 to annex 11).</p>
A-26	11.1 Aerodrome mapping data — requirements for provision	<p>In this section, Geographic Information System (GIS) term has been mentioned. It is proposed that GIS term be defined in the Definitions section.</p> <p>In addition, it is proposed that <u>geospatial</u> data term be used instead of geographic data term (also Geospatial Information System instead of Geographic Information System) in annex 15. Aeronautical data are spatial data, so geospatial term is more suitable for these data because the term geographic in GIS (<u>Geographic</u> Information System) is a general term which includes Geospatial, Social, Economical etc. data to be included in GIS and is generally used in human science to refer to GIS. Instead, in engineering field, Geospatial term is used (<u>Geospatial</u> Information System as GIS). Generally, geospatial data could be more suitable than geographic data for aviation industry.</p>
A-53	Table A8-2. Obstacle data numerical requirements	<p>For area 2 In table A8-2, the vertical accuracy is 3m and vertical resolution is 0.1m. It is proposed that for area 2, the vertical resolution be changed to 1m, because the 3m accuracy couldn't support 0.1m resolution and 1 m resolution is more suitable for 3m accuracy. On the other hand, when the data could be collected with 3m vertical accuracy, the 0.1 m resolution does not mean and 1m resolution is correct.</p>

3. CONCLUSION

3.1 It seems that although the amendment considers concepts and new trends of global AIM which is widely developing, but it needs some improvements in the field of database and GIS concepts with a view of GIS and database experts, to be more matured.

4. ACTION BY THE MEETING

4.1 The meeting is invited to:

- a) note the information in the working paper.
- b) ICAO to consider Iran comments to the proposal for amendment 37 to annex 15.

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