



INTERNATIONAL CIVIL AVIATION ORGANIZATION
AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP
SEVENTEENTH MEETING (APIRG/17)
(Burkina Faso, 2 to 6 August 2010)

Agenda 3.6: Aeronautical Information Management (AIM)

Implementation of e-TOD in the AFI Region; Adoption of an AFI Region Policy For the management of National e-TOD Programmes

(Presented by the Secretariat)

SUMMARY

On 23 February 2004, the ICAO Council adopted Amendment 33 to Annex 15, Aeronautical Information Services which included the addition of a new chapter 10 – Electronic Terrain and Obstacle Data requirements, and a number of amendments to Appendix 1 – contents of Aeronautical Information Publications (AIP) and Appendix 7 – Aeronautical Data Quality requirements.

Action by APIRG/17 is contained in paragraph 3

1. INTRODUCTION

1.1 Pursuant to conclusion 9/13 of the AFI and Implementation Regional Group (APIRG) ATS/AIS/SAR SG/9 Meeting held in Dakar, Senegal from 25-27 April 2007 and Conclusion 16/43 of the 16th APIRG Meeting held in Kigali, Rwanda, from 19 to 23 November 2007, the ICAO Regional Offices in Dakar and Nairobi, in collaboration with the national Civil Aviation Administration of Morocco, conducted the AFI Regional Seminar on Electronic Terrain and Obstacle Data (eTOD) in Casablanca, Morocco, from 1 to 3 April 2008.

1.2 The Seminar was oriented to analyze the issues related to e-TOD as specified in the technical requirements contained in Chapter 10 of ICAO Annex 15- *Aeronautical Information Services*, so as to facilitate future implementation of these requirements by the AFI States, over the period 2008 to 2010.

2. DISCUSSION

2.1 The APIRG ATS/AIS/SAR SG-11 Meeting held in Nairobi, Kenya from 26-30 April 2010 reviewed the Report of the First Meeting of the AFI Region Electronic Terrain and Obstacle Data Working Group (AFI e-TOD WG/1) held in Johannesburg, South Africa on 27 June 2009. The meeting noted the advantages associated with e-TOD confirming that all of them are safety-related and highlighted that the AFI e-TOD Working Group was established with the main objective to assist and guide States for a harmonized, timely and cost-effective implementation of eTOD. The meeting elaborated on the implementation of e-TOD templates adopted by the working Group and the draft development of the policy for the management of national e-TOD programs by the States in the AFI Region.

2.2 The meeting also noted that Amendment 36 to Annex 15 introduced important changes to Chapter 10 related to eTOD. The meeting noted that the coverage areas for sets of electronic terrain and obstacle data has been amended to be specified as follows:

- Area 1: the entire territory of a State;
- Area 2: within the vicinity of an aerodrome, sub-divided as follows:
 - Area 2a: a rectangular area around a runway that comprises the runway strip plus any clearway that exist.
 - Area 2b: an area extending from the ends of Area 2a in the direction of departure, with a length of 10km and a splay of 15% to each side.
 - Area 2c: an area extending outside Area 2a and Area 2b at a distance of not more than 10km from the boundary of Area 2a; and
 - Area 2d: an area outside the Areas 2a, 2b and 2c up to distance of 45 km from the aerodrome reference point, or to an existing TMA boundary, which ever is nearest;
- Area 3: the area bordering an aerodrome movement area that extends horizontally from the edge of a runway to 90m from the runway centre line and 50m from the edge of all other parts of the aerodrome movement area.
- Area 4: The area extending 900m prior to the runway threshold and 60 m from each side of the extended runway centre line in the direction of the approach on a precision approach runway, Category II and III.

2.3 The meeting highlighted that the implementation of e-TOD provisions is a challenge for all concerned. It was also recognized that since some of those who should be involved in the implementation process were not aware of the responsibilities that they might have and that only a small cross section of those affected were fully aware of the implications and the new responsibilities arising. Furthermore, as a result of the nature of the task and the new technologies and standards that are involved, it was underlined that many stakeholders require training to enable them to perform the task for which they are responsible.

2.4 Based on the above, the meeting agreed that States should organize awareness campaigns and training events (workshops) involving all concerned personnel from within and outside the Civil Aviation Authority in order to provide an overview of the technical, legal, institutional and financial issues related to e-TOD as well as of the actions that need to be taken in implementing e-TOD and to bring a high-level understanding of the associated topics.

2.5 The meeting also noted that a structured approach to implementation is required to realize the important safety and efficiency benefits to be derived from the uniform implementation of terrain and obstacle data (e-TOD) provisions.

3. Action by the APIRG/17 Meeting:

3.1 On this basis, the ATS/AIS/SAR SG-11 meeting adopted the following Draft Conclusions to guide the work of APIRG and for endorsement by the APIRG/17 meeting.

Draft Conclusion 11/04 - Implementation of WGS-84 and electronic terrain and obstacle data

That:

- a) *The AFI Planning and Implementation Regional Group (APIRG) adopt the revised AIM Performance Objective “Implementation of WGS-84 and electronic terrain and obstacle data” as contained in the Performance Framework Form in the **Appendix D** as its strategy for implementation.*

- b) *The proposed FASID Table at **Appendix E** be adopted for inclusion as a requirement in the AFI FASID Document 7474 Vol. II.*
- c) *That the draft AFI Region e-TOD Implementation strategy under **Appendix-F** be reviewed for adoption by APIRG.*
- d) *That the revised terms of reference of the AFI Region e-TOD Working Group under **Appendix- G** be reviewed for adoption by APIRG.*

Draft Conclusion 11/07: e-TOD implementation awareness campaigns

Taking into consideration the adopted dates of applicability of e-TOD provisions introduced by AMDT 36 Annex 15 and the resources required for the implementation of these new provisions, the States' AIS should take the lead and carry out awareness campaigns at national level to promote a better understanding of the planning and implementation issues related to e-TOD and training programs.

Draft Conclusion 11/08: Development and management of a national e-TOD programme

That:

States, in accordance with sound management principles and procedures, should:

- a) *develop a framework and a detailed planning including priorities and timelines, for the implementation of a national e-TOD programme;*
- b) *adopt/follow a collaborative approach, involving all concerned parties, in the implementation of e-TOD provisions; and*
- c) *make an inventory of and evaluate the quality of existing terrain and obstacle data sources, and in the case of data collection, consider carefully the required level of details of collected terrain and obstacle data with particular emphasis on obstacle data and associated cost.*

Draft Conclusion 11/09: Coordination and exchange of experience for the implementation of e-TOD requirements

That:

Implementation of e-TOD provisions should be considered a global matter concerning all ICAO Regions, which thereby necessitates coordination and exchange of experience between States, ICAO and other national/international organizations and industry partners involved.

Draft Conclusion 11/10: responsibility for the provision of e- TOD

That:

States, while maintaining the responsibility for data quality and availability, should consider the extent to which provision of electronic terrain and obstacle data could be delegated to national geodetic Institutes/ Agencies, based on Service Level Agreement (SLA) reflecting such delegation.

Draft Conclusion 11/44: e-TOD Checklist

*That, States be encouraged to use the e-TOD checklist at **Appendix-A** in order to assist them in the process of planning and implementation of the e-TOD provisions.*

Draft Conclusion 11/45: Adoption of the e-TOD Implementation Plan Template at Appendix B as a regional model and the adoption of the South African National eTOD Implementation Plan as a sample.

That,

- a) *States be encouraged to use the e-TOD Implementation Plan Template at **Appendix-B** as a regional model in order to assist them in the process of planning and implementation of the e-TOD provisions.*
- b) *States be encouraged to use the South African National e-TOD Implementation Plan at **Appendix C** as a Sample when developing their national e-TOD plans.*

Draft Conclusion 11/46 - Coordination between States and data providers/integrators for the provision of e- TOD

That:

Collaboration between States and data providers/integrators should be considered in the process of e- TOD provision.

Draft Conclusion 11/47: Resources and management of national e-tod programmes

That :

- a) *e-TOD implementation should be managed by each State as a national E-TOD programme supported by necessary resources, a high level framework and a detailed national plan including priorities and timelines for the implementation of the programme; and*
- b) *States encountering difficulties in the implementation of E-TOD consider seeking assistance (individually or collectively) including from available programmes ICAO TCB and from other States.*
