International Civil Aviation Organization

MIDANPIRG Steering Group

Fourth Meeting (MSG/4)
(Cairo, Egypt, 24 - 26 November 2014)

Agenda Item 4: MID Region Air Navigation Planning

METHODOLOGY FOR REPORTING AND ASSESSING THE PROGRESS RELATED TO THE TRANSITION FROM AIS TO AIM

(Presented by the Secretariat)

SUMMARY

This paper presents a draft methodology for monitoring the progress achieved in the transition from AIS to AIM.

Action by the meeting is at paragraph 3.

REFERENCES

- AIM SG/1 Report
- EUROCONTROL AIM/SWIM Team-7 meeting minutes

1. INTRODUCTION

1.1 AIM has been identified as one of the Global Air Navigation Priorities in the Global Air Navigation Report-2014 Edition and accordingly, as one of the areas which needs to be monitored.

1.2 As part of the ICAO EUR/MID AIM/SWIM Seminar (Istanbul, Turkey, 14-17 May 2013) Conclusions related to "Global Support", the need for a standardized methodology to assess and report progress in the transition from AIS to AIM was recognized.

2. DISCUSSION

2.1 The meeting may wish to note that for the First Edition of the Global Air Navigation Report and the Regional Performance Dashboards, an agreement was reached to monitor the implementation of 3 steps from Phase I of the ICAO Roadmap for transition from AIS to AIM (AIRAC, QMS and WGS-84). It's to be highlighted that for the future Global Air Navigation Reports and necessary updates/upgrades of the Regional Performance Dashboards, the reporting on the progress achieved in the transition from AIS to AIM should cover not only Phase I, but also Phase II and eventually Phase III.

2.2 The meeting may wish to note that the AIM SG/1 meeting held in the ICAO MID Regional Office in Cairo, 6-8 May 2014 reviewed a draft layout of the Methodology for reporting and assessing the progress related to the transition from AIS to AIM and urged States to provide their comments/inputs for the development of a Methodology.

2.3 Nine (9) States from the MID Region (Iran, Iraq, Jordan, Libya, Oman, Qatar, Saudi Arabia, Sudan and UAE) commented on the draft layout of the Methodology. The draft layout of the Methodology was also circulated between EUROCONTROL AIM/SWIM Team members and presented to the Global AIM Dubai, 2014. After considering all received comments/inputs a draft Methodology was developed. The Draft Methodology is being improved by the ICAO MID and EUR/NAT Offices, in collaboration with EUROCONTROL. The last updated version of the draft Methodology is at **Appendix A**.

2.4 It is also to be noted that the draft Methodology is being coordinated with ICAO HQ in order to be used as a framework for reporting the progress related to the transition from AIS to AIM at the Global level, for the Global Air Navigation Report and the Regional Performance Dashboards.

2.5 The meeting may wish to note that, during development of the draft Methodology, a need was raised for setting finalization/compliance criteria for each of Metrics (Steps), by which finalization and compliance with the Metric (Step) can be realized. A preliminary draft of the Finalization/Compliance Criteria is at **Appendix B**.

2.6 Based on the above, the meeting may wish to agree on the following Draft Conclusion emanating from the AIM SG/1 meeting (Draft Conclusion 1/3 with minor changes):

Why	Need for the monitoring the progress related to the transition from AIS to AIM
What	Methodology for reporting and assessing the progress related to the transition from AIS to AIM
Who	ICAO/States
When	31/12/2014

DRAFT MSG CONCLUSION 4/XX: DRAFT METHODOLOGY FOR REPORTING AND ASSESSING THE PROGRESS RELATED TO THE TRANSITION FROM AIS TO AIM

*That, States be urged to provide the ICAO MID Regional Office with their comments/inputs related to the "Methodology for reporting and assessing the progress related to the transition from AIS to AIM" and the Finalization/Compliance Criteria, before **31 December 2014** as at **Appendices A and B**.*

3. ACTION BY THE MEETING

3.1 The meeting is invited to endorse, as appropriate, the proposed Draft Conclusion at para. 2.6.

APPENDIX A

METHODOLOGY FOR REPORTING AND ASSESSING THE PROGRESS RELATED TO THE TRANSITION FROM AIS TO AIM

1. Introduction

Transition from Aeronautical Information Services (AIS) to Aeronautical Information Management (AIM) is a high-priority area for air navigation progress. This is a strategic positioning initiative to drive the delivery of improved aeronautical information in terms of quality, timeliness and the identification of new services and products to better serve aeronautical users (ICAO Global Air Navigation Report-2014). This methodology aims to develop a method and plan for the reporting by the States on the progress achieved for transition from AIS to AIM, based on the ICAO Roadmap for Transition from AIS to AIM.

2. Need for reporting and assessing the progress related to the transition from AIS to AIM

The ICAO air navigation planning and implementation performance framework requires that reporting, monitoring, analysis and review activities be conducted on a cyclical, annual basis (ICAO DOC 9750). Data gathered would have a number of uses, inter alia:

- **ICAO monitoring functions:** a purpose of this Methodology is to meet the ICAO monitoring requirements related to air navigation planning and implementation. Reporting and monitoring results will be analyzed by ICAO and aviation stakeholders and then utilized in developing the annual Global Air Navigation Report, as well (ICAO DOC 9750).

- **Global Air Navigation Report (GANR):** all or part(s) of data would be reflected in the Global Air Navigation Report (GANR). The report results will provide an opportunity for the world civil aviation community to compare progress across different ICAO Regions in the establishment of air navigation infrastructure and performance-based procedures (ICAO DOC 9750).

- **Regional Performance Dashboards:** all or part(s) of data would be reflected in the Regional Performance Dashboards.

3. Methodology approach

Main approach of this Methodology in data collection and reporting is quantitative, based on the SMART rule. All Elements and Metrics/Indicators used for reporting should be Specific, Measurable, Achievable, Relevant and Time-bounded. Moreover, the Methodology has to reflect 4Ws (Why, What, Who and When) related to each Element. Accordingly, some steps of the ICAO Roadmap for the transition from AIS to AIM (i.e. P-02 Data integrity monitoring, P-07 Unique identifiers, P-10 Communication networks, P-16 Training and P-19 Interoperability with meteorological products) are not considered for reporting purposes, whereas they are already part of other steps and/or measurement of which could not be carried out in a quantitative manner.

4. **Data collection strategy**

In order to avoid confusion using numerous reporting forms for data collection from States, the data collection intended by this Methodology would be carried out through current data collection tools (i.e. eANP Tables, etc.). Special excel sheets in support of the collection of data may be used, if needed

5. **Structure of the Methodology Plan**

The structure of the Methodology Plan consists of the following elements:

1- Element (Phase/Step/Step No.): refers to the Phase number (1-3), Step and Step number (1-21) of the ICAO Roadmap for transition from AIS to AIM. Some steps of the ICAO Roadmap for the transition from AIS to AIM (i.e. P-02, P-07, P-10, P-16 and P-19) are not considered for reporting purposes, whereas they are already part of other steps and/or measurement of which could not be carried out in a quantitative manner.

2- Metric/Indicator: refers to the status of compliance/implementation of step and could be e.g. Non-Compliance (NC), Partially Compliance (PC) or Fully Compliance (FC).

3- Source of data (How to collect data): the main tool for the collection of data would be eANP Tables. Special excel sheets in support of the collection of data may be used, if needed.

4- Who will collect data: data should be collected by ICAO HQ/ICAO Regional Office.

5- When to collect data: data for each report would be collected in December.

6- Year of reporting: the year, on which the Reports (Global Air Navigation Report & Regional Performance Dashboard) would be published.

7- Remarks: any additional information, e.g. in case of status of implementation is PC; list of sub-elements that have been implemented.

6. **Methodology plan for annual reporting**

Element (Phase/Step/Step No.)			Metric/ Indicator	Source of data (How to collect data)	Who will collect data*	When to collect data	Year of publishing Report	Remarks
1			**2**	**3**	**4**	**5**	**6**	**7**
Phase 1								
AIRAC adherence		P-03	FC/NC	eANP	ICAO HQ/RO	Dec, 2013	2014	Completed-2014
WGS-84 implementation		P-05	FC/PC/NC	eANP	ICAO HQ/RO	Dec, 2013	2014	Completed-2014
QMS		P-17	FC/NC	eANP	ICAO HQ/RO	Dec, 2013	2014	Completed-2014
Phase 2								
Data quality monitoring		P-01	FI/NI	TBD	TBD	TBD	TBD	
Data integrity monitoring		P-02	N/A	N/A	N/A	N/A	N/A	N/A (Merged in P-01)
Integrated aeronautical information database	AIXM-based AIS Database	P-06	FI/NI	eANP	ICAO HQ/RO	Dec, 2014	2015	*Structured Aeronautical Information Database with digital exchange capabilities (e.g. AIXM)* Ongoing
	Implementation of IAID		FI/PI/NI	TBD	TBD	TBD	TBD	*In case of PC, list name of AI Products of IAID*
Unique identifiers		P-07	N/A	N/A	N/A	N/A	N/A	Linked to P-06
Aeronautical information conceptual model		P-08	N/A	N/A	N/A	N/A	N/A	Linked to P-06
Electronic AIP		P-11	FI/NI	eANP	ICAO HQ/RO	Dec, 2014	2015	Ongoing-2015
Terrain	Area 1	P-13	FC/NC	eANP	ICAO HQ/RO	Dec, 2014	2015	Ongoing-2015
	Area 4	P-13	FC/PC/NC	eANP	ICAO HQ/RO	Dec, 2014	2015	*In case of PC, list name of ADs* Ongoing-2015
	Area 2a	P-13	FC/PC/NC	eANP	ICAO HQ/RO	Dec, 2015	2016	*In case of PC, list name of ADs*

Element (Phase/Step/Step No.)			Metric/ Indicator	Source of data (How to collect data)	Who will collect data*	When to collect data	Year of publishing Report	Remarks
1			**2**	**3**	**4**	**5**	**6**	**7**
	Take-off flight path area	P-13	FC/PC/NC	- eANP	ICAO HQ/RO	Dec, 2015	2016	*In case of PC, list name of ADs*
	An area bounded by the lateral extent of the aerodrome obstacle limitation surfaces	P-13	FC/PC/NC	- eANP	ICAO HQ/RO	Dec, 2015	2016	*In case of PC, list name of ADs*
Obstacles	Area 1	P-14	FC/NC	- eANP	ICAO HQ/RO	Dec, 2014	2015	Ongoing-2015
	Area 4	P-14	FC/PC/NC	- eANP	ICAO HQ/RO	Dec, 2014	2015	*In case of PC, list name of ADs* Ongoing-2015
	Area 2a	P-14	FC/PC/NC	- eANP	ICAO HQ/RO	Dec, 2015	2016	*In case of PC, list name of ADs*
	objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area	P-14	FC/PC/NC	- eANP	ICAO HQ/RO	Dec, 2015	2016	*In case of PC, list name of ADs*
	penetrations of the aerodrome obstacle limitation surfaces	P-14	FC/PC/NC	- eANP	ICAO HQ/RO	Dec, 2015	2016	*In case of PC, list name of ADs*
Aerodrome mapping		P-15	FI/PI/NI	TBD	TBD	TBD	TBD	*In case of PC, list name of ADs*
Phase 3								
Aeronautical data exchange		P-09	FI/PI/NI	TBD	TBD	TBD	TBD	*In case of PC, list name of Units (Data Originators/Users)*

Element (Phase/Step/Step No.)		Metric/ Indicator	Source of data (How to collect data)	Who will collect data*	When to collect data	Year of publishing Report	Remarks
1		**2**	**3**	**4**	**5**	**6**	**7**
Communication networks	P-10	N/A	N/A	N/A	N/A	N/A	N/A
Aeronautical information briefing	P-12	FI/PI/NI	TBD	TBD	TBD	TBD	*In case of PC, list name of ADs*
Training	P-16	N/A	N/A	N/A	N/A	N/A	N/A
Agreement with data originators	P-18	FI/PI/NI	- eANP	ICAO HQ/RO	Dec, 2015	2016	*In case of PC, list name of Data Originator(s)*
Interoperability with meteorological products	P-19	N/A	N/A	N/A	N/A	N/A	N/A
Electronic aeronautical charts	P-20	FI/NI	TBD	TBD	TBD	TBD	
Digital NOTAM	P-21	FI/NI	TBD	TBD	TBD	TBD	

FC: Fully Compliant; PC: Partially Compliant; NC: Not Implemented; FI: Fully Implemented; PI: Partially Implemented; NI: Not Compliant; N/A: Not Applicable

** Data collection will be carried out by ICAO Headquarters and Regional Offices.*

7. **Data collection timeframe**

Year of reporting	Element	Step No.	Remarks
2014	AIRAC adherence WGS-84 implementation QMS	P-03 P-05 P-17	Completed
2015	AIXM-based AIS Database Electronic AIP Terrain (Area 1 and Area 4) Obstacles (Area 1 and Area 4)	P-06 P-11 P-13 P-14	Ongoing
2016	Terrain (Area 2a) Obstacles (Area 1 and Area 4) Agreement with data originators	P-13 P-14 P-18	
2017 +	TBD	TBD	

APPENDIX B

FINALIZATION/COMPLIANCE CRITERIA
For the 2015-2016 Metrics of the Methodology for reporting and assessing the progress related to the transition from AIS to AIM

Element (Step)	Finalization criteria or Implementation/Compliance Criteria
AIXM-based AIS Database	National aeronautical data and information is stored and maintained in AIXM-based AIS database.
Electronic AIP	National AIP GEN 3.1.3 'Aeronautical publications' provides information about the availability of the National AIP in electronic format (eAIP)
Terrain Dataset Area 1	National AIP GEN 3.1.6 'Electronic terrain and obstacle' provides information on how the dataset can be obtained
Terrain Dataset Area 4	National AIP GEN 3.1.6 'Electronic terrain and obstacle' provides information on how the dataset for specific CAT II/III RWY can be obtained. States should indicate in remarks the number of existing CAT II/III RWY. N/A for States with no CAT II/III RWY.
Terrain Dataset Area 2[1]	National AIP GEN 3.1.6 'Electronic terrain and obstacle' provides information on how the dataset can be obtained. States should indicate in remarks the number of AD eligible for provision of Area 2 data. This number should come from the Regional eANP Table AOP II-1 – for aerodromes with one of the following designation: — RS: international scheduled air transport, regular use — RNS: international non-scheduled air transport, regular use — RG: international general aviation, regular use.
Obstacle Dataset Area 1	National AIP GEN 3.1.6 'Electronic terrain and obstacle provides information on how the dataset can be obtained
Obstacle Dataset Area 4	National AIP GEN 3.1.6 'Electronic terrain and obstacle data' provides information on how the dataset for specific CAT II/III RWY can be obtained. States should indicate in remarks the number of existing CAT II/III RWY. N/A for States with no CAT II/III RWY.
Obstacle Dataset Area 2[2]	National AIP GEN 3.1.6 'Electronic terrain and obstacle provides information on how the dataset can be obtained. States should indicate in remarks the number of AD eligible for provision of Area 2 data. This number should come from the Regional eANP Table AOP II-1 – for aerodromes with one of the following designation: — RS: international scheduled air transport, regular use — RNS: international non-scheduled air transport, regular use — RG: international general aviation, regular use.
Agreement with data originators	TBD

[1] Data set requirements in accordance with Annex 15 (10.1.5)
[2] Data set requirements in accordance with Annex 15 10.1.6