INTERNATIONAL CIVIL AVIATION ORGANIZATION

THE MIDDLE EAST AIR NAVIGATION PLANNING AND IMPLEMENTATION REGIONAL GROUP (MIDANPIRG)

REPORT OF THIRD MEETING OF AIM SUB-GROUP (AIM SG/3) AND FOURTH MEETING OF THE MIDAD TASKFORCE (MIDAD TF/4)

(Cairo, Egypt, 15 – 18 May 2017)

The views expressed in this Report should be taken as those of the MIDANPIRG AIM Sub-Group and the MIDAD Task Force and not of the Organization. This Report will, however, be submitted to the MIDANPIRG and any formal action taken will be published in due course as a Supplement to the Report.

Approved by the Meeting
and published by authority of the Secretary General

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PART I – HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The Third Meeting of the MIDANPIRG AIM Sub-Group (AIM SG/3) and the Fourth meeting of the MIDAD Task Force were successfully held at the Meeting Room of the ICAO Middle East Regional Office in Cairo, Egypt, from 15 to 18 May 2017.

2. OPENING

2.1 The meeting was opened by Mr. Mohamed Smaoui, the ICAO Deputy Regional Director, Middle East Office, who welcomed the participants to Cairo and wished them a successful and fruitful meeting.

2.2 Mr. Smaoui recalled that, in accordance with its Terms of Reference, the AIM Sub-Group should, inter-alia, monitor the status of AIM implementation and the B0-DATM, identify the associated difficulties and deficiencies and provide a progress report/input to the MID Air Navigation Report-2017. He mentioned that, as part of the agenda, the meeting is also expected to review and update the MID Region AIM Implementation Roadmap with a view to include AIM phase III in the Roadmap.

2.3 Mr. Smaoui highlighted that the third day of the meeting (17 May 2017) would be dedicated to the MIDAD TF/4 meeting to review the status and progress of the MIDAD project and be apprised of the regional developments related to the MID Implementation Plan (MIDIP). He indicated that the MIDAD Task Force is expected to develop a new action plan for the MIDAD Project, based on the proposal provided by EUROCONTROL.

2.4 In closing, Mr. Smaoui thanked the participants for their presence and wished the meeting every success in its deliberations.

3. ATTENDANCE

3.1 The meetings were attended by a total of twenty nine (29) participants from nine (9) States (Bahrain, Egypt, Iran, Jordan, Lebanon, Oman, Saudi Arabia, Sudan and United Arab Emirates) and three (3) International Organizations/Industries (IATA, IFAIMA and Jeppesen). The list of participants is at **Attachment A** to the Report.

4. OFFICERS AND SECRETARIAT

4.1 The meetings were chaired by Mr. Abdalla Al Rashidi, Director AIM, GCAA, UAE. Mr. Abbas Niknejad, Regional Officer Aeronautical Information Management/Air Traffic Management (RO/AIM/ATM) was the Secretary of the meeting, supported by Mr. Mohamed Smaoui, Deputy Regional Director (DEPRD).

5. LANGUAGE

5.1 Discussions were conducted in English and documentation was issued in English.

6. AGENDA

6.1 The following Agenda was adopted:

Agenda Item 1: Adoption of the Provisional Agenda and election of Chairperson

Agenda Item 2: Follow-up on MIDANPIRG/16 and MSG/5 Conclusions and Decisions relevant to AIM and SWIM

Agenda Item 3: Global/Regional developments related to AIM and SWIM

Agenda Item 4: AIM Planning and Implementation in the MID Region

- B0-DATM elements/targets
- MID Region Air Navigation Report-2017
- MID eANP (AIM parts)
- MID Region AIM Implementation Roadmap
- National AIM Roadmaps
- Guidance on AIM Planning and Implementation in the MID Region (MID Doc 008)
- B1-DATM and SWIM planning matters

Agenda Item 5: Review of Air Navigation Deficiencies in the AIM Field

Agenda Item 6: MID Region AIM Database (MIDAD) Project

Agenda Item 7: Future Work Programme

Agenda Item 8: Any other business

7. CONCLUSIONS AND DECISIONS – DEFINITION

7.1 All MIDANPIRG Sub-Groups and Task Forces record their actions in the form of Conclusions and Decisions with the following significance:

a) **Conclusions** deal with the matters which, in accordance with the Group's terms of reference, merit directly the attention of States on which further action will be initiated by ICAO in accordance with established procedures; and

b) **Decisions** deal with matters of concern only to the MIDANPIRG and its contributory bodies

8. LIST OF DRAFT CONCLUSIONS AND DRAFT DECISIONS

DRAFT CONCLUSION 3/1: PROPOSAL FOR AMENDMENT TO ANNEX 15 AND THE NEW PANSAIM

DRAFT CONCLUSION 3/2: AMENDMENT 39B TO ANNEX 15

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PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA AND ELECTION OF CHAIRPERSONS

1.1 The subject was addressed in WP/1 presented by the Secretariat. The meeting reviewed and adopted the Agenda as at Para.6 of the History of the Meeting.

1.2 The meeting recalled that the AIM SG/1 meeting (Cairo, Egypt, 6-8 May 2014) unanimously elected Mrs. Hanan A. Qabartai, Jordan and Mr. Abdalla Al Rashidi, UAE as the Chairperson and Vice-Chairperson of the AIM Sub-Group, respectively. The meeting noted that Mrs. Hanan Qabartai has been appointed as the Director Middle East Affairs of CANSO.

1.3 In accordance with the MIDANPIRG Procedural Handbook, Edition July 2015 (MID Doc 001), Part IV, para. 6.2, the meeting unanimously elected Mr. Abdalla Al Rashidi, Director AIM, GCAA, UAE and Mr. Abdulla Hasan AlQadhi, Chief AIM and Airspace Planning, Civil Aviation Affairs, Bahrain, as the Chairperson and Vice-Chairperson of the AIM Sub-Group, respectively.

REPORT ON AGENDA ITEM 2: FOLLOW-UP ON MIDANPIRG/16 AND MSG/5 CONCLUSIONS AND DECISIONS RELEVANT TO AIM AND SWIM

2.1 The subject was addressed in WP/2 presented by the Secretariat. The meeting noted the status of the MIDANPIRG/16 and MSG/5 Conclusions and Decisions relevant to AIM and SWIM and the follow-up actions taken by concerned parties as at **Appendices 2A** and **2B**, respectively.

REPORT ON AGENDA ITEM 3: GLOBAL/REGIONAL DEVELOPMENTS RELATED TO AIM AND SWIM

Fifth edition of GANP

3.1 The subject was addressed in PPT/1 presented by the Secretariat. The meeting recalled that the 5th edition of Global Air Navigation Plan (Doc 9750) was endorsed by the 39th Session of ICAO Assembly (Montreal, Canada, 27 September-7 October 2016). The meeting noted that the changes/additions to the GANP include:

- Changed periodicity of Blocks;
- ATM Logical Architecture;
- Notion of 'minimum path';
- Performance-Based Approach;
- Financial aspects;
- Urging States to continue PBN implementation; and
- Acknowledgement of the need for the 13th Air Navigation Conference in 2018.

3.2 The meeting noted that a Global Working Group is reviewing the GANP to propose more changes/update to the 40th session of the ICAO Assembly in 2019. The meeting invited States to keep pace with further developments related to the GANP and ASBUs.

3.3 The GANP and its related supporting documentation including the ASBU Document are available on the ICAO website at: http://www.icao.int/airnavigation/Pages/GANP-Resources.aspx

Proposal for amendment to Annex 15 and the new PANS AIM

3.4 The subject was addressed in WP/3 presented by the Secretariat. The meeting recalled that Aeronautical Information Service (AIS) to Aeronautical Information Management (AIM) Study Group (AIS-AIMSG) set a strategy to restructure Annex 15 to include only requirements and performance specifications related to AIS/AIM in 6 new Chapters. First part of restructured Annex 15 (Chapters 1 to 3) was published through amendment 37 to Annex 15 (applicable date 14 November 2013).

3.5 The meeting noted that PANS AIM was developed to include procedures, processes, formats and technical specifications. An AIM data Catalogue was included in PANS AIM Appendix 1. The data Catalogue is considered as a reference for all provisions related to aeronautical data origination and publication.

3.6 The meeting noted that the proposals for amendment to Annex 15, the new PANS AIM and consequential amendments to Annex 3, Annex 4, Annex 6 Part I, Annex 9, Annex 10 Volume I and Volume II, Annex 11, Annex 14 Volume I and Volume II, Doc 4444 (PANS ATM), Doc 8168 (PANS OPS) Volume I and II, Doc 8400 (PANS ABC) and Doc 9981 (PANS Aerodrome) were issued on 21 April 2017 (State Letter Ref.: AN2/2.1.1-17/22 refers), with consultation deadline **21 July 2017** and envisaged applicability date **3 November 2018**.

3.7 Based on the above, the meeting agreed on the following Draft Conclusion:

DRAFT CONCLUSION 3/1: PROPOSAL FOR AMENDMENT TO ANNEX 15 AND THE NEW PANS AIM

That, States be urged to:

a) review the Proposal for Amendment to Annex 15 and the PANS AIM and provide their comments to ICAO, no later than ***21 July 2017****; and*

b) take necessary action for a timely review/amendment of the national AIS/AIM regulations to keep pace with the above Annex 15 Amendment (restructured Annex15 and new PANS AIM).

Adoption of amendment 39 to Annex 15

3.8 The meeting noted that the adoption of amendment 39 to Annex 15 was issued on 1 April 2016 (State Letter Ref.: AN 2/2.4-16/18 refers) with 11 July 2016 as the effective date. The meeting highlighted that the Amendment 39 B (applicability date 5 November 2020) related to the use of a global reporting format for assessing and reporting runway surface conditions, including the new SNOWTAM format at **Appendix 3A**, would require, inter alia, review/update of the National AIS/AIM Regulations, NOTAM/SNOWTAM systems' upgrade and training. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 3/2: AMENDMENT 39B TO ANNEX 15

That, States be urged to take necessary actions (review/update of the National AIS/AIM Regulations, NOTAM/SNOWTAM systems' upgrade, training, awareness campaigns, etc.) for the implementation of amendment 39B to Annex 15 related to the use of a global reporting format for assessing and reporting runway surface conditions, including the new SNOWTAM format.

Adoption of amendment 59 to Annex 4

3.9 The meeting noted that the adoption of amendment 59 to Annex 4 was issued on 11 April 2016 (Ref.: AN 9/1.3-16/38) with 11 July 2016 as the effective date and 10 November 2016 as the applicability date. The amendment concerns satellite voice communications (SATVOICE); visual segment surface (VSS) penetrations charting requirements; and update of the provisions relating to publication depiction and functionality requirements of fly-by and fly-over significant points, area minimum altitude (AMA), CAT H procedures and en-route airway directional use restrictions.

Updates on AIS/AIM from IFAIMA

3.10 The subject was addressed in WP/5 presented by IFAIMA covering the following subjects:

- Consideration of annual IFAIMA Global AIM Conference dates/times
- Just culture
- AIS/AIM profession designation/title
- Standardized training for AIM personnel
- English Language Proficiency for AIM personnel
- AIM personnel job profile/description

3.11 The meeting noted in particular the:

- IFAIMA proposed title for AIS/AIM professionals "*Aeronautical Information Management Specialist*"; and
- importance of training of AIS/AIM personnel, including the English Language Proficiency ; and the need for regular competency checks for the AIS/AIM staff, as part of the QMS implementation.

ICARD Issues

3.12 The subject was addressed in PPT/10 presented by the Secretariat. The meeting was apprised of the latest developments related to ICARD. The meeting addressed the following issues related to ICARD/5LNCs:

- Publication of 5LNCs in National AIPs which have not been registered in ICARD
- 5LNCs duplicates (5LNCs used in more than one State)
- Sound-like proximity
- 5LNCs registered in ICARD but not used in AIP
- Increasing demand of 5LNCs for terminal use (SIDs, STARs, IAPs)
- Shortage of available 5LNCs for allocation
- Coordination of 5LNCs used as FIR BDRY with the neighboring States
- ICARD system/platform issues

3.13 The meeting noted that ICAO has launched a new ICARD platform in March 2017 to resolve the issues faced with the old ICARD system. The meeting noted that the new system is more user-friendly with improved database, menus and functions, including the MAP function. The specifications and guidance of the new ICARD platform is at **Appendix 3B**.

3.14 Based on the above, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 3/3: ICARD ISSUES

That,

a) States be urged to take necessary actions on the resolution of the issues related to ICARD/5LNCs, including:

i. registration of all 5LNCs published in AIP into ICARD;
ii. 5LNCs duplicates;
iii. Non-ICAO codes;
iv. sound-like proximity;
v. release of unused registered 5LNCs; and
vi. use of Alphanumeric codes for terminal airspace, in accordance with PANS-OPS (Doc 8168) provisions.

b) Users (IATA, IFALPA, Jeppesen, etc.) are invited to report issues related to ICARD/5LNCs in the MID Region to the ICAO MID Office; and

c) an air navigation deficiency be filed against those States that are not complying with Annex 11 and Doc 8168 provisions related to 5LNCs.

MID No Country Left Behind (NCLB) Strategy and Activities

3.15 The subject was addressed in WP/4 presented by the Secretariat. The meeting recalled that the MIDANPIRG/16 meeting invited States and stakeholders to review the Draft MID Region NCLB Strategy at **Appendix 3C** and provide comments and feedback to the ICAO MID Office, for the consolidation of the final version which will be presented to the DGCA-MID/4 meeting (Muscat, Oman, 17-19 October 2017), for endorsement.

3.16 The meeting noted that several NCLB activities have been planned by the ICAO MID Office for 2017. It was highlighted that "NCLB-AIM Workshop" is scheduled to be held 11-13 September 2017 in Cairo, Egypt, in order to provide States with necessary material/details related to the latest developments in the field of AIM; and share States' experiences and best practices in AIM implementation. The meeting strongly encouraged all States to participate actively in the workshop and share their experience in AIM implementation with other States.

REPORT ON AGENDA ITEM 4: AIM PLANNING AND IMPLEMENTATION IN THE MID REGION

Status of AIM Implementation in the MID Region

4.1 The subject was addressed in WP/6 presented by the Secretariat and the PPTs presented by Bahrain, Egypt, Iran, Jordan, Lebanon, Oman, Saudi Arabia, Sudan and UAE.

4.2 The meeting recalled that the MIDANPIRG/16 meeting (Kuwait, 13-16 February 2017) endorsed the MID Region Air Navigation Report-2016 and, through Conclusion 16/8, urged States to develop/update their National ASBU Implementation Plan, ensuring the alignment with and support to the MID Region Air Navigation Strategy (MID Doc 002); and provide the ICAO MID Office, with relevant data necessary for the development of the MID Region Air Navigation Report-2017, by **1 November 2017**.

4.3 The meeting reviewed and updated the status of AIM implementation through States' presentations. The meeting provided an opportunity for sharing States' experience and best practise as well as common challenges.

Challenges:

- Lack of competent Human Resources and training
- Financial resources
- Data exchange and interoperability between different systems (AIS/AIP, charting, PANS-OPS, FDPs) as well as with ATS and other data originators
- Lack of guidance related to the datasets to be exchanged between data originators and IAID
- Implementation and maintenance/updating of eTOD
- Stakeholders/originators awareness
- SLA with data originators particularly with Military Authorities
- AIS systems' upgrades difficulties

Lessons Learned/Recommendations:

- Competent Human Resources: more AIM training/workshops is needed
- Prior to purchase of AIS automation systems, a good understanding of the AIM concept is needed
- Regular coordination meetings with AIM Stakeholders is necessary
- Establishment of working groups at National level to deal with different AIM Issues is very useful and effective
- The oversight role of the Regulator in the implementation process is very important
- Data migration is an important part of the implementation of AIXM-based AIS database
- Interoperability between AIS automation system and data originators' systems (particularly PANS OPS) should be considered during the planning phase for AIS automation (transition to AIM)
- Instrument Flight Procedure Design Unit within AIM Department would facilitate data exchange and interoperability with IAID
- Learn from other States' experiences and best practices related to AIM implementation
- Importance of agreement with data originators (Aerodrome, ANSPs, Military, etc.) for the provision of aeronautical data
- Developing requirements for digital data exchange with data originators

- Importance of detailed action plan with target timelines to achieve the goals and objectives of the AIM Roadmap and MID Air Navigation Strategy
- Importance of continuous monitoring/review of AIM implementation goals to ensure sustainable development
- States to take more effective actions to foster transition to AIM
- Keeping pace with SWIM developments at global and regional level

4.4 The meeting thanked those States that provided PowerPoint presentation on the status of AIM implementation, using the template provided by the Secretariat. The meeting urged States to implement the MIDANPIRG Conclusion 16/8 and provide relevant data/update necessary for the development of the MID Region Air Navigation Report-2017, by **1 November 2017**.

MID Region AIM Implementation Roadmap

4.5 The subject was addressed in WP/7 presented by the Secretariat. The meeting recalled that the MSG/5 meeting, through MSG Conclusion 5/10, urged States to take into consideration the "MID Region AIM implementation Roadmap" in planning for the transition from AIS to AIM in a prioritized manner; and provide the ICAO MID Regional Office with their updated National AIM Implementation Roadmap on an annual basis (by end of December).

4.6 The meeting reviewed the MID Region AIM Roadmap and agreed that some AIM Phase3 steps should be included in the Roadmap. The meeting also updated timelines of the Roadmap, as at **Appendix 4A**.

4.7 The meeting reviewed and updated timelines of the National AIM implementation Roadmap Template, as at **Appendix 4B**. It was noted with appreciation that twelve (12) States (Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Sudan and UAE) provided their National AIM Implementation Roadmaps.

4.8 Based on the above, the meeting agreed to the following Draft conclusion to replace and supersede MSG Conclusion 5/10:

DRAFT CONCLUSION 3/4: MID REGION AIM IMPLEMENTATION ROADMAP

That,

*a) the MID Region AIM implementation Roadmap be updated as at **Appendix 4A**; and*

b) States be urged to:

i. take into consideration the "MID Region AIM implementation Roadmap" in planning for the transition from AIS to AIM in a prioritized manner; and

ii. provide the ICAO MID Regional Office with their updated National AIM Implementation Roadmap on an annual basis (by end of December).

Guidance for AIM Planning and Implementation in the MID Region (MID Doc 008)

4.9 The subject was addressed in WP/8 presented by the Secretariat. The meeting recalled that MIDANPIRG/16, through MIDANPIRG Conclusion 16/10, endorsed the "Guidance for AIM Planning and implementation in the MID Region", at **Appendix 4C**, as the MID Doc 008.

4.10 As a follow-up action to the MIDANPIRG Conclusion 16/10, the ICAO MID Office issued State Letter Ref.: AN 8/4 – 17/133 dated 30 April 2017, strongly encouraging States to use the guidance available in the MID Doc 008 in their AIM planning and implementation; and send the ICAO MID Office your feedback about the Document for further update/improvement.

4.11 The meeting agreed that additional guidance related to the eANP Volume III Tables and in particular B0-DATM 3-1 "*Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID)*" should be included in the Guidance for a better and harmonized understanding. The meeting urged States to review the MID Doc 008 and provide their input/comment to the ICAO MID Office, no later than **1 November 2017**.

MID Air Navigation Strategy – B0-DATM elements and targets

4.12 The subject was addressed in WP/9 presented by the Secretariat. The meeting recalled that MIDANPIRG/16 reviewed the MID Region Air Navigation Strategy (MID Doc 002) and agreed to the following changes:

- update of certain timelines/targets for harmonization purpose;
- B0-SNET to be changed from priority 2 to priority 1 with 2 main elements: Short-term conflict alert (STCA) and Minimum safe altitude warning (MSAW);
- addition of a new column (Start Date) to the MID Region Air Navigation Strategy to reflect the start date of the newly assigned priority 1 Modules in the Strategy and to prepare for the future inclusion of additional Block 0 and Block 1 Modules;
- inclusion of a new performance indicator related to the implementation of SIGMET;
- renaming of the first element of the B0-AMET to be SADIS FTP (no SADIS 2G anymore); and
- update of the applicability areas for the B0-CDO and B0-CCO.

4.13 The meeting reviewed B0-DATM elements and targets of the MID Region Air Navigation Strategy and, agreed to propose the deletion of the element "National AIM implementation plan/roadmap" as at **Appendix 4D**. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 3/5: B0-DATM ELEMENTS AND TARGETS

That,

*a) the B0-DATM Elements and Targets be updated as at **Appendix 4D**; and*

b) the updated B0-DATM table be included in the MID Air Navigation Strategy (MID Doc 002).

MID eANP

4.14 The subject was addressed in WP/10 presented by the Secretariat. The MID eANP Volume I, II and III are available on the ICAO MID website at: http://www.icao.int/MID/Pages/MIDeANP.aspx

4.15 The meeting noted that the MID eANP was published without the FIRs/UIRs boundary coordinates (Tables ATM I-1 MID Region Flight Information Regions (FIRs)/ Upper Information Regions (UIRs) and SAR I-1 MID Region Search and Rescue Regions (SRRs)); and the publication of the FIR Boundary coordinates/descriptions necessitates bi-lateral/multi-lateral agreements between concerned States.

4.16 The meeting recalled that the MSG/5 meeting reviewed the Guidelines for the publication of FIR boundary points, developed by the AIM SG/2 meeting, at **Appendix 4E** and, through MSG Conclusion 5/5, urged States to take into consideration the Guidelines for the description of their FIR boundaries in their AIPs.

4.17 The meeting reviewed and updated the B0-DATM Tables of the MID eANP Volume III as at **Appendix 4F.**

AIRAC adherence monitoring

4.18 The subject was addressed in WP/12 presented by the Secretariat. The meeting recalled that the MIDANPIRG/16 meeting, through Conclusion 16/11, urged States to implement a system for AIRAC adherence monitoring; and report on annual basis (by 31 March) to the ICAO MID Office the case(s) of late publication of aeronautical information of operational significance and non-adherence to the AIRAC provisions, using the AIRAC Adherence Monitoring Questionnaire.

4.19 The meeting reviewed the status of AIRAC adherence and agreed that AIRAC adherence was improved in the MID Region; however, there has been some cases of late publication or non-adherence to AIRAC. The meeting urged States to implement the MIDANPIRG Conclusion 16/11 and invited IATA and Jeppesen to report to the concerned State(s) and the ICAO MID Office any case of late publication of aeronautical information of operational significance and non-adherence to the AIRAC provisions.

Posting of AIS Products on the Web

4.20 The subject was addressed in WP/13 presented by the Secretariat. The meeting recalled that, in order to improve the timeliness of aeronautical information and in accordance with the ICAO Guidelines on the use of Public Internet for Aeronautical Applications (Doc 9855), the MIDANPIRG/11 meeting, through Conclusion 11/39, encouraged States to use the internet for the advance publication of the Aeronautical Information Products.

4.21 The meeting noted that AIS websites are currently one of main sources of States' aeronautical information for users. It was also noted that 10 out of the 15 MID States have currently AIS websites. However, only 6 States are making their up-to-date AIPs available on the web. In this respect, the meeting noted with concern that some States are not updating their AIP available on the web in a timely manner.

4.22 The meeting recalled that some Guidelines on the use of Public Internet for Aeronautical Applications are included in the ICAO Doc 9855. However, the meeting recognized the need for additional guidance with regard to the posting of aeronautical information products on the web.

4.23 Based on the above, the meeting agreed to the following Draft Conclusion and Decision:

DRAFT CONCLUSION 3/6: POSTING OF AERONAUTICAL INFORMATION PRODUCTS ON THE WEB

That, in accordance with the ICAO Guidelines on the use of Public Internet for Aeronautical Applications (Doc 9855), and in order to improve the availability, accessibility and timeliness of aeronautical information; States be encouraged to use the internet for the posting of their aeronautical information products.

DRAFT DECISION 3/7: ACTION GROUP FOR THE DEVELOPMENT OF "GUIDANCE FOR POSTING OF AIS PRODUCTS ON THE WEB"

That, an Action Group composed of Experts from Bahrain, Egypt, Iran, Jordan, Saudi Arabia, UAE, Jeppesen (Rapporteur) and the ICAO MID Office, be established to develop MID Region Guidance related to the posting of aeronautical information products on the web.

AIM Data cascading effect

4.24 The subject was addressed in WP/18 presented by UAE. The meeting noted UAE's experience with regard to the verification/validation of the aeronautical data provided by the data originators, as part of their AIS Quality Management System (QMS) processes.

PBN Charting

4.25 The subject was addressed in WP/14 presented by the Secretariat. The meeting noted that the Amendment 6 to the *Procedures for Air Navigation Services — Aircraft Operations* (PANS-OPS, DOC 8168) introduced a change to the approach charts by introducing the "PBN Requirements Box" and a change in chart identifications for performance-based navigation (PBN) approaches (transition from RNAV to RNP approach chart identification).

4.26 The meeting noted that ICAO Circular 336, *Area Navigation (RNAV) to Required Navigation Performance (RNP) Instrument Approach Chart Depiction,* was issued in support of Amendment 6 to provide guidance on the change, in particular managing the risks involved during the transition period. However, since the adoption of Amendment 6, concerns have been raised regarding the implementation of this change. The attention of the 39th Session of the Assembly was drawn to these concerns, and ICAO was encouraged to update the guidance available and develop a regionally coordinated transition plan to support the effective rollout of the change.

4.27 It was noted that, in order to address concerns related particularly to transition arrangements and potential confusion for operators being faced with variations in chart titling during the transition period, Circular 336 is to be replaced by new guidance material. This new material, which will also use feedback provided by early adopting States, will contain a redesigned risk assessment and extensive guidance for transition planning covering key considerations such as consultation, communication planning and impact assessment.

4.28 The meeting noted that the new transition planning guidance material will emphasize the need for connection and synchronization between global, regional and State transition planning.

The guidance is expected to be available in summer 2017. Until the guidance and regional transition plans are available, ICAO, through the electronic bulletin Ref.: EB 2017/05 dated 6 January 2017, recommended:

a) States that have already started implementing the chart naming provisions of Amendment 6 to Doc 8168 should not revert back to the old names, but should not continue further implementation until this can be coordinated with the regional transition plan; and
b) States planning their implementation of Amendment 6 should wait for the development of the regional transition plan, which will be based on the improved guidance material replacing Circular 336.

4.29 The meeting recalled that the MIDANPIRG/16 meeting that the MSG Conclusion 5/7 related to the transition plan for the RNAV to RNP Instrument Approach Chart depiction should not be implemented; and invited States to follow the ICAO recommendations provided in the electronic bulletin Ref.: EB 2017/05 dated 6 January 2017.

Indication of speed restriction on Charts and coding tables

4.30 The subject was addressed in WP/15 presented by UAE. The meeting noted UAE's challenge and experience with regard to the charting of speed restrictions on SIDs, STARs and IAPs charts.

Towards B1-DATM and SWIM

4.31 The subject was addressed in WP/11 presented by the Secretariat. The meeting noted the concept of the B1-DATM and B1-SWIM as described in the GANP and ASBU Document.

4.32 The meeting was apprised of the activities of the Information Management Panel (MIP). It was noted that the IMP and its working groups are working to develop, by end of 2018:

- SWIM related SARPs (High-level IM provisions; and NOTAM replacement); and
- Guidance Materials (updated SWIM Concept – Doc 10039; and AIRM Package).

4.33 The meeting noted that an Interregional Seminar on "*Service Improvement through Integration of Digital AIM, MET and ATM Information*" will be held in EUROCONTROL, Brussels, Belgium, 2 - 4 October 2017. The objective of the Seminar will be to review implementation status of the PIA2 ASBU Block 0 Modules (B0-DATM, B0-AMET and B0-FICE) and associated challenges/lessons learned and to focus on the pre-requisites for an efficient and timely planning for the implementation of the Block 1 Modules related to SWIM (B1-DATM, B1-AMET, B1-SWIM and B1-FICE).

4.34 The meeting urged States, Organizations and Industry to actively participate in this Seminar.

REPORT ON AGENDA ITEM 5: REVIEW OF AIR NAVIGATION DEFICIENCIES IN THE AIM FIELD

5.1 The subject was addressed in WP/16 presented by the Secretariat. The meeting recalled that, the MIDANPIRG/15, through Conclusion 15/35, urged States to use the MID Air Navigation Deficiency Database (MANDD) for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies, including the submission of a specific Corrective Action Plan (CAP) for each deficiency; and submit a Formal Letter to the ICAO MID Regional Office containing the evidence(s) that mitigation measures have been implemented for the elimination of deficiency(ies) when requesting the elimination of deficiency(ies) from the MANDD.

5.2 The meeting recalled that the MIDANPIRG/16 meeting noted with concern that the majority of deficiencies listed in the MANDD have no specific Corrective Action Plan (CAP). The meeting urged States to implement the provisions of MIDANPIRG Conclusion 15/35 related to elimination of Air navigation Deficiencies, in particular, the submission of a specific Corrective Action Plan (CAP) for each deficiency.

5.3 The meeting reviewed and updated the list of deficiencies in the AIM field as at Appendix 5A.

REPORT ON AGENDA ITEM 6: MID REGION AIM DATABASE (MIDAD) PROJECT

REPORT OF THE MIDAD TF/4 MEETING

6.1 The MIDAD TF/4 meeting was conducted as part of the AIM SG/3 meeting and was chaired by Mr. Abdalla Al Rashidi, Director AIM, GCAA, UAE.

Adoption of Provisional Agenda and election of Chairperson

6.2 The subject was addressed in MIDAD TF/4 WP/1 presented by the Secretariat. The meeting reviewed and adopted the Agenda of the MIDAD TF/4 meeting.

6.3 The meeting recalled that the MIDAD TF/1 meeting (Cairo, Egypt, 16-18 June 2014) unanimously elected Mr. Abdalla Al Rashidi, UAE as the Chairperson of the MIDAD Task Force. In accordance with the MIDANPIRG Procedural Handbook, Edition July 2015 (MID Doc 001), Part IV, para. 6.2, the meeting unanimously elected Mr. Imed Ben Saad, Saudi Air Navigation Services (SANS), Saudi Arabia as the Chairperson of the MIDAD Task Force.

MIDAD Project

6.4 The subject was addressed in MIDAD TF/4 WP/2 and WP/3 presented by the Secretariat and PPT/1 presented by EUROCONTROL.

6.5 The meeting recalled that, considering the challenges faced for the establishment of MAEP with a centralized approach for the implementation of air navigation regional projects, the MAEP Board/3 meeting (Cairo, Egypt, 16-17 January 2017) agreed that each MAEP project would be implemented as a standalone project; and agreed to dissolve the MAEP Project Coordination Team (MPCT).

6.6 The meeting recalled that the Global Ministerial Aviation Summit (GMA) (Riyadh, Saudi Arabia, 29-31 August 2016) supported the President of the Council of ICAO's proposal related to the establishment of a structured programme in the MID Region (MID Implementation Plan-MIDIP). The GMA Summit invited ICAO to take necessary measures towards the establishment of a MID Implementation Plan (MIDIP) in order to foster cooperation of all stakeholders towards the development and implementation of initiatives and projects aimed at the enhancement of safety and efficiency of the air transport system in the region, in support of the ICAO No Country Left Behind (NCLB) initiative; and provide a framework for the mobilization of resources to support effective implementation of the regional/sub-regional initiatives and projects with adequate funding and staffing.

6.7 The meeting noted that the outcome of the GMA Summit was presented to the ICAO General Assembly 39th Session (Montreal, Canada, 27 September-7 October 2016). The Assembly requested ICAO to take necessary measures related to the establishment of the MIDIP.

6.8 Based on the above, the meeting agreed that MIDAD would be considered as one of the MIDIP candidate projects.

6.9 The meeting noted that the MAEP Board/2 meeting (Cairo, Egypt, 11 - 13 April 2016) received a proposal from EUROCONTROL related to the implementation of an EAD-based MIDAD, with the following main steps:

Step 1: migration of the MID States to EAD.

Step 2: establishment of an EAD-based MIDAD System.

Step 3: establishment of a MIDAD Operational Centre in the MID Region (hand-over of the MIDAD operations from EURCONTROL to the MIDAD Service Provider).

6.10 The meeting recalled that the MAEP Board/3 meeting agreed that a detailed implementation plan (including the transition plan), should be developed by EUROCONTROL based on the EAD experience, in coordination with the MIDAD Support Team, and further reviewed and discussed by the MIDAD TF before presentation to the MAEP Board and/or MIDANPIRG for endorsement.

6.11 The meeting received a presentation from EUROCONTROL through teleconferencing focussing mainly on step 1 (migration of the MID States to EAD) with some general discussion on step 2 and step 3.

6.12 The presentation described the EAD vision/mission, concept and principles, services and access, governance, stakeholders, invoicing, migration and advantages. It was proposed that the cost-benefit analysis for each individual State will be provided based on States data related to the air navigation charges revenue (2016) and their GDP for the last 3 years.

6.13 It was also proposed to conduct a MIDAD Workshop in EUROCONTROL Headquarters, Brussels, Belgium from 5 to 6 October 2017 in order to discuss all the details related to the implementation of an EAD-based MIDAD project, and agree on a MIDAD implementation plan (including the transition plan and the pre-requisites for step 2 and step 3).

6.14 The meeting agreed that States should send their questions/concerns related to the MIDAD project to the ICAO MID Office in order to be consolidated for discussion by the MIDAD Support Team and further addressed with EUROCONTROL during the MIDAD Workshop in October 2017. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 3/8: MIDAD IMPLEMENTATION PLAN

That, States be urged to provide the ICAO MID Office with their questions/concerns related to the MIDAD project and the EUROCONTROL proposal, no later than ***20 June 2017****.*

6.15 The meeting agreed that the final list of questions/concerns should be consolidated by the MIDAD Support Team, which should also review the questions that might be raised by EUROCONTROL and provide necessary answers. The meeting reviewed and updated the composition and contact details of the MIDAD Support Team and agreed to the following Draft Decision:

DRAFT DECISION 3/9: MIDAD SUPPORT TEAM (MIDAD ST)

That, the MIDAD Support Team (MIDAD ST)

a) be composed of the MIDAD Focal Points from Bahrain, Iran, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Sudan, UAE and the ICAO MID Office as at ***Appendix 6A****; and*

b) provide necessary support to the MIDAD Task Force.

Future Work Programme

6.16 The subject was addressed in MIDAD TF/4 WP/4 presented by the Secretariat. The meeting reviewed and updated the MIDAD TF Terms of Reference (TORs) and agreed that they are still valid and current.

6.17 Taking into consideration, the progress of the MIDAD Project and the planned ICAO MID Regional events which are of relevance to the activity of the MIDAD Task Force, the meeting agreed that the MIDAD TF/5 meeting would be tentatively scheduled during the First half of 2018 (subject to further confirmation and according to the outcome of the MIDAD Workshop, Brussels, 5-6 October 2017). The venue will be the ICAO MID Office, Cairo, unless a State offers to host the meeting.

REPORT ON AGENDA ITEM 7: FUTURE WORK PROGRAMME

7.1 The subject was addressed in WP/17 presented by the Secretariat. The meeting reviewed the AIM SG Terms of References (TORs) and agreed that they are still valid and current.

7.2 Taking into consideration, the planned ICAO MID Regional events which are of relevance to the activity of the AIM Sub-Group, in particular the ANSIG/3 and MIDANPIRG/17 meetings, it was agreed that the AIM SG/4 meeting be held during the first quarter of 2019. The venue will be Cairo, unless a State is willing to host the meeting.

REPORT ON AGENDA ITEM 8: ANY OTHER BUSINESS

8.1 Nothing has been discussed under this agenda item.

APPENDICES

APPENDIX 2A

FOLLOW-UP ACTION PLAN ON MIDANPIRG/16 CONCLUSIONS AND DECISIONS

CONCLUSIONS AND DECISIONS	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	STATUS/REMARKS
CONCLUSION 16/3: MID REGION AIR NAVIGATION STRATEGY That, the revised MID Region Air Navigation Strategy (MID Doc 002, Edition February 2017) at Appendix 5.1A is endorsed.	MIDANPIRG/16	MID AN Strategy (MID Doc 002)	Feb. 2017	**Completed**
CONCLUSION 16/4: APPROVAL OF THE AMENDMENT TO THE MID eANP VOLUME III That, the amendment to the MID eANP Volume III at Appendix 5.1B is approved.	MIDANPIRG/16 ICAO	Amendment Notification of amendment	Feb. 2017 May 2017	**Ongoing** Amendment was approved by MIDANPIRG/16
CONCLUSION 16/7: MID REGION AIR NAVIGATION REPORT-2016 That, the MID Region Air Navigation Report-2016 is endorsed.	MIDANPIRG/16	MID AN Report	Feb. 2017	**Completed**
CONCLUSION 16/8: MID REGION AIR NAVIGATION REPORT-2017 That, MID States be urged to: a) develop/update their National ASBU Implementation Plan, ensuring the alignment with and support to the MID Region Air Navigation Strategy (MID Doc 002); and b) provide the ICAO MID Office, with relevant data necessary for the development of the MID Region Air Navigation Report-2017, by 1 November 2017.	ICAO States States	State Letter National ASBU Implementation Plan Data for AN Report 2017	Sep. 2017 Nov. 2017 Nov. 2017	**Ongoing**
CONCLUSION 16/10: GUIDANCE FOR AIM PLANNING AND IMPLEMENTATION IN THE MID REGION That, a) the Guidance for AIM Planning and Implementation in the MID Region is endorsed as MID Doc 008; and b) States be encouraged to use the MID Doc 008 in their AIM planning and implementation.	MIDANPIRG/16 ICAO States	MID Doc 008 State Letter Updated National	Feb. 2017 May 2017 Nov. 2017	**Completed** SL Ref.: AN 8/4-17/133 dated 30 April 2017

CONCLUSIONS AND DECISIONS	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	STATUS/REMARKS
		AIM Roadmaps		
CONCLUSION 16/11: AIRAC ADHERENCE MONITORING That, a) States be urged to: i. implement a system for AIRAC adherence monitoring; and ii. report on annual basis (by 31 March) to the ICAO MID Office the case(s) of late publication of aeronautical information of operational significance and non-adherence to the AIRAC provisions, using the AIRAC Adherence Monitoring Questionnaire at Appendix 5.2.2D. b) IATA report to the concerned State(s) and the ICAO MID Office any case of late publication of aeronautical information of operational significance and non-adherence to the AIRAC provisions.	 States ICAO States IATA	 AIRAC adherence monitoring system State Letter Filled Questionnaire	 Nov. 2017 Mar. 2017/ continuous Apr. 2017/ continuous Nov. 2017/ continuous	**Ongoing** SL Ref.: AN 8/4 – 17/087 dated 23 Mar 2017 issued, 13 States Replied (Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Sudan and UAE)
CONCLUSION 16/12: INTERREGIONAL SEMINAR ON "SERVICE IMPROVEMENT THROUGH INTEGRATION OF DIGITAL AIM, MET AND ATM INFORMATION" That, States, Organizations and Industry be invited to actively participate in the Interregional Seminar on "Service Improvement through Integration of Digital AIM, MET and ATM Information Services" (Brussels, Belgium, 2-5 October 2017).	 ICAO States, Organizations and Industry	 State Letter Actively participate in the Seminar	 Jun. 2017 Oct. 2017	**Ongoing**

CONCLUSIONS AND DECISIONS	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	STATUS/REMARKS
DECISION 16/26: ATM DATA SECURITY ACTION GROUP That, the ATM Data Security Action Group (ADSAG) be:				**Ongoing**
a) established to develop the MID Region ATM Data Security Plan, to be presented to the CNS SG/8.	ICAO	State Letter	Jun. 2017	
b) composed of members from Bahrain, Iran, Kuwait, Oman, Saudi Arabia, UAE (Rapporteur), ICAO and IFAIMA.	ADSAG members	MID Region ATM Data Security Plan	Q1-2018	

APPENDIX 2B

FOLLOW-UP ACTION PLAN ON MSG/5 CONCLUSIONS AND DECISIONS

CONCLUSIONS AND DECISIONS	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	STATUS/REMARKS
MSG CONCLUSION 5/2: MID eANP FOCAL POINTS That, States be urged to assign a MID eANP focal point to be the main point of contact for all issues related to the MID eANP, including the validation of amendments to Volume III Part II – "Air Navigation System Implementation".	ICAO States	State Letter Feedback	Jul. 2016	**Closed** Ref.: AN 9/2.1-16/155 dated 9 Jun 2016 7 States replied (Bahrain, Egypt, Jordan, Kuwait, Saudi Arabia, Sudan and UAE)
MSG CONCLUSION 5/5: PUBLICATION OF FIR BOUNDARY POINTS That, States be urged to: a) take into consideration the Guidelines at Appendix 5D for the description of their FIR boundaries; b) review the Table ATM I-1 MID Region Flight Information Regions (FIRs)/ (FIRs)/Upper Information Regions (UIRs) at Appendix 5E and coordinate with neighboring States, as appropriate, the definition of common boundaries; and c) provide the ICAO MID Regional Office with their updates and comments before 15 October 2016.	ICAO States	State Letter Feedback	Dec. 2016 Mar. 2017	**Actioned/Ongoing** SL Ref.: AN 6/3-16/338 dated 1 Dec 2016
MSG CONCLUSION 5/7: TRANSITION PLAN FOR THE RNAV TO RNP INSTRUMENT APPROACH CHART DEPICTION That, States be urged to provide their transition plan for the RNAV to RNP Instrument Approach Chart Depiction (Chart Title) to the ICAO MID Regional Office before 31 October 2016, taking into consideration the provisions/timelines set forth in Amendment 6 to PANS-OPS, Volume II, Part III, Section 5, Chapter 1 and the ICAO Circular 336.	ICAO States	State Letter Feedback	Apr 2016 January 2017	**Closed** SL Ref.: AN 6/29 - 16/336 dated 1 Dec 2016
MSG CONCLUSION 5/10: NATIONAL AIM IMPLEMENTATION ROADMAP That, States be urged to:	ICAO States	State Letter Feedback	Dec 2016	**Closed** Ref.: AN 8/4 - 16/261 dated 22 Sep 2016;

CONCLUSIONS AND DECISIONS	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	STATUS/REMARKS
a) take into consideration the "MID Region AIM implementation Roadmap" at Appendix 5I in planning for the transition from AIS to AIM in a prioritized manner; and b) provide the ICAO MID Regional Office with their updated National AIM Implementation Roadmap on an annual basis (by end of December), using the Template at Appendix 5H.				Total 12 States provided Roadmaps. Updated Versions (2016) received from Bahrain, Egypt, Iran, Iraq, Kuwait, Lebanon, Oman, Qatar and UAE.
MSG CONCLUSION 5/11: INTERREGIONAL SEMINAR ON "SERVICE IMPROVEMENT THROUGH INTEGRATION OF DIGITAL AIM, MET AND ATM INFORMATION That, a) ICAO organize an Interregional Seminar on "Service improvement through integration of digital AIM, MET and ATM Information" in 2017; and b) States be encouraged to attend and support the Seminar.	ICAO States	Organize Seminar Support the Seminar	Oct 2017	**Closed** Seminar scheduled to be held in Brussels, 2-5 Oct. 2017 Replaced by MIDANPIRG/16 Conclusion 16/12
MSG CONCLUSION 5/14: WORKSHOP ON ASBU BLOCK 1 MODULES IMPLEMENTATION That, a Workshop on ASBU Block 1 Modules implementation be organized by ICAO in 2017.	ICAO	Seminar	2017	**Ongoing** Planned for 2018
MSG DECISION 5/15: MIDANPIRG PROCEDURAL HANDBOOK (MID DOC 001) That, the MIDANPIRG Procedural Handbook (MID Doc 001) Edition April 2016 (Appendix 7C) is endorsed.	ICAO	Handbook posted on the Website	Apr 2016	**Completed**

APPENDIX 2. SNOWTAM FORMAT

(see Chapter 5, 5.2.3)

(COM heading)	(PRIORITY INDICATOR)					(ADDRESSES)																<≡
	(DATE AND TIME OF FILING)							(ORIGINATOR'S INDICATOR)														<≡
(Abbreviated heading)	(SWAA* SERIAL NUMBER)							(LOCATION INDICATOR)				DATE-TIME OF OBSERVATION							(OPTIONAL GROUP)			
	S	W	*	*																		<<≡(

SNOWTAM	(Serial number)	<≡

(AERODROME LOCATION INDICATOR)	A)	<≡
(DATE-TIME OF OBSERVATION *(Time of completion of measurement in UTC)*)	B)	⇒
(RUNWAY DESIGNATOR)	C)	⇒
(CLEARED RUNWAY LENGTH, IF LESS THAN PUBLISHED LENGTH *(m)*)	D)	⇒
(CLEARED RUNWAY WIDTH, IF LESS THAN PUBLISHED WIDTH *(m; if offset left or right of centre line add "L" or "R"*))	E)	⇒
(DEPOSITS OVER TOTAL RUNWAY LENGTH *(Observed on each third of the runway, starting from threshold having the lower runway designation number)* NIL — CLEAR AND DRY 1 — DAMP 2 — WET 3 — RIME OR FROST COVERED *(depth normally less than 1 mm)* 4 — DRY SNOW 5 — WET SNOW 6 — SLUSH 7 — ICE 8 — COMPACTED OR ROLLED SNOW 9 — FROZEN RUTS OR RIDGES)	F) …./…./….	⇒
(MEAN DEPTH *(mm)* FOR EACH THIRD OF TOTAL RUNWAY LENGTH)	G) …./…./….	⇒
(ESTIMATED SURFACE FRICTION ON EACH THIRD OF RUNWAY) ESTIMATED SURFACE FRICTION GOOD — 5 MEDIUM/GOOD — 4 MEDIUM — 3 MEDIUM/POOR — 2 POOR — 1 *(The intermediate values of "MEDIUM/GOOD" and "MEDIUM/POOR" provide for more precise information in the estimate when conditions are found to be between medium and either good or poor.)*	H) …./…./….	⇒
(CRITICAL SNOWBANKS *(If present, insert height (cm)/distance from the edge of runway (m) followed by "L", "R" or "LR" if applicable)*)	J)	⇒

(RUNWAY LIGHTS *(If obscured, insert "YES" followed by "L", "R" or both "LR" if applicable)*)	K) ⟶
(FURTHER CLEARANCE *(If planned, insert length (m)/width (m) to be cleared or if to full dimensions, insert "TOTAL")*)	L) ⟶
(FURTHER CLEARANCE EXPECTED TO BE COMPLETED BY . . . *(UTC)*)	M) ⟶
(TAXIWAY *(If no appropriate taxiway is available, insert "NO")*)	N) ⟶
(TAXIWAY SNOWBANKS *(If higher than 60 cm, insert "YES" followed by the lateral distance apart, m)*)	P) <≡
(APRON *(If unusable insert "NO")*)	R) ⟶
(NEXT PLANNED OBSERVATION/MEASUREMENT IS FOR) *(month/day/hour in UTC)*	S) ⟶
(PLAIN-LANGUAGE REMARKS *(Including contaminant coverage and other operationally significant information, e.g. sanding, de-icing, chemicals)*)	T))<≡

NOTES: 1. *Enter ICAO nationality letters as given in ICAO Doc 7910, Part 2.
2. Information on other runways, repeat from B to P.
3. Words in brackets ( ) not to be transmitted.

SIGNATURE OF ORIGINATOR *(not for transmission)*

(COM heading)	(PRIORITY INDICATOR)	(ADDRESSES)		≪≡
	(DATE AND TIME OF FILING)	(ORIGINATOR'S INDICATOR)		≪≡
(Abbreviated heading)	(SWAA* SERIAL NUMBER) S W * *	(LOCATION INDICATOR)	DATE/TIME OF ASSESMENT	(OPTIONAL GROUP) ≪≡(
SNOWTAM	(Serial number) ⟶ ≪≡			

Aeroplane performance section		
(AERODROME LOCATION INDICATOR)	M	A) ≪≡
(DATE/TIME OF ASSESSMENT *(Time of completion of assessment in UTC)*)	M	B)
(LOWER RUNWAY DESIGNATORS)	M	C)
RUNWAY CONDITION CODE ON EACH THIRD OF RUNWAY (From Runway Condition Assessment Matrix (RCAM) 0, 1, 2, 3, 4, 5 or 6	M	D) / /
PER CENT COVERAGE CONTAMINANT FOR EACH RUNWAY THIRD	C	E) / /
DEPTH *(mm)* OF LOOSE CONTAMINANT FOR EACH THIRD OF RUNWAY)	C	F) / /
(CONDITION DESCRIPTION OVER TOTAL RUNWAY LENGTH *(Observed on each third of the runway, starting from threshold having the lower runway designation number)* COMPACTED SNOW DRY DRY SNOW DRY SNOW ON TOP OF COMPACTED SNOW DRY SNOW ON TOP OF ICE FROST ICE SLUSH STANDING WATER WATER ON TOP OF COMPACTED SNOW WET WET ICE WET SNOW WET SNOW ON TOP OF COMPACTED SNOW WET SNOW ON TOP OF ICE	M	G) / /
(WIDTH OF RUNWAY TO WHICH THE RWYCCs APPLY, IF LESS THAN PUBLISHED WIDTH)	O	H) ≪≡
Situational awareness section		
(REDUCED RUNWAY LENGTH, IF LESS THAN PUBLISHED LENGTH *(m)*)	O	I)
DRIFTING SNOW ON THE RUNWAY	O	J)

LOOSE SAND ON THE RUNWAY	O	K)
CHEMICAL TREATMENT ON RUNWAY	O	L)
(SNOWBANKS ON THE RUNWAY *(If present, distance from runway centreline (m) followed by "L", "R" or "LR" as applicable)*)	O	M)
SNOWBANKS ADJACENT TO THE RUNWAY	O	N)
(SNOWBANKS ON A TAXIWAY*(If present, distance from the edge of runway (m) followed by "L", "R" or "LR" as applicable)*)		O)
(TAXIWAY CONDITIONS)	O	P)
(APRON CONDITIONS)	O	R)
(MEASURED FRICTION COEFFICIENT*)*	O	S)
(PLAIN-LANGUAGE REMARKS)	O	T)) ≪≡
NOTES: 1. *Enter ICAO nationality letters as given in ICAO Doc 7910, Part 2 or otherwise applicable aerodrome identifier. 2. *Information on other runways, repeat from B to H. 3. *Information in the Situational Awareness section repeated for each runway, taxiway and apron repeat as applicable when reported. 4. *Words in brackets ( ) not to be transmitted.		

SIGNATURE OF ORIGINATOR *(not for transmission)*

INSTRUCTIONS FOR THE COMPLETION OF THE SNOWTAM FORMAT

Note.— Origin of data, assessment process and the procedures linked to the surface conditions reporting system are prescribed in the PANS-Aerodromes (Doc 9981).

1. *General*

a) When reporting on more than one runway, repeat Items B to ~~P inclusive~~ H (the Aeroplane performance section).

b) ~~Items together with their indicator must be dropped completely, where no information is to be included~~ The letters used to indicate items are only used for reference purpose and should not be included in the messages. The letters, M (mandatory) C (conditional) and O (optional) mark the usage and information shall be included as explained below.

c) Metric units ~~must~~ shall be used and the unit of measurement not reported.

d) The maximum validity of SNOWTAM is ~~24~~ 8 hours. New SNOWTAM ~~must~~ shall be issued whenever ~~there is a significant change in conditions. The following changes relating to runway conditions are considered as significant:~~ a new runway condition report is received.

~~1) a change in the coefficient of friction of about 0.05;~~

~~2) changes in depth of deposit greater than the following: 20 mm for dry snow, 10 mm for wet snow, 3 mm for slush;~~

~~3) a change in the available length or width of a runway of 10 per cent or more;~~

~~4) any change in the type of deposit or extent of coverage which requires reclassification in Items F or T of the SNOWTAM;~~

~~5) when critical snow banks exist on one or both sides of the runway, any change in the height or distance from centre line;~~

~~6) any change in the conspicuity of runway lighting caused by obscuring of the lights;~~

~~7) any other conditions known to be significant according to experience or local circumstances.~~

e) A SNOWTAM cancels the previous SNOWTAM.

~~e~~ f) The abbreviated heading "TTAAiiii CCCC MMYYGGgg (BBB)" is included to facilitate the automatic processing of SNOWTAM messages in computer data banks. The explanation of these symbols is:

TT = data designator for SNOWTAM = SW;
AA = geographical designator for States, e.g. LF = FRANCE, EG = United Kingdom (see *Location Indicators* (Doc 7910), Part 2, Index to Nationality Letters for Location Indicators);
iiii = SNOWTAM serial number in a four-digit group;
CCCC = four-letter location indicator of the aerodrome to which the SNOWTAM refers (see *Location Indicators* (Doc 7910));
MMYYGGgg = date/time of observation/measurement, whereby:
MM = month, e.g. January = 01, December = 12
YY = day of the month
GGgg = time in hours (GG) and minutes (gg) UTC;
(BBB) = optional group for:
Correction, in the case of an error, to SNOWTAM message previously disseminated with the same serial number = COR.

Note 1.— Brackets in (BBB) are used to indicate that this group is optional.

Note 2.— When reporting on more than one runway and individual dates/times of observation/measurement are indicated by repeated Item B, the latest date/time of observation/measuring is inserted in the abbreviated heading (MMYYGGgg).

Example: Abbreviated heading of SNOWTAM No. 149 from Zurich, measurement/observation of 7 November at 0620 UTC:

SWLS0149 LSZH 11070620

Note.— The information groups are separated by a space, as illustrated above.

~~f) The text "SNOWTAM" in the SNOWTAM Format and the SNOWTAM serial number in a four-digit group shall be separated by a space, for example: SNOWTAM 0124.~~

g) For readability purposes for the SNOWTAM message, include a line feed after the SNOWTAM serial number~~, after Item A, after the last item referring to the runway (e.g. Item P) and after Item S~~ and after the aeroplane performance section.

h) When reporting on more than one runway, repeat the information in the Aeroplane performance calculation section from the Date and Time of Assessment for each runway before the information in the Situational awareness section.

i) Mandatory information is:

i) AERODROME LOCATION INDICATOR
ii) DATE AND TIME OF ASSESSMENT
iii) LOWER RUNWAY DESIGNATOR NUMBER
iv) RUNWAY CONDITION CODE FOR EACH RUNWAY THIRD
v) CONDITION DESCRIPTION FOR EACH RUNWAY THIRD (when runway condition code is reported 1- 5)

~~2. *Item A* — Aerodrome location indicator (four-letter location indicator).~~

~~3. *Item B* — Eight-figure date/time group — giving time of observation as month, day, hour and minute in UTC; this item must always be completed.~~

~~4. *Item C* — Lower runway designator number.~~

~~5. *Item D* — Cleared runway length in metres, if less than published length (see Item T on reporting on part of runway not cleared).~~

~~6. *Item E* — Cleared runway width in metres, if less than published width; if offset left or right of centre line, add (without space) "L" or "R", as viewed from the threshold having the lower runway designation number.~~

~~7. *Item F* — Deposit over total runway length as explained in SNOWTAM Format. Suitable combinations of these numbers may be used to indicate varying conditions over runway segments. If more than one deposit is present on the same portion of the runway, they should be reported in sequence from the top (closest to the sky) to the bottom (closest to the runway). Drifts, depths of deposit appreciably greater than the average values or other significant characteristics of the deposits may be reported under Item T in plain language. The values for each third of the runway shall be separated by an oblique stroke (/), without space between the deposit values and the oblique stroke, for example: 47/47/47.~~

~~*Note. — Definitions for the various types of snow are given at the end of this Appendix.*~~

~~8. *Item G* — Mean depth in millimetres deposit for each third of total runway length, or "XX" if not measurable or operationally not significant; the assessment to be made to an accuracy of 20 mm for dry snow, 10 mm for wet snow and 3 mm for slush. The values for each third of the runway shall be separated by an oblique stroke (/), without space between the values and the oblique stroke, for example: 20/20/20.~~

~~9. *Item H* — Estimated surface friction on each third of the runway (single digit) in the order from the threshold having the lower runway designation number.~~

~~Friction measurement devices can be used as part of the overall runway surface assessment. Some States may have developed procedures for runway surface assessment which may include the use of information obtained from friction measuring devices and the reporting of quantitative values. In such~~

~~cases, these procedures should be published in the AIP and the reporting made in Item (T) of the SNOWTAM format.~~

~~The values for each third of the runway are separated by an oblique stroke (/), without space between the values and the oblique stroke , for example: 5/5/5.~~

10. ~~*Item J* — Critical snow banks. If present insert height in centimetres and distance from edge of runway in metres, followed (without space) by left ("L") or right ("R") side or both sides ("LR"), as viewed from the threshold having the lower runway designation number.~~

11. ~~*Item K* — If runway lights are obscured, insert "YES" followed (without space) by "L", "R" or both "LR", as viewed from the threshold having the lower runway designation number.~~

12. ~~*Item L* — When further clearance will be undertaken, enter length and width of runway or "TOTAL" if runway will be cleared to full dimensions.~~

13. ~~*Item M* — Enter the anticipated time of completion in UTC.~~

14. ~~*Item N* — The code (and combination of codes) for Item F may be used to describe taxiway conditions; enter "NO" if no taxiways serving the associated runway are available.~~

15. ~~*Item P* — If snow banks are higher than 60 cm, enter "YES" followed by the lateral distance parting the snow banks (the distance between) in metres.~~

16. ~~*Item R* — The code (and combination of codes) for Item F may be used to describe apron conditions; enter "NO" if the apron is unusable.~~

17. ~~*Item S* — Enter the anticipated time of next observation/measurement in UTC.~~

18. ~~*Item T* — Describe in plain language any operationally significant information but always report on length of uncleared runway (Item D) and extent of runway contamination (Item F) for each third of the runway (if appropriate) in accordance with the following scale:~~

~~RWY CONTAMINATION 10 PER CENT — if 10% or less of runway contaminated~~
~~RWY CONTAMINATION 25 PER CENT — if 11–25% of runway contaminated~~
~~RWY CONTAMINATION 50 PER CENT — if 26–50% of runway contaminated~~
~~RWY CONTAMINATION 100 PER CENT — if 51–100% of runway contaminated.~~

2. *Aeroplane performance calculation section*

Item A — Aerodrome location indicator (4-letter location indicator).

Item B — Date and time of assessment eight-figure date/time group giving time of observation as month, day, hour and minute in UTC.

Item C — Lower runway designator number (nn[L] *or* nn[C] *or* nn[R])

Note.— Only one runway designator is inserted for each runway and always the lowest number.

Item D — Runway condition code for each runway third — Only one digit (0, 1, 2, 3, 4, 5 or 6) is inserted for each runway third, separated by an oblique stroke (n/n/n)

Item E — Per cent coverage for each runway third . When provided, insert 25, 50, 75 or 100 for each runway third separated by an oblique stroke ([n]nn/[n]nn/[n]nn).

Note 1.— This information is provided only when the runway condition for each runway third (Item D) has been reported as other than 6 and there is a condition description for each runway third (Item G) that has been reported other than DRY.

Note 2.— When the conditions are not reported, this will be signified by the insertion of "NR" for the appropriate runway third.

Item F — Depth of loose contaminant for each runway third. When provided, insert in millimetres for each runway third separated by an oblique stroke (nn/nn/nn or nnn/nnn/nnn).

Note 1.— This information is only provided for the following contamination types:

Standing water*, values to be reported 04, then assessed value. Significant changes 3 mm up to and including 15 mm.*

Slush*, values to be reported 03, then assessed value. Significant changes 3 mm up to and including 15 mm.*

Wet snow*, values to be reported 03, then assessed value. Significant changes 5 mm.*

Dry snow*, values to be reported 03, then assessed value. Significant changes 20 mm.*

Note 2.— When the conditions are not reported, this will be signified by the insertion of "NR" for the appropriate runway third.

Item G — Condition description for each third. Insert any of the following condition descriptions for each runway third separated by an oblique stroke.

COMPACTED SNOW
DRY SNOW
DRY SNOW ON TOP OF COMPACTED SNOW
DRY SNOW ON TOP OF ICE
FROST
ICE
SLUSH
STANDING WATER
WATER ON TOP OF COMPACTED SNOW
WET ICE
WET SNOW
WET SNOW ON TOP OF COMPACTED SNOW
WET SNOW ON TOP OF ICE

DRY (only reported when there is no contaminant)

Note.— When the conditions are not reported, this will be signified by the insertion of "NR" for the appropriate runway third.

Item H — Width of RWY to which the RWYCCs apply. Insert the width in metres if less than the published runway width.

3. *Situational awareness section*

Note 1.— Elements in the situational awareness section end with a full stop.

Note 2.— Elements in the situational awareness section for which no information exists, or where the conditional circumstances for publication is not fulfilled, are left out completely.

Item I — Reduced runway length. Insert the applicable runway designator and available length in meters (example: RWY nn [L] or nn [C] or nn [R] REDUCED TO [n]nnn).

Note.— This information is conditional when a NOTAM has been published with a new set of declared distances.

Item J — Drifting snow on the runway. When reported, insert DRIFTING SNOW.

Item K — Loose sand on the runway. When loose sand is reported on the runway, insert the lowest runway designator and with a space "LOOSE SAND" (example: RWY nn or RWY nn[L] or nn[C] or nn[R] LOOSE SAND).

Item L — Chemical treatment on RWY. When chemical treatment has been reported applied, insert the lowest runway designator and with a space "CHEMICALLY TREATED" (example: RWY nn or RWY nn[L] or nn[C] or nn[R] CHEMICALLY TREATED).

Item M — Snow banks on the runway. When critical snow banks are reported present on the runway, insert the runway designator and with a space "SNOWBANK" and with a space left "L" or right "R" or both sides "LR", followed by the distance in metres from centreline separated by a space FM CL (example: RWY nn or RWY nn[L] or nn[C] or nn[R] SNOWBANK Lnn or Rnn or LRnn FM CL).

Item N — Snow banks on the taxiway. When critical snow banks are present on a taxiway, insert the taxiway designator and with a space "SNOWBANK" and with a space left "L" or right "R" or both sides "LR", followed by the distance in metres from centreline separated by a space FM CL (example: TWY [nn]n SNOWBANK Lnn *or* Rnn *or* LRnn FM CL).

Item O — Snow banks adjacent to the runway. When snow banks are reported present penetrating the height profile in the aerodrome snow plan, insert lowest runway designator and "ADJ SNOWBANKS" (example: RWY nn or RWY nn[L] or nn[C] or nn[R] ADJ SNOWBANKS).

Item P — Taxiway conditions. When taxiway conditions are reported slippery or poor insert taxiway designator followed by a space "POOR". (example: TWY [n or nn] POOR or ALL TWY POOR).

Item R — Apron conditions. When apron conditions are reported slippery or poor insert apron designator followed by a space “POOR” (example: APRON [nnnn] POOR or ALL APRONS POOR).

Item S — Measured friction coefficient. Where reported, insert the measured friction coefficient and friction measuring device.
Note.— This will only be reported for those States that have an established program of runway friction measurement using State approved friction measuring equipment.

Item T — Plain language remarks.

EXAMPLE OF COMPLETED SNOWTAM FORMAT

~~GG EHAMZQZX EDDFZQZX EKCHZQZX~~
~~070645 LSZHYNYX~~
~~SWLS0149 LSZH 11070700~~
~~(SNOWTAM 0149~~
~~A) LSZH~~
~~B) 11070620 C) 02 D)…P)~~
~~B) 11070600 C) 09 D)…P)~~
~~B) 11070700 C) 12 D)…P)~~
~~R) NO S) 11070920~~
~~T) DEICING~~

Example SNOWTAM 1

GG EADBZQZX EADNZQZX EADSZQZX
070645 EADDYNYX
SWEA0149 EADD 02170055
(SNOWTAM 0149
EADD 02170055 09L 5/5/5 100/100/100 NR/NR/NR WET/WET/WET
)

Example SNOWTAM 2

GG EADBZQZX EADNZQZX EADSZQZX
070645 EADDYNYX
SWEA0149 EADD 02170135
(SNOWTAM 0150
EADD 02170055 09L 5/5/5 100/100/100 NR/NR/NR WET/WET/WET
EADD 02170135 09R 5/4/3 100/50/75 NR/06/06 WET/SLUSH/SLUSH
)

Example SNOWTAM 3

GG EADBZQZX EADNZQZX EADSZQZX
070645 EADDYNYX
SWEA0149 EADD 02170225
(SNOWTAM 0151
EADD 02170055 09L 5/5/5 100/100/100 NR/NR/NR WET/WET/WET
EADD 02170135 09R 5/4/3 100/50/75 NR/06/06 WET/SLUSH/SLUSH
EADD 02170225 09C 3/2/1 75/100/100 06/12/12 SLUSH/WET SNOW/WET SNOW
RWY 09L SNOWBANK R20 FM CL. RWY 09R ADJ SNOWBANKS. TWY B POOR. APRON NORTH POOR)

Example SNOWTAM 4

GG EADBZQZX EADNZQZX EADSZQZX
070645 EADDYNYX
SWEA0149 EADD 02170345
(SNOWTAM 0152
EADD 02170345 09L 5/5/5 100/100/100 NR/NR/NR WET/WET/WET
EADD 02170134 09R 5/4/3 100/50/75 NR/06/06 WET/SLUSH/SLUSH
EADD 02170225 09C 3/2/1 75/100/100 06/12/12 SLUSH/WET SNOW/WET SNOW 35
DRIFTING SNOW. RWY 09L LOOSE SAND. RWY 09R CHEMICALLY TREATED. RWY 09C CHEMICALLY TREATED.)

Note.— See the Aeronautical Information Services Manual *(Doc 8126) for additional SNOWTAM examples incorporating different runway conditions.*

~~**Definitions of the various types of snow**~~

~~***Slush***. Water-saturated snow which with a heel-and-toe slap-down motion against the ground will be displaced with a splatter; specific gravity: 0.5 up to 0.8.~~

~~*Note. — Combinations of ice, snow and/or standing water may, especially when rain, rain and snow, or snow is falling, produce substances with specific gravities in excess of 0.8. These substances, due to their high water/ice content, will have a transparent rather than a cloudy appearance and, at the higher specific gravities, will be readily distinguishable from slush.*~~

~~***Snow (on the ground)***.~~

~~a) *Dry snow*. Snow which can be blown if loose or, if compacted by hand, will fall apart again upon release; specific gravity: up to but not including 0.35.~~

~~b) *Wet snow*. Snow which, if compacted by hand, will stick together and tend to or form a snowball; specific gravity: 0.35 up to but not including 0.5.~~

~~c) *Compacted snow*. Snow which has been compressed into a solid mass that resists further compression and will hold together or break up into lumps if picked up; specific gravity: 0.5 and over.~~

ICAO CODES AND ROUTES DESIGNATORS

ICARD

Five-Letter Name-Codes (5LNC)

Guidelines

April 2017

CONTENTS

INTRODUCTION

1. The ICAO Standards and Recommended Practices to be applied concerning 5LNC may be found in:

- **Annex 11 — Air Traffic Services, Chapter 2, Section 2.15; and**
- **Annex 11 — Air Traffic Services; Appendix 2.**

2. 5LNC codes are drawn from a set of pre-defined five letter combinations generated by ICAO and the FAA in the 1970's. This list was then split and distributed to the various ICAO Regional offices throughout the world. These reserve lists have since formed the base for 5LNC allocation by the ICAO Offices with the objective of world-wide unique allocation to enable unambiguous designation of significant points not linked to the site of a Radio Navigation Aid. States are required to coordinate usage of unique five-letter pronounceable name-code designators (5LNC')s with the appropriate Regional Office. (Ref. Annex 11, Appendix 2, Section 3, Paragraph 3.5) and adhere to the rules for relocating 5LNC's as stated in Annex 11, Appendix 2, Section 3, Paragraph 3.4.

3. A five-letter name-code (5LNC) shall be assigned when a significant point is required for a position **not marked by the site of a radio navigation aid** and is used for **ATC purposes**.

4. The first internet application of the ICAO International Codes and Routes Designators (ICARD) database was deployed in 1998. It was developed to support the allocation process of five-letter name-codes (5LNC) within the ICAO EUR/NAT region. The application was gradually extended to other ICAO Regions from 2005 onwards with ICARD becoming accessible to all ICAO Regions at the end of 2010.

5. These guidelines have been written to help all ICARD users understand the process of electronic search and allocation of 5LNC as well as to provide them with clear instructions and helpful tips on the effective use of the ICARD database.

6. Any suggestions to improve these guidelines are welcome. Please contact:

Virgilio Alegría
ICARD Data Manager – ICAO HQ
valegria@icao.int
icaohq@icao.int (Central Registry)
http://www.icao.int

Isabelle Hofstetter
ICARD Data Manager - ICAO EUR/NAT
ihofstetter@paris.icao.int
icaoeurnat@paris.icao.int (Central Registry)
http://www.icao.int/eurnat/Pages/welcome.aspx

Technical support is provided by Hong Feng Zhao at ICAO Headquarters: hfzhao@icao.int
Any problem should also be reported to the ICAO ICARD service desk : ServiceDesk@icao.int

DEFINITIONS

ICARD USERS

ICARD Public (non-Authorized) User

Any person of the public who may query the content of the database but not make any reservations or change to the content. Please request an account on the ICAO Secure Portal http://portal.icao.int/, and subscribe to the group ICARD.

ICARD Authorized User

- The ICARD authorized users are nominated by their State.
- The ICAO Regional Office should be informed of the name(s) of the persons who will act as ICARD authorized user.
- The ICARD authorized user must register for access to the ICAO portal ICARD group, and then subscribe for access as an ICARD 5LNC planner.
- Access will be granted to the ICARD authorized user after registration has been made on the ICAO portal (pages 8-10 refer).

ICARD Data Manager

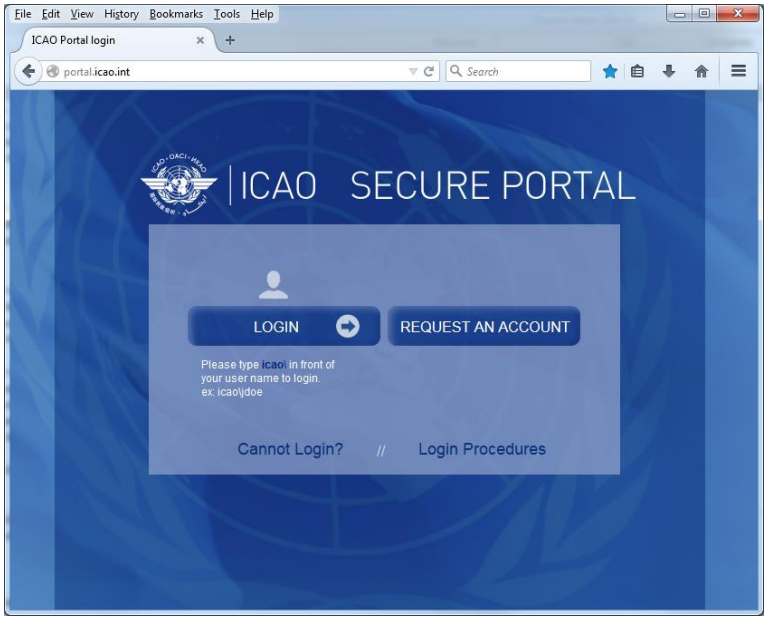
Each ICAO Regional Office has a nominated ICARD Data Manager and an alternate. The ICARD focal point in your respective ICAO regional office will:

- Analyze your request for access and, if approved, will confirm to the ICAO portal administrator your name and state. A first automatic notification will be forwarded to you to continue the registration process on the ICAO portal.
- Review and accept or refuse your request for 5LNC.

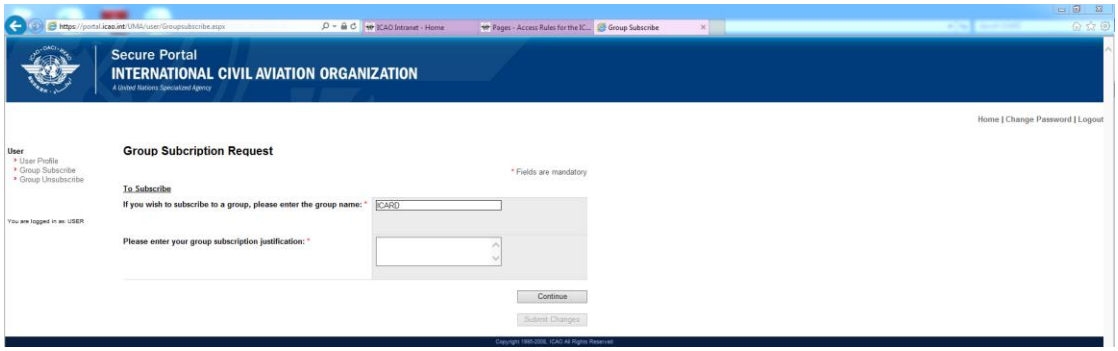
SECTION 1 ACCESSING ICARD AND REGISTRATION PROCEDURE

PUBLIC USERS

Public access to ICARD is available, with prior registration to the ICAO Secure Portal as follows:



When you have been granted an account, please click on profile, then group subscribe and enter ICARD



ICARD Menu for Public Users

The following information is provided:

Under the ***"5LNC"*** menu:

"Find Allocated and available 5LNC"

Will confirm whether a given 5LNC is used or not in all ICAO Regions.

To note: the database contains the complete initial lists of 5LNCs. Details of the allocated codes (coordinates as well as coordinating country) are given.

"Find 5LNC in Reserve List"

The list contains all 5LNC currently available and the ICAO region to which they belong. The available 5LNC were divided between all the ICAO regions when 5LNC were introduced in the mid-1970s and each Region has a 'pool' of codes allocated to it.

"Find Allocated 5LNC"

This option provides the geographical coordinates and State using a particular 5LNC but only if it is in the ICARD database. Where a State has used a 'non-approved' 5LNC that has not been adopted into ICARD this information will not be provided.

Under the ***"Downloads"*** menu:

Lists of codes by country or by name can be generated.

Lists of duplicate codes can also be generated.

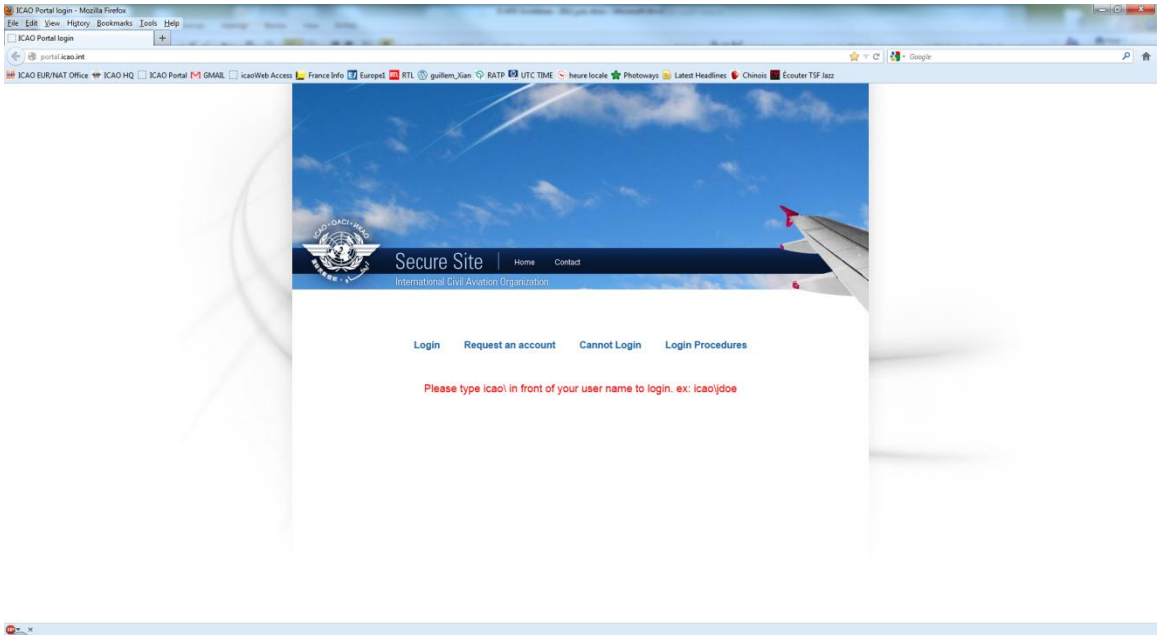
***Sound-like proximity* can also be verified from the first three sub-items of the public user menu.

REGISTRATION PROCEDURE TO BE AN AUTHORIZED USER

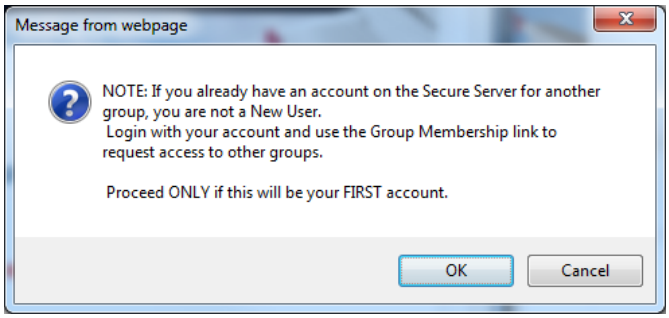
The ICARD authorized user registration is a **two-step process** .

Step 1 – Requesting ICARD Access

- Connect to the ICAO portal: http://portal.icao.int/

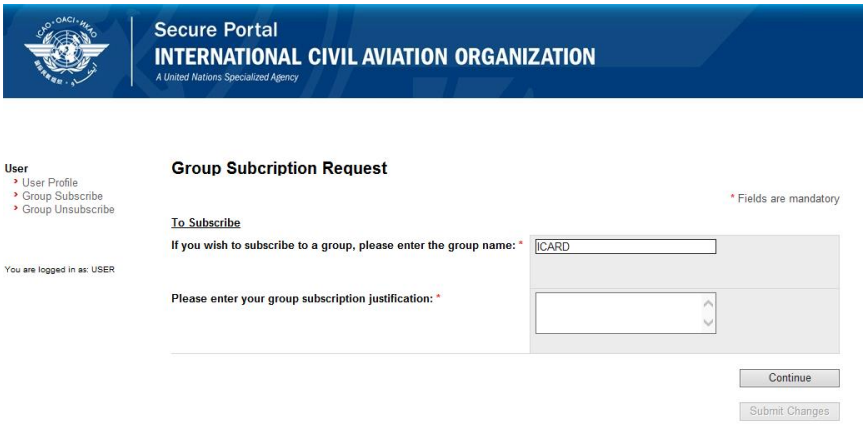


- Request an account

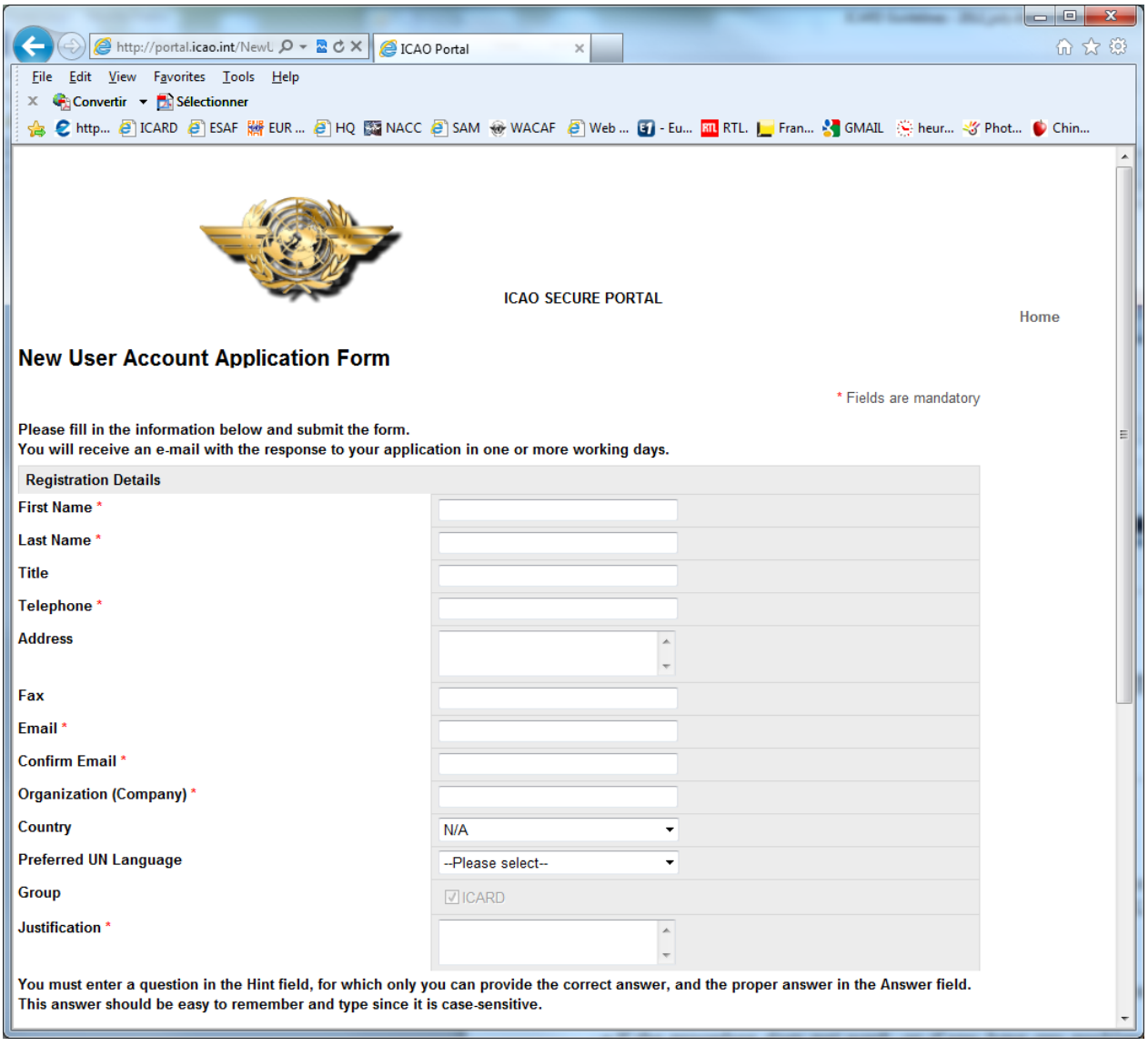


- ❖ Registration on the ICAO portal will also serve for other ICAO topics / fields
- Press **OK** to proceed

- Subscription to "**ICARD**" – Type "ICARD" and complete the justification box.



➢ Your details are required for the registration part



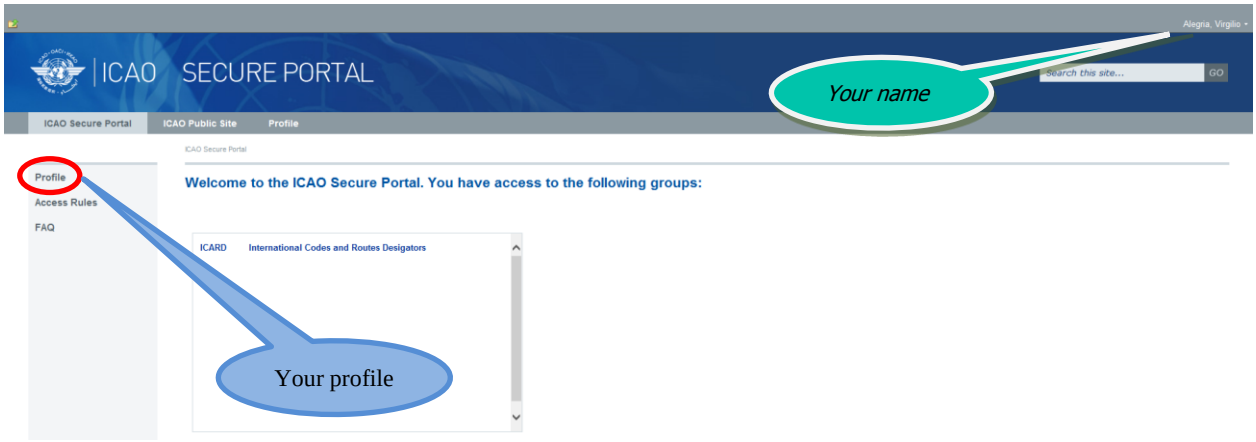
Note: (**Justification*** can be *: "nominated ICARD authorized user for x Country").*

- After "Step 1",
  - ✓ access to the ICARD group will be granted by the ICAO regional data manager and
  - ✓ a notification will be sent automatically confirming your registration to the ICARD Group and providing a **password for your first login**. (the password can be changed later)

Step 2 – Requesting "ICARD Authorized User" Access

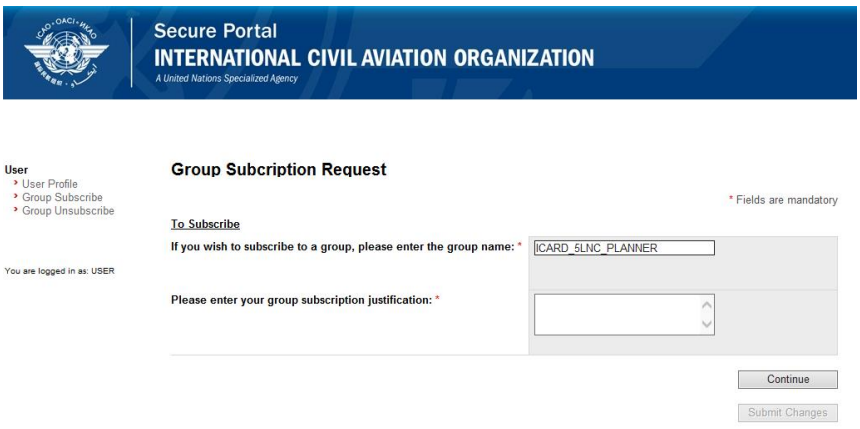
- registration as **ICARD_5LNC_PLANNER** is required to enable 5LNC allocation requests

1. Log in with your new user id and password.
2. Click on the "Profile" link located on the top left corner of the page (Figure 4).



3. Select "Group Subscribe" (Figure 5).

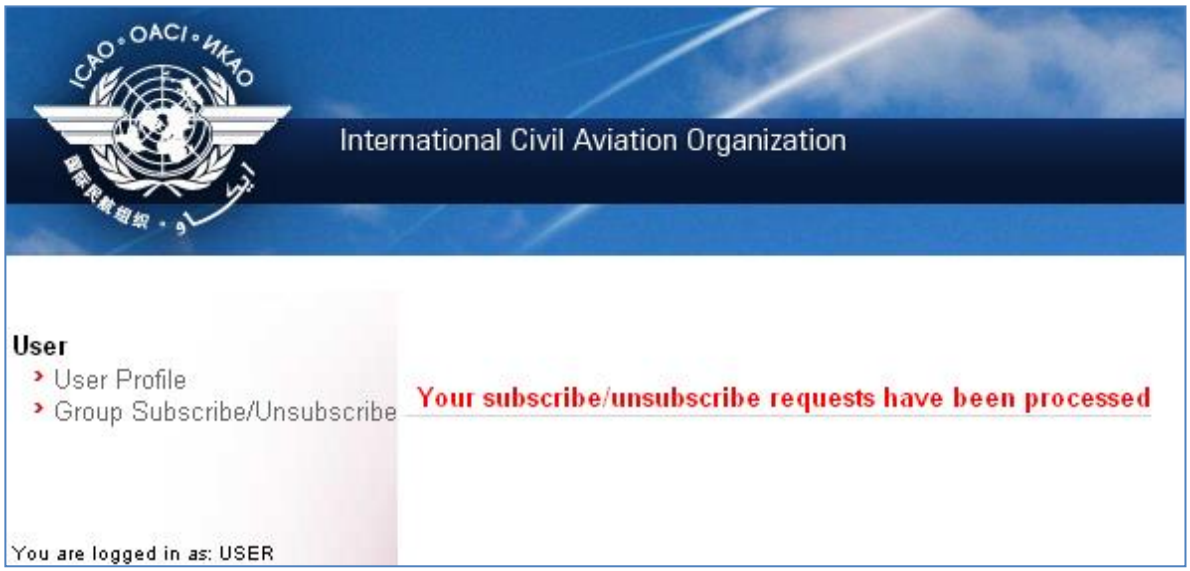
4. Type "ICARD_5LNC_PLANNER" and complete the justification box. (Figure 6)



- ***Note:***
  - *ICARD_5LNC_PLANNER is case sensitive*
  - *Justification can be "authorized user for xx (Country);*

5. Finalize your registration with 'Submit Changes'

- a confirmation should appear on the screen.



Note: The ICAO Regional Office must be informed by your national Administration of the name(s) of the persons who will act as ICARD authorized user in order to validate your request.

6. Once completed, an automatic notification will be sent to the ICAO ICARD Data Managers who will check and confirm whether the requested status can be validated or not.

7. You will get the following notification via email within 24 hours that your request for group membership has been granted.

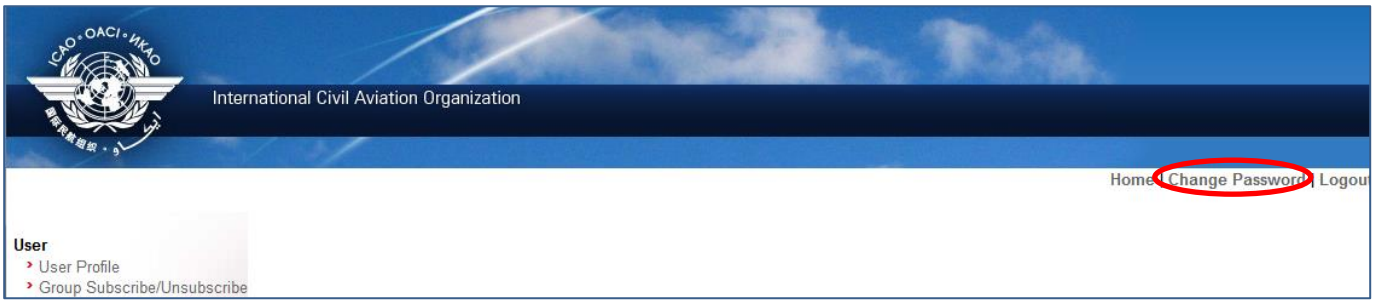
"Dear Mr/Ms xxx,

Your request for subscribing to group ICARD_5LNC_PLANNER has been granted.

Welcome to the ICARD_5LNC_PLANNER group."

RESETTING YOUR PASSWORD

1. Log in with your new user id and password.
2. Click on the "Profile" link located on the top right corner of the page
3. Select "Change password" on the top right corner of the page and proceed with your change

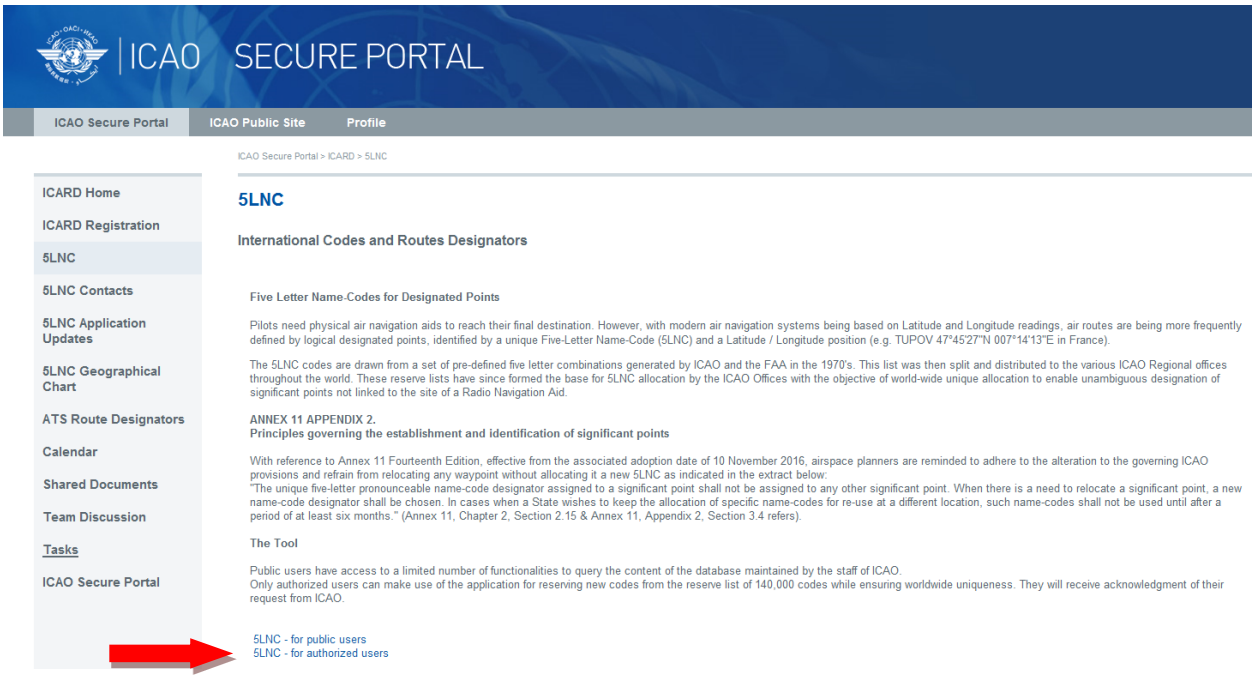


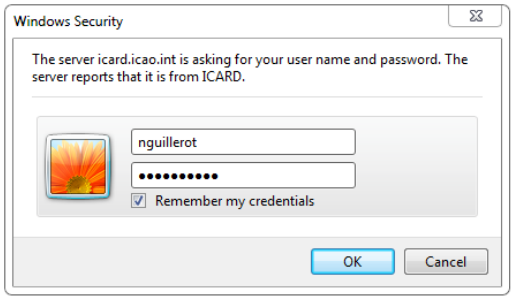
PASSWORD FORGOTTEN

1. Connect to the ICAO portal: http://portal.icao.int/
2. Click on "Cannot Login"
3. Type your full email address in the "User Id or Email Id" field. Click on "Submit".
4. You will be presented your password hint question. Enter the answer to your hint question in the "Answer" field. Click on "Submit".
5. A new password will be emailed to you within a few minutes.

SECTION 2 ICARD 5LNC AUTHORIZED USER ACCESS

1. Click on "5LNC – for authorized users", see below
2. Enter your User id and password





ICARD 5LNC MENU FOR AUTHORIZED USERS

Menu Item	Action
Find Allocated and Available 5LNC	To browse specific 5LNC in the database in order to: - Retrieve a 5LNC already allocated for information or modification (see pages 16 and 31); or - Select available 5LNC to make requests for allocation (see page 16)
Find 5LNC in Available List	To select available 5LNC and make a request for allocation (see page 18)
Find Allocated 5LNC	To select specific allocated 5LNC to view information or amend or release (see pages 16 and 31)
Check My Requests	To view the requests that you have made *Note: These remain in this sub-menu as long as your Regional ICARD Data Manager has not taken action on your request. If requested 5LNC are in this sub-menu, you can modify or delete your request. The publication of 5LNC in national AIPs should only take place after the ICARD Data Manager has accepted these 5LNCs.*
Requests By Block	This function is available only when the ICARD Regional Data Manager has approved a block of codes for an Authorized User. This option is done on exceptional cases
Downloads	- Lists of allocated 5LNC can be generated by Country or by 5LNC in alphabetical order. This facilitates: • comparison of the 5LNC allocated by ICAO and the national aeronautical publication • verification of coordinates of 5LNC - Lists of duplicates can also be generated by Region, by Country or by 5LNC (see pages 33-35)
List ICARD Contacts	Lists contact details of all ICARD Regional Data Managers and Authorized Users by Countries
List Country Code Indicators	Lists the ITU Code (ISO3) used to show Coordinating Country using the 5LNC
Change Password	Opens the ICAO portal page (see page 13)
Home	Opens the ICARD page on the ICAO portal

SECTION 3 SEARCHING AND SELECTING 5LNC

COLOR CODES OF 5LNCS IN ICARD

- **Green** means the 5LNC is available for your Region, you can select and proceed to make a request
- **Blue** means the 5LNC is available but it belongs to another ICAO Region
    - Contact your ICARD Regional Data Manager who will coordinate with the other ICAO Region and check whether a transfer is possible
- **Orange** means
    - the 5LNC is pending action by the ICARD Regional Data Manager or,
    - may be part of a reserved block or,
    - it's frozen for a period of 6 months until it is released, further to deletion request
- **Red** means the 5LNC is already allocated to/used by a Country
- **Purple** means historical data, the 5LNC was used by a Country at some point in the past, some codes may come up multiple times in purple

SEARCHING FOR 5LNCS

There are 3 functions to search for 5LNCs under the "5LNC" menu:

Find Allocated and Available 5LNC

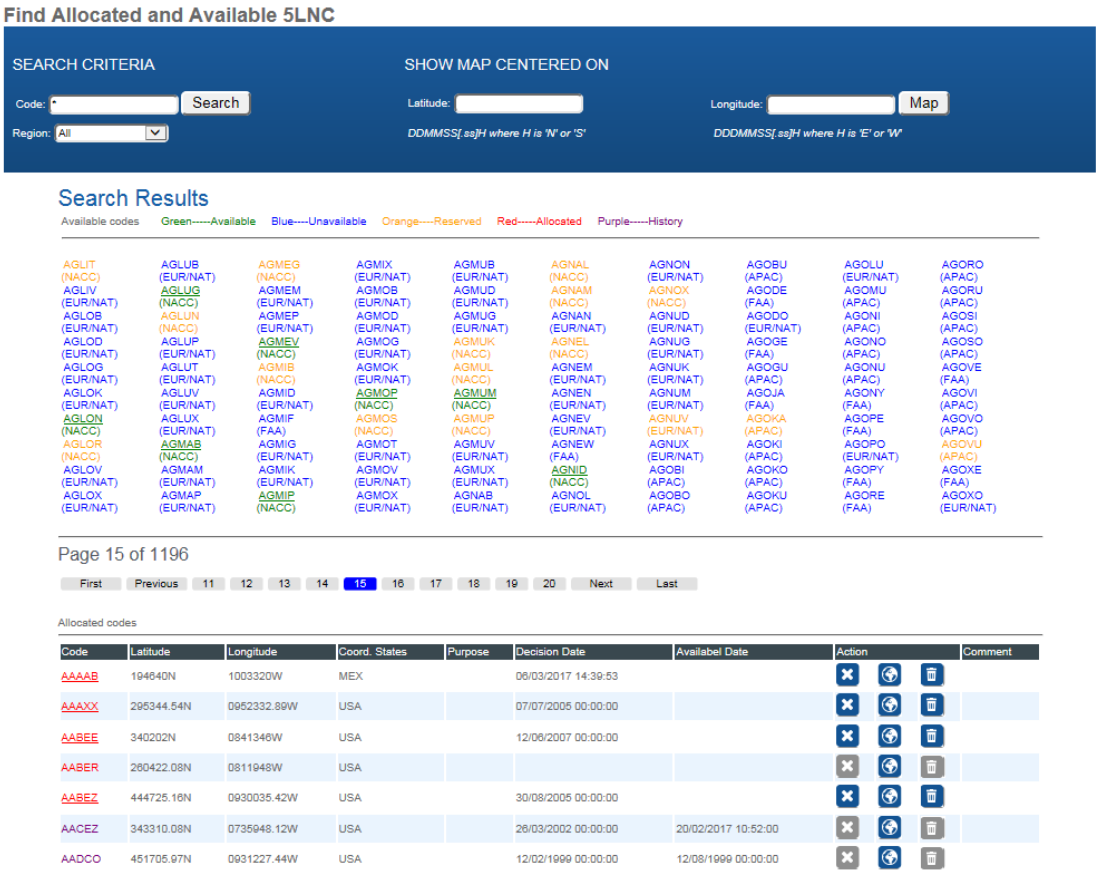
Global Search

ICARD can perform a global search using the wild card symbol "*" and the Region filter box. The default region will be your region until you switch it manually.

The Global Search will return two lists:

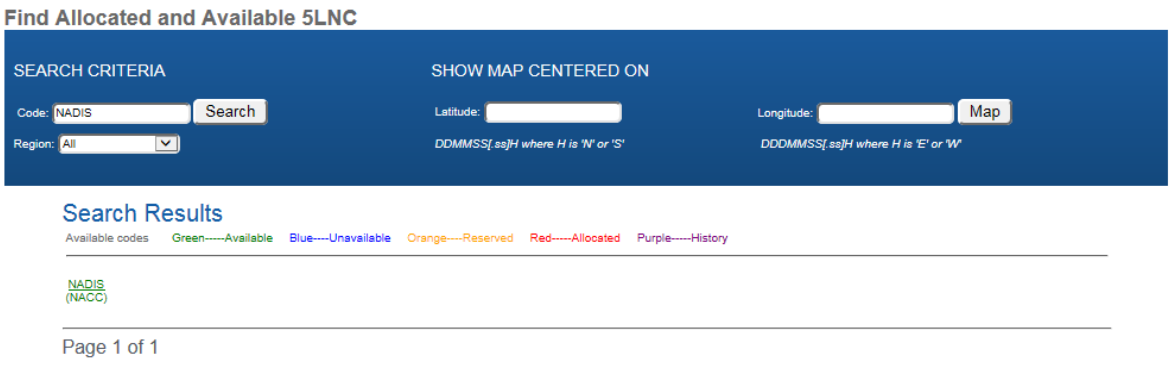
a. The "Available List" (upper list) will show available codes in your region (green), available codes in other regions (blue), and reserved codes (yellow); and the region to which they belong.

b. The "Allocated List" (lower list) will show allocated codes (red), frozen codes for a period of 6 months (yellow), and historical data codes (purple); along with more detailed information (country, coordinates).



Specific 5LNC Search

In the Code box type a specific 5LNC and click search

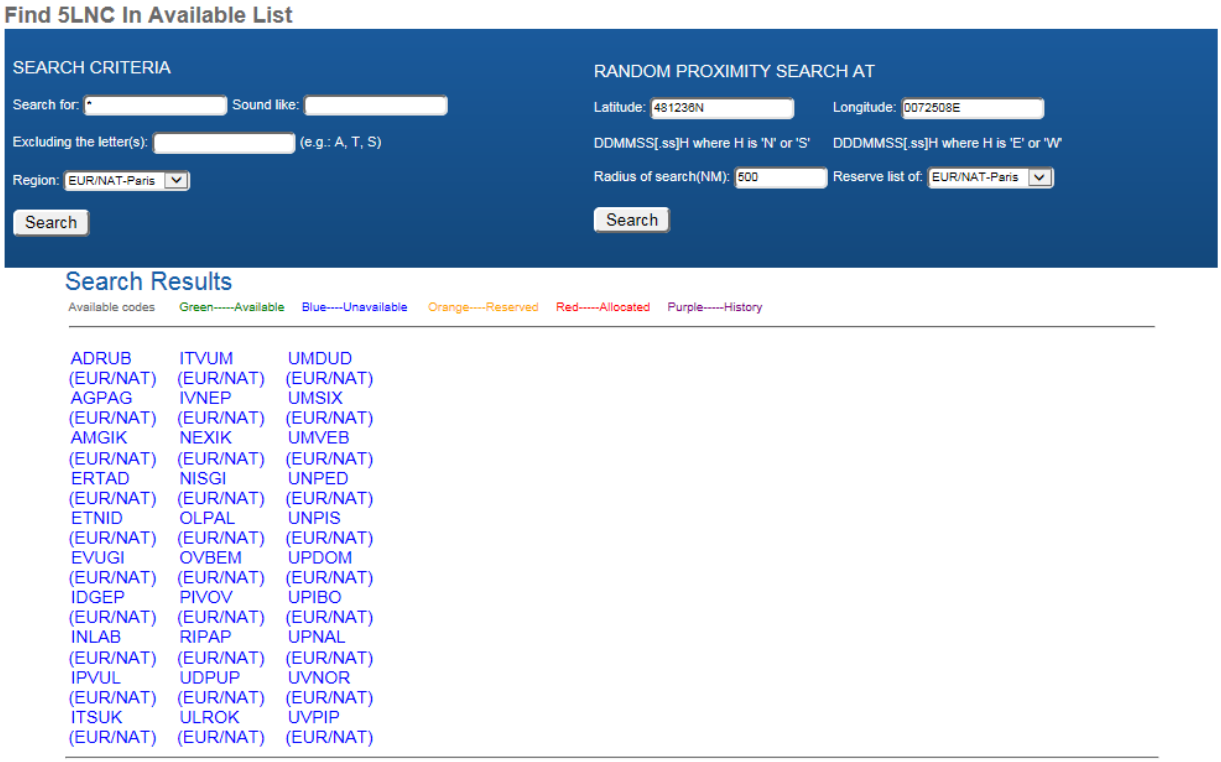


Find 5LNC in Available List

Random Proximity Search

Searching with known coordinates but without specific patterns

- With the set of given coordinates, the database can filter and offer a selection of 5LNCs. This option is recommended as the mandatory sound-like proximity check is automatically performed for the proposed 5LNC.
- Fill in only the coordinates in the “Random Proximity Search at” box.
- Indicate the radius for search (the recommended radius for search in the EUR/NAT Region is 300 NM)



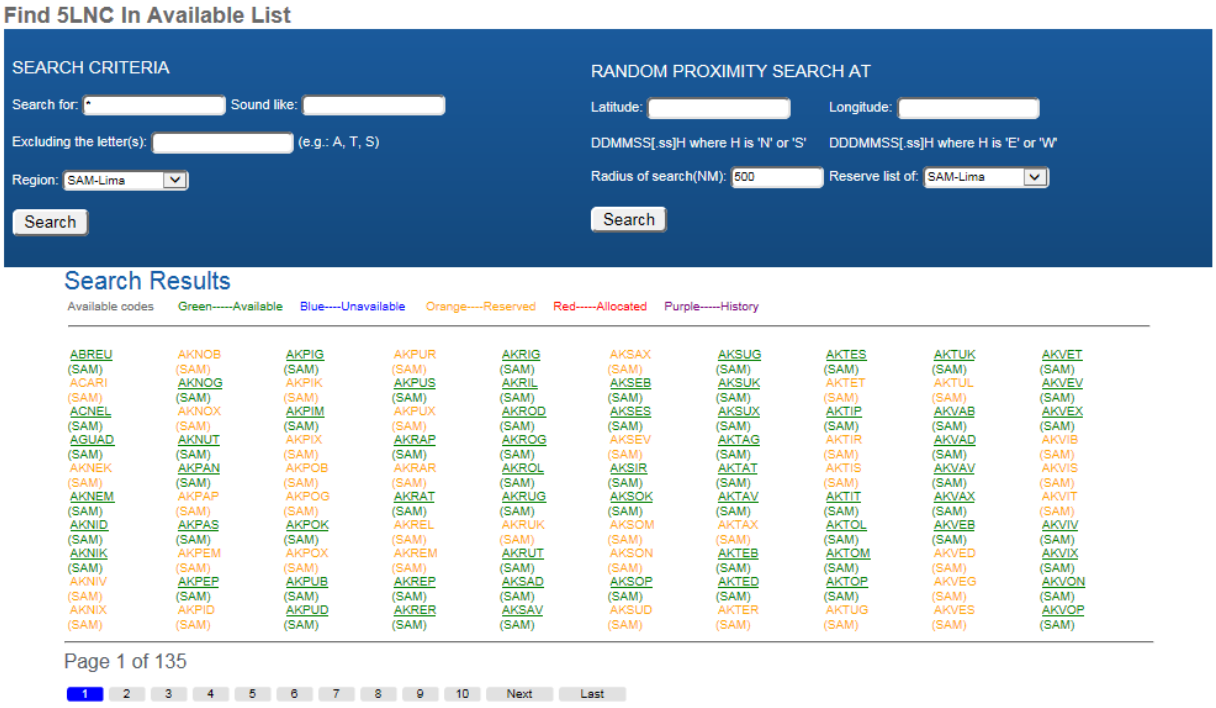
Search Criteria

The following methods may be used to search for an available 5LNC using Search Criteria:

1. General Search - Search without filling in specific Search Criteria
2. Search with special patterns
   a. Containing (a) specific letter(s)
   b. Sound like search
   c. Search excluding specific letters
   d. Search with multiple patterns

* * * * * * *

1. General Search - Search without filling in specific Search Criteria

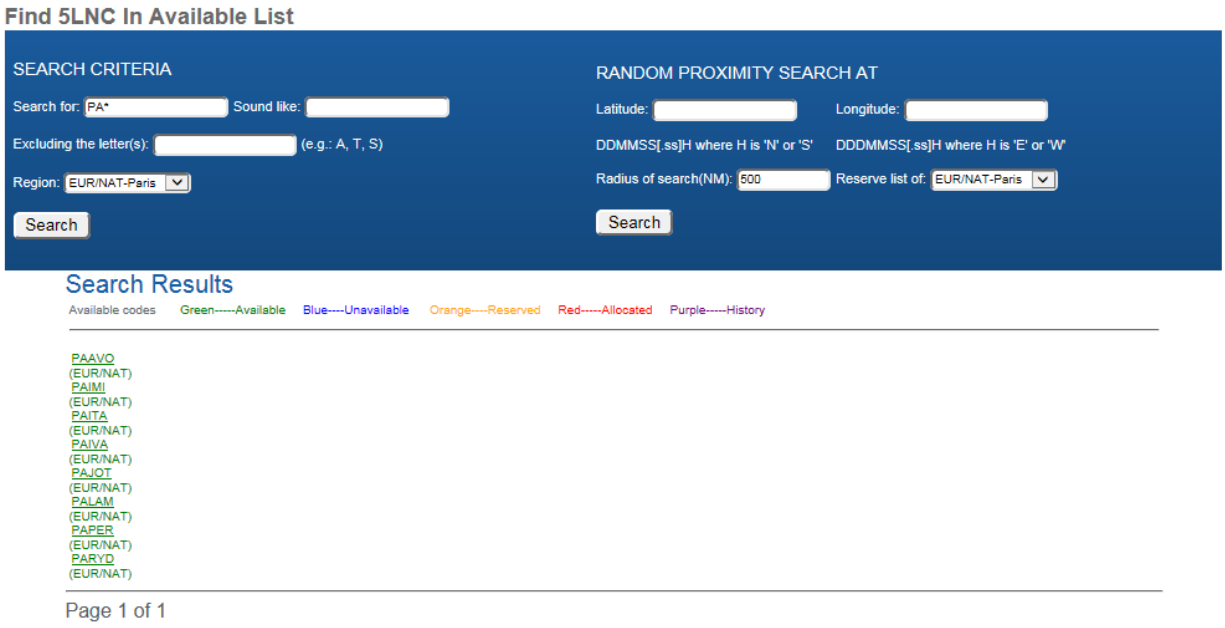


i. You will obtain a long list of 5LNC available in your region in alphabetical order.
ii. Select an available (**green)** 5LNC of your choice and proceed with posting a request.

2. Search with special patterns

   a. Containing (a) specific letter(s)

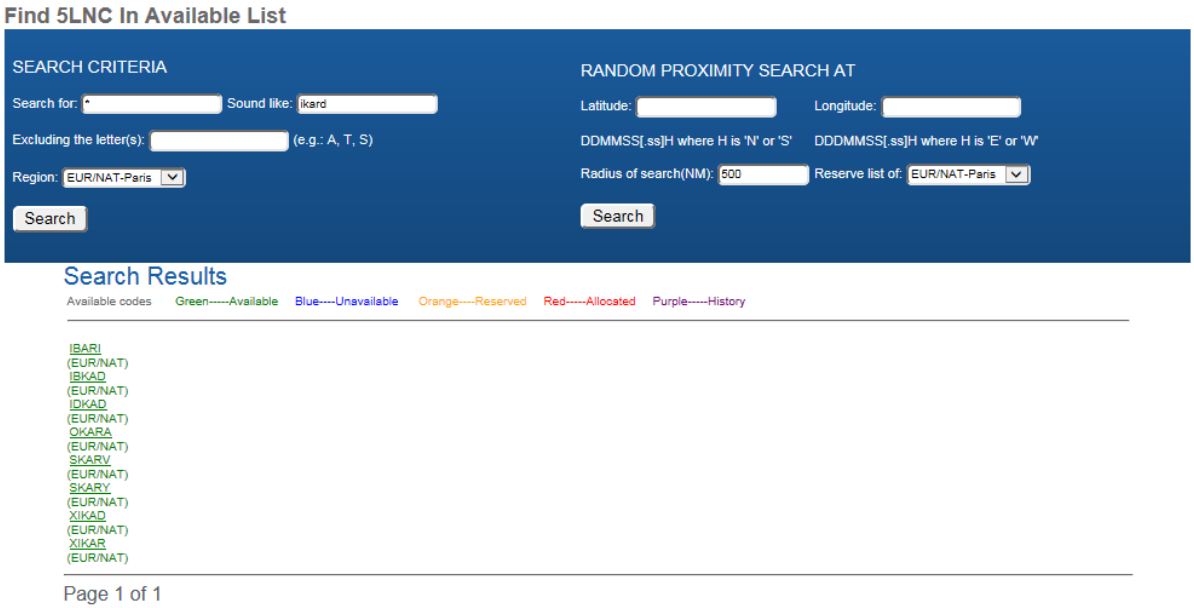
      1. In "Search for", indicate the specific letters required and the missing letter should be replaced with an asterisk. Examples: PA* *PA* *P*A
      2. The resulting available 5LNCs are proposed for selection.
      3. Click on your selected 5LNC and proceed to the reservation (see "Section 4 - Posting a request" (page 24).



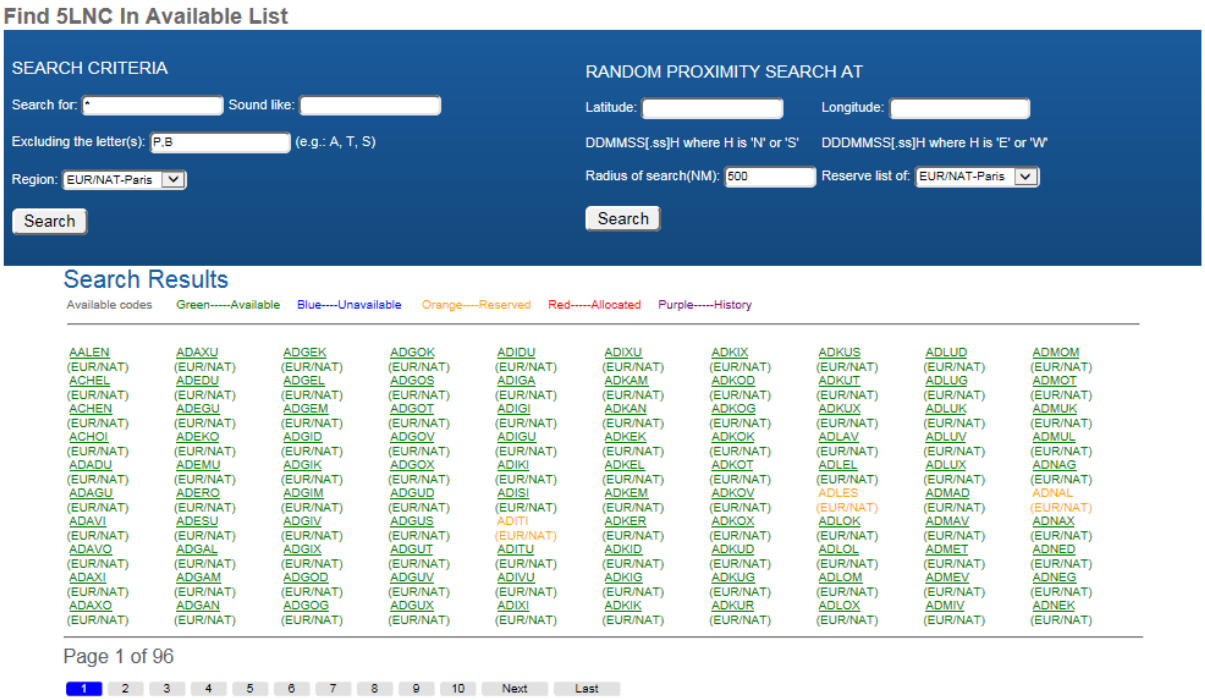
b. Sound like search

➢ In "Sound like" box , indicate the desired name. Example: ikard.

Note: the proposed 5LNC may not be what you expected.

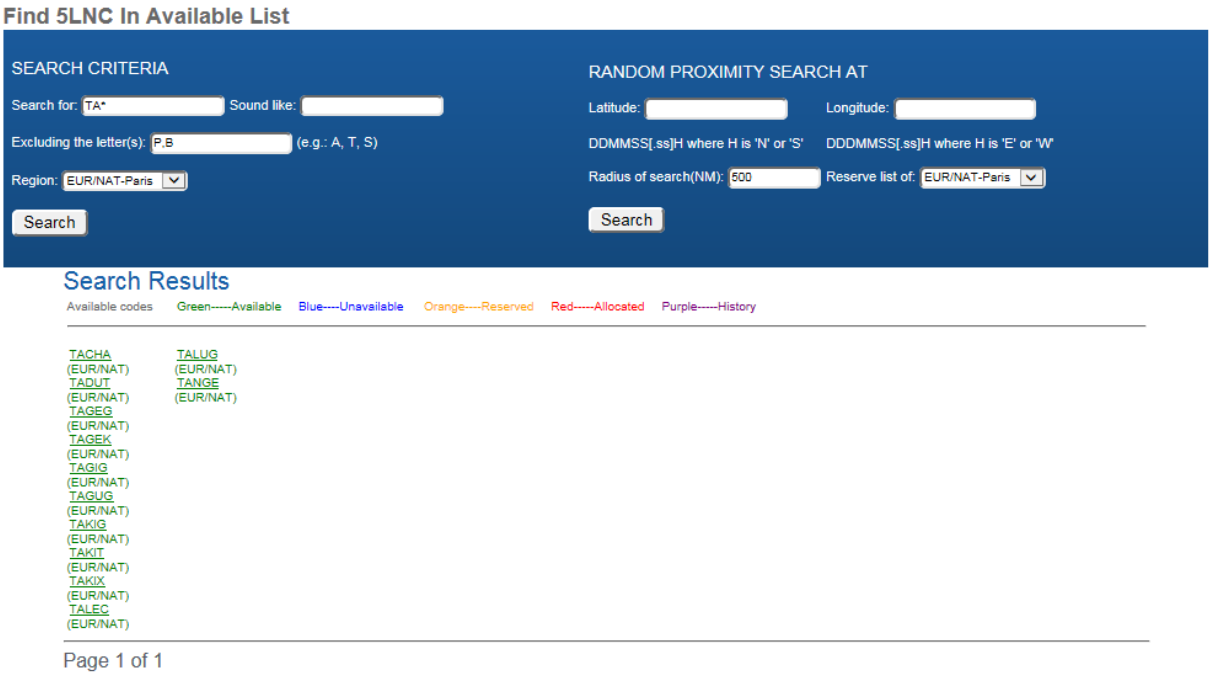


c. Search excluding specific letters (separated with a coma)



d. Search with multiple patterns

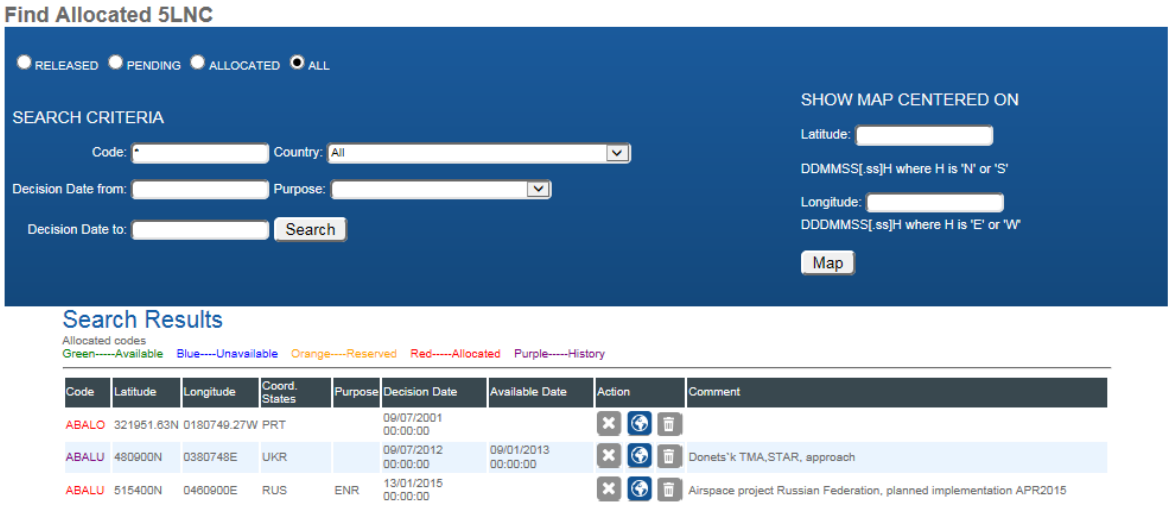
- Fill in both fields:



Find Allocated 5LNC

4 options are proposed above the Search Criteria.

1. "Released" – codes past the 6-month frozen period, historical data
2. "Pending" – frozen codes within the 6-month period until it's released
3. "Allocated" – codes assigned to a Country
4. "All" – combined results of released, pending, and allocated codes



SECTION 4 POSTING A REQUEST AND CHECKING PROXIMITY OF 5LNC

POST A REQUEST

Once your selection is made,

1. Proceed with the reservation
2. Fill in the Latitude and Longitude in degrees, minutes and seconds in the format DDMMSS.ss[N/S] DDDMMSS.ss[E/W] (".ss" are optional)
3. Fill-in "purpose". Note: If there are several purposes for one 5LNC, 'Terminal Airspace' takes priority.
4. Fill-in "comment" if needed
5. If a 5LNC is on a FIR boundary or on a border, add coordinating countries

   *Note: when coordinates are not final, this should be mentioned in "comment". To allow amendment to the approved allocation, confirmation should be made **before** publication.*

6. Submit **once you have checked the sound like proximity** (see next paragraph)

CHECKING PROXIMITY

Checking the sound-like proximity of a 5LNC is **mandatory** and is the **responsibility of the Authorized User**. It is also the Authorized User's responsibility to coordinate any sound-like issues/mitigations with relevant States, if required.

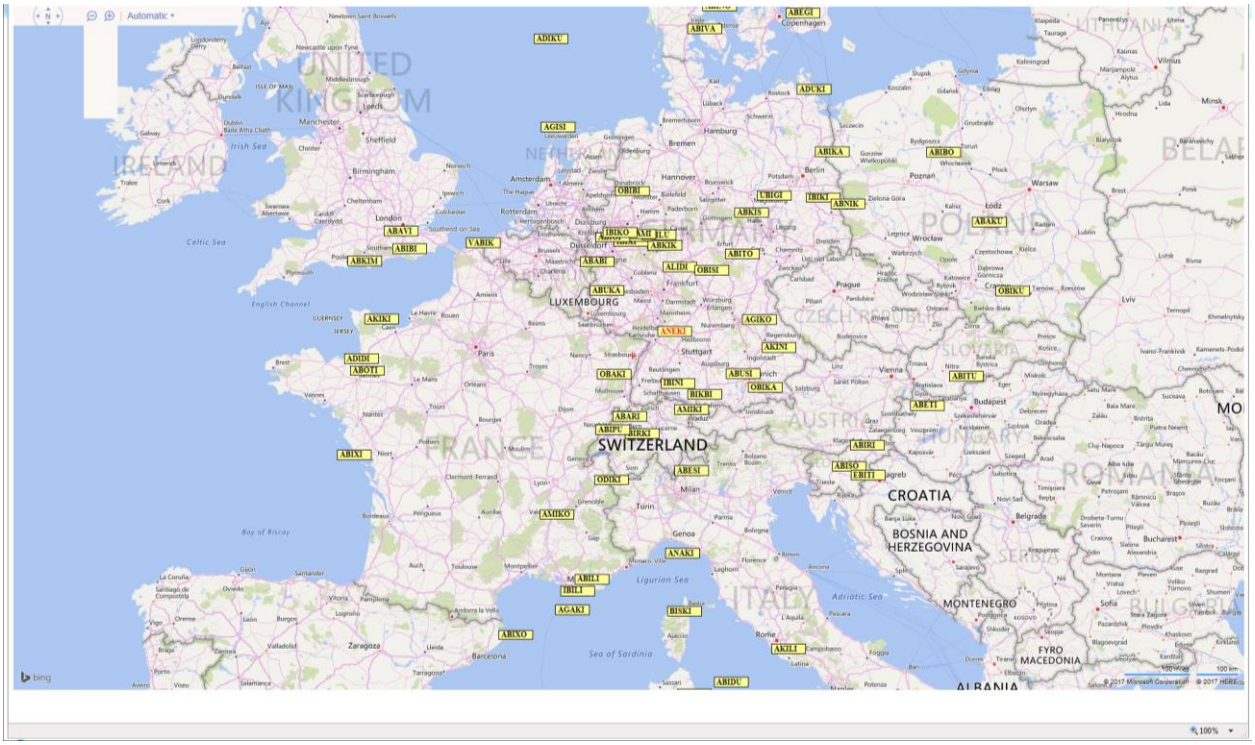
- The list of codes provided by ICARD should be considered as a support for identifying any possible sound-like conflicts. The Authorized User will base his/her consideration of this list, together with the purpose of use of the 5LNC requested, i.e. usage in RT, flow orientation or SID/STAR purposes, to determine valid sound-like conflicts.
- When an Authorized User has ticked the box for "Proximity check done", he/she is confirming that he/she has either checked that the 5LNC requested is not located close to another similar sounding 5LNC or that no sound-like issues are expected due to the specific use of the 5LNC requested, and has therefore met this requirement.

  Note: The sound-like proximity check function only shows "allocated" codes (red), it leaves out all the "requested" codes (orange).

- The Data Manager **will refuse requests that may have sound-like conflict issues.**
- Even if a 5LNC is automatically generated from given coordinates, it is advised to do this check.

Checking proximity with the "MAP" function

The "Map" shows all 5LNCs which may sound like the selected 5LNC within the selected distance.



Checking proximity with the “LIST” function

The “List” gives all 5LNCs which may sound like the selected 5LNC within the selected distance.

Sound-like checking results for code "ABIKI" within 500 NM

CODE	Distance(nm)
ANEKI	48.26
OBAKI	51.21
IBINI	58.69
ABARI	88.17
AMIKI	97.64
ABUKA	97.89
ABIPU	113.02
ALIDI	121.61
ABUSI	133.3
ABABI	136.19
OBISI	138.94
IBIXI	146.64
ABIRU	152.87
ABILU	154.95
ABAMI	155.45
AGIKO	156.65
ABIGI	157.07
IBIKO	160.57
OBIKA	166.69
ABESI	172.44
AKINI	177.37
ODIKI	180.04
ABITO	180.91
OBIBI	209.63
AMIKO	254.78
UBIGI	262.11
ANAKI	282.86
IBIKI	304.08
AGISI	308.05
ABISO	318.2
ABILI	325.23
ABIRI	326.82
ABIBI	337.82
IBILI	346.95
EBITI	347.07
ABIKA	350.27
AKIKI	353.62
ABAVI	355.54
ABOTI	374.81
AGAKI	376.58
ADIDI	380.94
ABETI	386.9
ADUKI	394
ADIKU	408.66
ABIVA	409.51
ABIXI	421.67
ABITU	431.62
ABINO	438.12
ABIXO	439.87
ABIBO	458.34
ABEGI	463.38
ALINI	466.58
AKILI	467.02
ABAKU	476.71
ABIDU	486.41
OBIKU	490.32
OBIMI	493.22

1. After checking with either or both “Map” and “List” sound-like proximity functions, the authorized user may submit the request.
2. A notification will be sent automatically after the ICARD Regional Data Manager has approved the request.

THE REQUEST IS RECORDED

The request for allocation is now completed and will be transferred into the data manager's pending requests

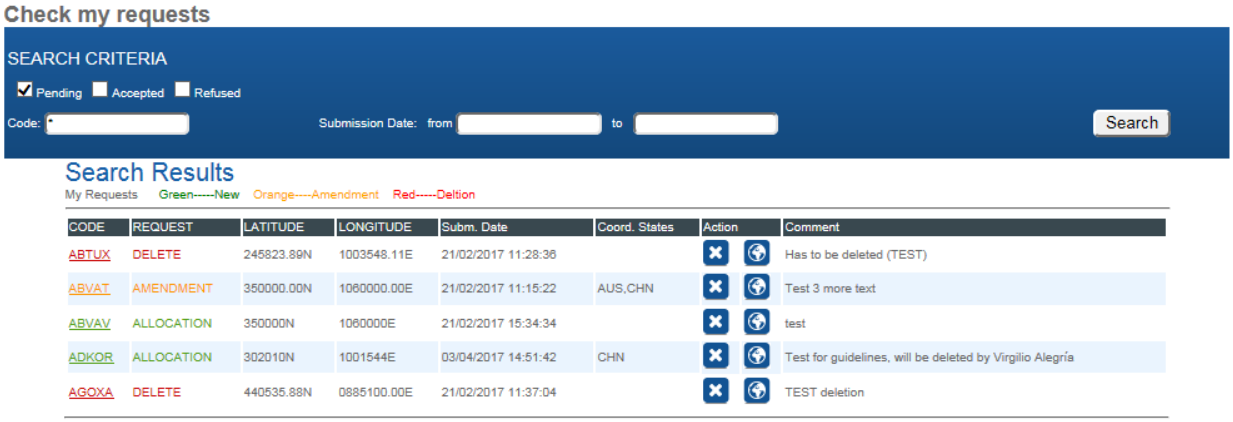
!! Important !! Your request has been successfully recorded BUT NOT YET approved.

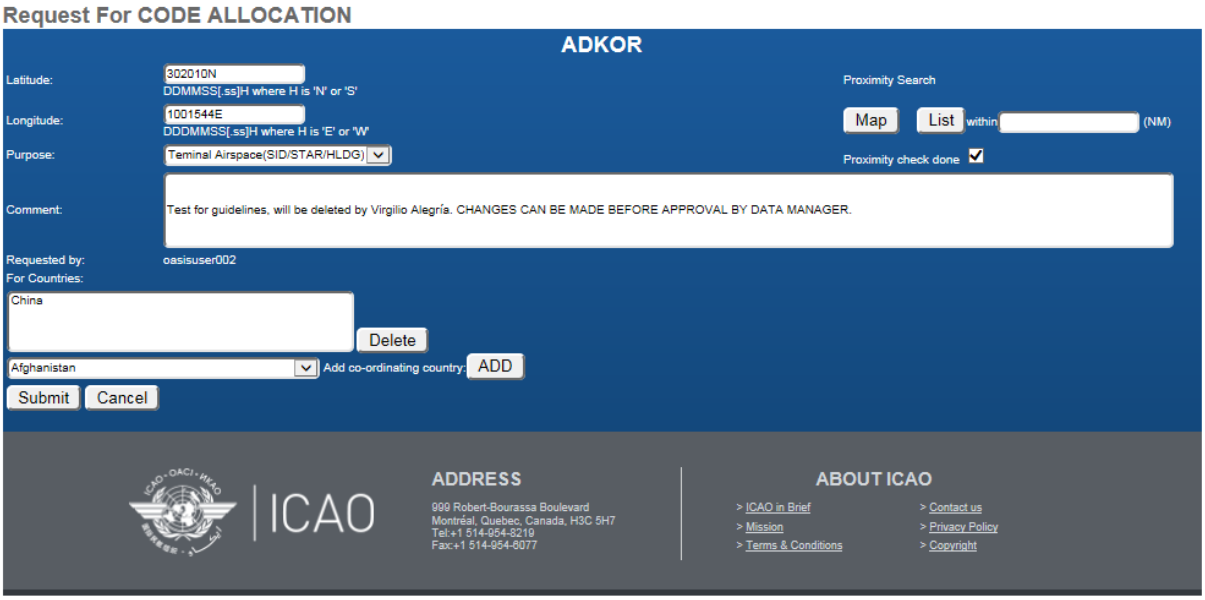
It is mandatory for States to wait for Notification of allocation by the ICARD Regional data manager before proceeding to publication in AIP. The ICARD Regional Data Manager shall approve/reject 5LNC requests within 20 working days.

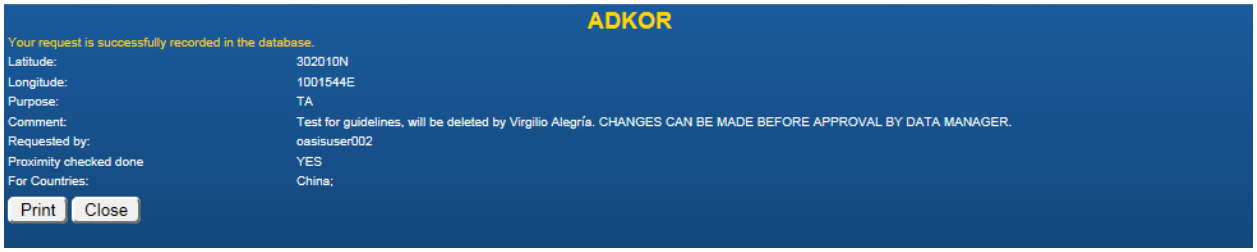
If requests are urgent, ICARD Authorized Users shall inform the ICARD Regional Data Manager by e-mail to expedite processing.

Amending your request

**Note: as long as the data manager has not yet acted on the request, the authorized user can amend any information through the "Check my requests" menu item.



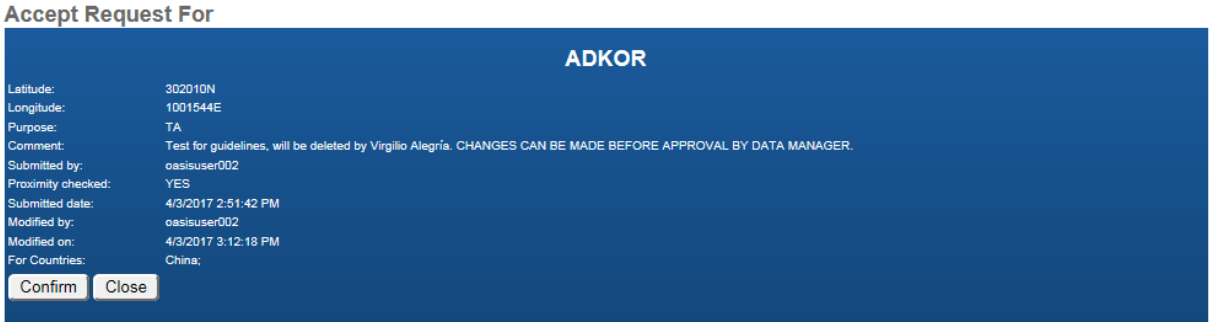




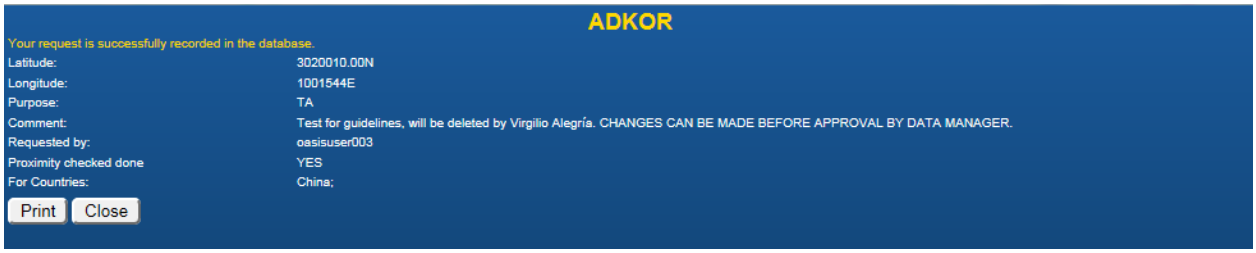
THE REQUEST IS APPROVED

Data manager's tasks

1. **Your ICARD Regional Data Manager shall approve/reject 5LNC requests within 20 working days.** He/she checks the correctness of your request and that the sound-like proximity is confirmed.
2. He/she checks whether a duplicate of the requested code is already existing worldwide and takes the appropriate action if necessary.
3. The request for allocation is now completed and will be transferred into the data manager's pending requests.

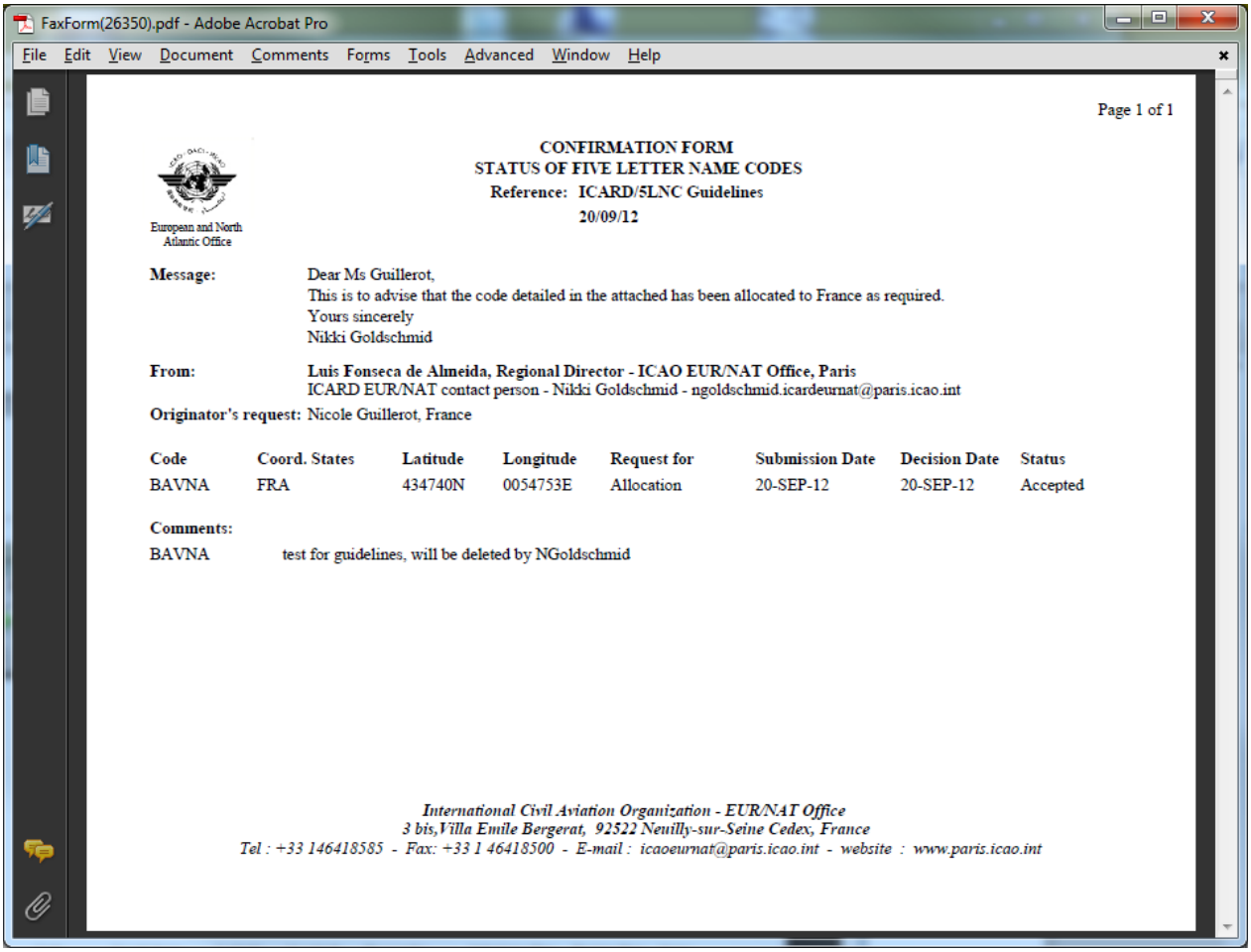


Confirm the request.



Approval notification

The data manager will generate a notification message from ICARD that will be sent to the planner and every other people concerned.



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File Edit View Document Comments Forms Tools Advanced Window Help

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European and North Atlantic Office

CONFIRMATION FORM
STATUS OF FIVE LETTER NAME CODES
Reference: ICARD/5LNC Guidelines
20/09/12

Message: Dear Ms Guillerot,
This is to advise that the code detailed in the attached has been allocated to France as required.
Yours sincerely
Nikki Goldschmid

From: **Luis Fonseca de Almeida, Regional Director - ICAO EUR/NAT Office, Paris**
ICARD EUR/NAT contact person - Nikki Goldschmid - ngoldschmid.icardeurnat@paris.icao.int

Originator's request: Nicole Guillerot, France

Code	Coord. States	Latitude	Longitude	Request for	Submission Date	Decision Date	Status
BAVNA	FRA	434740N	0054753E	Allocation	20-SEP-12	20-SEP-12	Accepted

Comments:
BAVNA test for guidelines, will be deleted by NGoldschmid

International Civil Aviation Organization - EUR/NAT Office
3 bis,Villa Emile Bergerat, 92522 Neuilly-sur-Seine Cedex, France
Tel : +33 146418585 - Fax: +33 1 46418500 - E-mail : icaoeurnat@paris.icao.int - website : www.paris.icao.int

REQUIREMENT FOR 5LNC PUBLICATION

States shall wait for Notification of 5LNC allocation by the ICARD Regional Data Manager BEFORE proceeding to publication

All references to 5LNC :

ANNEX 11 – AIR TRAFFIC SERVICES
Appendix 2 – Principles governing the establishment and identification of significant points

…

3. Designators for significant points not marked by the site of a radio navigation aid

…

3.5 ***States' requirements for unique five-letter pronounceable name-code designators shall be notified to the Regional Offices of ICAO for coordination.***

SECTION 5 AMENDING AND RELEASING 5LNC

AMENDMENTS TO 5LNC

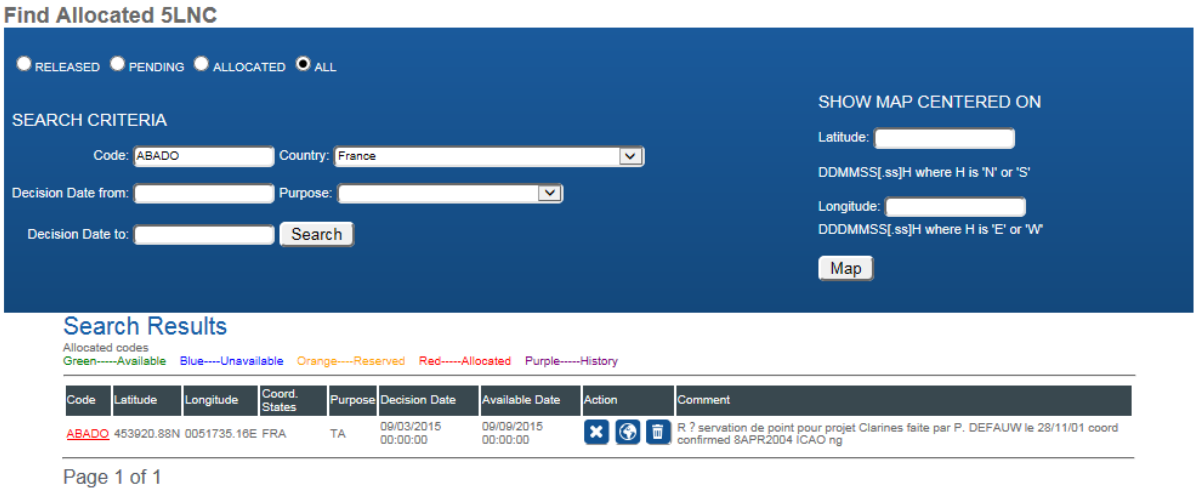
Authorized Users can request amendments to the coordinates of allocated 5LNC if it has not yet been published. In that case, clicking the active code will open a window for an "amendment request". It is advised to add information in the "comment box".

AMENDMENTS TO COORDINATES

- Will be accepted **ONLY** if the 5LNC has not yet been published.

- When, for planning purposes, a 5LNC is requested with temporary coordinates, the Authorized User will state "provisional coordinates" in the "comment" box when posting the request for allocation.

- If the 5LNC is already published, any need to amend the coordinates will require the release of the current 5LNC and request of a new 5LNC.



RELEASE OF 5LNC

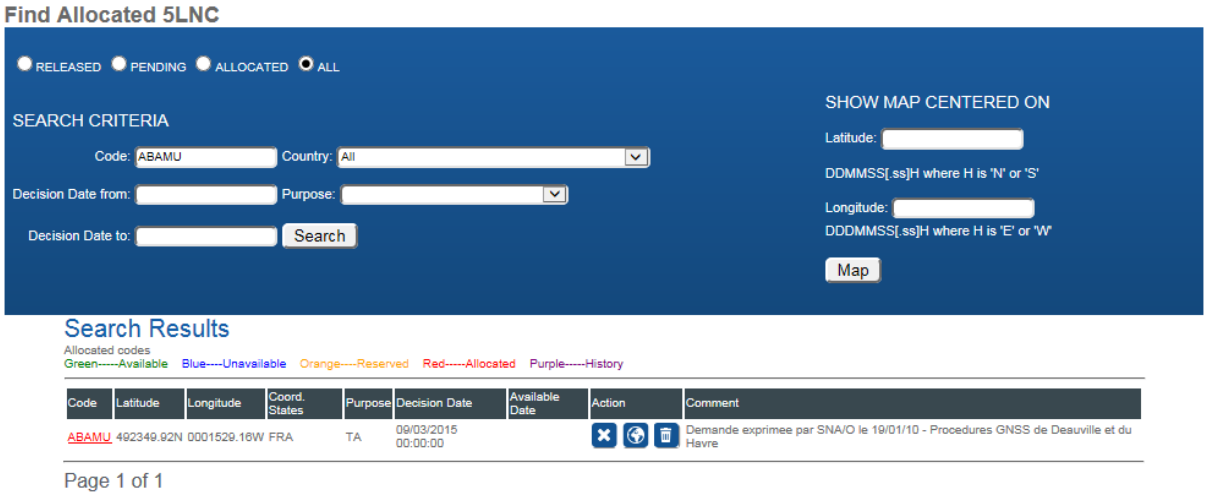
When a 5LNC is no longer used, the Authorized User shall make a request for deletion.

1. From the "Find Allocated 5LNC" menu item, type in the 5LNC name concerned.
2. A table showing the 5LNC details will appear.
3. Click the "✖" icon for Code Deletion in the Action column.
4. The request will be recorded and confirmation will be sent by the data manager.

Note: Released 5LNC will remain frozen for a period of 6 months. After that time, they will automatically return to the reserve list of the ICARD database of the same ICAO Region.

AMENDMENT OR RELEASE OF SHARED CODES

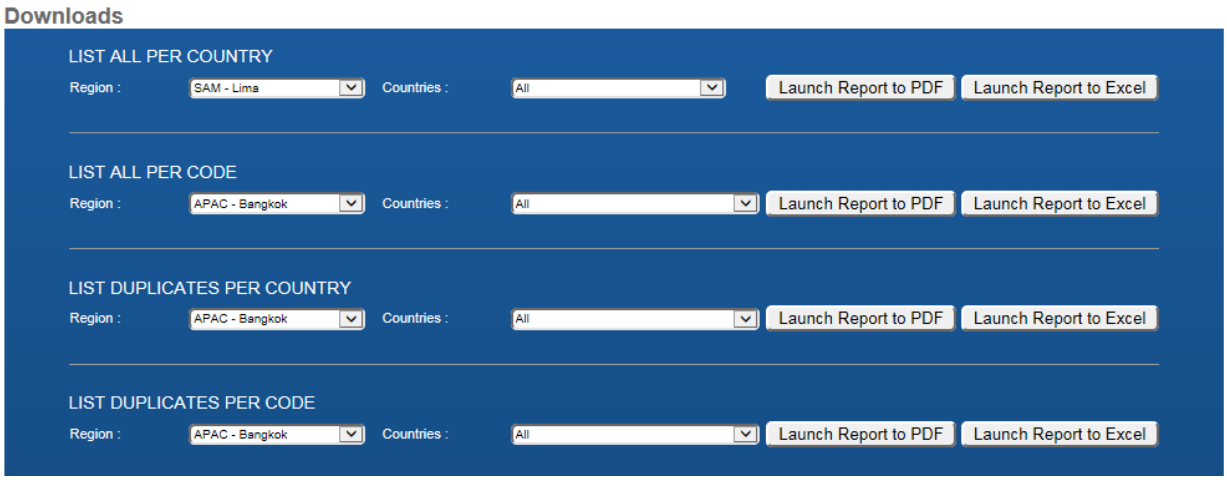
- *if a code is **shared with another country**, the Authorized User shall coordinate with the other State and make sure that the code can be released.*
- *If the action required it only for a withdrawal of one of the coordinating states, this **should not be** a request for deletion but a request for **amendment to the code.***



- Selecting "✖" in the "Action" column is a request for release
- By clicking on the underlined (active) 5LNC (ABAMU), the authorized user will proceed to a request for amendment to the code

SECTION 6 DOWNLOADING ALLOCATED 5LNC AND DUPLICATED 5LNC REPORTS

POSSIBLE DOWNLOADS



List of 5LNCs by Country (using ITU Code (ISO3))

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Code	Latitude	Longitude	Coord. States	Duplication	Purpose
Argentina/Argentine					**ARG**
Argentina/Argentine					**ARG**
AKNOS	380005.04S	0625303.84W			
AKPEL	250150.88S	0594157.84W			
AKPOV	283713.08S	0620623.04W			ENR
AKRAS	294304.08S	0662214.88W			
AKRIK	390240.99S	0682518.98W			OTHER
AKSUM	283713.08S	0620623.04W			ENR
ALBAL	341059.88S	0694900.12W			
ALDEX	313939.96S	0651154.96W			
ALDOR	332958.92S	0635505.88W			
ALDOS	261348S	0544048W	Also Paraguay		
ALDUT	270536S	0650914W			TA
#ALGAR	560056.59N	1120546.75W		Also NACC	
ALGIL	403329.16S	0710818.96W			
ALGOL	394914.16S	0645115.12W			
AMVIB	310139S	0595429.02W			ENR
AMVOM	283713.08S	0620623.04W			ENR

List of 5LNCs by Code

Page 1 of 39

Code	Latitude	Longitude	Coord. States	Duplication	Purpose
ABAPU	174938.36S	0190210.59E	Namibia,Angola		FIR
AGRAM	180004.02S	0213958.33E	Botswana,Namibia,Angola		
*#AKAZU	172205.88S	0165447.88E	Angola	Also ESAF,EUR/NAT	
*#AKAZU	172343S	0165046E	Namibia	Also ESAF,EUR/NAT	
AKBON	004901.92N	0301959.88E	Uganda		
#AKETE	325841.18N	0795943.33W	Namibia	Also NACC	
AKUTA	233300S	0260748E	Botswana		
ALDOV	303712S	0150000E	South Africa		
ALEMU	035949.06N	0394003.35E	Kenya		
ALENI	265835.54S	0320937.89E	Swaziland,South Africa		ENR
ALKAT	331100.54S	0255107.43E	South Africa		
*ALKON	002609.56S	0335802.74E	Kenya	Also ESAF	
*ALKON	002559.88S	0335800.12E	Uganda	Also ESAF	
ALNAB	085512N	0441312E	Somalia		
ALRAN	100000S	0562223.88E	Mauritius		

List of Duplicates by Country

Page 1 of 3

Code	Latitude	Longitude	Coord. States	Duplication	Purpose
Egypt/Egypte					**EGY**
#PAXIS	335706.12N	0271959.88E	Also Greece	Also EUR/NAT	FIR
Iran, Islamic Republic of/Iran, République islamique d'					**IRN**
#ALRAM	374229.88N	0443736.12E		Also EUR/NAT	
#DASIS	385434.92N	0441229.88E		Also EUR/NAT	
*EGRON	250441.88N	0613248.12E	Also Pakistan	Also MID	
#EGRON	250444.04N	0613244.88E		Also APAC	
#NOTSO	351416.08N	0593033.84E		Also NACC	
#PAROT	360939.96N	0495756.16E		Also APAC	
Iraq/Iraq					**IRQ**
#RAGAN			Also Saudi Arabia	Also EUR/NAT	
#SINKA	332101.08N	0444856.88E		Also NACC	ENR

List of Duplicates by Codes

Code	Latitude	Longitude	Coord. States	Duplication	Purpose
#AKRAM	395342N	0601712.12E	Turkmenistan	Also MID	ENR
#AKRAM	255035.88N	0475133.12E	Bahrain,Saudi Arabia	Also EUR/NAT	
#ALRAM	374312N	0443712E	Turkey	Also MID	
#ALRAM	374229.88N	0443736.12E	Iran, Islamic Republic of	Also EUR/NAT	
#AMBOD	172236.12S	0553400.12E	Mauritius	Also MID	
#AMBOD	133356.88N	0481527E	Yemen	Also ESAF	ENR
#ANTAX	035949.12N	0352203E	Kenya	Also MID	
#ANTAX	040000N	0352248E	Sudan,Ethiopia	Also ESAF	
#ATUGA	040000N	0314800E	Uganda	Also MID	
#ATUGA	040000N	0314554E	Sudan	Also ESAF	
#AVAMI	204430.84S	0574842.84E	Mauritius	Also MID	
#AVAMI	250553.88N	0555647.04E	United Arab Emirates	Also ESAF	
#BOPAN	222400S	0200000E	Botswana	Also MID	
#BOPAN			Saudi Arabia	Also ESAF	
#DARVA	411824.12N	0602541.88E	Turkmenistan,Uzbekistan	Also MID	FIR
#DARVA	284814.04N	0484734.08E	Kuwait	Also EUR/NAT	
#DASIS	385400N	0441200E	Turkey	Also MID	
#DASIS	385434.92N	0441229.88E	Iran, Islamic Republic of	Also EUR/NAT	
#DOMAN	523300N	0245100E	Belarus	Also NACC	

SECTION 7 ICARD REGIONAL DATA MANAGERS

ICARD REGIONAL DATA MANAGERS		
ICAO Region	**Primary Contact**	**Alternate**
ICAO HQ	Virgilio Alegría valegria@icao.int	
APAC	Ying Zhou yzhou@icao.int	Shane Sumner ssumner@icao.int Leonard Wicks lwicks@icao.int
ESAF	David Labrosse dlabrosse@icao.int	Seboseso Machobane smachobane@icao.int
EUR/NAT	Isabelle Hofstetter ihofstetter@paris.icao.int	Patricia Cuff pcuff@paris.icao.int
MID	Elie Khoury ekhoury@icao.int	Abbas Niknejad aniknejad@icao.int
NACC	Raul Martínez rmartinez@icao.int	Ana Valencia avalencia@icao.int
SAM	Fernando Hermoza fhermoza@icao.int	Ursula Danuser udanuser@icao.int
WACAF	Albert Taylor ataylor@icao.int	George Baldeh gbaldeh@icao.int

- END -

APPENDIX 3C

ICAO CAIRO UNITING AVIATION

MID Region NCLB Strategy

First Edition
January 2017

TABLE OF CONTENTS

MID Region NCLB Strategy

1. Background

1.1 The ICAO Council identified there is still a large discrepancy among States in the implementation of ICAO Standards and Recommended Practices (SARPs). As a result, the ICAO "No Country Left Behind" (NCLB) Campaign was established by the Council to help ensure that SARPs implementation is better harmonized globally so that all States have access to the significant socio-economic benefits of safe and reliable air transport. To avoid this gap, ICAO should focus its activities on States lacking fundamental oversight capabilities for effective implementation of ICAO SARPs, particularly in the priority areas of safety, air navigation and efficiency, and security. Therefore, particular attention should be given to the assistance of those States with a higher safety and security risk.

1.2 ICAO should find the best way to reduce this gap and increase the regional Effective Implementation (EI), by providing more assistance to developing States, playing a more active coordination role between States and generating the political will to pool resources, participate in regional efforts, earmark voluntary funds and build capacities.

1.3 In accordance with Assembly Resolution A39-23 "No Country Left Behind" (NCLB) Initiative, States should effectively implement ICAO's Standards and Recommended Practices (SARPs) and policies so that all States have safe, secure, efficient, economically viable and environmentally sound air transport systems which support sustainable development and socio-economic prosperity, and which ultimately help to create and preserve friendship and understanding among the nations and peoples of the world. In addition, further progress in improving civil aviation, including the efficient human and financial resources for the implementation of assistance activities that are tailored to the needs of individual States, is best achieved through a cooperative, collaborative and coordinated approach in partnership with all stakeholders.

1.4 The ICAO No Country Left Behind (NCLB) initiative, which was launched in December 2014, aims at providing support to all States and in support of the five ICAO strategic objectives, for the resolution of significant safety concerns (SSCs) and significant security concerns (SSeCs) and for an effective implementation of ICAO's SARPs, policies, plans and programmes, in a globally-harmonized manner; promoting and implementing all ICAO's assistance activities.

1.5 Through the NCLB initiative, ICAO resolves to be more effective in directly supporting all willing States that need assistance to develop and improve the aviation system by implementing ICAO's global Standards and policies. In its role as an advocate for aviation, ICAO will work with States to ensure aviation be given greater importance in the context of development at the Country level.

1.6 The NCLB initiative seeks to improve implementation support delivery to States. Support, collaboration and assistance from States, international organizations, industry and other stakeholders is essential to the success of these ICAO efforts to ensure that no Country is left behind.

1.7 The ICAO MID Regional Office promotes and monitors the implementation of Standards and Recommended Practices (SARPs) in 15 Member States of ICAO to which it is accredited.

1.8 The MID Region is faced with a wide variety of geopolitical diversity, airspace features, operational challenges and civil aviation capacity building issues.

1.9 To ensure the success of the assistance/cooperation actions, first ICAO needs to have a deep understanding on the root causes for a State not been able to improve its level of implementation of SARPs. Once this is achieved it is necessary to select the best candidates States for deploying technical assistance/cooperation projects that will produce a sustainable improvement of the USOAP Effective Implementation (EI).

1.10 The design of an effective NCLB Strategy could only be possible by gathering enough information on the organization, structure, formal and informal hierarchy, cultural aspects, etc. This information could be considered as State Profile or as business intelligence, which might be needed for the development of necessary project document and to seek support from donors that might be interested in subsidizing the NCLB initiative.

2. Challenges for States

2.1 States continue to face various challenges regarding the implementation of ICAO's Standards and Recommended Practices (SARPs), which impact a safe, secure, efficient, economically viable and environmentally sound air transport system.

2.2 In order to achieve the objectives of the NCLB Initiative, it is also important to identify and address the challenges facing States to implement ICAO policies, plans and SARPs. The followings are some of the main challenges common to many States in the MID Region:

- rapid and continuing growth of traffic in the MID Region, which places increased demand on airspace capacity and imposes an optimum utilization of the available airspace and airports;
- insufficient financial and human resources capacity;
- retention and training/re-training of personnel;
- changing environment with the development of new technologies and SARPs;
- existing deficiencies;
- political, governance, institutional and legal issues;
- States have other higher priorities than aviation; and
- emergencies – natural disasters, public health, civil unrest, etc.

3. Objectives

3.1 The success of the NCLB initiative will hinge on support and collaboration of resources of partners and donors and requires firm commitment from the States, involving both aviation and non-aviation sectors. One of the priorities of the NCLB is to garner the political will necessary to support aviation improvements. ICAO plays a leadership role in the aviation community to facilitate communication and coordination amongst key stakeholders regarding assistance activities. This will allow the continued growth of a safe, secure, efficient, economically viable and environmentally sound aviation system and well established development frameworks, at both the international and national levels, to engage in providing resources for the effective implementation of aviation global standards and policies.

3.2 The primary objectives of the NCLB initiative include:

a) providing enhanced support for States in the effective implementation of ICAO's SARPs, plans and policies in a more coordinated, comprehensive and globally harmonized manner; and
b) promoting the resolution of significant safety concerns (SSCs) and significant security concerns (SSeCs), if any.

Means to achieve NCLB Objectives:

- advocate the benefits of aviation for States at the highest level;
- prioritize assistance needs and assessing risks for each State;
- facilitate and support implementing capacity-building initiatives;
- establishing and enhancing partnerships;
- mobilizing resources for aviation-related projects
- develop implementation support tools and services; and
- monitoring and recognizing progress by States.

Doha Declaration

3.3 The Doha Declaration, the MID Region Safety and Air Navigation Strategies defined regional performance targets for the monitoring of performance at the national and regional levels, aiming at enhancing safety and improving air navigation capacity and efficiency, through a cooperative, collaborative and coordinated approach in partnership with all stakeholders under the leadership of ICAO. Albeit, there was no specific requirements (what needs to be achieved) for each State to contribute to the achievement of the regional targets.

3.4 The MID Region NCLB Strategy incorporates the previously agreed commitments of the Doha Declaration, and aims to foster the achievement of the regional targets, including:

- regional average EI to be above 70% by 2020; and
- 11 States to have at least 60% EI by 2020.

3.5 This will be achieved through:

- identification of States lacking fundamental oversight capabilities for effective implementation of ICAO SARPs;
- prioritization of States in term of provision of required assistance;
- selection of the best candidates States for deploying technical assistance/cooperation projects that will produce a sustainable improvement of the Effective Implementation (EI);
- proactive approach to foster political will and senior level commitment;
- agreement with concerned States, as part of specific Plan of Actions, on measureable outcomes and clear definition of accountability for the achievement of the set goals; and
- identification of Champions (State, ICAO or stakeholder) to provide required assistance.

4. Prioritization of States in Safety

4.1 MID States are classified in four (4) groups, as follows:

1- States with SSC;
2- States not audited or with EI below 60% (EI < 60);
3- States with EI between 60 and 70% (60 ≤ EI < 70); and
4- States with EI over 70% (EI ≥ 70).

4.2 Other criteria/factors should be considered for the provision of required NCLB assistance, during the development and implementation of the plans of actions, including but not limited to:

a) State willingness/commitment to receive assistance;
b) Security and political stability;
c) EI per Area and per Critical Element (CE);
d) Level of aviation activities in the State;
e) Air navigation deficiencies (including the deficiencies related to aerodrome certification);
f) Level of progress made by State in the development and implementation of Corrective Action Plans (CAPs);
g) Gross Domestic Product (GDP) per capita; and
h) Ongoing or planned assistance projects.

5. MID Region NCLB Strategy – Phases

5.1 The MID Region NCLB Strategy is composed of three (3) phases as follows:

Phase I – Selection: Selection of the best candidates States for deploying assistance that will produce a sustainable improvement of the EI, in accordance with agreed prioritization criteria; and communication with States (Executive Level) for the development and implementation of an NCLB Plan of Actions.

During this phase, the ICAO MID Office plays the main role in the selection of the best candidate States and ensuring necessary leadership, commitment, political will and accountability for the development and implementation of State's NCLB Plan of Actions.

Phase II – Plan of Actions: Development of State's NCLB Plan of Actions, in coordination with concerned States and other stakeholders, as required. This phase includes also the communication of the Plan of Action to the State Executive Level. The Plan of Actions should include measurable outcomes with specific timelines.

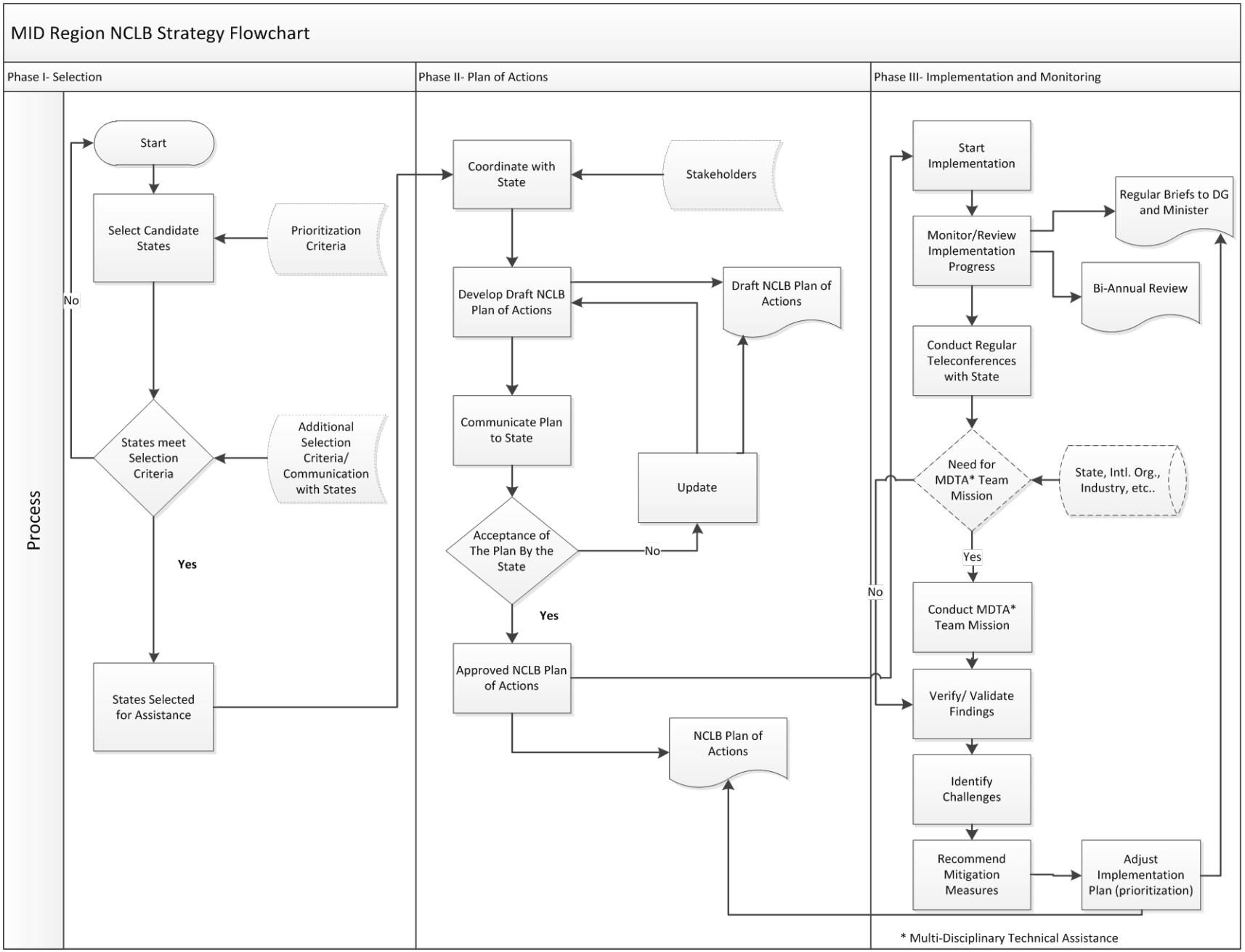
Phase III – Implementation and Monitoring: Implementation of the agreed plan of actions in coordination with concerned stakeholders; and continuous monitoring of the implementation process to ensure the achievement of the agreed objectives and targets.

The implementation of the different activities included in the Plan of Actions could be supported by different stakeholders. During the implementation process, visit(s) by a multi-disciplinary Technical Assistance Team composed of Experts from ICAO and other stakeholders (States, International Organizations, Industry, etc.) might be needed to advance and expedite the implementation of the agreed actions in a prioritized manner, verify/validate the evidences related to the resolution of previously identified findings, provide necessary assistance, identify the main challenges and agree on necessary mitigation measures.

During this phase, regular teleconferences and a bi-annual implementation review should be carried out; and regular briefs will be provided to the DG/Minister.

MID Region NCLB Strategy – Flowchart

5.2 The following Flowchart helps understand the process and activities related to each phase of the MID Region NCLB Strategy:


MID Region NCLB Strategy Flowchart
Phase I- Selection
Phase II- Plan of Actions
Phase III- Implementation and Monitoring
Process
Start
Select Candidate States
Prioritization Criteria
No
States meet Selection Criteria
Additional Selection Criteria/ Communication with States
Yes
States Selected for Assistance
Coordinate with State
Stakeholders
Develop Draft NCLB Plan of Actions
Draft NCLB Plan of Actions
Communicate Plan to State
Update
Acceptance of The Plan By the State
No
Yes
Approved NCLB Plan of Actions
NCLB Plan of Actions
Start Implementation
Regular Briefs to DG and Minister
Monitor/Review Implementation Progress
Bi-Annual Review
Conduct Regular Teleconferences with State
Need for MDTA* Team Mission
State, Intl. Org., Industry, etc..
Yes
No
Conduct MDTA* Team Mission
Verify/ Validate Findings
Identify Challenges
Recommend Mitigation Measures
Adjust Implementation Plan (prioritization)
* Multi-Disciplinary Technical Assistance

5.3 The MID Region NCLB Strategy supports the implementation of the Global Aviation Safety Plan (GASP) and its Roadmap as the basis to develop action plans that define the specific activities which should take place in order to improve safety at the regional and national levels.

5.4 The MID Region NCLB Implementation Plan is a companion document to the MID Region NCLB Strategy. It is a living document used for recording the NCLB activities in the MID Region (general and State by State), including the monitoring of the States' NCLB Plan of Actions and States/Stakeholders' contributions to support the NCLB initiative. Specific goals, outcomes, deliverables and timelines are specified in the States' NCLB Plan of Actions/Recommended Actions.

ICAO CAIRO UNITING AVIATION

MID Region NCLB Implementation Plan

First Edition
January 2017

Table of Contents

MID Region NCLB Implementation Plan

1. Introduction

1.1. The MID Region NCLB Implementation Plan is a living document used for recording the NCLB activities in the MID Region (general and State by State), including the monitoring of the States' NCLB Plan of Actions and States/Stakeholders' contributions to support the NCLB initiative. Specific goals, outcomes, deliverables and timelines are specified in the State's NCLB Plan of Actions.

1.2. An overview of various safety indicators and results for each Member State are available on the ICAO integrated Safety Trend Analysis and Reporting System (iSTARS), which could be accessed through the following link: https://portal.icao.int/space/Pages/State-Safety-Briefings.aspx

1.3. The Table below containing some MID States' high level indicators provides a good overview (Dashboard) of the MID Region:

State	SSC	EI	SSP Level	Aerodrome Certification %	PBN Vertical Approach %	GDP/Capita US$	Level of activities or movements
Bahrain	NO	66.19	3	100	0	23 040	High
Egypt	NO	54.96	3	57	20	3 256	High
Iran	NO	90.49	1	44	3	6 578	High
Iraq	NO	NA	0	33	0	6 625	Low
Jordan	NO	58.65	0	66	100	4 909	Low
Kuwait	NO	53.93	3	100	100	56 367	Medium
Lebanon	NO	60.54	3	0	0	9 764	Low
Libya	NO	28.91	0	0	0	13 303	Low
Oman	NO	67.83	3	100	100	23 624	High
Qatar	NO	62.86	3	100	100	92 633	High
Saudi Arabia	NO	89.12	3	100	0	25946	High
Sudan	NO	74.19	3	75	100	1 695	Low
Syria	NO	53.66	2	0	13	2 126	Low
UAE	NO	98.85	3	100	85	41 692	High
Yemen	NO	NA	0	0	25	1 341	Low
Regional Status		66.17		65	29		

Table 1.

2. Contributions

2.1 The following Table reflects the contributions received from States and Stakeholders in support of the MID NCLB activities:

States and Stakeholders	Contribution Cash or in-Kind	Description/Amount	Remark
Saudi Arabia	Cash	US$200,000	MID NCLB activities for 2017
Saudi Arabia	Cash	US$200,000	Other MID NCLB activities
UAE	Cash	US$50,000	To be used for the establishment

			of the MID FPP

Table 2.

3. NCLB Activities

3.1. General Activities

3.1.1. The following regional NCLB activities are planned/conducted in support of the MID NCLB initiative:

Activity	Funded by/from	Venue	Date	Targeted States	Remarks
GSI AIR Course	MID NCLB budget	Cairo	7-18 May		
GSI ANS Course	MID NCLB budget	Cairo	6-17 Aug.		
GSI AGA Course	MID NCLB budget	Cairo	24 Sep -5 Oct		

Table 3.

3.2. NCLB Activities by State

3.2.1. This Section provides State-by-State a high-level briefing on the status of USOAP-CMA results. It contains also the recommended actions that would enhance the oversight capabilities of the States, eventually increase the EI, and improve safety and efficiency of air navigation in the MID Region. This could be in the form of a formal Plan of Actions or just a list of Recommended Actions, agreed with the concerned State. In both cases, the following is defined for each action:

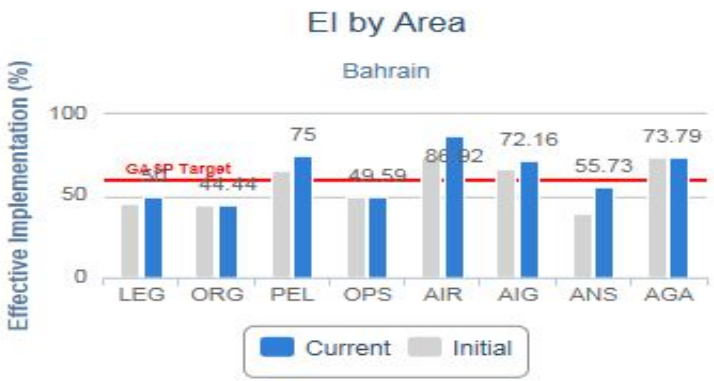
- the link to a USOAP-CMA PQ or air navigation deficiency;
- a State Point of Contact (POC);
- the Accountable person;
- list of States and stakeholders supporting the implementation of the activity/actions;
- the expected deliverables;
- the timelines for the completion of the action;
- the source of funding and assigned amount, as appropriate; and
- the status which provides the information on the progress achieved for the implementation of the action.

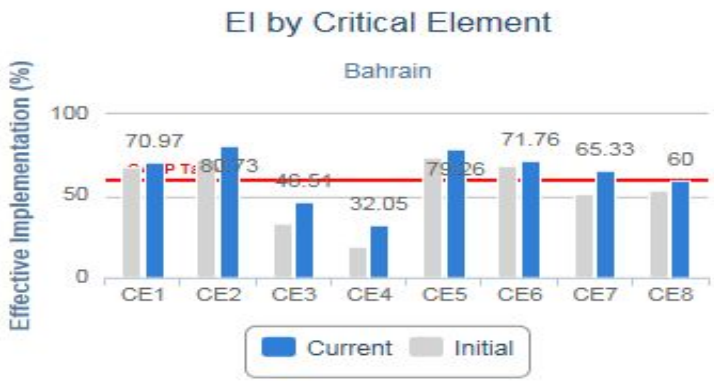
Bahrain
Group: 3

Bahrain EI is **66.19%**.

USOAP Results by Area and Critical Element

4 areas and 6 critical elements are above the target of 60% EI.





Bahrain currently has 262 open USOAP protocol findings. The highest number of protocol findings (37) concern Technical Personnel Qualification and Training (CE-4) in the area of Air Navigation Services (ANS).

	LEG	ORG	PEL	OPS	AIR	AIG	ANS	AGA
CE-1	6	1				1	1	
CE-2	4		1	3	3	3	3	4
CE-3		4	2	2	1	7	26	4
CE-4			1	5	2	5	37	3
CE-5	1		3	4	1	7	4	8
CE-6			9	34	1		5	12
CE-7			2	10	4		4	6
CE-8			2	4	2	4	5	1

Protocol findings by Area and Critical Element intersection

Note: Due to ongoing work on our data management platform, the above results may slightly differ from the ones published on the CMA online framework.

NCLB Plan of Actions/Recommended Actions

Since Bahrain is among the Group 3 States, there's no NCLB Plan of Actions developed for Bahrain. However, the followings are the agreed actions that would improve safety and efficiency of air navigation within Bahrain FIR:

Ref	Key Activity	Actions	Link to USOAP PQ, or AN Deficiency	State POC	Accountable	Supported by	Deliverables	Timeline	Source of Funds/ amount	Remarks/Status
BAH-1	Improve the level of qualified ANS experts	BA1.1 Develop Training Programme for ANS Inspectors		XXX YYY	DG BCAA	ICAO State X ORG Y	Training Programme for ANS Inspectors	Jun. 2017	BCAA	
		BA1.2 Develop Training Plans for ANS Inspectors		XXX YYY	DG BCAA		Training Plans for ANS Inspectors	Aug. 2017	BCAA	
		BA1.3 Organize a GSI course for ANS Inspectors		XXX YYY	ICAO RD			Oct. 2017	ICAO (MID NCLB)	Bahrain attendance is strongly encouraged
BAH-2										

- END -

MID REGION AIM IMPLEMENTATION ROADMAP FOR THE TRANSITION FROM AIS TO AIM

	Related Steps	2016		2017		2018		2019		2020		2021		2022		Priority	Remarks
		1	2	1	2	1	2	1	2	1	2	1	2	1	2		
AIXM	P07, P08															1	Target: 80% by 2018
eAIP	P11															1	Target: 80% by 2020
Integrated Aeronautical Information Database	P06															2	
Aeronautical Data Exchange	P09															2	
Interoperability with MET	P19															3	
Aeronautical Information Briefing	P12															3	
Agreement with data originators	P18															1	
Data Quality Monitoring	P01															1	
Data Integrity Monitoring	P02															1	
Terrain A-1	P13															2	Target: 70% by 2018
Obstacle A-1	P14															2	Target: 60% by 2018
Terrain A-4	P13															2	Target: 100% by 2018
Obstacle A-4	P14															2	Target: 100% by 2018
Terrain A-2a	P13															2	
Obstacle A-2a	P14															2	
Training	P16															1	Continuous
Communication networks	P10															3	
Digital NOTAM	P21															3	
Electronic Aeronautical Charts	P20															3	
Terrain and Obstacle for Areas 2b, 2c, 2d and 3	P13, P14															3	Optional based on the States' decision to be reflected in the States' national Regulations and AIM National Plans, in accordance with operational needs
Aerodrome Mapping	P15															3	Optional based on the States' decision to be reflected in the States' national Regulations and AIM National Plans, in accordance with operational needs

***White**: Planning* ***Light Green**: Initial/On-going Implementation* ***Dark Green**: Implemented (Performance Target achieved)*

APPENDIX 4B

NATIONAL AIM IMPLEMENTATION ROADMAP

STATE	
DATE	

Phase/Step	Step No.	Timeline														Start	End	Remarks
		2016		2017		2018		2019		2020		2021		2022				
Phase I																		
AIRAC adherence	P-03																	
WGS-84	P-05																	
QMS	P-17																	
Phase II																		
Data Quality Monitoring	P-01																	
Data Integrity Monitoring	P-02																	
AIXM	P-06																	
Unique identifiers	P-07																	
Aeronautical Information Conceptual Model	P-08																	
eAIP	P-11																	
Terrain Area 1	P-13																	
Obstacle Area 1	P-14																	
Terrain Area 4	P-13																	
Obstacle Area 4	P-14																	
Terrain Area 2	P-13																	Please specify implementation of Area 2a, 2b, 2c and/or 2d

Obstacle Area 2	P-14																	Please specify implementation of Area 2a, 2b, 2c and/or 2d
Terrain Area 3	P-13																	
Obstacle Area 3	P-14																	
AD Mapping	P-15																	
Phase III																		
Aeronautical data exchange	P-09																	
Communication networks	P-10																	
Aeronautical information briefing	P-12																	
Training	P-16																	
Agreement with data originators	P-18																	
Interoperability with METproducts	P-19																	
Electronic aeronautical charts	P-20																	
Digital NOTAM	P-21																	

Legend		Not Started
		In Progress
		Implemented

INTERNATIONAL CIVIL AVIATION ORGANIZATION

MIDDLE EAST AIR NAVIGATION PLANNING
AND IMPLEMENTATION REGIONAL GROUP
(MIDANPIRG)

GUIDANCE FOR AIM PLANNING AND IMPLEMENTATION IN THE MID REGION

EDITION FEBRUARY, 2017

RECORD OF AMENDMENTS

Edition Number	Edition Date	Description	Pages Affected
0.1	1 September 2015	Initial draft version	All
0.2	7 October 2015	Inputs incorporated by AIM SG/2	All
0.3	April 2016	Change in Doc title; improving order and content of chapters; States comments considered; Reviewed by MSG/5	All
0.4	November 2016	Review by ANSIG/2	All
1.0	February 2017	Endorsed by MIDANPIRG/16	All

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FOREWARD

The “Guidance for AIM Planning and Implementation in the MID Region” has been developed to harmonize transition from AIS to AIM in the MID Region and to addresses Global and Regional issues related to planning and implementation of Aeronautical Information Management. This Regional AIM Guidance material explains concept and operational elements of AIM; outlines the Regional and National AIM Roadmaps; and provides guidance and tools for their implementation at the Regional and National levels.

This Document consolidates updates and supersedes all previous guidance materials on the AIM implementation in the MID Region (National AIM Roadmap Template, Regional AIM Roadmap, etc.). The “Guidance for AIM Planning and Implementation in the MID Region” will be reviewed and updated, whenever deemed necessary, by the AIM Sub-Group.

First edition of the Document, developed by the ICAO MID Regional Office, was endorsed by MIDAPIRG/16 (Kuwait, 13-16 February 2017).

The Document was prepared in accordance with ICAO provisions related to AIM, the Global Air Navigation Plan, Aviation System Block Upgrades (ASBU) methodology, MID Region Air Navigation Plan and the MID Region Air Navigation Strategy, in addition to the twelfth Air Navigation Conference (AN-Conf/12) Recommendation 3/8 related to AIM. States are invited to take necessary measures to implement provisions of this document and notify their experiences and practices related to transition from AIS to AIM.

Abbreviations and Acronyms

The abbreviations and acronyms used in this document along with their expansions are given in the following List:

AI	Aeronautical Information
AICM	Aeronautical Information Conceptual Model
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
AIS	Aeronautical Information Services
AIS-AIM SG	AIS to AIM Study Group
AIM	Aeronautical Information Management
AIM SG	Aeronautical Information Management Sub-Group
AIXM	Aeronautical Information Exchange Model
AN-Conf/11	Eleventh Air Navigation Conference
AN-Conf/12	Twelfth Air Navigation Conference
ANP	Air Navigation Plan
ANSP	Air Navigations Services Provider
ASBU	Aviation System Block Upgrade
ATM	Air Traffic management
eAIP	electronic Aeronautical Information Publication
eANP	electronic Air Navigation Plan
eTOD	electronic Terrain and Obstacle Data
GANP	Global Air Navigation Plan
GANR	Global Air Navigation Report
GIS	Geographic Information System
GML	Geography Markup Language
IM	Information Management
IMP	Information Management Panel
ISO	International Organization for Standardization
MET	Meteorology
MIDAD	MID Region AIM Database
MIDANPIRG	Middle East Air Navigation Planning and Implementation Regional Group

MIL	Military
MSG	MIDANPIRG Steering Group
PBN	Performance-Based Navigation
QMS	Quality Management System
RWY	Runway
SARPs	Standards and Recommended Practices
SMART	Specific, Measurable, Achievable, Relevant and Timely
SWIM	System Wide Information Management
TORs	Terms of Reference
UML	Unified Modeling Language
WGS-84	World Geodetic System-1984
XML	Extensible Markup Language

CHAPTER 1

ICAO AIM CONCEPT

INTRODUCTION

1.1 The Eleventh Air Navigation Conference (AN-Conf/11) held in Montréal, 22 September to 3 October 2003, endorsed the Global ATM Operational Concept (Doc 9854) and recognized that, in the global air traffic management (ATM) system environment envisioned by the operational concept, aeronautical information service (AIS) would become one of the most valuable and important enabling services. As the global ATM system foreseen in the operational concept was based on a collaborative decision-making environment, the timely availability of high-quality and reliable electronic aeronautical, meteorological, airspace and flow management information would be necessary. Some recommendations of AN-Conf/11 addressed the importance of aeronautical information in particular.

1.2 Aeronautical Information Management (AIM) during its evolution has been defined as the provision of the right Aeronautical Information (quality assured), at the right place (through digital exchange), and at the right time (timeliness). ICAO Annex 15 defines AIM as the *dynamic, integrated management of aeronautical information through the provision and exchange of quality-assured digital aeronautical data in collaboration with all parties*.

1.3 The Twelfth Air Navigation Conference (AN-Conf/12) held in Montréal, 19 to 30 November 2012, through Recommendation 3/8, supported and pushed:

- Transition from AIS to AIM by implementing a fully automated digital aeronautical data chain;
- Implementing necessary processes to ensure the quality of aeronautical data; and
- Engage in intraregional and interregional cooperation for an expeditious transition from AIS to AIM in a harmonized manner and to using digital data exchange and consider regional or subregional AIS databases as an enabler for the transition from AIS to AIM information from the origin to the end users

TRANSITION FROM AIS TO AIM

ICAO Roadmap for the transition from AIS to AIM

1.4 The aeronautical information/data based on paper and telex-based text messages can not satisfy anymore the requirements of the ATM integrated and interoperable system. AIS is required to evolve from the paper product-centric service to the data-centric aeronautical information management (AIM) with a different method of information provision and management.

1.5 ICAO published in 2009 the "*Roadmap for the transition from AIS to AIM*". The changes foreseen are such that this development is being referred to as the transition from aeronautical information services (AIS) to aeronautical information management (AIM). It identifies the major milestones recommended for a uniform evolution across all regions of the world and specific steps that need to be achieved for implementation.

1.6 The Roadmap envisaged the transition into three phases and twenty one steps. Three phases of action are envisaged for States and ICAO to complete the transition to AIM:

– *Phase 1 — Consolidation*

Phase 1 is the pre-requisite for the transition from AIS to AIM (implementation of the current SARPs). In Phase 1, QMS implementation is still a challenge for some States.

– *Phase 2 — Going digital*

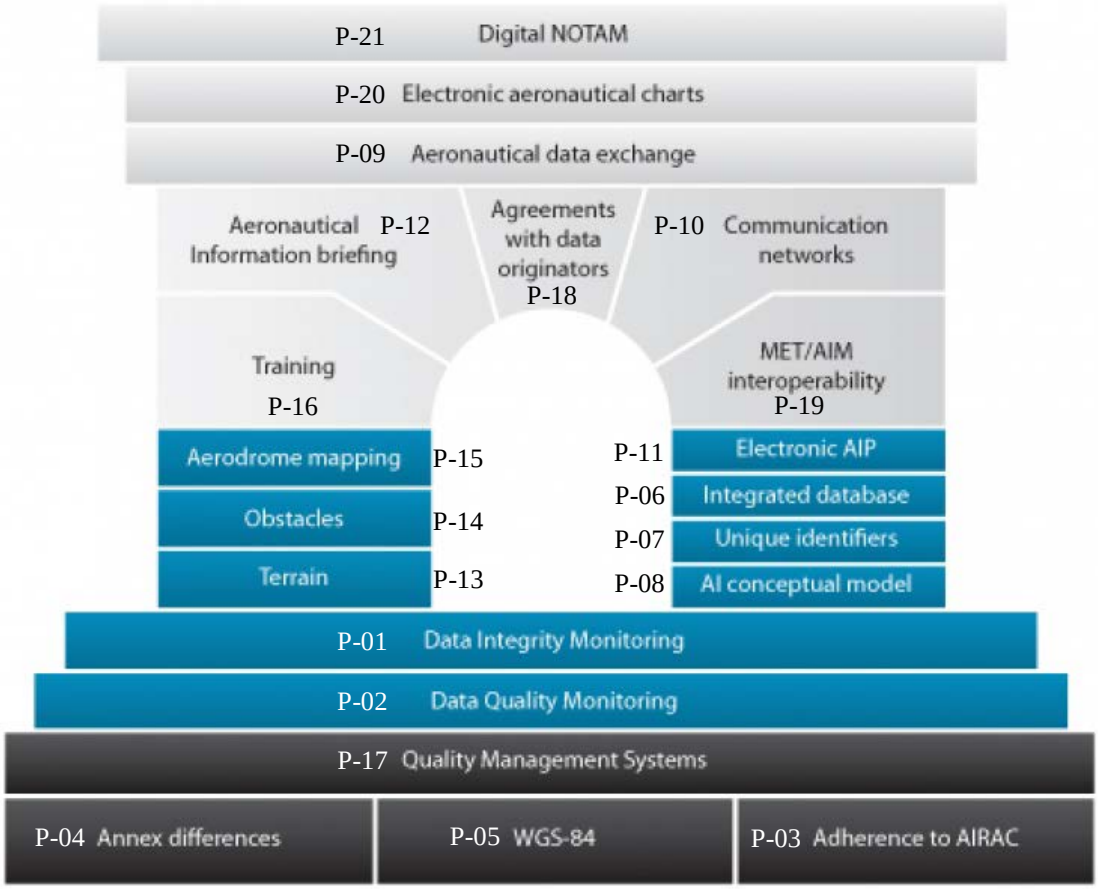
Main components of the Phase 2 are:

- Data-driven processes for the production of the current products;
- Introduction of structured digital data from databases into AIS/AIM processes;
- Introduction of highly structured databases and tools such as GIS;
- Electronic Terrain and Obstacle Datasets; and
- Implementation of aeronautical information conceptual model (AICM).

– *Phase 3 — Information management*

Main components of the Phase 3 are:

- Enabling AIM functions to address the new requirements of the Global ATM Operational Concept in a net-centric information environment;
- Transfer of information in the form of digital data based on the established databases; and
- Aeronautical data exchange model ensuring interoperability between all systems.



Positioning of the 21 steps of the roadmap in the three phases

AIS-AIM Study Group

1.7 The Air Navigation Commission in 2008 agreed to the establishment of AIS-AIM SG in order to assist with the development of:

– A global strategy/roadmap for the transition from AIS to AIM;

– SARPs and guidance material related to the provision of a standard AICM and standard AIXM to enable the global exchange of data in digital format; and

– Other SARPs, guidance material and training material necessary to support AIM implementation.

1.8 Some achievements of the AIS-AIM Study Group have been as follows:

- ICAO Roadmap for transition from AIS to AIM;
- Amendments to Annex 15:
  - Amendment 36: New provisions related to the operational use of the public Internet; volcanic ash deposition; QMS; use of automation enabling digital data exchange; eAIP; NOTAM Format; and eTOD.
  - Amendment 37: Annex 15 restructuring; Chapter 1 (General), Chapter 2 (Responsibilities and functions) and Chapter 3 (Aeronautical Information Management) introduced in Nov 2014;
  - Amendment 40: Chapters 4 (Scope of AI and data), Chapter 5 (AI Products and services) and Chapter 6 (AI updates) instead of current Chapters 4-11 (in progress, applicability date would be November 2018).
- Development of new PANS AIM (in progress, applicability date would be November 2018)
- Development of Aeronautical Data Catalogue (in progress; Appendix A to the new PANS AIM)
- Development of Training Manual, Quality Manual, update of AIS Manual (Doc 8126) (in progress)

1.9 AIS-AIMSG/12 was the last AIS-AIMSG held in Montreal, Canada from 19 to 23 October 2015. Materials related to the AIS-AIM SG including the meetings' Study Notes, Information Papers and Summary of Discussions are available on the ICAO AIM website at:

http://www.icao.int/safety/ais-aimsg/Pages/default.aspx

Information Management Panel (IMP)

1.10 The Air Navigation Commission in 2014 agreed to the establishment of the Information Management Panel (IMP) to elaborate on necessary concepts and develop a global and interoperable approach to ensure effective management of information within the global air navigation system. The IMP will undertake tasks relating to the global transition from AIS to AIM, based upon Recommendations 3/1, 3/2, 3/3 and 3/9 of the Twelfth Air Navigation Conference in 2012 (AN-Conf/12).

1.11 Four (4) Working Groups were established to undertake tasks of the Panel:

- Information Services and NOTAM
- Information Architecture & Management
- SWIM Awareness & Communication
- SWIM Governance

1.12 Materials related to the IMP including the meetings' Working/Information Papers and Reports are available on the ICAO AIM website at:

http://www.icao.int/airnavigation/IMP/Pages/default.aspx

CHAPTER 2

REGIONAL AIM PLANNING

REGIONAL ROADMAP FOR AIM IMPLEMENTATION

2.2 Having Phase I of the transition from AIS to AIM mostly completed in the MID Region, the current focus should be the implementation of phase II of the Roadmap for the transition from AIS to AIM to prepare further transition to Phase III in a timely manner. Accordingly, States should take into consideration the "MID Region AIM Implementation Roadmap" in planning for the transition from AIS to AIM in a prioritized manner.

MID REGION AIM IMPLEMENTATION ROADMAP

	2014				2015				2016				2017				2018				Priority	Remarks
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
AIXM																					1	The target is to have, 80% by 2018
eAIP																					1	The target is to have 80% by 2020
Terrain A-1																					2	The target is to have 70% by 2018
Obstacle A-1																					2	The target is to have 60% by 2018
Terrain A-4																					2	The target is to have 100% by 2018
Obstacle A-4																					2	The target is to have 100% by 2018
Terrain A-2a																					3	The target is to have 50% by 2018
Obstacle A-2a																					3	The target is to have 50% by 2018
Data Quality Monitoring																					3	Target for 2018: To be implemented by 50% of the States that have implemented QMS at least for the segment originator-AIS (excluding the segment AIS-End user)
Data Integrity Monitoring																					3	
Agreement with data originators																					3	Target for 2018: 50% of the States that have implemented QMS
Terrain and Obstacle for Areas 2b, 2c, 2d and 3																					4	Optional based on the States' decision to be reflected in the States' national Regulations and AIM National Plans, in accordance with operational needs
Aerodrome Mapping																					4	Optional based on the States' decision to be reflected in the States' national Regulations and AIM National Plans, in accordance with operational needs

***White**: Not started* ***Yellow**: Initial Target* ***Orange**: Intermediate Target* ***Green**: Target for full implementation*

CHAPTER 3

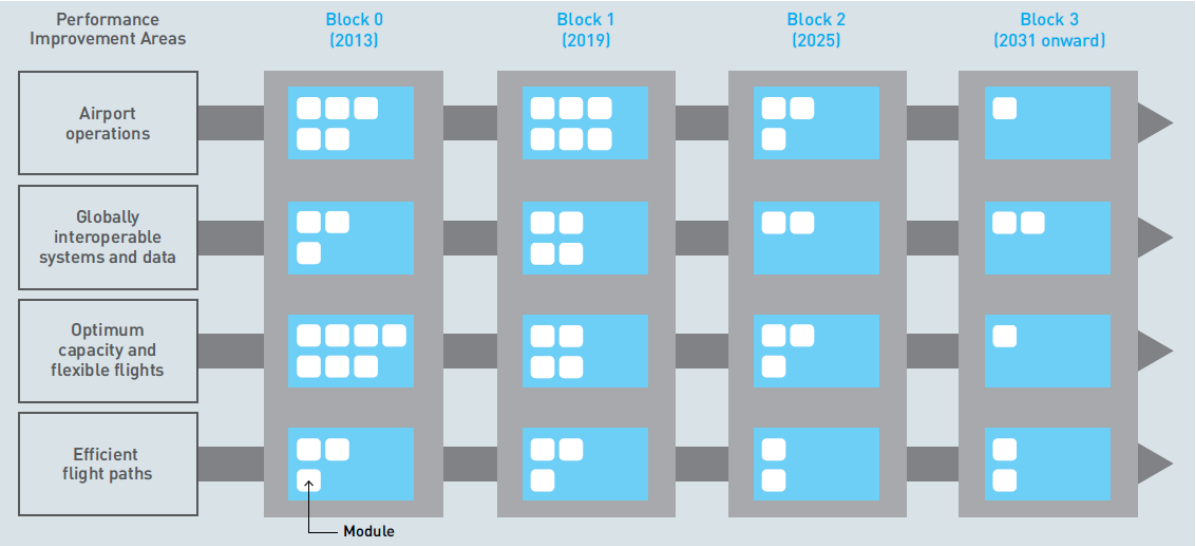
ASBU METHODOLOGY AND THE MID AIR NAVIGATION STRATEGY (AIM/SWIM RELATED ASBU MODULES)

ASBU METHODOLOGY

3.1 ICAO introduced the Aviation System Block Upgrades (ASBU) methodology in the fourth edition of the Doc 9750 (Global Air Navigation Plan), endorsed by the ICAO Assembly in 2013 (further revised by Assembly 39 in 2016), as a systemic manner to achieve a harmonized implementation of the air navigation services. An ASBU designates a set of improvements that can be implemented globally from a defined point in time to enhance the performance of the ATM system.

3.2 The GANP represents a rolling, 15-year strategic methodology which leverages existing technologies and anticipates future developments based on State/industry agreed operational objectives. The Block Upgrades are organized in six-year time increments starting in 2013 and continuing through 2031 and beyond.

3.3 ASBU methodology defines improvements, through modules, over four blocks in four performance improvements areas:



MID REGION AIR NAVIGATION STRATEGY

3.4 Revised MID Region Air Navigation Strategy (MID Doc 002) was endorsed by the MIDANPIRG/16 meeting to introduce Block 0 ASBU Modules implementation priorities, elements, indicators and targets for the MID Region. It recognizes 11 (out of 18) Block 0 Modules as priority 1 in the MID Region (for more information refer to the MID Doc 002 in the ICAO Secure Portal at: https://portal.icao.int/RO_MID/Pages/MIDDocs.aspx).

BLOCK 0 AIM RELATED MODULE

B0-DATM Implementation

3.5 Block 0 contains 18 Modules and serves as the enabler and foundation for the envisioned future aviation systems. B0-DATM is a priority 1 ASBU Module in accordance with the

MID Region Air Navigation Strategy (MID Doc 002). MID Doc 002 defines the B0-DATM as follows:

Description and purpose

The initial introduction of digital processing and management of information, through aeronautical information service (AIS)/aeronautical information management (AIM) implementation, use of aeronautical information exchange model (AIXM), migration to electronic aeronautical information publication (AIP) and better quality and availability of data.

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
N	N	Y	Y	Y

Applicability consideration:

Applicable at State level, with increased benefits as more States participate

B0 – DATM: Service Improvement through Digital Aeronautical Information Management			
Elements	**Applicability**	**Performance Indicators/Supporting Metrics**	**Targets**
National AIM Implementation Plan/Roadmap	All States	Indicator: % of States that have National AIM Implementation Plan/Roadmap Supporting Metric: Number of States that have National AIM Implementation Plan/Roadmap	90% by Dec. 2018
AIXM	All States	Indicator: % of States that have implemented an AIXM-based AIS database Supporting Metric: Number of States that have implemented an AIXM-based AIS database	80% by Dec. 2018
eAIP	All States	Indicator: % of States that have implemented an IAID driven AIP Production (eAIP) Supporting Metric: Number of States that have implemented an IAID driven AIP Production (eAIP)	80% by Dec. 2020
QMS	All States	Indicator: % of States that have implemented QMS for AIS/AIM Supporting Metric: Number of States that have implemented QMS for AIS/AIM	90% by Dec. 2018
WGS-84	All States	Indicator: % of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD) Supporting Metric: Number of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD) Indicator: % of States that have implemented WGS-84 Geoid Undulation Supporting Metric: Number of States that have implemented WGS-84 Geoid Undulation	Horizontal: 100% by Dec. 2018 Vertical: 90% by Dec. 2018

eTOD	All States	Indicator: % of States that have implemented required Terrain datasets Supporting Metric: Number of States that have implemented required Terrain datasets Indicator: % of States that have implemented required Obstacle datasets Supporting Metric: Number of States that have implemented required Obstacle datasets	Area 1 : Terrain: 70% by Dec. 2018 Obstacles: 60% by Dec. 2018 Area 4: Terrain: 100% by Dec. 2018 Obstacles: 100% by Dec. 2018
Digital NOTAM*	All States	Indicator: % of States that have included the implementation of Digital NOTAM into their National Plan for the transition from AIS to AIM Supporting Metric: Number of States that have included the implementation of Digital NOTAM into their National Plan for the transition from AIS to AIM	90% by Dec. 2018

Aeronautical Information Exchange Model (AIXM)

3.6 The aeronautical information exchange model (AIXM) is designed to enable the management and distribution of aeronautical information services data in digital format. AIXM takes advantages of established information engineering standards and supports current and future aeronautical information system requirements. The major tenets are:

a) an exhaustive temporality model, including support for the temporary information contained in NOTAM;

b) alignment with ISO standards for geospatial information, including the use of the geography markup language (GML);

c) support for the latest ICAO and user requirements for aeronautical data including obstacles, terminal procedures and airport mapping databases; and

d) modularity and extensibility.

3.7 AIXM covers the ICAO requirements for the "data necessary for the safety, regularity and efficiency of international air navigation", existing industry standards (e.g. ARINC 424) and emerging data needs. It has constructs for: aerodromes, navigation aids, terminal procedures, airspace and route structures, ATM and related services, air traffic restrictions and other data.

3.8 AIXM has two components:

a) The AIXM UML Model provides a formal description of the information.

b) The AIXM XML Schemas are an encoding format for aeronautical data.

3.9 AIXM 5 takes advantages of established information engineering standards and supports current and future aeronautical information system requirements.

electronic AIP (eAIP)

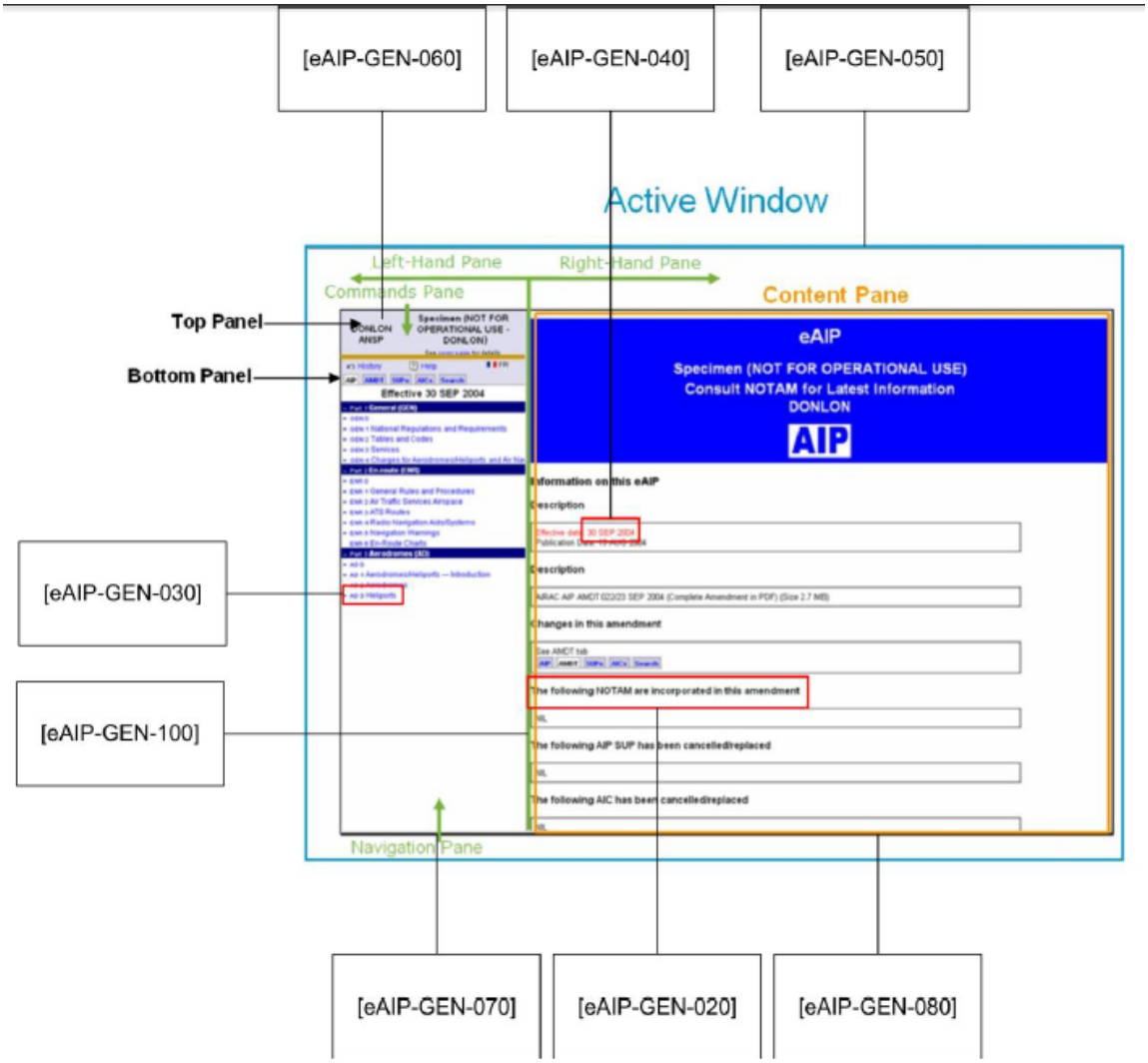
3.10 The AIP, AIP Amendment, AIP Supplement and AIC should also be published in a format that allows for displaying on a computer screen and printing on paper. When provided, the eAIP should be available on a physical distribution medium (CD, DVD, etc.) and/or online on the Internet. When provided, the information content of the eAIP and the structure of chapters, sections and sub-sections shall follow the content and structure of the paper AIP. The eAIP shall include files that allow for printing a paper AIP.

Note 1 - This composite electronic document is named "Electronic AIP" (eAIP) and may be based on a format that allows for digital data exchange.

Note 2 - The eAIP is not intended to support the Digital Notice to Airmen (NOTAM) process, as Digital NOTAM require a database of aeronautical information and are, therefore, not reliant on the eAIP.

3.11 Aeronautical data and aeronautical information within the AIPs, AMDTs and SUPs should be made available, as a minimum, "in a way that allows the content and format of the documents to be directly readable on a computer screen".

3.12 General requirements associated with the **display of the eAIP** are reflected below:



3.13 The eAIP, as a minimum, should have help and search facility and provide history of current and previous amendments to users. It should also include a table of content. Format, display and content requirement for AIP Pages, AIP SUP, AIP Amendment and AIC should be in accordance with Annex15, Doc 8126 and other related SARPs.

Note 3 – More guidance material on the specifications of eAIP could be found in the EUROCONTROL Specifications for the electronic Aeronautical Information Publication (eAIP).

Quality Management System (QMS)

3.14 Quality management systems shall be implemented and maintained encompassing all functions of an aeronautical information service. The execution of such quality management systems shall be made demonstrable for each function stage.

Note 1 - An ISO 9000 certificate issued by an accredited certification body would be considered an acceptable means of compliance.

Note 2 - Guidance material is contained in the Manual on the Quality Management System for Aeronautical Information Services (Doc 9839).

Note 3 - Necessary measures should be taken for the signature of formal arrangements concerning data quality between AIS/AIM and the data originators, commensurate with the Aerodrome operators, Air Navigation Service Providers (ANSPs) and the Military Authority.

World Geodetic System-1984 (WGS-84)

3.15 World Geodetic System — 1984 (WGS-84) shall be used as the horizontal (geodetic) reference system for international air navigation. Consequently, published aeronautical geographical coordinates (indicating latitude and longitude) shall be expressed in terms of the WGS-84 geodetic reference datum.

3.16 WGS-84 shall be introduced in the published coordinates in AIP in the following sections:

a) Horizontal:

- Enroute
- Terminal
- Aerodrome

b) Vertical:

- Geoid Undulation

Note - Comprehensive guidance material concerning WGS-84 is contained in the World Geodetic System - 1984 (WGS-84) Manual (Doc 9674).

electronic Terrain and Obstacle Dataset (eTOD)

3.17 eTOD is an electronic set(s) of terrain and/or obstacle data for the defined coverage areas and with the defined data specifications to fulfill the needs of electronic air navigation applications for digital data. The coverage areas for sets of electronic terrain and obstacle data shall be specified as:

— Area 1: the entire territory of a State;

— Area 2: within the vicinity of an aerodrome, subdivided as follows;

— Area 2a: a rectangular area around a runway that comprises the runway strip plus any clearway that exists.

— Area 2b: an area extending from the ends of Area 2a in the direction of departure, with a length of 10 km and a splay of 15 per cent to each side;

— Area 2c: an area extending outside Area 2a and Area 2b at a distance of not more than 10 km from the boundary of Area 2a; and

— Area 2d: an area outside the Areas 2a, 2b and 2c up to a distance of 45 km from the aerodrome reference point, or to an existing TMA boundary, whichever is nearest;

— Area 3: the area bordering an aerodrome movement area that extends horizontally from the edge of a runway to 90 m from the runway centre line and 50 m from the edge of all other parts of the aerodrome movement area.

— Area 4: The area extending 900 m prior to the runway threshold and 60 m each side of the extended runway centre line in the direction of the approach on a precision approach runway, Category II or III.

3.18 Electronic terrain data shall be provided for Area 1 and 4. The obstacle data shall be provided for obstacles in Area 1 higher than 100 m above ground.

Note 1 - Comprehensive guidance material concerning eTOD is contained in Annex 15; the Guidelines for electronic terrain, obstacle and aerodrome mapping information (Doc 9881) and the EUROCONTROL Terrain and Obstacle Data Manual.

Note 2 – Description and method of obtaining of the eTOD should be defined in AIP GEN 3.1.6.

AIM/SWIM RELATED MODULES

3.19 Performance Improvement Area 2 (Globally Interoperable Systems and Data – Through Globally Interoperable System Wide Information Management) focuses on ASBU Modules which mainly support Collaborative Decision Making (CDM) through Information Management (i.e. Aeronautical Information, MET, Flight and Flow, etc.) in a SWIM environment. PIA 2 includes 11 Modules over 4 blocks as follows:

Performance Improvement Area 2: Globally Interoperable Systems and Data – Through Globally Interoperable System Wide Information Management			
Block 0 (2013)	**Block 1 (2018)**	**Block 2 (2023)**	**Block 3 (2028)**
B0-FICE Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	**B1-FICE** Increased Interoperability, Efficiency and Capacity though FF-ICE, Step 1 application before Departure	**B2-FICE** Improved Coordination through multi-centre Ground-Ground Integration: (FF-ICE/1 and Flight Object, SWIM)	**B3-FICE** Improved Operational Performance through the introduction of Full FF-ICE
B0-DATM Service Improvement through Digital Aeronautical Information Management	**B1-DATM** Service Improvement through Integration of all Digital ATM Information		
	B1-SWIM Performance Improvement through the application of System-Wide Information Management (SWIM)	**B2-SWIM** Enabling Airborne Participation in collaborative ATM through SWIM	
B0-AMET Meteorological information supporting enhanced operational efficiency and safety	**B1-AMET** Enhanced Operational Decisions through Integrated Meteorological Information (Planning and Near-term Service)		**B3-AMET** Enhanced Operational Decisions through Integrated Meteorological Information (Near-term and Immediate Service)

CHAPTER 4

AIM NATIONAL PLANNING AND IMPLEMENTATION

AIM NATIONAL PLANNING

4.1 States should focus on the implementation of phase II and III of the ICAO Roadmap for the transition from AIS to AIM and take into consideration the "MID Region AIM implementation Roadmap" in planning for the transition from AIS to AIM in a prioritized manner

4.2 States are required to develop/update their National AIM Implementation Roadmap on an annual basis (by end of December), using the Template at **Appendix A** (National AIM Implementation Roadmap Template) and provide their feedback, lessons learned and difficulties to the ICAO MID Office for further assistance, as necessary.

IMPLEMENTATION OF A SYSTEM FOR AIRAC ADHERENCE MONITORING

4.2 Operationally significant changes to the AIP, listed in Annex 15, Appendix 4 shall be published in accordance with AIRAC procedures and shall be clearly identified by the acronym — AIRAC.

4.3 When an AIP Amendment or an AIP Supplement is published in accordance with AIRAC procedures, a NOTAM called "Trigger NOTAM" shall be originated giving a brief description of the contents, the effective date and time, and the reference number of the amendment or supplement.

4.4 The Trigger NOTAM shall be issued as soon as possible, preferably at the publication date of the AIRAC AIP Amendment or the AIP Supplement. This NOTAM shall come into force on the same effective date and time as the amendment or supplement and shall remain valid for a period of fourteen days.

4.5 The text in Item E) should start with the words 'TRIGGER NOTAM' (followed only in the case of an AIP Amendment by the abbreviation PERM), the reference number of the published AIP Amendment or AIP Supplement concerned, the effective date and a brief description of its contents.

4.6 Trigger NOTAM shall be issued in the appropriate NOTAM series, according to the information to be promulgated and shall follow the normal NOTAM procedures.

Example:

Q) HECA/QARTT/I/BO/000/999
A) HECC B) 1704270000 C) 1705102359
E) TRIGGER NOTAM – PERM AIRAC AIP AMDT 4/17 WEF 27 APR 2017.
IMPLEMENTATION OF NEW ATS ROUTE UL111.

Note – the term 'PERM' is inserted in Item E) to stress that Item C) contains an artificial end-date and that the information is of a permanent nature.

4.7 When information has not been submitted by the AIRAC date, a NIL notification shall be originated and distributed by NOTAM or other suitable means, not later than one cycle before the AIRAC effective date concerned.

4.8 Implementation dates other than AIRAC effective dates shall not be used for pre-planned operationally significant changes requiring cartographic work and/or for updating of navigation databases.

4.9 Information provided under the AIRAC system in paper copy form shall be distributed by the AIS unit at least 42 days in advance of the effective date with the objective of reaching recipients at least 28 days in advance of the effective date. Information provided as electronic media, concerning the circumstances listed in Annex 15, Appendix 4 shall be distributed/made available by the AIS unit so as to reach recipients at least 28 days in advance of the AIRAC effective date.

Recommendation *– Whenever major changes are planned and where advance notice is desirable and practicable, information provided as electronic media should be distributed/made available at least 56 days in advance of the effective date. This should be applied to the establishment of, and premeditated major changes in, the circumstances listed in Appendix 4, Part 3, and other major changes if deemed necessary.*

4.10 AIS/AIM units should:

1) raise the awareness of the Data Originators regarding the AIRAC provisions; and

2) include necessary procedures related to AIRAC adherence in the arrangement with the Data Originators.

4.11 States should implement a system for AIRAC adherence monitoring and report on annual basis (by 31 December) to the ICAO MID Regional Office the case(s) of late publication of aeronautical information of operational significance and non-adherence to the AIRAC provisions. **Appendix B** could be used as a monitoring and reporting tool in the AIRAC adherence.

4.12 List of AIRAC effective dates for 2017 to 2021 is as follows:

2017	2018	2019	2020	2021
05 January	04 January	03 January	02 January	28 January
02 February	01 February	31 January	30 January	25 February
02 March	01 March	28 February	27 February	25 March
30 March	29 March	28 March	26 March	22 April
27 April	26 April	25 April	23 April	20 May
25 May	24 May	23 May	21 May	17 June
22 June	21 June	20 June	18 June	15 July
20 July	19 July	18 July	16 July	12 August
17 August	16 August	15 August	13 August	09 September
14 September	13 September	12 September	10 September	07 October
12 October	11 October	10 October	08 October	04 November
09 November	08 November	07 November	05 November	02 December
07 December	06 December	05 December	03 December	30 December
			31 December	

AIR NAVIGATION DEFICIENCIES

4.13 A deficiency is a situation where a facility, service or procedure does not comply with a regional air navigation plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and/or efficiency of international civil aviation.

4.14 Priority for action to remedy a deficiency is based on the following safety assessments:

'U' priority = Urgent requirements having a direct impact on safety and requiring immediate corrective actions. Urgent requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is urgently required for air navigation safety.

'A' priority = Top priority requirements necessary for air navigation safety. Top priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation safety.

'B' priority = Intermediate requirements necessary for air navigation regularity and efficiency. Intermediate priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation regularity and efficiency.

4.15 MIDANPIRG is responsible to identify and address specific deficiencies in the air navigation field and to facilitate the development and implementation of an action plan by States to resolve identified deficiencies, where necessary.

4.16 States are required to use the MID Air Navigation Deficiency Database (MANDD) for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies, including the submission of a specific Corrective Action Plan (CAP) for each deficiency. Each State MANDD Focal Point is given the required credential and MANDD is accessible at: http://www.icao.int/mid

4.17 A Sample State's Corrective Action Plan (CAP) is provided as **Appendix C** for assistance to States in developing their CAPs for the Air Navigation Deficiencies.

4.18 States are required to submit a Formal Letter to the ICAO MID Regional Office containing the evidence(s) that mitigation measures have been implemented for the elimination of deficiency(ies) when requesting the elimination of deficiency(ies) from the MANDD.

HUMAN RESOURCE AND TRAINING

4.19 Within the context of the established quality management system, the competencies and the associated knowledge, skills and abilities required for each function shall be identified, and personnel assigned to perform those functions shall be appropriately trained. Processes shall be in place to ensure that personnel possess the competencies required to perform specific assigned functions. Appropriate records shall be maintained so that the qualifications of personnel can be confirmed. Initial and periodic assessments shall be established that require personnel to demonstrate the required competencies. Periodic assessments of personnel shall be used as a means to detect and correct shortfalls.

Note 1 - Guidance material concerning training methodology to ensure the competency of personnel is contained in the Aeronautical Information Management Training Development Manual (Doc 9991).

CHAPTER 5

REPORTING AND MONITORING

MID eANP VOLUME III

5.1 The status of implementation is reported and monitored by the AIM Sub-Group and through the B0-DATM Tables contained in the MID eANP Volume III. the MID eANP is available on the ICAO MID website at: http://www.icao.int/MID/Pages/MIDeANP.aspx

REGIONAL PERFORMANCE DASHBOARD

5.2 The 38th Assembly approved the Regional Performance Dashboards. The Dashboards aim to provide a glance of both Safety and Air Navigation Capacity and Efficiency strategic objectives, using a set of indicators and targets based on the regional implementation of the Global Aviation Safety Plan (GASP) and the Global Air Navigation Plan (GANP).

5.3 ICAO introduced the Regional Performance Dashboards as a framework of nested reporting of results with an increased focus on implementation. The initial version of the dashboard shows the globally agreed targeted performance at the regional level and contains graphics and maps with a planned expansion to include regionally agreed targets and the Aviation System Block upgrades (ASBU) Block 0 Modules (i.e. AIM National Plan/Roadmap, AIXM, eAIP, eTOD, WGS-84 and QMS).

5.4 For the first edition of the Regional Performance Dashboards, the implementation of 3 steps from Phase I of the ICAO Roadmap for transition from AIS to AIM (AIRAC, QMS and WGS-84) is monitored. The dashboard can be accessed on the ICAO website at: http://www.icao.int/safety/Pages/Regional-Targets.aspx.

5.5 It is agreed that in the expansion of the MID Regional Performance Dashboard, AIM National Roadmap, AIXM 5+, eAIP, eTOD Area 1 and 4 should be added to the MID Region Dashboard.

MID REGION AIR NAVIGATION REPORT

5.2 MIDANPIRG/16 endorsed the first MID Region Air Navigation Report-2016. The objective of the Report is to monitor the status of implementation of the priority 1 ASBU Block 0 Modules in the MID Region as well as the outlook of ASBU implementation in 2020. The MID Region Air Navigation Report will be an annual document for reporting and monitoring the ASBU implementation in the MID Region. The Report is available on the ICAO MID Office website at: http://www2010.icao.int/MID/Pages/default.aspx

DEVELOPING A METHODOLOGY FOR REPORTING THE PROGRESS OF AIM IMPLEMENTATION

5.6 "*Methodology for assessing and reporting the progress of transition from AIS to AIM*" aims to develop a uniform method and plan for the reporting by the States on the progress achieved for the AIM transition, based on the ICAO Roadmap for 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). The Methodology is used while collecting data for monitoring the progress achieved in the transition from AIS to AIM and for the purpose of Regional Performance Dashboard, MID eANP, etc.

5.7 MIDANPIRG/15 meeting (Bahrain, 8-11 June 2015) reviewed the draft Methodology for reporting and assessing the progress related to the transition from AIS to AIM, as an initial MID Regional framework for monitoring the progress achieved for the AIM transition.

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

Element (Phase/Step/Step No.)			Metric/ Indicator	Finalization/Compliance Criteria	Link to ASBU Block	Remarks
1			2	3	4	5
Phase 1						
AIRAC adherence		P-03	FC/NC	Implementation of a system for AIRAC adherence monitoring (compliance with annex 15 AIRAC provisions) (TBD)	Block 0	
WGS-84 implementation		P-05	FC/PC/NC	National AIP GEN 2.1.3 ‘Geodetic reference datum’ provides information about the implementation of WGS-84 in ENR, Terminal and AD	Block 0	
QMS		P-17	FC/NC	ISO 9001 Certification	Block 0	
Phase 2						
Data quality monitoring		P-01	FI/NI	QMS (P-17) and Agreement with data originators (P-18) is implemented (TBD)	Block 0	
Data integrity monitoring		P-02				*Linked to P-01*
Integrated aeronautical information database	AIXM-based AIS Database	P-06	FI/NI	National aeronautical data and information is stored and maintained in AIXM-based AIS database	Block 0	*Structured AI Database with digital exchange capabilities (AIXM 5.1)*
	Implementation of IAID		FI/PI/NI	Implementation of a database providing eAIP (text, tables and charts) and NOTAM, linked to the terrain/obstacles and aerodrome mapping datasets (TBD)	Block 1	
Unique identifiers		P-07				*Linked to P-06*
Aeronautical information conceptual model		P-08				*Linked to P-06*
Electronic AIP		P-11	FI/NI	National AIP GEN 3.1.3 ‘Aeronautical publications’ provides information about the availability of the National AIP in electronic format (eAIP)	Block 0	
Terrain	Area 1	P-13	FC/NC	National AIP GEN 3.1.6 ‘Electronic terrain and obstacle data’ provides information on how the dataset can be obtained	Block 0	
	Area 4	P-13	FC/PC/NC or N/A	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.	Block 0	*In case of PC, list name of CAT II/III ADs having the dataset*

Element (Phase/Step/Step No.)			Metric/ Indicator	Finalization/Compliance Criteria	Link to ASBU Block	Remarks
1			2	3	4	5
	Area 2a	P-13	FC/PC/NC	National AIP GEN 3.1.6 'Electronic terrain and obstacle data' 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.	Block 0	*In case of PC, list name of ADs having the dataset*
	Take-off flight path area	P-13	FC/PC/NC	Same as Terrain Area 2a	Block 0	*In case of PC, list name of ADs having the dataset*
	An area bounded by the lateral extent of the aerodrome obstacle limitation surfaces	P-13	FC/PC/NC	Same as Terrain Area 2a	Block 0	*In case of PC, list name of ADs having the dataset*
Obstacles	Area 1	P-14	FC/NC	National AIP GEN 3.1.6 'Electronic terrain and obstacle data' provides information on how the dataset can be obtained	Block 0	
	Area 4	P-14	FC/PC/NC or N/A	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.	Block 0	*In case of PC, list name of CAT II/III ADs having the dataset*
	Area 2a	P-14	FC/PC/NC	National AIP GEN 3.1.6 'Electronic terrain and obstacle data' 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	Block 0	*In case of PC, list name of ADs having the dataset*

Element (Phase/Step/Step No.)		Metric/ Indicator	Finalization/Compliance Criteria	Link to ASBU Block	Remarks
1		2	3	4	5
			— RNS: international non-scheduled air transport, regular use — RG: international general aviation, regular use.		
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	Same as Obstacles Area 2a	Block 0	*In case of PC, list name of ADs having the dataset*
penetrations of the aerodrome obstacle limitation surfaces	P-14	FC/PC/NC	Same as Obstacles Area 2a	Block 0	*In case of PC, list name of ADs having the dataset*
Aerodrome mapping	P-15	FI/PI/NI	National AIP GEN 3.1.6 ‘Electronic terrain and obstacle data’ provides information on how the dataset can be obtained	Block 1	*In case of PC, list name of ADs having the dataset*
Phase 3					
Aeronautical data exchange	P-09	FI/PI/NI	Direct data exchange between AIS and data originators/users (TBD)	Block 1	*In case of PC, list name of Units (Data Originators/Users)*
Communication networks	P-10				
Aeronautical information briefing	P-12	FI/PI/NI	Provision of preflight aeronautical information briefing at the international aerodromes (TBD) Mandatory for international aerodromes contained in 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.	Block 1	*In case of PC, list name of ADs providing AI briefing*
Training	P-16				

Element (Phase/Step/Step No.)		Metric/ Indicator	Finalization/Compliance Criteria	Link to ASBU Block	Remarks
1		2	3	4	5
Agreement with data originators	P-18	FI/PI/NI	Signed agreements between AIS and ANSPs (ATM, CNS, etc.), Aerodromes and Military	Block 0	*In case of PC, list name of Data Originator(s)*
Interoperability with meteorological products	P-19				*Linked to P-12*
Electronic aeronautical charts	P-20	FI/NI	National AIP GEN 3.2 'Aeronautical Charts provides information about the availability of the e-Aeronautical Charts	Block 1	
Digital NOTAM	P-21	FI/NI	TBD	Block 1	

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

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APPENDICES

APPENDIX A
NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

Phase/Step	Step No.	Timeline																		Start	End	Remarks
		2014				2015				2016				2017				2018						
Phase I																						
AIRAC adherence	P-03																					
WGS-84 implementation	P-05																					
QMS	P-17																					
Phase II																						
Data Quality Monitoring	P-01																					
Data Integrity Monitoring	P-02																					
AIXM	P-06																					
Unique identifiers	P-07																					
Aeronautical information conceptual model	P-08																					
eAIP	P-11																					
Terrain A-1	P-13																					
Obstacle A-1	P-14																					
Terrain A-4	P-13																					
Obstacle A-4	P-14																					
Terrain A-2	P-13																					Please specify implementation of Area 2a, 2b, 2c and/or 2d

Phase/Step	Step No.	Timeline																				Start	End	Remarks
		2014				2015				2016				2017				2018						
Obstacle A-2	P-14																							Please specify implementation of Area 2a, 2b, 2c and/or 2d
Terrain A-3	P-13																							
Obstacle A-3	P-14																							
AD Mapping	P-15																							
Phase III																								
Aeronautical data exchange	P-09																							
Communication networks	P-10																							
Aeronautical information briefing	P-12																							
Training	P-16																							
Agreement with data originators	P-18																							
Interoperability with meteorological products	P-19																							
Electronic aeronautical charts	P-20																							
Digital NOTAM	P-21																							

Legend		
		Not Started
		In Progress
		Implemented

APPENDIX B

AIRAC ADHERENCE MONITORING

YEAR: 2016			STATE: …….		
AIRAC EFF Date	**AIRAC AMDT Serial Number; or NIL Notification**	**AIRAC AMDT PUB/Distribution Date**	**Trigger NOTAM (Serial Number)**	**No change until 28 days after EFF Date? (Yes / No)**	**Remarks**
7 JAN 16	- AIRAC …../16; or - NIL notification issued on …….				
4 FEB 16	- AIRAC …../16; or - NIL notification issued on …….				
3 MAR 16	- AIRAC …../16; or - NIL notification issued on …….				
31 MAR 16	- AIRAC …../16; or - NIL notification issued on …….				
28 APR 16	- AIRAC …../16; or - NIL notification issued on …….				
26 MAY 16	- AIRAC …../16; or - NIL notification issued on …….				
23 JUN 16	- AIRAC …../16; or - NIL notification issued on …….				
21 JUL 16	- AIRAC …../16; or - NIL notification issued on …….				
18 AUG 16	- AIRAC …../16; or - NIL notification issued on …….				
15 SEP 16	- AIRAC …../16; or - NIL notification issued on …….				
13 OCT 16	- AIRAC …../16; or - NIL notification issued on …….				
10 NOV 16	- AIRAC …../16; or - NIL notification issued on …….				
8 DEC 16	- AIRAC …../16; or - NIL notification issued on …….				

APPENDIX C

SAMPLE STATE'S CORRECTIVE ACTION PLAN

<table>
<tr><td colspan="2">DEFICIENCY DESCRIPTION</td><td>PRIORITY
(U/A/B)</td></tr>
<tr><td colspan="2" rowspan="3"></td><td></td></tr>
<tr><td>RATIONALE
F:Financial, H:HR, S:State, O:Other</td></tr>
<tr><td></td></tr>
<tr><td colspan="3">STATE'S COMMENTS/OBSERVATION</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>CORRECTIVE ACTION(S) PROPOSED</td><td>ACTION OFFICE/BODY</td><td>DATE OF COMPLETION</td></tr>
<tr><td></td><td></td><td></td></tr>
</table>

References

- ICAO Annex 15 – Aeronautical Information Services
- ICAO Doc 9750 – Global Air Navigation Plan
- ICAO Roadmap for the transition from AIS to AIM
- EUROCONTROL Guidelines – Operating procedures for AIS Dynamic Data (OPADD)
- EUROCONTROL Specifications for the electronic Aeronautical Information Publication (eAIP)
- EUROCONTROL Terrain and Obstacle Data Manual
- MIDANPIRG/15 Report
- MID Doc 002 – MID Region Air Navigation Strategy
- MSG/4 Report
- http://www.aixm.aero
- http://www.icao.int/airnavigation/Documents/ICAO_AN%20Report_EN_final_30042014.pdf
- http://www.icao.int/airnavigation/IMP/Pages/default.aspx
- http://www.icao.int/safety/ais-aimsg/Pages/default.aspx
- http://www.icao.int/safety/Pages/Regional-Targets.aspx.
- https://portal.icao.int/RO_MID/Pages/MIDDocs.aspx
- https://portal.icao.int/space/anp/Pages/Home.aspx

APPENDIX 4D

B0 – DATM: Service Improvement through Digital Aeronautical Information Management

Description and purpose:

The initial introduction of digital processing and management of information, through aeronautical information service (AIS)/aeronautical information management (AIM) implementation, use of aeronautical information exchange model (AIXM), migration to electronic aeronautical information publication (AIP) and better quality and availability of data

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
N	N	Y	Y	Y

Applicability consideration:

Applicable at State level, with increased benefits as more States participate

B0 – DATM: Service Improvement through Digital Aeronautical Information Management			
Elements	**Applicability**	**Performance Indicators/Supporting Metrics**	**Targets**
~~National AIM Implementation Plan/Roadmap~~	~~All States~~	~~Indicator: % of States that have National AIM Implementation Plan/Roadmap~~ ~~Supporting Metric: Number of States that have National AIM Implementation Plan/Roadmap~~	~~90% by Dec. 2018~~
AIXM	All States	Indicator: % of States that have implemented an AIXM-based AIS database Supporting Metric: Number of States that have implemented an AIXM-based AIS database	80% by Dec. 2018
eAIP	All States	Indicator: % of States that have implemented an IAID driven AIP Production (eAIP) Supporting Metric: Number of States that have implemented an IAID driven AIP Production (eAIP)	80% by Dec. 2020
QMS	All States	Indicator: % of States that have implemented QMS for AIS/AIM Supporting Metric: Number of States that have implemented QMS for AIS/AIM	90% by Dec. 2018
WGS-84	All States	Indicator: % of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD) Supporting Metric: Number of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD) Indicator: % of States that have implemented WGS-84 Geoid Undulation Supporting Metric: Number of States that have implemented WGS-84 Geoid Undulation	Horizontal: 100% by Dec. 2018 Vertical: 90% by Dec. 2018

eTOD	All States	Indicator: % of States that have implemented required Terrain datasets Supporting Metric: Number of States that have implemented required Terrain datasets Indicator: % of States that have implemented required Obstacle datasets Supporting Metric: Number of States that have implemented required Obstacle datasets	Area 1 : Terrain: 70% by Dec. 2018 Obstacles: 60% by Dec. 2018 Area 4: Terrain: 100% by Dec. 2018 Obstacles: 100% by Dec. 2018
Digital NOTAM*	All States	Indicator: % of States that have included the implementation of Digital NOTAM into their National Plan for the transition from AIS to AIM Supporting Metric: Number of States that have included the implementation of Digital NOTAM into their National Plan for the transition from AIS to AIM	90% by Dec. 2020

APPENDIX 4E

GUIDELINES FOR THE PUBLICATION OF FIR BOUNDARY POINTS

1) Where FIR is a list of geographical coordinates:
   a) The list of points and their coordinates must follow a clockwise sequence.
   b) The list must have a beginning point and an ending point that are the same coordinate.
   c) The latitude and longitude coordinates must be reported in **DMS (degrees, minutes and seconds)**.
   d) Where an FIR shares a common point with another neighbouring FIR, coordinates should be mutually agreed.

      Note: *Transfer of Control Points, ATS route significant points or waypoints may not necessarily be aligned with boundaries delineation.*

   e) Where delineation of FIR/UIR follows an arc of specific dimension, it should be defined as follows:

      [starting point of ARC] *following an arc of a circle at a* ***radius of [distance]*** *NM centered on* ***[coordinates in DMS]*** *and ending at point* ***[coordinates in DMS]****.*

2) Where FIR is described using "sovereign" boundaries
   a) The description should be simple
      i) Follow sovereign boundary between [State 1] and [State 2]). [1]
   b) Where delineation of FIR/UIR is made by reference to sovereign boundaries common to neighbouring FIR/UIR, the delineation shall be mutually agreed upon.
   c) Where an FIR/UIR follows a sovereign boundary, the United Nations international boundary data set is referred to by ICAO.

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[1] Use short names of States as shown at: http://www.icao.int/about-icao/pages/member-states.aspx

B0-DATM Enablers/Tables

In order to assist States in the planning for the transition from AIS to AIM in an expeditious manner, the following Tables, which provide more details than the standard ANRF, should be used:

1- **Table B0-DATM 3-1** sets out the requirements for the Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID). It reflects the transition from the current product centric AIS to data centric AIM. For the future digital environment it is important that the authoritative databases are clearly designated and such designation must be published for the users. This is achieved with the concept of the Integrated Aeronautical Information Database (IAID), a single access point for one or more authoritative databases (~~AIS~~AIP, Terrain, Obstacles, AMDB, etc) for which the State is responsible. This Table will be used for the monitoring of the Key Performance Indicators (KPIs) related to elements Nr. 1 and 2 of the Module B0-DATM.

2- **Table B0-DATM 3-2** sets out the requirements for aeronautical data quality. It will be used for the monitoring of the Key Performance Indicators (KPIs) related to the element Nr. 3 of the Module B0-DATM.

3- **Table B0-DATM 3-3** sets out the requirements for the implementation of the World Geodetic System – 1984 (WGS-84).The requirement to use a common geodetic system remains essential to facilitate the exchange of data between different systems. The expression of all coordinates in the AIP and charts using WGS-84 is an important first step for the transition to AIM. This Table will be used for the monitoring of the Key Performance Indicators (KPIs) related to the element Nr. 4 of the Module B0-DATM.

4- **Table B0-DATM 3-4-1** sets out the requirements for the provision of Terrain and Obstacle data sets for Area 1 and Area 4. It will be used for the monitoring of the Key Performance Indicators (KPIs) related to the element Nr. 5 of the Module B0-DATM.

5- **Table B0-DATM 3-4-2** sets out the requirements for the provision of Terrain and Obstacle data sets for Area 2. It will be used for the monitoring of the Key Performance Indicators (KPIs) related to the element Nr. 5 of the Module B0-DATM.

6- **Table B0-DATM 3-4-3** sets out the requirements for the provision of Terrain and Obstacle data sets for Area 3 and implementation of Airport Mapping Databases (AMDB). It will be used for the monitoring of the Key Performance Indicators (KPIs) related to the element Nr. 5 of the Module B0-DATM.

Table B0-DATM 3-1

Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID)

EXPLANATION OF THE TABLE

Column:

1 Name of the State or territory for which the provision of AIS/AIM products and services based on the IAID is required.

2 Requirement for the implementation and designation of the authoritative IAID, shown by:
FI – Fully Implemented
~~PI – Partially Implemented~~
NI – Not Implemented
Note 1 — The IAID of a State is a single access point for one or more databases (~~AIS~~AIP, Terrain, Obstacles, AMDB, etc). The minimum set of databases which should be integrated is defined in Annex 15.
~~*Note 2 — Information providing detail of "PI" should be given in the Remarks column (the implemented components of the IAID).*~~
Note ~~3~~ 2 — The information related to the designation of the authoritative IAID should be published in the AIP (GEN 3.1)

3 Requirement for an IAID driven AIP production, shown by:
FI – Fully Implemented (eAIP: Text, Tables and Charts)
PI – Partially Implemented
NI – Not Implemented
Note ~~4~~ 3 — AIP production includes, production of AIP, AIP Amendments and AIP Supplements
Note 4 — Charts' GIS-based database should be interoperable with AIP database

4 Requirement for an IAID driven NOTAM production, shown by:
FC – Fully Compliant
NC – Not Compliant

5 Requirement for an IAID driven SNOWTAM ~~production~~processing, shown by:
~~FC~~ FI – Fully Implemented~~Compliant~~
~~NC~~ NI – Not Implemented~~compliant~~

6 Requirement for an IAID driven PIB production, shown by:
FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant

~~7 Requirement for Charting systems to be interoperable with the IAID, shown by:~~
~~FC – Fully compliant~~
~~PC – Partially compliant~~
~~NC – Not compliant~~

~~8~~7 Requirement for Procedure design systems to be interoperable with the IAID, shown by:
FI – Fully Implemented

PI – Partially Implemented

NI – Not Implemented

Note 5 — full implementation includes the use of the IAID for the design of the procedures and for the storage of the encoded procedures in the IAID

~~9~~8 Requirement for ATS systems to be interoperable with the IAID, shown by:

FI – Fully Implemented

PI – Partially Implemented

NI – Not Implemented

~~10~~9 Action Plan — short description of the State's Action Plan with regard to the provision of AIM products and services based on the IAID, especially for items with a "PC", "PI", "NC" or "NI" status, including planned date(s) of full compliance, as appropriate.

~~11~~10 Remarks — additional information, including detail of "PC", "NC", "PI" and "NI", as appropriate.

TABLE B0-DATM-3-1

Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID)

State	IAID	AIP	NOTAM	SNOWTAM	PIB	~~Charting~~	Procedure Design	ATS	Action Plan	Remarks
1	*2*	*3*	*4*	*5*	*6*	*~~7~~*	*~~87~~*	*~~98~~*	*~~109~~*	*~~1110~~*
BAHARAIN	~~PI~~FI	FI	FC	~~FC~~FI	FC	~~FC~~	PI	FI	National AIM Roadmap-~~2015~~2016	**AIXM:** ~~4.5~~ 5.1 ~~by end 2015~~
EGYPT	FI	PI	~~NC~~FC	~~NC~~FI	FC	~~NC~~	NI	PI	National AIM Roadmap-~~2015~~2017	**AIXM:** 5.1 3 and 7 by ~~2015, 4-9 by 2016~~2018
IRAN, ISLAMIC REPUBLIC OF	NI	NI	NC	NI~~C~~	NC	~~NC~~	NI	NI	National AIM Roadmap-~~2015~~2016	~~**AIXM:**~~ NI Separate semi-automated NOTAM/SNOWTAM system is operative
IRAQ	NI	NI	NC	~~NC~~NI	NC	~~NC~~	NI	NI	National AIM Roadmap-~~2014~~2015	~~**AIXM:**~~ NI
JORDAN	~~PI~~NI	NI	FC	~~FC~~NI	FC	~~PC~~	NI	NI	National AIM Roadmap-2014	~~**AIXM:**~~ database through EAD
KUWAIT	~~PI~~NI	NI	FC	~~NC~~NI	PC	~~NC~~	NI	NI	National AIM Roadmap-~~2015~~2016	~~**AIXM:**~~ NI (5.1 in progress)
LEBANON	NI	~~FI~~ NI	NC	~~NC~~NI	NC	~~NC~~	NI	NI	National AIM Roadmap-~~2014~~2016	~~**AIXM:**~~ 4.5
LIBYA	NI	NI	NC	~~NC~~NI	NC	~~NC~~	NI	NI	No Action Plan	~~**AIXM:**~~ NI
OMAN	NI	NI	NC	~~NC~~NI	NC	~~NC~~	NI	NI	National AIM Roadmap-~~2014~~2016	~~**AIXM:**~~ NI (5.1 in progress)
QATAR	~~PI~~NI	PI	FC	~~PC~~NI	FC	~~PC~~	PI	NI	National AIM Roadmap-~~2015~~2016	~~**AIXM:**~~ 5.1 Q4/2017 – Data Integration (AIP, Terrain, Obstacle, Procedure Design and AMDB datasets)
SAUDI ARABIA	FI	FI	~~FC~~NC	~~FC~~NI	~~FC~~P C	~~FC~~	FI	FI	National AIM Roadmap-~~2014~~2017	~~**AIXM:**~~ 4.5
SUDAN	~~PI~~NI	NI	FC	NI~~NC~~	FC	~~PC~~	PI	PI	National AIM Roadmap-~~2015~~2017	~~1.AIS DB integrated with MET & ATM~~ ~~2. Contract Signed for eAIP, AIXM connected with Charting SYS.~~ ~~7. Contract signed.~~ ~~8. Ongoing project~~ ~~**AIXM:**~~ NI (5.1 in progress) AIS Automation Project is

										ongoing
SYRIAN ARAB REPUBLIC	NI	NI	NC	~~NC~~NI	NC	~~NC~~	NI	NI	No Action Plan	**~~AIXM:~~** NI
UNITED ARAB EMIRATES	~~PI~~NI	FI	NC	~~NC~~NI	PC	~~PC~~	NI	PI	National AIM Roadmap-~~2014~~2016	**~~AIXM:~~** 5.1 AMDB: 2016-2021; PIB: AVBL at OMAA, OMDB, OMDW, OMFJ, other ADs 2020; Charting system upgrade is planned for 2017; Procedure Design 2020; ATS: ACC AVBL, ADs 2020 Digital NOTAM: 2016-2021 ~~AMDB: 2016-2021~~ ~~eTOD integration: 2016~~ ~~PIB: AVBL at OMMA, OMDB, OMDW; other ADs 2020~~ ~~Charing: 2016~~ ~~Procedure Design 2020~~ ~~ATS: ACC AVBL, ADs 2020~~ ~~Digital NOTAM 2016-2021~~
YEMEN	NI	NI	NC	~~NC~~NI	NC	~~NC~~	NI	NI	No Action Plan	**~~AIXM:~~** NI

Table B0-DATM-3-2
Aeronautical Data Quality

EXPLANATION OF THE TABLE

Column:

1 Name of the State or territory.

2 Compliance with the requirement for implementation of QMS for Aeronautical Information Services including safety and security objectives, shown by:

FC – Fully compliant

NC – Not compliant

3 Compliance with the requirement for the establishment of formal arrangements with approved data originators concerning aeronautical data quality, shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

4 Implementation of digital data exchange with originators, shown by:

FI – Implemented

PI – Partially Implemented

NI – Not implemented

Note 1 — Information providing detail of "PI" and "NI" should be given in the Remarks column (percentage of implementation).

5 Compliance with the requirement for metadata, shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

6 Compliance with the requirements related to aeronautical data quality monitoring (accuracy, resolution, timeliness, completeness), shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

7 Compliance with the requirements related to aeronautical data integrity monitoring, shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

8 Compliance with the requirements related to the AIRAC adherence, shown by:

FC – Fully compliant

NC – Not compliant

9 Action Plan — short description of the State's Action Plan with regard to aeronautical data quality requirements implementation, especially for items with a "PC", "PI", "NC" or "NI" status, including planned date(s) of full compliance, as appropriate.

10 Remarks — additional information, including detail of "PC", "NC", "PI" and "NI", as appropriate.

TABLE B0-DATM-3-2
Aeronautical Data Quality

State	QMS	Establishment of formal agreements	Digital data exchange with originators	Metadata	Data quality monitoring	Data integrity monitoring	AIRAC adherence	Action Plan	Remarks
1	2	3	4	5	6	7	8	9	10
BAHARAIN	FC	~~FC~~PC	PI	~~PC~~FC	~~PC~~FC	~~PC~~FC	FC	National AIM Roadmap-~~2015~~2016	
EGYPT	FC	PC	PI	FC	PC	PC	FC	National AIM Roadmap-~~2015~~2017	3, 4, 6 and 7 by ~~2016~~2018
IRAN, ISLAMIC REPUBLIC OF	FC	PC	NI	NC	~~NC~~FC	~~NC~~FC	FC	National AIM Roadmap-~~2015~~2016	
IRAQ	NC	NC	NI	NC	NC	NC	FC	National AIM Roadmap-~~2014~~2015	
JORDAN	FC	~~NC~~PC	NI	~~PC~~FC	FC	FC	FC	National AIM Roadmap-2014	
KUWAIT	FC	PC	NI	NC	NC	NC	FC	National AIM Roadmap-~~2015~~2016	
LEBANON	NC	~~NC~~PC	NI	~~NC~~PC	~~NC~~PC	~~NC~~PC	FC	National AIM Roadmap-~~2014~~2016	
LIBYA	NC	NC	NI	NC	NC	NC	NC	No Action Plan	
OMAN	NC	NC	NI	NC	~~NC~~FC	~~NC~~FC	FC	National AIM Roadmap-~~2014~~2016	
QATAR	FC	~~FC~~PC	PI	FC	PC	PC	FC	National AIM Roadmap-~~2015~~2016	~~SLA with MIL in progress~~
SAUDI ARABIA	FC	~~PC~~FC	NI	FC	FC	FC	FC	National AIM Roadmap-~~2014~~2017	~~SLA will be completed end 2015~~
SUDAN	FC	FC	NI	NC	FC	FC	FC	National AIM Roadmap-~~2015~~2017	
SYRIAN ARAB REPUBLIC	NC	NC	NI	NC	NC	NC	NC	No Action Plan	
UNITED ARAB EMIRATES	FC	PC	~~NI~~PI	FC	FC	FC	FC	National AIM Roadmap-~~2014~~2016	SLA initiated with MIL-ongoing Digital data exchange with originator: planned (2016-2021) CAAP 56 details of

									agreements
YEMEN	NC	NC	NI	PC	NC	NC	NC	No Action Plan	

Table B0-DATM-3-3

World Geodetic System-1984 (WGS-84)

EXPLANATION OF THE TABLE

Column:

1 Name of the State or territory for which implementation of WGS-84 is required.

2 Compliance with the requirements for implementation of WGS-84 for FIR and Enroute points, shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

3 Compliance with the requirements for implementation of WGS-84 for Terminal Areas (arrival, departure and instrument approach procedures), shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

4 Compliance with the requirements for implementation of WGS-84 for Aerodrome, shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

5 Compliance with the requirements for implementation of Geoid Undulation, shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

6 Action Plan — short description of the State's Action Plan with regard to WGS-84 implementation, especially for items with a "PC", "PI", "NC" or "NI" status, including planned date(s) of full compliance, as appropriate.

7 Remarks — additional information, including detail of "PC" and "NC", as appropriate.

TABLE B0-DATM-3-3
World Geodetic System-1984 (WGS-84)

State	FIR/ENR	Terminal	AD	GUND	Action Plan	Remarks
1	2	3	4	5	6	7
BAHARAIN	FC	FC	FC	FC		~~Plan to be updated by 2016~~
EGYPT	FC	FC	FC	FC		
IRAN, ISLAMIC REPUBLIC OF	FC	FC	FC	FC		
IRAQ	PC	PC	PC	NC	National AIM Roadmap-~~2014~~2015	
JORDAN	FC	FC	FC	FC		
KUWAIT	FC	FC	FC	FC		Last survey FEB 2015
LEBANON	FC	FC	FC	~~NC~~FC	~~National AIM Roadmap-2014~~	
LIBYA	PC	PC	NC	NC	No Action Plan	
OMAN	FC	FC	FC	FC		
QATAR	FC	FC	FC	FC		Annual Validation/Survey Updates planned up to 2017
SAUDI ARABIA	FC	FC	FC	FC		
SUDAN	FC	FC	FC	FC		
SYRIAN ARAB REPUBLIC	FC	FC	FC	NC	No Action Plan	
UNITED ARAB EMIRATES	FC	FC	FC	FC		
YEMEN	FC	FC	FC	FC		

Table B0-DATM-3-4-1
Provision of Terrain and Obstacle data sets for Areas 1 and 4

EXPLANATION OF THE TABLE

Column

1 Name of the State or territory for which Terrain and Obstacle data sets for Areas 1 and 4 are required.

2 Compliance with requirement for the provision of Terrain data sets for Area 1, shown by:
FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant

3 Compliance with requirement for the provision of Terrain data sets for Area 4, shown by:
FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant
N/A – Not Applicable

4 Compliance with requirement for the provision of Obstacle data sets for Area 1, shown by:
FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant

5 Compliance with requirement for the provision of Obstacle data sets for Area 4, shown by:
FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant
N/A – Not Applicable

6 Action plan — short description of the State's Action Plan with regard to compliance with the requirements for provision of Terrain and Obstacle data sets for Areas 1 and 4, especially for items with a "PC" or "NC" status, including planned date(s) of full compliance, as appropriate.

7 Remarks— additional information, including detail of "PC" and "NC", as appropriate.

TABLE B0-DATM-3-4-1

Provision of Terrain and Obstacle data sets for Areas 1 and 4

State	Terrain data sets		Obstacle data sets		Action Plan	Remarks
	Area 1	Area 4	Area 1	Area 4		
1	2	3	4	5	6	7
BAHARAIN	FC	FC	FC	FC		
EGYPT	FC	FC	~~PC~~NC	~~PC~~NC	National AIM Roadmap-~~2015~~2017	4 and 5 (HECA & HESH): 2019
IRAN, ISLAMIC REPUBLIC OF	FC	FC	FC	FC		
IRAQ	NC	NC	NC	NC	National AIM Roadmap-~~2014~~2015	
JORDAN	~~NC~~PC	NC	~~NC~~PC	NC	National AIM Roadmap-2014	
KUWAIT	FC	FC	FC	FC		
LEBANON	NC	N/A	NC	N/A	National AIM Roadmap-~~2014~~2016	
LIBYA	NC	N/A	NC	N/A	No Action Plan	
OMAN	NC	N/A	NC	N/A	National AIM Roadmap-~~2014~~2016	
QATAR	FC	FC	FC	FC		
SAUDI ARABIA	FC	FC	FC	FC		
SUDAN	NC	N/A	NC	N/A	National AIM Roadmap-~~2015~~2017	
SYRIAN ARAB REPUBLIC	NC	N/A	NC	N/A	No Action Plan	
UNITED ARAB EMIRATES	PC	FC	PC	FC	National AIM Roadmap-~~2014~~2016	A recurrent data acquisition eTOD Area 1 is planned for 2017
YEMEN	NC	N/A	NC	N/A	No Action Plan	

Table B0-DATM-3-4-2
Provision of Terrain and Obstacle data sets for Area 2

EXPLANATION OF THE TABLE

Column

1 Name of the State or territory for which Terrain and Obstacle data sets for Area 2 are required.

2 Compliance with requirement for the provision of Terrain data sets for Area 2a, shown by:
FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant

3 Compliance with requirement for the provision of Terrain data sets for Area 2b, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not implemented
N/A – Not Applicable

4 Compliance with requirement for the provision of Terrain data sets for Area 2c, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable

5 Compliance with requirement for the provision of Terrain data sets for Area 2d, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable

6 Compliance with requirement for the provision of Obstacle data sets for Area 2a, shown by:
FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant

7 Compliance with requirement for the provision of Obstacle data sets for Area 2b, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not implemented
N/A – Not Applicable

8 Compliance with requirement for the provision of Obstacle data sets for Area 2c, shown by:
FI – Fully Implemented

PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable

9 Compliance with requirement for the provision of Obstacle data sets for Area 2d, shown by:

FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable

10 Action plan — short description of the State's Action Plan with regard to compliance with the requirements for provision of Terrain and Obstacle data sets for Area 2, especially for items with a "PC", "PI", "NC" or "NI" status.

11 Remarks— additional information, including detail of "PC", "PI" and "NC", "NI", as appropriate.

TABLE B0-DATM-3-4-2

Provision of Terrain and Obstacle data sets for Area 2

State	Terrain data sets				Obstacle data sets				Action Plan	Remarks
	Area 2a	Area 2b	Area 2c	Area 2d	Area 2a	Area 2b	Area 2c	Area 2d		
1	2	3	4	5	6	7	8	9	10	11
BAHARAIN	NC	NI	NI	NI	~~NC~~FC	~~NI~~FI	~~NI~~FI	~~NI~~FI	National AIM Roadmap-~~2015~~2016	
EGYPT	PC	PI	PI	PI	NC	NI	NI	NI	National AIM Roadmap-~~2015~~2017	To be completed by 2020
IRAN, ISLAMIC REPUBLIC OF	~~NC~~FC	~~NI~~FI	~~NI~~FI	~~NI~~FI	~~NC~~FC	~~NI~~FI	~~NI~~FI	~~NI~~FI	~~National AIM Roadmap-2015~~	
IRAQ	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-~~2014~~2015	
JORDAN	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-2014	
KUWAIT	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-~~2015~~2016	
LEBANON	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-~~2014~~2016	
LIBYA	NC	NI	NI	NI	NC	NI	NI	NI	No Action Plan	
OMAN	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-~~2014~~2016	
QATAR	FC	FI	FI	FI	FC	FI	FI	FI		
SAUDI ARABIA	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-~~2014~~2017	
SUDAN	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-~~2015~~2017	
SYRIAN ARAB REPUBLIC	NC	NI	NI	NI	NC	NI	NI	NI	No Action Plan	
UNITED ARAB EMIRATES	NC	NI	NI	P~~N~~I	~~NC~~FC	~~NI~~FI	~~NI~~FI	~~NI~~PI	National AIM Roadmap-~~2014~~2016	eTOD Area 2 (all sub-areas) survey & data acquisition through international airport service providers
YEMEN	NC	NI	NI	NI	NC	NI	NI	NI	No Action Plan	

Table B0-DATM-3-4-3
Provision of Terrain and Obstacle data sets for Area 3 and Airport Mapping Databases (AMDB)

EXPLANATION OF THE TABLE

Column

1 Name of the State or territory for which Terrain and Obstacle data sets for Area 3 and AMDB are required.

2 Compliance with requirement for the provision of Terrain data sets for Area 3, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable

3 Compliance with requirement for the provision of Obstacle data sets for Area 3, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable

4 Implementation of AMDB, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable

5 Action plan — short description of the State's Action Plan with regard to compliance with the requirements for provision of Terrain and Obstacle data sets for Area 3 and AMDB implementation, especially for items with a "PC", "PI", "NC" or "NI" status.

6 Remarks— additional information, including detail of "PI" and "NI", as appropriate.

TABLE B0-DATM-3-4-3

Provision of Terrain and Obstacle data sets for Area 3 and Airport Mapping Databases (AMDB)

State	Terrain data sets (Area 3)	Obstacle data sets (Area 3)	AMDB	Action Plan	Remarks
1	2	3	4	5	6
BAHARAIN	NI	~~NI~~FI	NI	National AIM Roadmap-~~2015~~2016	
EGYPT	NI	NI	NI	National AIM Roadmap-~~2015~~2017	A3: 2019; AMDB: 2020
IRAN, ISLAMIC REPUBLIC OF	~~NI~~FI	~~NI~~FI	NI	National AIM Roadmap-~~2015~~2016	
IRAQ	NI	NI	NI	National AIM Roadmap-~~2014~~2015	
JORDAN	NI	NI	NI	National AIM Roadmap-2014	
KUWAIT	FI	FI	NI	National AIM Roadmap-~~2015~~2016	
LEBANON	NI	NI	NI	National AIM Roadmap-~~2014~~2016	
LIBYA	NI	NI	NI	No Action Plan	
OMAN	NI	NI	NI	National AIM Roadmap-~~2014~~2016	
QATAR	~~NI~~FI	~~FI~~PI	~~NI~~PI	National AIM Roadmap-~~2015~~2016	Q4/2017 AMDB implementation~~AMDB to be implemented last quarter of 2015~~
SAUDI ARABIA	NI	NI	NI	National AIM Roadmap-~~2014~~2017	
SUDAN	NI	NI	NI	National AIM Roadmap-~~2015~~2017	
SYRIAN ARAB REPUBLIC	NI	NI	NI	No Action Plan	
UNITED ARAB EMIRATES	~~NI~~FI	~~NI~~FI	NI	National AIM Roadmap-~~2014~~2016	AMDB technical infrastructure (metadata, model) implemented in IAID, pending compatibility analysis AIXM 5.1 with revised AMDB model (RTCA DO-272D) when released.
YEMEN	NI	NI	NI	No Action Plan	

APPENDIX 5A

Deficiencies in the AIM Field

BAHRAIN

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AIM Field

EGYPT

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 15: Para. 10.1.3, Para. 10.1.9	-	Lack of the required Obstacle Datasets for eTOD Area 1 and Area 4	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Egypt	Dec, 2018	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AIM Field

IRAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 15: Para. 3.6	-	Lack of AIXM-based AIS Database	Dec, 2007	-	O	Corrective Action Plan has not been formally provided by the State	Iran	Dec, 2018	A

[1] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AIM Field

IRAQ

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO 1:1 000 000	May, 1995	-	F H S	Corrective Action Plan has not been formally provided by the State	Iraq	Dec, 2018	B
2	ANNEX 15: Para. 1.2.2	-	Implementation of geoid undulation referenced to the WGS-84 ellipsoid	Dec, 1997	-	F H O	Corrective Action Plan has not been formally provided by the State	Iraq	Dec, 2018	A
3	ANNEX 15: Para. 3.7	QMS Implementation	Lack of Implementation of QMS	Jan, 2003	-	F H O	Corrective Action Plan has not been formally provided by the State	Iraq	Dec, 2018	A
4	ANNEX 4: Para. 11.2	-	Non-production of Instrument Approach Chart-ICAO for Mousl Intl. Airport	Jan, 2003	-	F H O	Corrective Action Plan has not been formally provided by the State	Iraq	Dec, 2018	A
5	ANNEX 15: Para. 8.1	-	Non provision of pre-flight information service at international airports	Mar, 2004	-	F H O	Corrective Action Plan has not been formally provided by the State	Iraq	Dec, 2018	A
6	ANNEX 15: Para. 10.1.3 Para. 10.1.9	-	Lack of the required Terrain Datasets for eTOD Area 1 and Area 4	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Iraq	Dec, 2018	A
7	ANNEX 15: Para. 10.1.3 Para. 10.1.9	-	Lack of the required Obstacle Datasets for eTOD Area 1 and Area 4	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Iraq	Dec, 2018	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AIM Field

JORDAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO1:1 000 000	Feb, 2008	-	F H	Corrective Action Plan has not been formally provided by the State	Jordan	Dec, 2018	B
2	ANNEX 15: Para. 10.1.3 Para. 10.1.9	-	Lack of the required Terrain Datasets for eTOD Area 1 and Area 4	May, 2014	-	F H	Corrective Action Plan has not been formally provided by the State	Jordan	Dec, 2018	A
3	ANNEX 15: Para. 10.1.3 Para. 10.1.9	-	Lack of the required Obstacle Datasets for eTOD Area 1 and Area 4	May, 2014	-	F H	Corrective Action Plan has not been formally provided by the State	Jordan	Dec, 2018	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AIM Field

KUWAIT

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AIM Field

LEBANON

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO1:1 000 000	May, 1995	-	H	Corrective Action Plan was provided in August 2016.	Lebanon	Dec, 2018	B
2	ANNEX 15:Para. 3.7	QMS Implementation	Lack of Implementation of QMS	Jan, 2003	(USOAP-CMA finding)	H	Corrective Action Plan was provided in August 2016.	Lebanon	Dec, 2018	A
~~3~~	~~ANNEX 15:Para. 1.2.2~~	~~-~~	~~Implementation of geoid undulation referenced to the WGS-84 ellipsoid.~~	~~Jan, 2003~~	~~-~~	~~H~~	~~Corrective Action Plan was provided in August 2016.~~	~~Lebanon~~	~~Dec, 2018~~	~~A~~
4	ANNEX 15: Para. 10.1.3	-	Lack of the required Terrain Datasets for eTOD Area 1	May, 2014	-	O	Corrective Action Plan was provided in August 2016.	Lebanon	Dec, 2018	A
5	ANNEX 15: Para. 10.1.3	-	Lack of the required Obstacle Datasets for eTOD Area 1	May, 2014	-	O	Corrective Action Plan was provided in August 2016.	Lebanon	Dec, 2018	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AIM Field

LIBYA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO 1:1 000 000	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Libya	Dec, 2018	B
2	ANNEX 15: Para. 3.7	QMS Implementation	Lack of Implementation of QMS	May, 2014	(USOAP-CMA finding)	O	Corrective Action Plan has not been formally provided by the State	Libya	Dec, 2018	A
3	ANNEX 15: Para 6.	-	Lack of a system for AIRAC adherence monitoring	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Libya	Dec, 2018	A
4	ANNEX 15: Para. 3.6	-	Lack of AIXM-based AIS Database	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Libya	Dec, 2018	A
5	ANNEX 15: Para. 10.1.3	-	Lack of the required Terrain Datasets for eTOD Area 1	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Libya	Dec, 2018	A
6	ANNEX 15: Para. 10.1.3	-	Lack of the required Obstacle Datasets for eTOD Area 1	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Libya	Dec, 2018	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AIM Field

OMAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 15:Para. 3.7	QMS Implementation	Lack of Implementation of QMS	Jan, 2003	(USOAP-CMA finding)	O	- An agreement with an international quality company is established to assist for progressive implementation of quality systems within DGAN AIS. - QMS is expected to be fully implemented by December 2017.	Oman	Dec, 2017	A
2	ANNEX 15: Para. 3.6	-	Lack of AIXM-based AIS Database	Jul, 2005	-	O	A contract is going to be signed with a company specializing in this area for AIP Data Migration. AIM equipment installation will be completed by end of February 2017. The target is to have 70% of the data by June 2018	Oman	Dec, 2018	A
3	ANNEX 15: Para. 10.1.3	-	Lack of the required Terrain Datasets for eTOD Area 1	May, 2014	-	O	An agreement with National survey authority is going to be established to assist for progressive implementation of terrain datasets for eTOD area 1. The target is to have the required data by Dec 2018.	Oman	Dec, 2018	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
4	ANNEX 15: Para. 10.1.3	-	Lack of the required Obstacle Datasets for eTOD Area 1	May, 2014	-	O	Area 1 obstacles are published in AIP Oman ENR 5.4 “Air Navigation (En-Route) Obstacles”. Data originators for obstacles will be consulted for Area 1 obstacle completeness and update.	Oman	Dec, 2018	A

(1) Rationale for non-elimination: “F”= Financial “H”= Human Resources “S”= State (Military/political) “O”= Other unknown causes

Deficiencies in the AIM Field

QATAR

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AIM Field

SAUDI ARABIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 15: Para. 8.1	-	Pre-flight information service not provided at International Airports	Nov, 2007	-	O	Corrective Action Plan has not been formally provided by the State	Saudi Arabia	Dec, 2017	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AIM Field

SUDAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 15: Para. 3.6	-	Lack of AIXM-based AIS Database	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Sudan	Dec, 2018	A
2	ANNEX 15: Para. 10.1.3	-	Lack of the required Terrain Datasets for eTOD Area 1	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Sudan	Dec, 2018	A
3	ANNEX 15: Para. 10.1.3	-	Lack of the required Obstacle Datasets for eTOD Area 1	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Sudan	Dec, 2018	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AIM Field

SYRIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 15: Para 6.	-	Lack of a system for AIRAC adherence monitoring	May, 1995	-	F H	Corrective Action Plan has not been formally provided by the State	Syria	Dec, 2018	A
2	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO1:1 000 000	May, 1995	-	F H S	Corrective Action Plan has not been formally provided by the State	Syria	Dec, 2018	B
3	ANNEX 15: Para. 3.7	QMS Implementation	Lack of Implementation of QMS	Jan, 2003	(USOAP-CMA finding)	F H	Corrective Action Plan has not been formally provided by the State	Syria	Dec, 2018	A
4	ANNEX 15: Para. 1.2.2	-	Implementation of geoid undulation referenced to the WGS-84 ellipsoid.	Jan, 2003	-	F H	Corrective Action Plan has not been formally provided by the State	Syria	Dec, 2018	A
5	ANNEX 15 Para. 4.	-	Lack of consistency in AIP information and lack of regular and effective updating of the AIP.	Jul, 2005	-	H	Corrective Action Plan has not been formally provided by the State	Syria	Dec, 2018	A
6	ANNEX 15: Para. 3.6	-	Lack of AIXM-based AIS Database	Jul, 2005	-	F H	Corrective Action Plan has not been formally provided by the State	Syria	Dec, 2018	A
7	ANNEX 15: Para. 8.1	-	Non provision of pre-flight information service at international airports	Jul, 2005	-	F H	Corrective Action Plan has not been formally provided by the State	Syria	Dec, 2018	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
8	ANNEX 15: Para. 10.1.3	-	Lack of the required Terrain Datasets for eTOD Area 1	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Syria	Dec, 2018	A
9	ANNEX 15: Para. 10.1.3	-	Lack of the required Obstacle Datasets for eTOD Area 1	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Syria	Dec, 2018	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AIM Field

UAE

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AIM Field

YEMEN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 15: Para 6.	-	Lack of a system for AIRAC adherence monitoring	May, 1995	-	H O	Corrective Action Plan has not been formally provided by the State	Yemen	Dec, 2018	A
2	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO1:1 000 000	May, 1995	-	F	Corrective Action Plan has not been formally provided by the State	Yemen	Dec, 2018	B
3	ANNEX 15: Para. 3.7	QMS Implementation	Lack of Implementation of QMS	Jan, 2003	-	F	Corrective Action Plan has not been formally provided by the State	Yemen	Dec, 2018	A
4	ANNEX 4: Para. 11.2	-	Non-production of Instrument Approach Chart-ICAO for TAIZ Intl. Airport	Jan, 2003	-	O	Corrective Action Plan has not been formally provided by the State	Yemen	Dec, 2018	A
5	ANNEX 15: Para. 8.1	-	Non provision of pre-flight information service at international airports	Mar, 2004	-	F H	Corrective Action Plan has not been formally provided by the State	Yemen	Dec, 2018	A
6	ANNEX 15: Para. 3.6	-	Lack of AIXM-based AIS Database	Jul, 2005	-	F	Corrective Action Plan has not been formally provided by the State	Yemen	Dec, 2018	A
7	ANNEX 15: Para. 10.1.3	-	Lack of the required Terrain Datasets for eTOD Area 1	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Yemen	Dec, 2018	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
8	ANNEX 15: Para. 10.1.3	-	Lack of the required Obstacle Datasets for eTOD Area 1	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Yemen	Dec, 2018	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Note:* Priority for action to remedy a deficiency is based on the following safety assessments:

'U' priority = Urgent requirements having a direct impact on safety and requiring immediate corrective actions.

Urgent requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is urgently required for air navigation safety.

'A' priority = Top priority requirements necessary for air navigation safety.

Top priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation safety.

'B' priority = Intermediate requirements necessary for air navigation regularity and efficiency.

Intermediate priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation regularity and efficiency.

Definition:

A deficiency is a situation where a facility, service or procedure does not comply with a regional air navigation plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and/or efficiency of international civil aviation.

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(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

APPENDIX 6A

MID Region AIM Database (MIDAD) Focal Points

	States	Main Focal Point			Alternate Focal Point (Optional)		
		Name	Title	Email/Tel/Mobile	Name	Title	Email/Tel/Mobile
1	**Bahrain**	Abdulla Hassan Al Qadhi	Chief AIM & Airspace Planning	aalqadhi@mtt.gov.bh T: +97317321108 M: +97336639955	Mohammed Ahmed Alhallagh	Acting Head AIM Operation	Alhallaq@mtt.gov.bh T: + 973 17329037 M: +973 39684688
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4	**Kuwait**	Salah Almushaiti	Chief AIM	sh.almushity@dgca.gov.kw M: +96566681897			
5	**Lebanon**	Bassem Nasser	Chief AIS	bnasser@beirutairport.gov.lb T: +9611629067 M: +9613242187			
6	**Oman**	Jaffer A.amir Salman	AIM Director	Jaffer@paca.gov.om +96899316040			
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8	**Saudi Arabia**	Ghorman Al-Shehri	Director of AIS	galshehri@sans.com.sa T: +96626290564	Faisal Ateeq Al Zarhrani	ANS Engineer	fzahrani@sans.com.sa T: +966126717717 Ext1363 M: +966 54 134 1000
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ATTACHMENT A

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JEPPESEN Mr. Volker Meyer	Manager International Relations Jeppesen GmbH GERMANY

- END -