



International Civil Aviation Organization

MIDANPIRG ATM Sub-Group

Second Meeting (ATM SG/2)
(Cairo, Egypt, 30 November - 03 December 2015)

Agenda Item 3: Global and Regional Developments related to ATM and SAR

MID eANP

(Presented by the Secretariat)

SUMMARY

This paper presents the progress achieved in the development of the new MID Air Navigation Plan (MID eANP).

Action by the meeting is at paragraph 3.

REFERENCES

- MIDANPIRG/15 Report
- State Letter Ref.: AN 5-6-7-8-10-13/5A – 15/300 dated 18 November 2015

1. INTRODUCTION

1.1 The 12th Air Navigation Conference (AN-Conf/12), through Recommendation 6/1 [Regional performance framework – planning methodologies and tools], agreed that the regional air navigation plans (ANP) be aligned with the Fourth Edition of the Global Air Navigation Plan (GANP) (Doc 9750).

1.2 The ICAO Council approved the new eANP Template (Volumes I, II and III) and corresponding procedure for amendment on 18 June 2014 (202nd session, fourth meeting).

2. DISCUSSION

2.1 The meeting may wish to recall that MIDANPIRG/14, through Decision 14/24, agreed that the development of the MID eANP based on the Council-approved ANP Template, be included in the work programme of the different MIDANPIRG subsidiary bodies and the relevant Parts of the MID eANP be presented, as soon as available, to MSG/4 and/or MIDANPIRG/15 for endorsement.

2.2 The meeting may wish to note that the ANP WG/2 meeting (Cairo, Egypt, 16-18 December 2014) reviewed and updated VOL I, II and III of the MID eANP, consolidated by the Secretariat based on the Council approved Template and inputs received from the different MIDANPIRG subsidiary bodies (AIM SG/1, ATM SG/1, CNS SG/6 and MET SG/5).

2.3 The meeting may wish to recall that, the MIDANPIRG/15 meeting reviewed and endorsed the MID eANP VOL I, II and III and agreed to the following Conclusion:

CONCLUSION 15/11: ENDORSEMENT OF THE MID eANP

That,

- a) *the new MID ANP VOL I, II and III available at: <http://www.icao.int/MID/MIDANPIRG/Pages/Final%20Report/MID-eANP.aspx> are endorsed; and*
- b) *the ICAO MID Regional Office process the necessary Proposals for Amendment, in accordance with the procedure for amendment approved by the Council, for formal approval by the end of 2015.*

2.4 ICAO MID Regional Office, as a follow-up action to MIDANPIRG Conclusion 15/11, issued the Proposals for Amendment (PfA) Ref.: AN 5-6-7-8-10-13/5A – 15/300 to the MID eANP Volume I on 18 November 2015, as at **Appendix A**.

2.5 The meeting may wish to note that the PfA to the MID eANP VOL I was issued without FIR Boundary coordinates in the Tables ATM I-1 and SAR I-1 and the FIR Boundary coordinates/descriptions will be published at a later stage.

2.6 Parts GEN, ATM and SAR of the VOL I and II are extracted from the MID eANP, as at **Appendix B** and **C**, respectively. MID eANP VOL I, II and III are available at: <http://www.icao.int/MID/Pages/MIDeANP.aspx>

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) urge States to review the PfA Ref.: AN 5-6-7-8-10-13/5A – 15/300 to the MID eANP Volume I dated 18 November 2015 and provide their feedbacks to the ICAO MID Regional Office, not later than **17 December 2015**; and
- b) review and update, as deemed necessary, GEN, ATM and SAR Parts of the MID eANP Volumes I and II at **Appendices B** and **C**, respectively.



International Civil Aviation Organization	Organisation de l'aviation civile internationale	Organización de Aviación Civil Internacional	Международная организация гражданской авиации	منظمة الطيران المدنى الدولى	国际民用 航空组织
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File Ref.: AN 5-6-7-8-10-13/5A – 15/300

18 November 2015

Subject: **Proposal for Amendment of the ICAO MID Air Navigation Plan (Doc 9708), MID eANP – Volume I**
(Serial No.: MID-I 15/01-AOP/CNS/ATM/MET/SAR/AIM)

Action Required: **Reply not later than 17 December 2015**

Sir,

I have the honour to communicate to you the attached proposal for amendment of the new ICAO MID Air Navigation Plan (Doc 9708) – Volume I, which has been endorsed by the Fifteenth meeting of the Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG/15 Conclusion 15/11, refers).

You may wish to note that the new MID eANP Volume I is prepared in accordance with the eANP Template approved by the ICAO Council on 18 June 2014, and will replace the current MID Basic ANP.

In accordance with the established procedure for the amendment of air navigation plans, I am to enquire whether your administration has any objection to the proposal.

Since it is desirable to finalize action on this proposal with the minimum of delay, I shall be grateful if you will let me have your reply by the earliest practicable date and, in any event, not later than **17 December 2015**.

In the event that the views of your administration are not received by that date, it will be presumed that it has no objection to the proposed changes and the proposal will be processed accordingly.

Accept, Sir, the assurances of my highest consideration.

Mohamed R. M. Khonji
Regional Director, Cairo

Enclosure



PROPOSAL FOR AMENDMENT OF THE ICAO MID AIR NAVIGATION PLAN, VOLUME I

(Serial No. MID-I 15/01-AOP/CNS/ATM/MET/SAR/AIM)

a) **Plan:** Doc 9708 – MID Region eANP – Volume I

b) **Proposed amendment:**

New Volume I, Part 0-Introduction, Part I- General Planning Aspects GEN, Part II – AOP, Part III- CNS, Part IV-ATM, Part V-MET, Part VI- SAR, and Part VII- AIM.

Replace in toto the existing MID BASIC ANP (Doc 9708) with new MID eANP (Doc 9708) – Volume I (General Regional requirements and Specific Regional requirements) available at:

<http://www.icao.int/MID/Pages/MIDeANP.aspx>

c) **Originated by:** Secretary General

d) **Originator's reasons for amendment** The 12th Air Navigation Conference (AN-Conf/12), through Recommendation 6/1, agreed that the regional air navigation plans (ANP) be aligned with the Fourth Edition of the Global Air Navigation Plan (GANP) (Doc 9750). Accordingly, the new MID eANP was endorsed by the MIDANPIRG/15 meeting in accordance with the ICAO Council approved ANP Template.

e) **Intended date of implementation:** As soon as practicable after approval by the ICAO Council.

f) **Proposal circulated to the following States and organizations:**

Afghanistan	Oman
Algeria	Pakistan
Armenia	Qatar
Azerbaijan	Saudi Arabia
Bahrain	Somalia
Central African Republic	South Sudan
Chad	Sudan
Democratic Republic of Congo	Syrian Arab Republic
Cyprus	Turkmenistan
Djibouti	Uganda
Egypt	United Arab Emirates
Eritrea	Yemen
Ethiopia	Tunisia
Greece	Turkey
India	ACAC
Iran, Islamic Republic of	ACI
Iraq	CANSO
Israel	EUROCONTROL
Jordan	FAA
Kenia	IACA
Kuwait	IATA
Lebanon	IFAIMA
Libya	IFALPA
Malta	IFATCA
Niger	

g) **Secretariat's comments:** FIR and SRR descriptions (coordinates) should be incorporated in Tables ATM I-1 and SAR I-1 at a later stage.

MID AIR NAVIGATION PLAN

VOLUME I

Disclaimer

MID eANP Volume I was endorsed by MIDANPIRG/15 (8-11 June 2015) and is subject to approval by the ICAO Council.

MID AIR NAVIGATION PLAN

VOLUME I

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**MID ANP, VOLUME I
PART 0 – INTRODUCTION**

1. GENERAL

1.1 On **18 June 2014**, the ICAO Council decided that the regional air navigation plans (ANPs) should be published in three volumes.

1.2 ANP Volume I contains stable plan elements whose amendment necessitates approval by the Council such as the assignment of responsibilities to States for the provision of aerodrome and air navigation facilities and services in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300); and the current to medium term mandatory regional requirements related to aerodrome and air navigation facilities and services to be implemented by States in accordance with regional air navigation agreements and requirements specific to the region which are not covered in the ICAO Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS). The material to be included in Volume I should minimise the requirement for frequent amendment. The following is a non-exhaustive list of such elements:

- Flight Information Regions (FIR) boundaries (Table and Charts);
- Search and Rescue Regions (SRR) boundaries (Table and Charts);
- Volcanic Ash Advisory Centres (VAAC);
- Tropical Cyclone Advisory Centres (TCAC); and
- Volcano Observatories (VO).

1.3 ANP Volume II contains dynamic plan elements material related to the assignment of responsibilities to States for the provision of aerodrome and air navigation facilities and services and the current to medium term mandatory regional requirements related to aerodrome and air navigation facilities and services to be implemented by States in accordance with regional air navigation agreements involving the relevant PIRG. The amendment of these elements does not require approval by the Council. The following is a non-exhaustive list of such elements:

- Major traffic flows;
- ATS route network;
- Meteorological Watch Offices (MWO);
- Secondary Surveillance Radar (SSR) codes;
- Five-letter name-codes; and
- VOLMET Broadcasts.

1.4 ANP Volume III contains dynamic/flexible plan elements providing implementation planning guidance for air navigation systems and their modernization taking into consideration emerging programmes such as the ICAO Aviation System Block Upgrades (ASBUs) and associated technology roadmaps described in the *Global Air Navigation Plan* (GANP) (Doc 9750). The ANP Volume III would also include appropriate additional guidance, particularly with regard to implementation, to complement the material contained in the ANP Volumes I and II. The amendment of Volume III would not require approval by the Council (approval of Part II is under the responsibility of the relevant PIRG).

Note 1: The ANP does not list all facilities in the region(s) but only those required for international civil aviation operations. Documents from the Integrated Aeronautical Information Package and other States publications should be consulted for information on additional facilities and for operational information in general.

Note 2: The general structure of the regional plans for the parts which concern an air navigation field in Volumes I and II consists of an “Introduction”, “General Regional Requirements” and “Specific Regional Requirements”. Only Tables shown under “General Regional Requirements” are harmonized for all Regions. Should a Region require a Table for a specific field, this should be reflected under “Specific Regional Requirements” of the subject concerned. The naming convention for such tables consists of the technical field concerned (AOP, CNS, ATM, MET, SAR and AIM), the ANP Volume number

(I or II), the Region (APAC, AFI, CAR/SAM, EUR, MID, NAM and NAT) and the consecutive number of the table. Examples are as follows: Table ATM I-EUR-1, Table CNS II-MID-1 or Table MET I-AFI-2.

1.5 Guidance material on the detail of programmes or concepts should be contained in supplementary material referenced appropriately or adopted as MID Documents.

2. RELATIONSHIP BETWEEN THE GLOBAL AND REGIONAL AIR NAVIGATION PLANS

2.1 The ANPs represent the bridge between, on one side, the global provisions in the ICAO SARPs and the GANP, and on the other side, the States' air navigation plans and implementation status.

2.2 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 GANP is an overarching framework that includes key aviation policy principles to assist ICAO Regions, sub-regions and States with the preparation of their regional and State air navigation plans and to support the establishment of air navigation priorities.

3. OBJECTIVE AND PURPOSE OF REGIONAL AIR NAVIGATION PLANS

3.1 The ANPs provide for the planning and implementation of air navigation systems within a specified area, in accordance with the agreed global and regional planning framework. They are developed to meet those needs of specific areas not covered in the worldwide provisions. The development and maintenance of the ANPs is undertaken by ICAO PIRGs with the assistance of the ICAO Secretariat.

3.2 The ANPs are used as a repository Document for the assignment of responsibilities to States for the provision of air navigation facilities and services within a specified area in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300).

3.3 The ANPs contain requirements related to the facilities and services to be implemented by States in accordance with regional air navigation agreements. The procedural parts of ANPs are published in the *ICAO Regional Supplementary Procedures* (SUPPs) (Doc 7030).

3.4 The ANPs contain provisions that States can follow in the planning of aerodrome and air navigation facilities and services activities, with the assurance that facilities and services furnished in accordance with the plan will form with those of other States an integrated system adequate for the foreseeable future.

3.5 The ANPs may serve as a legal basis for air navigation services charges which are levied for services provided or made available to users, in accordance with ICAO's *Policies on Charges for Airports and Air Navigation Services* (Doc 9082) and *ICAO Manual on Air Navigation Services Economics* (Doc 9161).

3.6 The ANPs support the performance-based approach to planning adopted by ICAO to measure the efforts made by States in implementing the agreed requirements.

4. MANAGEMENT AND AMENDMENT OF REGIONAL AIR NAVIGATION PLANS

4.1 The elements of the existing planning system and the planning principles, operational requirements and planning criteria as developed for the MID Region are kept under constant review by the MIDANPIRG in accordance with its schedule of meetings, in consultation with provider and user States and with the assistance of the ICAO MID Regional Office.

4.2 The detailed amendment procedure of the three ANP Volumes is described in paragraph 5 below.

5. PROCEDURE FOR THE AMENDMENT OF REGIONAL AIR NAVIGATION PLANS

5.1 The procedure for the amendment of regional air navigation plans in three Volumes as approved by the Council is shown in **Appendix A**.

6. ABBREVIATIONS

6.1 The abbreviations used in this document are contained in the *Procedures for Air Navigation Services — ICAO Abbreviations and Codes (PANS-ABC)* (Doc 8400), with the exception of those used in the explanations of any tables appearing herein, which also give their meaning.

7. ESTABLISHMENT AND PROVISION OF A MULTINATIONAL ICAO AIR NAVIGATION FACILITY/SERVICE

7.1 The operation of multinational air navigation services is well established within the MID Region. The *ICAO Manual on Air Navigation Services Economics* (Doc 9161) details the ICAO policies on charges for air navigation services and provides additional information on the various models adopted globally. The introduction of multinational air navigation services does not dilute the principle that a State has the responsibility of overseeing the provision of air navigation services and that it shall maintain that responsibility within its sovereign airspace as well as within the airspace over the high seas for which it has accepted the responsibility for the provision of services. Where there is no intention to change or modify the FIR boundaries nor the facilities and services currently listed in the ANP there is not a requirement to amend the ANP. However, should changes to the FIR boundaries or to the facilities and services provided be required, such changes are likely to be subject to the ANP amendment procedure and should therefore be examined on a case-by-case basis. Advice on this issue can be obtained from the ICAO Regional Office(s). Any multinational arrangements for the provision of air navigation services should be registered with ICAO (Article 83 of the Convention (Doc 7300) and *Rules for Registration with ICAO of Aeronautical Agreements and Arrangements* (Doc 6685)).

APPENDIX A - PROCEDURE FOR THE AMENDMENT OF REGIONAL AIR NAVIGATION PLANS

(Approved by Council on 18 June 2014)

1. Introduction

1.1. The procedure outlined below has been evolved to provide a means of maintaining the regional air navigation plans using an ANP web based platform.

2. General criteria

2.1. The Assembly has resolved that regional plans should be revised when it becomes apparent that they are no longer consistent with current and foreseen requirements of international civil aviation and that, when the nature of a required change permits, the associated amendment of the regional plan should be undertaken by correspondence between the Organization and the States and international organizations concerned.

2.2. When a State cannot immediately implement a particular part or a specific detail of a regional plan although it intends to do so, when practicable, this in itself should not lead to the State proposing an amendment to the plan.

2.3. The general structure of the regional plans for the parts which concern an air navigation field in Volumes I and II consists of an "Introduction", "General Regional Requirements" and "Specific Regional Requirements". As the section "General Regional Requirements" is harmonized for all regions, an amendment of the provisions (text) in "General Regional Requirements" will lead to amendment of Volumes I and II of the regional plans of all regions.

2.4. The amendment process of Volume III is under the responsibility of the relevant Planning and Implementation Regional Group (PIRG). The Parts 0 (Introduction) and I (General Planning Aspects) of Volume III are harmonized for all regions and the amendment of these parts should be made following inter-regional coordination.

3. User rights

3.1. Access to the ANP web based platform to develop and submit amendment proposals to the regional plan and to comment on an officially issued amendment proposal should be provided through controlled access by the State's or international organization's designated Focal Points. The State or international organization should officially inform their respective Regional Office of the registration of their designated Focal Points.

4. States and international organizations to be consulted

4.1. The Secretary General, through the relevant Regional Office, will determine the States and international organizations to be consulted on the amendment proposal. These will generally only include the provider and user States and international organizations that have a direct and obvious interest in the amendment in question.

PART A — AIR NAVIGATION PLANS, VOLUME I

5. Procedure for amendment of Volume I

5.1. If, in the light of the above general criteria, any State (or group of States) wishes to effect a change in the approved air navigation plan for that region, it should propose to the Secretary General, through the Regional Office accredited to that State, an appropriate amendment to the plan, adequately documented; the proposal should include the facts that lead the State (or group of States) to the conclusion that the amendment is necessary. Such amendments may include additions, modifications or deletions. (This procedure does not preclude a State having previous consultation with other States before submitting an amendment proposal to the Regional Office.) This proposed amendment should be submitted via the web based tool and/or by correspondence to the Regional Office.

5.2. Upon studying the proposal, if the Secretary General considers that the proposed amendment requires further coordination through the relevant Planning and Implementation Regional Group (PIRG), the proposal will be presented, adequately documented, to the PIRG. The views of the PIRG will be coordinated with the originating State and the proposed amendment will be uploaded via the ANP web based platform for processing proposals for amendment for approval by the Council.

5.3. If the proposal concerns an amendment of the provisions (text) in “General Regional Requirements”, the Secretary General will coordinate and circulate, through all Regional Offices, an amendment of all the regional plans.

5.4. If the Secretary General considers that the proposed amendment conflicts with established ICAO policy, or that it raises questions which the Secretary General considers should be brought to the attention of the Air Navigation Commission, the proposal will be presented, adequately documented, to the Commission. In such cases, the Commission will decide the action to be taken on the proposal.

5.5. The Secretary General, through the Regional Office, will circulate the proposal, adequately documented, with a request for comments to all provider and user States of the region considered affected as well as to user States outside the region and international organizations which may be invited to attend suitable ICAO meetings and which may be concerned with the proposal. The States and international organizations concerned should either send their comments/agreement/objection via the ANP web based platform and/or by correspondence to the Regional Office. Any comment or objection should be adequately supported by reasons for the comment or objection.

5.6. If, in reply to the Secretary General's inquiry, no objection is raised to the proposal by a specified date, the proposal should be submitted to the President of the Council, who is authorized to approve the amendment on behalf of the Council. The approved amendment should be incorporated into Volume I of the regional plan.

5.7. If, in reply to the Secretary General's inquiry, any objection is raised, and if objection remains after further consultation, the matter will be documented for discussion by the respective planning and implementation regional group (PIRG) and, ultimately for formal consideration by the Air Navigation Commission, if it remains unresolved. If the Commission concludes that the amendment is acceptable in its original or other form, it will present appropriate recommendations to the Council.

5.8. Proposals for the amendment of Volume I of the regional plan submitted by international organizations directly concerned with the operation of aircraft, which may be invited to attend suitable ICAO meetings and which attended the meeting(s) where the relevant regional plan is managed, will be dealt with in the same manner as those received from States, except that, before circulating a proposal to States and selected international organizations, the Secretary General will ascertain whether it has adequate support from the State or States whose facilities will be affected. If such support is not forthcoming, the proposal will be presented to the Commission, and the Commission will decide on the action to be taken on the proposal.

5.9. Proposals for the amendment of Volume I of the regional plan may also be initiated by the Secretary General, through the Regional Office accredited to that State, provided that the State or States whose facilities will be affected have expressed their concurrence with the proposal.

5.10. Amendments to Volume I of the regional plan which have been approved in accordance with the above procedure will be published in the ANP web based platform at convenient intervals.

PART B — AIR NAVIGATION PLANS, VOLUME II

6. Procedure for amendment of Volume II

6.1. Amendments of Volume II of the regional plan should be effected on the basis of an adequately documented proposal submitted by a State (or a group of States) or the relevant PIRG to the Secretary General, through the Regional Office accredited to that State. The proposal should include the facts that lead to the conclusion that the amendment is necessary. Such amendments may include additions, modifications or deletions to Volume II of the regional plan. (This procedure does not preclude a State having previous consultation with other States before submitting an amendment proposal to the Regional Office.) This proposed amendment should be submitted via the ANP web based platform and/or by correspondence to the Regional Office.

6.2. If the proposal concerns an amendment of the provisions (text) in “General Regional Requirements”, the Secretary General will coordinate and circulate, through all Regional Offices, an amendment of all the regional plans.

6.3. The ICAO Regional Office will circulate the proposal, adequately documented, with a request for comments to all provider and user States of the region considered affected as well as to user States outside the region and international organizations which may be invited to attend suitable ICAO meetings and which may be concerned with the proposal. The States and international organizations concerned should either send their comments/agreement/objection via the ANP web based platform and/or by correspondence to the Regional Office. Any comment or objection should be adequately supported by reasons for the comment or objection.

6.4. If, in reply to the ICAO Regional Office’s inquiry, no objection is raised to the proposal by a specified date, it will be deemed that a regional agreement (involving the relevant PIRG) on the subject has been reached and the proposed amendment should be incorporated into Volume II of the regional plan.

6.5. If, in reply to the ICAO Regional Office’s inquiry, any objection is raised, and if objection remains after further consultation, the matter will be documented for discussion by the respective planning and implementation regional group (PIRG) and, ultimately for formal consideration by the Air Navigation Commission, if it remains unresolved. If the Commission concludes that the amendment is acceptable in its original or other form, it will present appropriate recommendations to the Council.

6.6. Proposals for the amendment of Volume II of the regional plan submitted by international organizations directly concerned with the operation of aircraft, which may be invited to attend suitable ICAO meetings, where the relevant regional plan is managed, will be dealt with in the same manner as those received from States, except that, before circulating a proposal to States and selected international organizations, the Secretary General will ascertain whether the proposal has adequate support from the State or States whose facilities or services will be affected. If such support is not forthcoming, the proposal will not be pursued.

6.7. Proposals for the amendment of Volume II of the regional plan may also be initiated by the Secretary General, through the Regional Office accredited to that State, provided that the State or States whose facilities or services will be affected have expressed their concurrence with the proposal.

6.8. Amendments to Volume II of the regional plan which have been approved in accordance with the above procedure will be published in the ANP web based platform at convenient intervals.

PART C — AIR NAVIGATION PLANS, VOLUME III

7. Procedure for amendment of Volume III

7.1. Amendments of Volume III of the regional plan are under the responsibility of the relevant Planning and Implementation Regional Group (PIRG) and not subject to a formal application of the procedure for amendment of the ANP described in Parts A and B above. However, the amendment of the provisions of Part 0 - “Introduction” and Part I - “General Planning Aspects” needs special coordination, as specified in 7.4 below. Since these two Parts are harmonized for all regions, an amendment of the provisions contained there-in will lead to amendment of Parts 0 and I of Volume III of the regional plans of all regions.

7.2. Amendments of Volume III of the regional plan should be effected on the basis of an adequately documented proposal submitted to the ICAO Regional Office concerned by:

- a State (or a group of States); or
- the relevant Planning and Implementation Regional Group (PIRG) of the region(s); or
- the ICAO Secretariat; or
- international organisations directly concerned with the operation of aircraft, which may be invited to attend suitable ICAO meetings and/or which attended the meeting(s) where the relevant Volume III amendments were agreed.

7.3. This procedure does not preclude a State (or group of States) having previous consultation with other States before submitting an amendment proposal to the Regional Office. Such amendments may include additions, modifications or deletions to Volume III of the regional plan. In addition, the facts that led to the conclusion that the amendment should be included.

7.4. If the proposal concerns an amendment of the provisions in Part 0 - “Introduction” or Part I - “General Planning Aspects”, the ICAO Regional Office concerned will submit the proposal to ICAO Headquarters (Air Navigation Bureau) for coordination with all ICAO Regional Offices. The views of the ICAO Regional Offices will be taken into consideration in the consolidation/approval of the amendment by the ANB. The approved amendment will be published in Volume III of all regional plans at convenient intervals.

7.5. The mechanism for the amendment of Part II of Volume III of the regional plan should be developed, agreed by the relevant PIRG and reflected in the corresponding PIRG Handbook.

MID ANP, VOLUME I

PART I – GENERAL PLANNING ASPECTS (GEN)

1. GEOGRAPHICAL SCOPE

1.1 The MID ANP is related to the ICAO MID air navigation region. The ANP may call for the provision of basic facilities and services beyond the charted boundaries of a region where such facilities and services are necessary to meet the requirements of international air navigation within the region.

1.2 A number of States within the ICAO MID Region are members of one or more sub-regional groupings which have development plans to improve air navigation services; such plans contribute to the regional implementation of the ICAO *Global Air Navigation Plan* (GANP) (Doc 9750). Regional subgroups include the:

- Arab Civil Aviation Commission (ACAC)
- Gulf Cooperation Council (GCC)

2. FLIGHT INFORMATION REGIONS

2.1 **Table GEN I-1** shows the current Flight Information Regions (FIR)/Upper Information Regions (UIR) which are part of the ICAO MID Region. More details of the FIRs and UIRs within the MID air navigation region are contained in **Table ATM I-1** and **Charts ATM I-1**.

3. STATES' RESPONSIBILITIES

3.1 Each Contracting State is responsible for the provision of facilities and services in its territory under Article 28 of the Convention as well as within the airspace over the high seas for which it has accepted the responsibility for the provision of services. The Council has recommended that these facilities and services include those specified in the ANPs.

3.2 The inclusion of the basic facilities and services provided by non-Contracting States and territories in regional ANPs is simply recognition that they are needed by or likely to affect international civil aircraft operations of Contracting States or the facilities and services of these States.

Note. — *All the States in the MID Region are Contracting States.*

4. MID REGIONAL PLANNING

4.1 The regional planning and implementation process is the principal engine of ICAO's planning framework. It is here that the top-down approach comprising global guidance and regional harmonization measures converges with the bottom-up approach constituted by national planning by States.

4.2 PERFORMANCE BASED APPROACH

4.2.1 Global Approach

4.2.1.1 In an effort to assist planners in weighing outcomes and making appropriate decisions, the *Manual on Global Performance of the Air Navigation System* (Doc 9883) has been developed. In this respect ICAO has defined 11 Key Performance Areas (KPA), one for each of the *Global ATM Operational Concept* (Doc 9854) expectations outlined below.

4.2.1.2 These general expectations are relative to the effective operation of the ATM system. The ICAO planning objective is to achieve a performance based global air traffic management (ATM) system through the implementation of air navigation systems and procedures in a safe, progressive, cost-effective and cooperative manner.

5. RELATIONSHIP BETWEEN GLOBAL, REGIONAL AND NATIONAL PLANNING

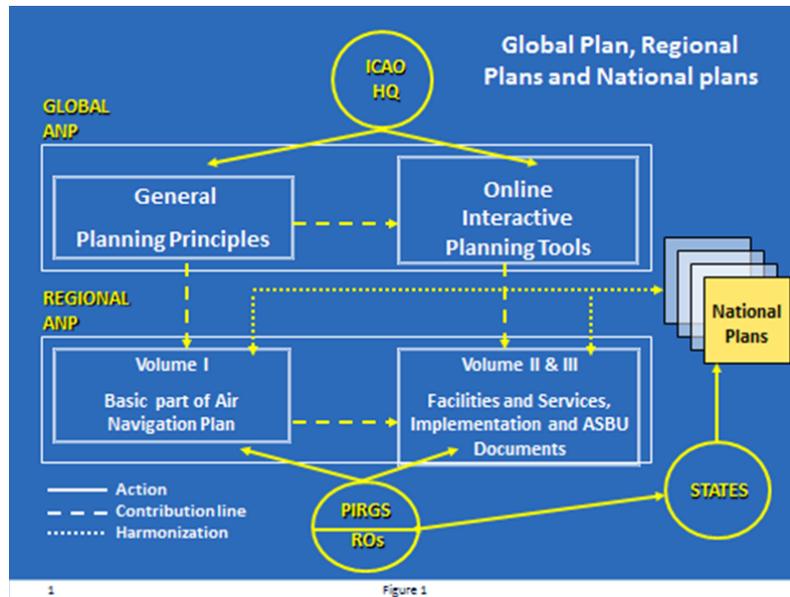


Figure 1. Relationship between global, regional and national plans.

5.1 Planning takes place at global, regional and national levels. Planning is accomplished with the help of planning tools and methodologies that are used primarily at the regional and national levels, conditioned by guidance from the global level. The basis for effective planning is the GANP (Doc 9750), which should guide the development of regional and national implementation plans that will support system architectures.

6. HUMAN RESOURCE PLANNING

6.1 Human resource planning can be considered “*the systematic and continuing process of analysing an organisation’s human resource needs under changing conditions and developing personnel policies appropriate to the longer-term effectiveness of the organisation. It is an integral part of corporate planning and budgeting procedures since human resource costs and forecasts both affect and are affected by longer-term corporate plans.*”¹

6.2 Estimating current and future requirements for civil aviation personnel and training capacity is essential for human resource planning, institutional capacity building, and related funding and policy measures. Such planning will need to take into account the interdependencies for supply and demand of qualified personnel at national, regional and global levels.

6.3 Human Performance

6.3.1 The high level of automation and interdependencies across aviation disciplines will only increase with evolving air navigation systems. To maximise potential safety and efficiency benefits that these offer, the development of human-driven, rather than engineering-driven interfaces is required, making it easier for the human operator to make sound decisions and take correct actions. Similarly, as part of a safety management systems approach, procedures need to be identified for the use of current and new

¹ Defined by the UK Institute of Personnel and Development

technologies that take into account human capabilities and manage the risk associated with human limitations.

6.3.2 States should:

- a) Identify a certification process that requires at the design stage:
 - i) recognition of the potential human performance issues that the proposed new technology attempts to address; and
 - ii) consideration of the potential human performance issues, including changes in roles and the effects on individual and team behaviours, that may be introduced by the proposed new technology.
- b) Identify processes for the implementation of new technologies, systems and procedures that describes the means by which human performance considerations can be addressed within operational contexts.
- c) Consider the management of human performance-related risks as a necessary and essential aspect of the oversight of safety management systems.
- d) Ensure that their technical personnel have exposure to training in human factors.

6.4 Training

6.4.1 A major goal of CNS/ATM systems is to create a seamless air navigation system. A seamless air navigation environment will require adequately qualified personnel prepared to perform their jobs in an evolving environment. At the same time, shortcomings in human resource planning and training are frequently mentioned as one of the reasons for the lack of implementation of regional ANPs. Human resource development challenges will be compounded during the transition period to CNS/ATM systems. As the existing and emerging air navigation technologies will co-exist in parallel for a period of time, civil aviation personnel will need to learn new skills, whilst retaining those needed to operate and maintain existing systems. To meet this challenge, a cooperative approach should be used in civil aviation training within the region. This approach should:

- a) ensure that the training needs for the region are identified, documented and kept up to date;
- b) facilitate the access to specialized types of training needed within the region or sub-regions that individual States cannot justify based on their national training needs alone;
- c) ensure that a balanced market exists to support the development and on-going implementation of high-quality training in one or more training centres within the region or sub-regions;
- d) endeavour to distribute equitably regional training activities among the training centres established within the region or sub-regions.
- e) take advantage of readily available training materials including those available through the TRAINAIR Plus sharing system.

6.4.2 Appropriate bodies should be established to facilitate regional and sub-regional training planning. A quantitative approach should be used to determine the training capabilities needed within a region or sub-region. Decisions concerning required training capabilities should be based on an aggregate of training needs for existing air navigation technologies, as well as emerging technologies. A State consultation process should be used to formulate a plan for the establishment of specific regional training centres.

6.5 Training of technical personnel

6.5.1 States should develop and implement comprehensive training programmes and periodic training plans for all technical staff, including initial, on-the-job, recurrent and specialized training.

7. SAFETY CONSIDERATIONS

7.1 Safety fundamentally contributes to the sustainable growth of a sound and economically viable civil aviation system that continues to foster economic prosperity and social development. With air traffic projected to double in the next 15 years, safety risks must be addressed proactively to ensure that this significant capacity expansion is carefully managed and supported through strategic regulatory and infrastructure developments. It is imperative therefore that States and regions remain focused on their safety priorities as they continue to encourage expansion of their air transport sectors.

7.2 Acceptable safety levels are related to the establishment of State safety programmes (SSPs) that are able to anticipate and effectively respond to safety-related occurrences, resulting in continual improvements to an already low global accident rate. The *Global Aviation Safety Plan (GASP)* specifically establishes targeted safety objectives and initiatives that support SSP implementation while ensuring the efficient and effective coordination of complementary safety activities between all stakeholders.

7.3 PIRGs should harmonize activities undertaken to address aviation safety issues on a regional basis with the Regional Aviation Safety Groups (RASGs). In addition, PIRGs should coordinate relevant safety matters with RASGs to ensure consistency and avoid overlap.

7.4 PIRGs should ensure that air navigation services development programmes are consistent with the GASP safety objectives and initiatives. States are responsible for the prompt elimination of their air navigation deficiencies. Detailed information on the process of identifying and managing air navigation deficiencies is contained in the MIDANPIRG Procedural Handbook.

7.5 Adherence to the ICAO SARPs will significantly contribute to aviation safety. States should therefore ensure that they have the necessary regulatory framework in place to reinforce the adoption of the ICAO SARPs within their national regulations. States should also ensure that any differences to the ICAO SARPs have been assessed in respect of safety and are notified in accordance with ICAO requirements.

7.6 Unsatisfactory Conditions Reporting

7.6.1 States should act on any serious problems encountered due to the lack of implementation or prolonged unavailability of air navigation facilities or services required by the ANPs as reported by users of air navigation facilities and services.

8. ENVIRONMENT CONSIDERATIONS

8.1 It is an ICAO Strategic Objective to minimize the adverse effects of global civil aviation on the environment. PIRGs should ensure that environmental factors are taken into consideration when performance based systems implementation plans are developed and may wish to coordinate their plans with the State Action Plans on CO₂ Emissions Reduction. The results of environmental analysis can be useful in providing national decision-makers within the various sub-regions with information upon which to base airspace architecture decisions and in providing information on what the aviation industry is doing now to protect the environment in the future. Tools such as the ICAO Fuel Savings Estimation Tool (IFSET) are available from the ICAO public website to help quantify the environmental benefits from operational improvements. Environmental considerations should, however, not compromise acceptable levels of safety and be balanced against operational and economic considerations.

9. AIR TRAFFIC FORECASTS

9.1 Regional traffic forecasting supports the regional air navigation system planning. All States generally prepare individual forecasts, taking account of the regional information, for national planning purposes. A uniform strategy has been adopted by ICAO for the purpose of preparing traffic forecasts and other planning parameters in support of the regional planning process. This information should be shared through at least the sub-regional groupings to enable effective regional planning development.

10. CONTINGENCY PLANNING

10.1 Contingency plans may constitute a temporary deviation from the approved ANPs; such deviations are approved, as necessary, by the President of the ICAO Council on behalf of the Council.

10.2 The effects of disruption of services in particular portions of airspace are likely to affect significantly the services in adjacent airspace. States should co-ordinate with neighbouring States in the development and implementation of contingency plans, which in some cases may be developed on a sub-regional basis.

10.3 ICAO will initiate and coordinate appropriate contingency action in the event of disruption of air traffic services and related supporting services affecting international civil aviation operations provided by a State in the event that the authorities cannot adequately discharge their responsibility for the provision of such services to ensure the safety of international civil aviation operations. In such circumstances, ICAO will work in coordination with States responsible for airspace adjacent to that affected by the disruption and in close consultation with international organizations concerned.

10.4 Regional contingency plans will be developed, approved and maintained by MIDANPIRG with the support of ICAO and other organizations.

10.5 States should prepare their contingency plans in advance and ensure their availability or accessibility to the ICAO Regional Office. The plans should be reviewed at regular intervals and updated as required.

TABLE GEN I-1 – LIST OF FLIGHT INFORMATION REGIONS (FIR)/UPPER INFORMATION REGIONS (UIR) IN THE MID REGION

EXPLANATION OF TABLE

Column

1	State	Name of State
2	FIR/UIR	Name of FIR/UIR

STATE	FIR/UIR
BAHRAIN	Bahrain FIR
EGYPT	Cairo FIR
IRAN, ISLAMIC REPUBLIC OF	Tehran FIR
IRAQ	Baghdad FIR
JORDAN	Amman FIR
KUWAIT	Kuwait FIR
LEBANON	Beirut FIR
LIBYA	Tripoli FIR
OMAN	Muscat FIR
QATAR	Part of Bahrain FIR
SAUDI ARABIA	Jeddah FIR
SUDAN	Khartoum FIR
SYRIAN ARAB REPUBLIC	Damascus FIR
UNITED ARAB EMIRATES	Emirates FIR
YEMEN	Sana'a FIR

MID ANP, VOLUME I

PART II – AERODROMES / AERODROME OPERATIONS (AOP)

1. INTRODUCTION

1.1 This part of the MID ANP constitutes the agreed regional requirements considered to be the minimum necessary for effective planning and implementation of aerodromes operations (AOP) facilities and services in the MID Region and complements the provisions of ICAO SARPs and PANS related to AOP. It contains stable plan elements related to the assignment of responsibilities to States for the provision of aerodrome facilities and services within the Region in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300) and mandatory requirements related to the AOP facilities and services to be implemented by States in accordance with regional air navigation agreements.

1.2 The dynamic plan elements related to the assignment of responsibilities to States for the provision of the aerodrome facilities and services including the mandatory requirements based on regional air navigation agreements related to the AOP are contained in the MID ANP Volume II Part II - AOP.

1.3 The MID ANP Volume III contains dynamic/flexible plan elements related to the implementation of air navigation systems and their modernization in line with the ICAO Aviation System Block Upgrades (ASBUs) methodology and associated technology roadmaps described in the Global Air Navigation Plan. The ASBU modules are aimed at increasing capacity and improving efficiency of the aviation system whilst maintaining or enhancing safety level, and achieving the necessary harmonization and interoperability at regional and global level. This includes the regionally agreed ASBU modules applicable to the specified ICAO region/sub-region and associated elements/enablers necessary for the monitoring of the status of implementation of these ASBU modules.

Standards and Recommended Practices and Procedures for Air Navigation Services

1.4 The SARPs and PANS and associated guidance material applicable to the provision of AOP are contained in:

- a) Annex 14 — *Aerodromes*, Volumes I and II;
- b) *Procedures for Air Navigation Services – Aerodromes* (PANS-Aerodromes) (Doc 9981);
- c) *Airport Planning Manual* (Doc 9184);
- d) *Aerodrome Design Manual* (Doc 9157);
- e) *Airport Services Manual* (Doc 9137);
- f) *Manual on Certification of Aerodromes* (Doc 9774);
- g) *Assessment, Measurement and Reporting of Runway Surface Conditions* (Cir 329);
- h) *Operation of New Larger Aeroplanes at existing aerodromes* (Cir 305);
- i) *Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Manual* (Doc 9830);
- j) *Manual of Surface Movement Guidance and Control Systems (SMGCS)* (Doc 9476);
- k) *Heliport Manual* (Doc 9261);
- l) *Manual on the prevention of runway incursions* (Doc 9870);

- m) *Stolport Manual* (Doc 9150);
- n) *ICAO Bird Strike Information System Manual* (Doc 9332); and
- o) *Manual on Civil Aviation Jet Fuel Supply* (Doc 9977).

2. GENERAL REGIONAL REQUIREMENTS

2.1 Regular aerodromes and their alternates required for international commercial air transport operations should be determined through regional agreements, based on the list of international aerodromes designated by States and the needs of the international commercial flights. Consideration should also be given to the needs of international general aviation flights as identified by user requirements. The alternate aerodromes should be planned/selected, to the greatest practicable extent, from the list of existing regular aerodromes used for international aircraft operations. However, where in specific cases the designation of another aerodrome in close proximity to a regular aerodrome would result in appreciable fuel conservation or other operational advantages, this aerodrome may be designated for use as an alternate aerodrome only. Planning of alternate aerodromes should be made on the basis of the following objectives:

- a) to ensure that at least one suitable alternate is available for each international aircraft operation; and
- b) to ensure that the facilities at the designated alternate aerodrome(s) are appropriate for the alternate aircraft operations.

2.2 The list of regular and alternate aerodromes (including their designations) required in the Region(s) to serve international civil aviation operations (international scheduled air transport, non-scheduled air transport and general aviation operations) is given in **Table AOP I-1**. Each Contracting State should ensure the provision of aerodrome facilities and services at the international aerodromes under its jurisdiction.

3. SPECIFIC REGIONAL REQUIREMENTS

None.

Table AOP I-1
INTERNATIONAL AERODROMES REQUIRED IN THE MID REGION

EXPLANATION OF THE TABLE

City/Aerodrome: Name of the city and aerodrome, preceded by the location indicator.
 Designation: Designation of the aerodrome as:
 RS — international scheduled air transport, regular use;
 RNS — international non-scheduled air transport, regular use;
 AS — international scheduled air transport, alternate use;
 ANS — international non-scheduled air transport, alternate use.

Note 1 — when an aerodrome is needed for more than one type of use, normally only the use highest on the above list is shown.

[Example — an aerodrome required for both RS and AS use would only be shown as RS in the list.]

Note 2 — when the aerodrome is located on an island and no particular city or town is served by the aerodrome, the name of the island is included instead of the name of a city.

Location Indicator	Name of City/Aerodrome	Designation
BAHRAIN		
OBBI	BAHRAIN/Bahrain Intl	RS
EGYPT		
HEBA	ALEXANDRIA/Borg El-Arab Intl	RS
HESN	ASWAN/Aswan Intl	RS
HECA	CAIRO/Cairo Intl	RS
HEGN	HURGHADA/Hurghada Intl	RS
HELX	LUXOR/Luxor Intl	RS
HEMA	MARSA ALAM/Marsa Alam Intl	RNS
HESH	SHARM EL SHEIKH/Sharm El Sheikh Intl	RS
IRAN, ISLAMIC REPUBLIC OF		
OIKB	BANDAR ABBAS/Bandar Abbas Intl	RS
OIFM	ESFAHAN/Shahid Beheshti Intl	RS
OIMM	MASHHAD/Shahid Hashemi Nejad Intl	RS
OISS	SHIRAZ/Shahid Dastghaib Intl	RS
OITT	TABRIZ/Tabriz Intl	RNS

Location Indicator	Name of City/Aerodrome	Designation
OIIE	TEHRAN/Imam Khomains Intl	RS
OIII	TEHRAN/Mehrabad Intl	RS
OIYY	YAZD/Shahid Sadooghi Intl	RS
OIZH	ZAHEDAN/Zahedan Intl	RS
IRAQ		
ORNI	AL NAJAF/AI Najaf Intl	RNS
ORBI	BAGHDAD/Baghdad Intl	RS
ORMM	BASRAH/Basrah Intl	RS
ORER	ERBIL/Erbil Intl	RS
ORBM	MOSUL/Mosul Intl	RS
ORSU	SULAYMANIYAH/Sulaymaniyah Intl	RS
JORDAN		
OJAM	AMMAN/Marka Intl	AS
OJAI	AMMAN/Queen Alia Intl	RS
OJAQ	AQABA/King Hussein Intl	RS
KUWAIT		
OKBK	KUWAIT/Kuwait Intl	RS
LEBANON		
OLBA	BEIRUT/ Rafic Hariri Intl	RS
LIBYA		
HLLB	BENGHAZI/Benina	RS
HLLS	SEBHA/Sebha	RS

Location Indicator	Name of City/Aerodrome	Designation
HLLT	TRIPOLI/Tripoli Intl	RS
OMAN		
OOMS	MUSCAT/ Muscat Intl	RS
OOSA	SALALAH/Salalah	AS
QATAR		
OTBD	DOHA/Doha Intl	RS
OTHH	DOHA/Hamad Intl	RS
SAUDI ARABIA		
OEDF	DAMMAM/King Fahd Intl	RS
OEJN	JEDDAH/King Abdulaziz Intl	RS
OEMA	MADINAH/Prince Mohammad Bin Abdulaziz Intl	RS
OERK	RIYADH/King Khalid Intl	RS
SOUTH SUDAN		
HSSJ	JUBA/Juba	RS
SUDAN		
H SOB	EL OBEID/El Obeid	AS
HSSS	KHARTOUM/Khartoum	RS
H SNN	NYALA/Nyala	AS
HSPN	PORT SUDAN/Port Sudan	RS
SYRIAN ARAB REPUBLIC		
OSAP	ALEPPO/Aleppo Intl	RS

Location Indicator	Name of City/Aerodrome	Designation
OSDI	DAMASCUS/Damascus Intl	RS
OSLK	LATTAKIA/Bassel Al-Assad Intl	RS
UNITED ARAB EMIRATES		
OMAA	ABU DHABI/Abu Dhabi Intl	RS
OMAD	ABU DHABI/Al Bateen	RNS
OMAL	AL AIN/Al Ain Intl	RS
OMDW	DUBAI/Al Maktoum Intl	RS
OMDB	DUBAI/Dubai Intl	RS
OMFJ	FUJAIRAH/Fujairah Intl	RS
OMRK	RAS AL KHAIMAH/Ras Al Khaimah Intl	RS
OMSJ	SHARJAH/Sharjah Intl	RS
YEMEN		
OYAA	ADEN/Aden Intl	RS
OYHD	HODEIDAH/Hodeidah Intl	RS
OYRN	MUKALLA/Riyan Intl	RS
OYSN	SANA'A/Sana'a Intl	RS
OYTZ	TAIZ/Taiz Intl	RS

MID ANP, VOLUME I

PART III – COMMUNICATIONS, NAVIGATION AND SURVEILLANCE (CNS)

1. INTRODUCTION

1.1 This part of the MID ANP constitutes the agreed regional requirements considered to be the minimum necessary for effective planning and implementation of Communications, Navigation and Surveillance (CNS) facilities and services in the MID Region and complements the provisions of ICAO SARPs and PANS related to CNS. It contains stable plan elements related to the assignment of responsibilities to States for the provision of CNS facilities and services within the ICAO MID region in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300) and mandatory requirements related to the CNS facilities and services to be implemented by States in accordance with regional air navigation agreements.

1.2 The dynamic plan elements related to the assignment of responsibilities to States for the provision of CNS facilities and services and the mandatory requirements based on regional air navigation agreements related to CNS are contained in the MID ANP Volume II, Part III – CNS.

1.3 The MID ANP Volume III contains dynamic/flexible plan elements related to the implementation of air navigation systems and their modernization in line with the ICAO Aviation System Block Upgrades (ASBUs) methodology and associated technology roadmaps described in the Global Air Navigation Plan. The ASBU modules are aimed at increasing capacity and improving efficiency of the aviation system whilst maintaining or enhancing safety level, and achieving the necessary harmonization and interoperability at regional and global level. This includes the regionally agreed ASBU modules applicable to the specified ICAO region/sub-region and associated elements/enablers necessary for the monitoring of the status of implementation of these ASBU modules.

1.4 In planning for these elements, economy and efficiency should be taken into account in order to ensure that the requirements for the provision of CNS facilities and services can be kept to a minimum. CNS facilities and services should fulfil multiple functions whenever this is feasible.

Standards and Recommended Practices and Procedures for Air Navigation Services

1.5 The SARPs and PANS and related guidance material applicable to the provision of CNS are contained in:

- a) Annex 10 – *Aeronautical Telecommunications*, Volumes I, II, III, IV and V;
- b) Annex 2 – Rules of the Air;
- c) Annex 3 – Meteorological Service for international air navigation;
- d) Annex 6 – Operation of Aircraft, Parts I (Chapter 7), II (Chapter 7) and III (Chapter 5);
- e) Annex 11 – Air Traffic Services;
- f) Annex 12 – Search and Rescue;
- g) Annex 15 – Aeronautical Information Services;
- h) Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM) (Doc 4444);
- i) Regional Supplementary Procedures (Doc 7030);
- j) GNSS Manual (Doc 9849);

- k) Manual on Detailed Technical Specifications for the Aeronautical Telecommunication Network (ATN) using ISO/OSI Standards and Protocols (Doc 9880);
- l) ICAO Aeronautical Telecommunication Network (ATN) Manual for the ATN using IPS Standards and Protocols (Doc 9896);
- m) *Manual of Testing of Radio Navigation Aids* (Doc 8071);
- n) *Manual on the Planning and Engineering of the Aeronautical Fixed Telecommunications Network* (Doc 8259);
- o) *Manual on Required Communication Performance (RCP)* (Doc 9869);
- p) *Training Manual* (Doc 7192);
- q) *Performance-based Navigation Manual* (Doc 9613);
- r) *Handbook on Radio Frequency Spectrum Requirements for Civil Aviation* (Doc 9718);
- s) *Manual on Airborne Surveillance Applications* (Doc 9994); and
- t) *Manual of Air Traffic Services Data Link Applications* (Doc 9694).

2. GENERAL REGIONAL REQUIREMENTS

Communications

Aeronautical Fixed Service (AFS)

2.1 The aeronautical fixed service (AFS) should satisfy the communication requirements of ATS, AIS/AIM, MET and SAR, including specific requirements in terms of system reliability, message integrity and transit times, with respect to printed as well as digital data and speech communications. If need be, it should, following agreement between individual States and aircraft operators, satisfy the requirements for airline operational control.

The Aeronautical Telecommunication Network (ATN)

2.2 The ATN of the Region(s) should have sufficient capacity to meet the minimum requirements for data communications for the services mentioned in paragraph 2.1 above.

Aeronautical Mobile Service (AMS)

2.3 Air-ground communications facilities should meet the agreed communication requirements of the air traffic services, as well as all other types of communications which are acceptable on the AMS to the extent that the latter types of communications can be accommodated.

Air-ground communications for ATS

2.4 Air-ground communications for ATS purposes should be so designed to require the least number of frequency and channel changes for aircraft in flight compatible with the provision of the required service. They should also provide for the minimum amount of coordination between ATS units and provide for optimum economy in the frequency spectrum used for this purpose.

Air-ground data link communications

2.5 Air-ground data link communications should be implemented in such a way that they are regionally and globally harmonised and make efficient use of available communication means and ensure optimum economy in frequency spectrum use and system automation.

Navigation

2.6 Planning of aeronautical radio navigation services should be done on a total system basis, taking full account of the navigation capabilities as well as cost effectiveness. The total system composed of station-referenced navigation aids, satellite-based navigation systems and airborne capabilities should meet the performance based navigation (PBN) requirements for all aircraft using the system and should form an adequate basis for the provision of positioning, guidance and air traffic services.

2.7 Account should be taken of the fact that certain aircraft may be able to meet their navigation needs by means of self-contained or satellite-based aids, thus eliminating the need for the provision of station-referenced aids along the ATS routes used by such aircraft, as well as the need to carry on board excessive redundancies.

Surveillance

2.8 Planning of aeronautical surveillance systems should be made based on a system approach concept, where collaboration and sharing of data sources should be considered in support of an efficient use of the airspace.

Frequency Management

2.9 Frequency assignment planning in the Region should be carried out in accordance with the provisions of Annex 10 and *ICAO Handbook on Radio Frequency spectrum for Civil Aviation* (Doc 9718), supplemented, as necessary, by regional recommendations and technical criteria developed for this purpose.

3. SPECIFIC REGIONAL REQUIREMENTS

None.

MID ANP, VOLUME I
PART IV - AIR TRAFFIC MANAGEMENT (ATM)

1. INTRODUCTION

1.1 This part of the MID ANP constitutes the agreed regional requirements considered to be the minimum necessary for effective planning and implementation of air traffic management (ATM) facilities and services in the MID Region and complements the provisions of the ICAO SARPs and PANS related to ATM. It contains stable plan elements related to the assignment of responsibilities to States for the ATM system requirements to be applied within the ICAO MID Region in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300) and mandatory requirements related to the ATM facilities and services to be implemented by States in accordance with regional air navigation agreements.

1.2 The dynamic plan elements related to the assignment of States' responsibilities for the implementation of the ATM system and the mandatory requirements based on regional air navigation agreements related to ATM are contained in MID ANP Volume II, Part IV - ATM.

1.3 The MID ANP Volume III contains dynamic/flexible plan elements related to the implementation of air navigation systems and their modernization in line with the ICAO Aviation System Block Upgrades (ASBUs) methodology and associated technology roadmaps described in the Global Air Navigation Plan. The ASBU modules are aimed at increasing capacity and improving efficiency of the aviation system whilst maintaining or enhancing safety level, and achieving the necessary harmonization and interoperability at regional and global level. This includes the regionally agreed ASBU modules applicable to the specified ICAO region/sub-region and associated elements/enablers necessary for the monitoring of the status of implementation of these ASBU modules.

Standards and Recommended Practices and Procedures for Air Navigation Services

1.4 The SARPs and PANS and related guidance material applicable to the provision of ATM are contained in:

- a) Annex 2 — *Rules of the Air*;
- b) Annex 6 — *Operation of Aircraft*;
- c) Annex 11 — *Air Traffic Services*;
- d) *Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM)* (Doc 4444);
- e) *Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS)* (Doc 8168);
and
- f) *Regional Supplementary Procedures* (Doc 7030).

2. GENERAL REGIONAL REQUIREMENTS

2.1 The description of the current Flight Information Regions (FIR)/Upper Information Regions (UIR), as approved by the ICAO Council, are contained in **Table ATM I-1** and depicted in the **Charts ATM I-1**.

2.2 States should ensure that the provision of air traffic services (ATS) covers its own territory and those areas over the high seas for which it is responsible for the provision of those services, in accordance with **Charts ATM I-1**.

Regional ATS Routes and organized track structures

2.3 MIDANPIRG is responsible for the optimization of the traffic flows through the continuous improvement of the regional ATS route network and organized track systems and implementation of random routing areas and free route airspace in the Region. Where applicable, details of the ATS routes within the Region are contained in Volume II.

ICARD Global Database

2.4 The five-letter name-codes assigned to significant points should be coordinated through the ICAO Regional Office and obtained from the ICAO International Codes and Routes Designators (ICARD) Global Database.

Aircraft Identification - SSR Code Assignments

2.5 The management of Secondary Surveillance Radar (SSR) codes is a key element of ATM in order to ensure continuous and unambiguous aircraft identification. The requirements related to the SSR code assignment system used in the MID Region is contained in Volume II.

Performance-based Navigation (PBN)

2.6 MIDANPIRG is responsible for the development of the MID Region PBN Implementation Plan. States' PBN implementation Plans should be consistent with the Regional PBN Plan.

Flexible Use of Airspace

2.7 States should implement civil/military cooperation and coordination mechanisms to enhance the application of the Flexible Use of Airspace concept, which will contribute to more direct routing with a commensurate saving in fuel and associated emissions. States should arrange for close liaison and coordination between civil ATS units and relevant military operational control and/or air defence units in order to ensure integration of civil and military air traffic or its segregation, if required. Such arrangements would also contribute to increasing airspace capacity and to improving the efficiency and flexibility of aircraft operations.

Reduced Vertical Separation Minimum (RVSM)/Regional Monitoring Agencies

2.8 The Middle East Regional Monitoring Agency (MIDRMA) is the designated Regional Monitoring Agency (RMA) responsible for monitoring the height-keeping performance and approval status of aircraft operating at these levels, in order to ensure that the continued application of RVSM meets the agreed regional safety objectives as set out by MIDANPIRG.

3. SPECIFIC REGIONAL REQUIREMENTS

None.

Table ATM I-1
FLIGHT INFORMATION REGIONS (FIR)/UPPER INFORMATION REGIONS (UIR) IN THE
MID REGION

EXPLANATION OF THE TABLE

Column:

- 1 Name of the FIR/UIR / Location Indicator according to Doc 7910
- 2 Description of FIR/UIR lateral limits;
 - a. Describe separately in the table the limits of the UIRs if they are not similar to the FIRs limits.
- 3 Remarks — additional information, if necessary.
 - a. Describe vertical limits if necessary.

FIR/UIR Location Indicator	Lateral limits coordinates	Remarks
1	2	3
Amman (OJAC)	FIR/UIR Amman <i>To be incorporated</i>	
Baghdad (ORBB)	FIR/UIR Baghdad <i>To be incorporated</i>	
Bahrain (OBBB)	FIR/UIR Bahrain <i>To be incorporated</i>	
Beirut (OLBB)	FIR/UIR Beirut <i>To be incorporated</i>	
Cairo (HECC)	FIR/UIR Cairo <i>To be incorporated</i>	
Damascus (OSTT)	FIR/UIR Damascus <i>To be incorporated</i>	
Emirates (OMAE)	FIR/UIR Emirates <i>To be incorporated</i>	

FIR/UIR Location Indicator	Lateral limits coordinates	Remarks
1	2	3
Jeddah (OEJD)	FIR/UIR Jeddah <i>To be incorporated</i>	
Khartoum (HSSS)	FIR/UIR Khartoum <i>To be incorporated</i>	
Kuwait (OKAC)	FIR/UIR Kuwait <i>To be incorporated</i>	
Muscat (OOMM)	FIR/UIR Muscat <i>To be incorporated</i>	
Sana'a (OYSC)	FIR/UIR Sana'a <i>To be incorporated</i>	
Tehran (OIIX)	FIR/UIR Tehran <i>To be incorporated</i>	
Tripoli (HLLL)	FIR/UIR Tripoli <i>To be incorporated</i>	

MID ANP, VOLUME I

PART V – METEOROLOGY (MET)

1. INTRODUCTION

1.1 This part of the MID ANP constitutes the agreed regional requirements considered to be the minimum necessary for effective planning and implementation of aeronautical meteorology (MET) facilities and services in the MID Region and complements the provisions of the ICAO SARPs and PANS related to MET. It contains stable plan elements related to the assignment of responsibilities to States for the provision of MET facilities and services within the ICAO MID Region in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300) and mandatory requirements related to the MET facilities and services to be implemented by States in accordance with regional air navigation agreements.

1.2 The dynamic plan element related to the assignment of responsibilities to States for the provision of MET facilities and services and the mandatory requirements based on regional air navigation agreements related to MET are contained in the MID ANP Volume II, Part V - MET.

1.3 The MID ANP Volume III contains dynamic/flexible plan elements related to the implementation of air navigation systems and their modernization in line with the ICAO Aviation System Block Upgrades (ASBUs) methodology and associated technology roadmaps described in the Global Air Navigation Plan. The ASBU modules are aimed at increasing capacity and improving efficiency of the aviation system whilst maintaining or enhancing safety level, and achieving the necessary harmonization and interoperability at regional and global level. This includes the regionally agreed ASBU modules applicable to the specified ICAO region/sub-region and associated elements/enablers necessary for the monitoring of the status of implementation of these ASBU modules.

Standards and Recommended Practices and Procedures for Air Navigation Services

1.4 The SARPs and PANS and related guidance material applicable to the provision of MET are contained in:

- a) Annex 3 — *Meteorological Service for International Air Navigation*;
- b) *Regional Supplementary Procedures* (Doc 7030);
- c) *Handbook on the IAVW* (Doc 9766);
- d) *Manual on Volcanic Ash, Radioactive Material and Toxic Chemical Clouds* (Doc 9691); and
- e) *Manual of Aeronautical Meteorological Practice* (Doc 8896).

2. GENERAL REGIONAL REQUIREMENTS

World area forecast system (WAFS) and meteorological offices

2.1 In the MID Region, WAFS London has been designated as the centre for the operation of the aeronautical fixed service satellite distribution system / WAFS Internet File Service (SADIS and/or WIFS) and the Internet-based Secure SADIS FTP service. The status of implementation of SADIS/WIFS by States in the MID Region is detailed in Volume III.

2.2 In the MID Region, WAFS products in digital form should be disseminated by WAFC London using the SADIS 2G satellite broadcast and the Secure SADIS FTP service and/or WIFS.

Volcanic Ash

2.3 Volcanic ash advisory centres (VAACs) Toulouse has been designated to prepare volcanic ash advisory information for the MID Region, as indicated below. The status of implementation of volcanic ash advisory information is detailed in Volume III.

2.4 Selected State volcano observatories have been designated for notification of significant pre-eruption volcanic activity, a volcanic eruption and/or volcanic ash in the atmosphere for the MID Region to their corresponding ACC/FIC, MWO and VAAC, as indicated at **Table MET I-1**. The status of implementation of volcano observatory notice for aviation (VONA) is detailed in Volume III.

Note – States volcano observatories and associated Table MET I-1 are not applicable for the MID Region.

Tropical Cyclone

2.5 Tropical cyclone advisory centre (TCAC) New Delhi has been designated to prepare tropical cyclone advisory information for the MID Region, as indicated below. The status of implementation of tropical cyclone advisory information is detailed in Volume III.

3. SPECIFIC REGIONAL REQUIREMENTS

None.

TABLE MET I-1 - STATE VOLCANO OBSERVATORIES

Not Applicable in the MID Region

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MID ANP, VOLUME I

PART VI - SEARCH AND RESCUE (SAR)

1. INTRODUCTION

1.1 This part of the MID ANP constitutes the agreed regional requirements considered to be the minimum necessary for effective planning and implementation of search and rescue (SAR) facilities and services in the MID Region and complements the provisions of ICAO SARPs and PANS related to SAR. It contains stable plan elements related to the assignment of responsibilities to States for the provision of SAR facilities and services within the ICAO MID Region in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300) and mandatory requirements related to the SAR facilities and services to be implemented by States in accordance with regional air navigation agreements.

1.2 The dynamic plan elements related to the assignment of States' responsibilities for the provision of SAR facilities and services and the mandatory requirements based on regional air navigation agreements related to SAR are contained in the MID ANP, Volume II, Part VI – SAR.

Standards and Recommended Practices and Procedures for Air Navigation Services

1.3 The SARPs and PANS and related guidance material applicable to the provision of SAR are contained in:

- a) Annex 12 – *Search and Rescue*;
- b) Annex 6 — *Operation of Aircraft*;
- c) *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM) (Doc 4444);
- d) *Regional Supplementary Procedures* (Doc 7030); and
- e) *International Aeronautical and Maritime Search and Rescue Manual* (Doc 9731-AN/958).

2. GENERAL REGIONAL REQUIREMENTS

2.1 Each Contracting State should ensure that the provision of search and rescue services covers its own territory and those areas over the high seas for which it is responsible for the provision of those services. The description of the current Search and Rescue Regions (SRRs), as approved by the ICAO Council, are contained in **Table SAR I-1** and depicted in the **Chart SAR I-1**. The list of Rescue Coordination Centres (RCCs) and Rescue Sub-centres (RSCs) in the Region(s) are detailed in Volume II.

2.2 The three volumes of the *IAMSAR Manual* (Doc 9731) provide guidance for a common aviation and maritime approach to organizing and providing SAR services. States are invited to use the *IAMSAR Manual* to ensure the availability of effective aeronautical SAR services and to cooperate with neighbouring States.

2.3 States which rely on military authorities and/or other sources for the provision of SAR facilities should ensure that adequate arrangements are in place for coordination of SAR activities between all entities involved.

2.4 Arrangements should be made to permit a call on any national services likely to be able to render assistance on an ad-hoc basis, in those cases when the scope of SAR operations requires such assistance.

3. SPECIFIC REGIONAL REQUIREMENTS

None.

DRAFT

TABLE SAR I-1 – SEARCH AND RESCUE REGIONS (SRR) IN THE MID REGION

EXPLANATION OF THE TABLE

Column:

1. Name of the SRR.
2. Description of SRR lateral limits.
3. Additional information, if necessary.

SRR	Lateral limits coordinates	Remarks
1	2	3
Amman	SRR Amman <i>To be incorporated</i>	
Baghdad	SRR Baghdad <i>To be incorporated</i>	
Bahrain	SRR Bahrain <i>To be incorporated</i>	
Beirut	SRR Beirut <i>To be incorporated</i>	
Cairo	SRR Cairo <i>To be incorporated</i>	
Damascus	SRR Damascus <i>To be incorporated</i>	
Emirates	SRR Emirates <i>To be incorporated</i>	
Jeddah	SRR Jeddah <i>To be incorporated</i>	
Khartoum	SRR Khartoum <i>To be incorporated</i>	

SRR	Lateral limits coordinates	Remarks
1	2	3
Kuwait	SRR Kuwait <i>To be incorporated</i>	
Muscat	SRR Muscat <i>To be incorporated</i>	
Sana'a	SRR Sana'a <i>To be incorporated</i>	
Tehran	SRR Tehran <i>To be incorporated</i>	
Tripoli	SRR Tripoli <i>To be incorporated</i>	

Chart SAR I-1 – SEARCH AND RESCUE REGIONS (SRR) IN THE MID REGION

TBD

DRAFT

MID ANP, VOLUME I**PART VII - AERONAUTICAL INFORMATION MANAGEMENT (AIM)****1. INTRODUCTION**

1.1 This part of the MID ANP constitutes the agreed regional requirements considered to be the minimum necessary for effective planning and implementation of aeronautical information services (AIS) and aeronautical information management (AIM) facilities and services in the MID Region and complements the provisions of the ICAO SARPs and PANS related to AIS/AIM. It contains stable plan elements related to the assignment of responsibilities to States for the provision of AIS/AIM facilities and services within the ICAO MID Region in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300); and mandatory requirements related to the AIS/AIM facilities and services to be implemented by States in accordance with regional air navigation agreements.

1.2 The dynamic plan elements related to the assignment of responsibilities to States for the provision of AIS/AIM facilities and services and the mandatory requirements based on regional air navigation agreements related to the AIS/AIM facilities and services are contained in the MID ANP Volume II, Part VII – AIM.

1.3 The MID ANP Volume III contains dynamic/flexible plan elements related to the implementation of air navigation systems and their modernization in line with the ICAO Aviation System Block Upgrades (ASBUs) methodology and associated technology roadmaps described in the Global Air Navigation Plan. The ASBU modules are aimed at increasing capacity and improving efficiency of the aviation system whilst maintaining or enhancing safety level, and achieving the necessary harmonization and interoperability at regional and global level. This includes the regionally agreed ASBU modules applicable to the specified ICAO region/sub-region and associated elements/enablers necessary for the monitoring of the status of implementation of these ASBU modules, which include service improvement through digital aeronautical information management and interoperability and data through globally interoperable system wide information management (SWIM).

Standards and Recommended Practices and Procedures for Air Navigation Services

1.4 The SARPs and PANS and related guidance material applicable to the provision of AIS, and ultimately AIM, are contained in:

- a) Annex 4 — *Aeronautical Charts*;
- b) Annex 15 — *Aeronautical Information Services*;
- c) *Regional Supplementary Procedures* (Doc 7030);
- d) *Aeronautical Information Services Provided by States* (Doc 7383);
- e) *Location Indicators* (Doc 7910);
- f) *Aeronautical Information Services Manual* (Doc 8126);
- g) *Procedures for Air Navigation Services – Aircraft Operations – Construction of Visual and Instrument Flight Procedures* (PANS-OPS, Volume I and Volume II) (Doc 8168);
- h) *ICAO Abbreviations and Codes* (PANS-ABC) (Doc 8168);
- i) *Aeronautical Charts Manual* (Doc 8697);

- j) *Manual on Coordination between Air Traffic Services, Aeronautical Information Services and Aeronautical Meteorological Services* (Doc 9377);
- k) *World Geodetic System (1984) Manual* (Doc 9674);
- l) *Guidelines on the Use of the Public Internet for Aeronautical Applications* (Doc 9855);
- m) *Guidelines for Electronic Terrain, Obstacle and Aerodrome Mapping Information* (Doc 9881);
- n) *Flight Procedure Design Quality Assurance System, Volume I* (Doc 9906);
- o) “*AIM QMS Manual*” (Doc 9839) (Draft); and
- p) “*Training Manual for AIM*” (Doc 9991) (Draft).

2. GENERAL REGIONAL REQUIREMENTS

2.1 States should ensure that the provision of aeronautical data and aeronautical information covers its own territory and those areas over the high seas for which it is responsible for the provision of air traffic services, in accordance with **Chart ATM I-1**.

2.2 States are responsible for the aeronautical information/data published by its aeronautical information service or by another State or a non-governmental agency on its behalf.

2.3 Aeronautical information published for and on behalf of a State should clearly indicate that it is published under the authority of that State.

2.4 The responsibility for the provision of AIS/AIM facilities and services in the MID Region is reflected in the Volume II.

3. SPECIFIC REGIONAL REQUIREMENTS

None.

- END -

MID AIR NAVIGATION PLAN

VOLUME I

Disclaimer

MID eANP Volume I was endorsed by MIDANPIRG/15 (8-11 June 2015) and is subject to approval by the ICAO Council.

MID AIR NAVIGATION PLAN

VOLUME I

DRAFT

MID ANP, VOLUME I

PART I – GENERAL PLANNING ASPECTS (GEN)

1. GEOGRAPHICAL SCOPE

1.1 The MID ANP is related to the ICAO MID air navigation region. The ANP may call for the provision of basic facilities and services beyond the charted boundaries of a region where such facilities and services are necessary to meet the requirements of international air navigation within the region.

1.2 A number of States within the ICAO MID Region are members of one or more sub-regional groupings which have development plans to improve air navigation services; such plans contribute to the regional implementation of the ICAO *Global Air Navigation Plan* (GANP) (Doc 9750). Regional subgroups include the:

- Arab Civil Aviation Commission (ACAC)
- Gulf Cooperation Council (GCC)

2. FLIGHT INFORMATION REGIONS

2.1 **Table GEN I-1** shows the current Flight Information Regions (FIR)/Upper Information Regions (UIR) which are part of the ICAO MID Region. More details of the FIRs and UIRs within the MID air navigation region are contained in **Table ATM I-1** and **Charts ATM I-1**.

3. STATES' RESPONSIBILITIES

3.1 Each Contracting State is responsible for the provision of facilities and services in its territory under Article 28 of the Convention as well as within the airspace over the high seas for which it has accepted the responsibility for the provision of services. The Council has recommended that these facilities and services include those specified in the ANPs.

4. MID REGIONAL PLANNING

4.1 The regional planning and implementation process is the principal engine of ICAO's planning framework. It is here that the top-down approach comprising global guidance and regional harmonization measures converges with the bottom-up approach constituted by national planning by States.

4.2 PERFORMANCE BASED APPROACH

4.2.1 Global Approach

4.2.1.1 In an effort to assist planners in weighing outcomes and making appropriate decisions, the *Manual on Global Performance of the Air Navigation System* (Doc 9883) has been developed. In this respect ICAO has defined 11 Key Performance Areas (KPA), one for each of the *Global ATM Operational Concept* (Doc 9854) expectations outlined below.

4.2.1.2 These general expectations are relative to the effective operation of the ATM system. The ICAO planning objective is to achieve a performance based global air traffic management (ATM) system through the implementation of air navigation systems and procedures in a safe, progressive, cost-effective and cooperative manner.

5. RELATIONSHIP BETWEEN GLOBAL, REGIONAL AND NATIONAL PLANNING

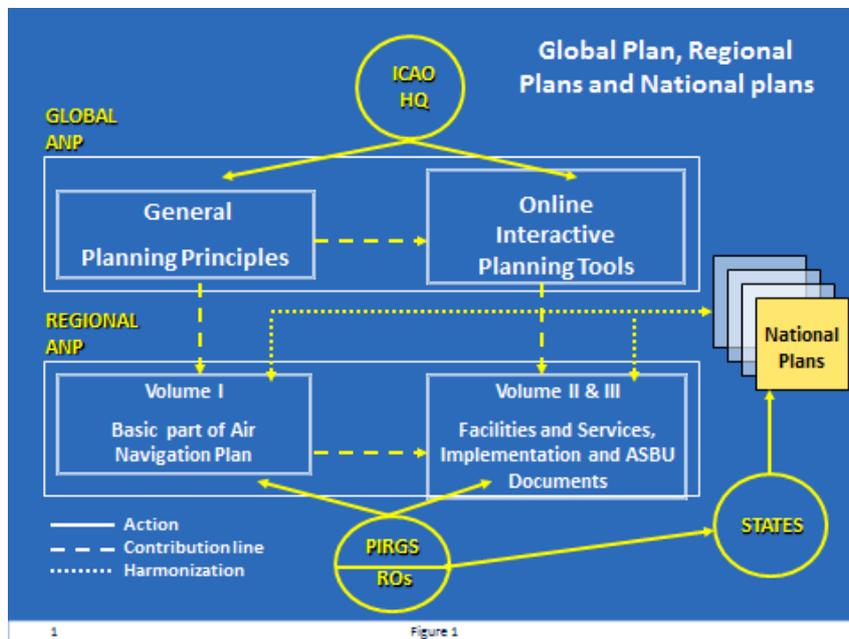


Figure 1. Relationship between global, regional and national plans.

5.1 Planning takes place at global, regional and national levels. Planning is accomplished with the help of planning tools and methodologies that are used primarily at the regional and national levels, conditioned by guidance from the global level. The basis for effective planning is the GANP (Doc 9750), which should guide the development of regional and national implementation plans that will support system architectures.

6. HUMAN RESOURCE PLANNING

6.1 Human resource planning can be considered “*the systematic and continuing process of analysing an organisation’s human resource needs under changing conditions and developing personnel policies appropriate to the longer-term effectiveness of the organisation. It is an integral part of corporate planning and budgeting procedures since human resource costs and forecasts both affect and are affected by longer-term corporate plans.*”¹

6.2 Estimating current and future requirements for civil aviation personnel and training capacity is essential for human resource planning, institutional capacity building, and related funding and policy measures. Such planning will need to take into account the interdependencies for supply and demand of qualified personnel at national, regional and global levels.

6.3 Human Performance

6.3.1 The high level of automation and interdependencies across aviation disciplines will only increase with evolving air navigation systems. To maximise potential safety and efficiency benefits that these offer, the development of human-driven, rather than engineering-driven interfaces is required, making it easier for the human operator to make sound decisions and take correct actions. Similarly, as part of a safety management systems approach, procedures need to be identified for the use of current and new

¹ Defined by the UK Institute of Personnel and Development

technologies that take into account human capabilities and manage the risk associated with human limitations.

6.3.2 States should:

- a) Identify a certification process that requires at the design stage:
 - i) recognition of the potential human performance issues that the proposed new technology attempts to address; and
 - ii) consideration of the potential human performance issues, including changes in roles and the effects on individual and team behaviours, that may be introduced by the proposed new technology.
- b) Identify processes for the implementation of new technologies, systems and procedures that describes the means by which human performance considerations can be addressed within operational contexts.
- c) Consider the management of human performance-related risks as a necessary and essential aspect of the oversight of safety management systems.
- d) Ensure that their technical personnel have exposure to training in human factors.

6.4 Training

6.4.1 A major goal of CNS/ATM systems is to create a seamless air navigation system. A seamless air navigation environment will require adequately qualified personnel prepared to perform their jobs in an evolving environment. At the same time, shortcomings in human resource planning and training are frequently mentioned as one of the reasons for the lack of implementation of regional ANPs. Human resource development challenges will be compounded during the transition period to CNS/ATM systems. As the existing and emerging air navigation technologies will co-exist in parallel for a period of time, civil aviation personnel will need to learn new skills, whilst retaining those needed to operate and maintain existing systems. To meet this challenge, a cooperative approach should be used in civil aviation training within the region. This approach should:

- a) ensure that the training needs for the region are identified, documented and kept up to date;
- b) facilitate the access to specialized types of training needed within the region or sub-regions that individual States cannot justify based on their national training needs alone;
- c) ensure that a balanced market exists to support the development and on-going implementation of high-quality training in one or more training centres within the region or sub-regions;
- d) endeavour to distribute equitably regional training activities among the training centres established within the region or sub-regions.
- e) take advantage of readily available training materials including those available through the TRAINAIR Plus sharing system.

6.4.2 Appropriate bodies should be established to facilitate regional and sub-regional training planning. A quantitative approach should be used to determine the training capabilities needed within a region or sub-region. Decisions concerning required training capabilities should be based on an aggregate of training needs for existing air navigation technologies, as well as emerging technologies. A State consultation process should be used to formulate a plan for the establishment of specific regional training centres.

6.5 Training of technical personnel

6.5.1 States should develop and implement comprehensive training programmes and periodic training plans for all technical staff, including initial, on-the-job, recurrent and specialized training.

7. SAFETY CONSIDERATIONS

7.1 Safety fundamentally contributes to the sustainable growth of a sound and economically viable civil aviation system that continues to foster economic prosperity and social development. With air traffic projected to double in the next 15 years, safety risks must be addressed proactively to ensure that this significant capacity expansion is carefully managed and supported through strategic regulatory and infrastructure developments. It is imperative therefore that States and regions remain focused on their safety priorities as they continue to encourage expansion of their air transport sectors.

7.2 Acceptable safety levels are related to the establishment of State safety programmes (SSPs) that are able to anticipate and effectively respond to safety-related occurrences, resulting in continual improvements to an already low global accident rate. The *Global Aviation Safety Plan (GASP)* specifically establishes targeted safety objectives and initiatives that support SSP implementation while ensuring the efficient and effective coordination of complementary safety activities between all stakeholders.

7.3 PIRGs should harmonize activities undertaken to address aviation safety issues on a regional basis with the Regional Aviation Safety Groups (RASGs). In addition, PIRGs should coordinate relevant safety matters with RASGs to ensure consistency and avoid overlap.

7.4 PIRGs should ensure that air navigation services development programmes are consistent with the GASP safety objectives and initiatives. States are responsible for the prompt elimination of their air navigation deficiencies. Detailed information on the process of identifying and managing air navigation deficiencies is contained in the MIDANPIRG Procedural Handbook.

7.5 Adherence to the ICAO SARPs will significantly contribute to aviation safety. States should therefore ensure that they have the necessary regulatory framework in place to reinforce the adoption of the ICAO SARPs within their national regulations. States should also ensure that any differences to the ICAO SARPs have been assessed in respect of safety and are notified in accordance with ICAO requirements.

7.6 Unsatisfactory Conditions Reporting

7.6.1 States should act on any serious problems encountered due to the lack of implementation or prolonged unavailability of air navigation facilities or services required by the ANPs as reported by users of air navigation facilities and services.

8. ENVIRONMENT CONSIDERATIONS

8.1 It is an ICAO Strategic Objective to minimize the adverse effects of global civil aviation on the environment. PIRGs should ensure that environmental factors are taken into consideration when performance based systems implementation plans are developed and may wish to coordinate their plans with the State Action Plans on CO₂ Emissions Reduction. The results of environmental analysis can be useful in providing national decision-makers within the various sub-regions with information upon which to base airspace architecture decisions and in providing information on what the aviation industry is doing now to protect the environment in the future. Tools such as the ICAO Fuel Savings Estimation Tool (IFSET) are available from the ICAO public website to help quantify the environmental benefits from operational improvements. Environmental considerations should, however, not compromise acceptable levels of safety and be balanced against operational and economic considerations.

9. AIR TRAFFIC FORECASTS

9.1 Regional traffic forecasting supports the regional air navigation system planning. All States generally prepare individual forecasts, taking account of the regional information, for national planning purposes. A uniform strategy has been adopted by ICAO for the purpose of preparing traffic forecasts and other planning parameters in support of the regional planning process. This information should be shared through at least the sub-regional groupings to enable effective regional planning development.

10. CONTINGENCY PLANNING

10.1 Contingency plans may constitute a temporary deviation from the approved ANPs; such deviations are approved, as necessary, by the President of the ICAO Council on behalf of the Council.

10.2 The effects of disruption of services in particular portions of airspace are likely to affect significantly the services in adjacent airspace. States should co-ordinate with neighbouring States in the development and implementation of contingency plans, which in some cases may be developed on a sub-regional basis.

10.3 ICAO will initiate and coordinate appropriate contingency action in the event of disruption of air traffic services and related supporting services affecting international civil aviation operations provided by a State in the event that the authorities cannot adequately discharge their responsibility for the provision of such services to ensure the safety of international civil aviation operations. In such circumstances, ICAO will work in coordination with States responsible for airspace adjacent to that affected by the disruption and in close consultation with international organizations concerned.

10.4 Regional contingency plans will be developed, approved and maintained by MIDANPIRG with the support of ICAO and other organizations.

10.5 States should prepare their contingency plans in advance and ensure their availability or accessibility to the ICAO Regional Office. The plans should be reviewed at regular intervals and updated as required.

TABLE GEN I-1 – LIST OF FLIGHT INFORMATION REGIONS (FIR)/UPPER INFORMATION REGIONS (UIR) IN THE MID REGION

EXPLANATION OF TABLE

Column

1 State Name of State
2 FIR/UIR Name of FIR/UIR

STATE	FIR/UIR
BAHRAIN	Bahrain FIR
EGYPT	Cairo FIR
IRAN, ISLAMIC REPUBLIC OF	Tehran FIR
IRAQ	Baghdad FIR
JORDAN	Amman FIR
KUWAIT	Kuwait FIR
LEBANON	Beirut FIR
LIBYA	Tripoli FIR
OMAN	Muscat FIR
QATAR	Part of Bahrain FIR
SAUDI ARABIA	Jeddah FIR
SUDAN	Khartoum FIR
SYRIAN ARAB REPUBLIC	Damascus FIR
UNITED ARAB EMIRATES	Emirates FIR
YEMEN	Sana'a FIR

MID ANP, VOLUME I
PART IV - AIR TRAFFIC MANAGEMENT (ATM)

1. INTRODUCTION

1.1 This part of the MID ANP constitutes the agreed regional requirements considered to be the minimum necessary for effective planning and implementation of air traffic management (ATM) facilities and services in the MID Region and complements the provisions of the ICAO SARPs and PANS related to ATM. It contains stable plan elements related to the assignment of responsibilities to States for the ATM system requirements to be applied within the ICAO MID Region in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300) and mandatory requirements related to the ATM facilities and services to be implemented by States in accordance with regional air navigation agreements.

1.2 The dynamic plan elements related to the assignment of States' responsibilities for the implementation of the ATM system and the mandatory requirements based on regional air navigation agreements related to ATM are contained in MID ANP Volume II, Part IV - ATM.

1.3 The MID ANP Volume III contains dynamic/flexible plan elements related to the implementation of air navigation systems and their modernization in line with the ICAO Aviation System Block Upgrades (ASBUs) methodology and associated technology roadmaps described in the Global Air Navigation Plan. The ASBU modules are aimed at increasing capacity and improving efficiency of the aviation system whilst maintaining or enhancing safety level, and achieving the necessary harmonization and interoperability at regional and global level. This includes the regionally agreed ASBU modules applicable to the specified ICAO region/sub-region and associated elements/enablers necessary for the monitoring of the status of implementation of these ASBU modules.

Standards and Recommended Practices and Procedures for Air Navigation Services

1.4 The SARPs and PANS and related guidance material applicable to the provision of ATM are contained in:

- a) Annex 2 — *Rules of the Air*;
- b) Annex 6 — *Operation of Aircraft*;
- c) Annex 11 — *Air Traffic Services*;
- d) *Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM)* (Doc 4444);
- e) *Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS)* (Doc 8168);
and
- f) *Regional Supplementary Procedures* (Doc 7030).

2. GENERAL REGIONAL REQUIREMENTS

2.1 The description of the current Flight Information Regions (FIR)/Upper Information Regions (UIR), as approved by the ICAO Council, are contained in **Table ATM I-1** and depicted in the **Charts ATM I-1**.

2.2 States should ensure that the provision of air traffic services (ATS) covers its own territory and those areas over the high seas for which it is responsible for the provision of those services, in accordance with **Charts ATM I-1**.

Regional ATS Routes and organized track structures

2.3 MIDANPIRG is responsible for the optimization of the traffic flows through the continuous improvement of the regional ATS route network and organized track systems and implementation of random routing areas and free route airspace in the Region. Where applicable, details of the ATS routes within the Region are contained in Volume II.

ICARD Global Database

2.4 The five-letter name-codes assigned to significant points should be coordinated through the ICAO Regional Office and obtained from the ICAO International Codes and Routes Designators (ICARD) Global Database.

Aircraft Identification - SSR Code Assignments

2.5 The management of Secondary Surveillance Radar (SSR) codes is a key element of ATM in order to ensure continuous and unambiguous aircraft identification. The requirements related to the SSR code assignment system used in the MID Region is contained in Volume II.

Performance-based Navigation (PBN)

2.6 MIDANPIRG is responsible for the development of the MID Region PBN Implementation Plan. States' PBN implementation Plans should be consistent with the Regional PBN Plan.

Flexible Use of Airspace

2.7 States should implement civil/military cooperation and coordination mechanisms to enhance the application of the Flexible Use of Airspace concept, which will contribute to more direct routing with a commensurate saving in fuel and associated emissions. States should arrange for close liaison and coordination between civil ATS units and relevant military operational control and/or air defence units in order to ensure integration of civil and military air traffic or its segregation, if required. Such arrangements would also contribute to increasing airspace capacity and to improving the efficiency and flexibility of aircraft operations.

Reduced Vertical Separation Minimum (RVSM)/Regional Monitoring Agencies

2.8 The Middle East Regional Monitoring Agency (MIDRMA) is the designated Regional Monitoring Agency (RMA) responsible for monitoring the height-keeping performance and approval status of aircraft operating at these levels, in order to ensure that the continued application of RVSM meets the agreed regional safety objectives as set out by MIDANPIRG.

3. SPECIFIC REGIONAL REQUIREMENTS

None.

Table ATM I-1
FLIGHT INFORMATION REGIONS (FIR)/UPPER INFORMATION REGIONS (UIR) IN THE
MID REGION

EXPLANATION OF THE TABLE

Column:

- 1 Name of the FIR/UIR / Location Indicator according to Doc 7910
- 2 Description of FIR/UIR lateral limits;
 - a. Describe separately in the table the limits of the UIRs if they are not similar to the FIRs limits.
- 3 Remarks — additional information, if necessary.
 - a. Describe vertical limits if necessary.

FIR/UIR Location Indicator	Lateral limits coordinates	Remarks
1	2	3
Amman (OJAC)	FIR/UIR Amman <i>To be incorporated</i>	
Baghdad (ORBB)	FIR/UIR Baghdad <i>To be incorporated</i>	
Bahrain (OBBB)	FIR/UIR Bahrain <i>To be incorporated</i>	
Beirut (OLBB)	FIR/UIR Beirut <i>To be incorporated</i>	
Cairo (HECC)	FIR/UIR Cairo <i>To be incorporated</i>	
Damascus (OSTT)	FIR/UIR Damascus <i>To be incorporated</i>	
Emirates (OMAE)	FIR/UIR Emirates <i>To be incorporated</i>	

FIR/UIR Location Indicator	Lateral limits coordinates	Remarks
1	2	3
Jeddah (OEJD)	FIR/UIR Jeddah <i>To be incorporated</i>	
Khartoum (HSSS)	FIR/UIR Khartoum <i>To be incorporated</i>	
Kuwait (OKAC)	FIR/UIR Kuwait <i>To be incorporated</i>	
Muscat (OOMM)	FIR/UIR Muscat <i>To be incorporated</i>	
Sana'a (OYSC)	FIR/UIR Sana'a <i>To be incorporated</i>	
Tehran (OIIX)	FIR/UIR Tehran <i>To be incorporated</i>	
Tripoli (HLLL)	FIR/UIR Tripoli <i>To be incorporated</i>	

MID ANP, VOLUME I

PART VI - SEARCH AND RESCUE (SAR)

1. INTRODUCTION

1.1 This part of the MID ANP constitutes the agreed regional requirements considered to be the minimum necessary for effective planning and implementation of search and rescue (SAR) facilities and services in the MID Region and complements the provisions of ICAO SARPs and PANS related to SAR. It contains stable plan elements related to the assignment of responsibilities to States for the provision of SAR facilities and services within the ICAO MID Region in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300) and mandatory requirements related to the SAR facilities and services to be implemented by States in accordance with regional air navigation agreements.

1.2 The dynamic plan elements related to the assignment of States' responsibilities for the provision of SAR facilities and services and the mandatory requirements based on regional air navigation agreements related to SAR are contained in the MID ANP, Volume II, Part VI – SAR.

Standards and Recommended Practices and Procedures for Air Navigation Services

1.3 The SARPs and PANS and related guidance material applicable to the provision of SAR are contained in:

- a) Annex 12 – *Search and Rescue*;
- b) Annex 6 — *Operation of Aircraft*;
- c) *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM) (Doc 4444);
- d) *Regional Supplementary Procedures* (Doc 7030); and
- e) *International Aeronautical and Maritime Search and Rescue Manual* (Doc 9731-AN/958).

2. GENERAL REGIONAL REQUIREMENTS

2.1 Each Contracting State should ensure that the provision of search and rescue services covers its own territory and those areas over the high seas for which it is responsible for the provision of those services. The description of the current Search and Rescue Regions (SRRs), as approved by the ICAO Council, are contained in **Table SAR I-1** and depicted in the **Chart SAR I-1**. The list of Rescue Coordination Centres (RCCs) and Rescue Sub-centres (RSCs) in the Region(s) are detailed in Volume II.

2.2 The three volumes of the *IAMSAR Manual* (Doc 9731) provide guidance for a common aviation and maritime approach to organizing and providing SAR services. States are invited to use the *IAMSAR Manual* to ensure the availability of effective aeronautical SAR services and to cooperate with neighbouring States.

2.3 States which rely on military authorities and/or other sources for the provision of SAR facilities should ensure that adequate arrangements are in place for coordination of SAR activities between all entities involved.

2.4 Arrangements should be made to permit a call on any national services likely to be able to render assistance on an ad-hoc basis, in those cases when the scope of SAR operations requires such assistance.

3. SPECIFIC REGIONAL REQUIREMENTS

None.

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TABLE SAR I-1 – SEARCH AND RESCUE REGIONS (SRR) IN THE MID REGION

EXPLANATION OF THE TABLE

Column:

1. Name of the SRR.
2. Description of SRR lateral limits.
3. Additional information, if necessary.

SRR	Lateral limits coordinates	Remarks
1	2	3
Amman	SRR Amman <i>To be incorporated</i>	
Baghdad	SRR Baghdad <i>To be incorporated</i>	
Bahrain	SRR Bahrain <i>To be incorporated</i>	
Beirut	SRR Beirut <i>To be incorporated</i>	
Cairo	SRR Cairo <i>To be incorporated</i>	
Damascus	SRR Damascus <i>To be incorporated</i>	
Emirates	SRR Emirates <i>To be incorporated</i>	
Jeddah	SRR Jeddah <i>To be incorporated</i>	
Khartoum	SRR Khartoum <i>To be incorporated</i>	

SRR	Lateral limits coordinates	Remarks
1	2	3
Kuwait	SRR Kuwait <i>To be incorporated</i>	
Muscat	SRR Muscat <i>To be incorporated</i>	
Sana'a	SRR Sana'a <i>To be incorporated</i>	
Tehran	SRR Tehran <i>To be incorporated</i>	
Tripoli	SRR Tripoli <i>To be incorporated</i>	

Chart SAR I-1 – SEARCH AND RESCUE REGIONS (SRR) IN THE MID REGION

TBD.

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MID AIR NAVIGATION PLAN

VOLUME II

Disclaimer

MID eANP Volume II was endorsed by MIDANPIRG/15 (8-11 June 2015) and is subject to approval by the ICAO Council.

MID AIR NAVIGATION PLAN

VOLUME II

DRAFT

MID ANP, VOLUME II

PART I – GENERAL PLANNING ASPECTS (GEN)

1. INTRODUCTION

1.1. The material in this part of Volume II of ANP is applicable to one or more parts of the ANP. It should be taken into consideration in the overall planning process for the MID Region.

2. GENERAL REGIONAL REQUIREMENTS

2.1. To facilitate air navigation systems planning and implementation, homogenous ATM areas and/or major traffic flows/routing areas have been defined for the Region. While these areas of routing do not encompass all movements in the Region, they include the major routes. This includes the domestic flights in that particular area of routing.

Homogeneous ATM area

2.2. A homogeneous ATM area is an airspace with a common ATM interest, based on similar characteristics of traffic density, complexity, air navigation system infrastructure requirements or other specified considerations. In such an ATM area a common detailed plan will foster the implementation of interoperable ATM systems. Homogeneous ATM areas may extend over States, specific portions of States, or groupings of States. They may also extend over large oceanic and continental areas. They are considered areas of shared interest and requirements.

2.3. The method of identifying homogeneous ATM areas involves consideration of the varying degrees of complexity and diversity of the worldwide air navigation infrastructure. Based on these considerations, planning could best be achieved at the global level if it was organized based on ATM areas of common requirements and interest, taking into account traffic density and the level of sophistication required.

Major traffic flows/routing areas

2.4. A major traffic flow refers to a concentration of significant volumes of air traffic on the same or proximate flight trajectories. Major traffic flows may cross several homogeneous ATM areas with different characteristics.

2.5. A routing area encompasses one or more major traffic flows, defined for the purpose of developing a detailed plan for the implementation of ATM systems and procedures. A routing area may cross several homogeneous ATM areas with different characteristics. A routing area specifies common interests and requirements of underlying homogeneous areas, for which a detailed plan for the implementation of ATM systems and procedures either for airspace or aircraft will be specified.

2.6. The homogeneous ATM areas and major traffic flows/routing areas identified are given in **Table GEN II-1**.

TABLE GEN II-1 - HOMOGENEOUS ATM AREAS AND/OR MAJOR TRAFFIC FLOWS IDENTIFIED IN THE MID REGION

EXPLANATION OF TABLE

Column

1	Area of routing (AR)	Sequential number of area of routing
2	Homogeneous Areas and/or Traffic flows/routing areas	Brief description and/or name
3	FIRs involved	List of FIRs concerned
4	Type of area covered	Brief description of type of area, examples: Oceanic or Continental High or low density Oceanic en-route or Continental en-route
5	Remarks	Homogeneous ATM Area and/or Major Traffic Flow and Region(s) concerned

Area of routing (AR)	Homogeneous Areas and/or Traffic flows/routing areas	FIRs involved	Type of area covered	Remarks
1	2	3	4	5
AR1	Asia and Europe, Asia and the Middle East, Europe and the Middle East, via the northern Arabian Peninsula and Eastern Mediterranean	Amman, Bahrain, Beirut, Damascus, Emirates, Jeddah, Kuwait, Muscat	Continental high density	Mainly intraregional and MID to/from ASIA and EUR. Some overflying EUR/ASIA traffic
AR2	Libya, Egypt and the southern Arabian Peninsula to/from Europe, Africa, Asia and North Africa	Bahrain, Cairo, Emirates, Jeddah, Muscat, Sana'a, Tripoli	Remote continental and oceanic low density (but seasonally high density)	Major traffic flow mainly landing and departing the MID region. Some EUR/AFI traffic and North Africa
AR3	Asia and Europe, Asia and the Middle East, Europe and the Middle East, north of the Gulf	Emirates, Teheran	Continental high density	Major traffic flow ASIA/EUR
AR4	Gulf, Asia (Indian subcontinent) to/from North of Europe	Baghdad, Bahrain, Emirates, Kuwait, Muscat	Continental high density	MID to/from Asia and EUR
AR5	Gulf Area to/from Eastern, Central and West Africa	Bahrain, Emirates, Jeddah, Khartoum, Muscat	Continental low density (Seasonal high density)	Traffic flow Intraregional. Seasonal pilgrim flights to/from, East, Central, and West AFI

MID ANP, VOLUME II
PART IV - AIR TRAFFIC MANAGEMENT (ATM)

1. INTRODUCTION

1.1 This part of the MID ANP, Volume II, complements the provisions in ICAO SARPs and PANS related to Air Traffic Management (ATM). It contains dynamic plan elements related to the assignment of responsibilities to States for the provision of ATM facilities and services within a specified area in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300); and mandatory requirements related to ATM facilities and services to be implemented by States in accordance with regional air navigation agreements. Such agreement indicates a commitment on the part of the State(s) concerned to implement the requirement(s) specified.

2. GENERAL REGIONAL REQUIREMENTS

Optimization of traffic flows

2.1 The Planning and Implementation Regional Groups (PIRGs), through regional air navigation agreement, are responsible for the optimization of the traffic flows through the continuous improvement of the regional ATS route network and organized track systems and implementation of random routing areas and free route airspace in the Regions through the set-up of appropriate mechanisms for regional and inter-regional planning and coordination.

2.2 Whenever practicable, States should, in close coordination with operators, establish the most efficient routings.

2.3 The requirements for regional ATS route network, in particular, for ATS routes over the high seas and airspace of undetermined sovereignty, should be agreed upon through regional air navigation agreement.

Note: States' AIPs and other States publications should be consulted for information on the implemented ATS routes.

Aircraft Identification-SSR Code Management

2.4 Within the context of air traffic management (ATM) and the provision of air traffic services (ATS), SSR code management is a key element of ATM to ensure continuous, unambiguous aircraft identification. The number of secondary surveillance radar (SSR) codes is limited and poor management of the assignment of SSR codes results in capacity constraints and aircraft delays. States and air navigation service providers (ANSP) should apply the SSR Code Management Plan approved by MIDANPIRG. The SSR Codes Management Plan of the MID Region is addressed in the Specific Regional Requirements of Volume II.

3. SPECIFIC REGIONAL REQUIREMENTS

Working Principles for the Construction of Air Routes

3.1. The ATS routes agreed through regional air navigation agreement are listed in **Table ATM II-MID-1**. The routes should be developed based on the ICAO SARPS and PANS-OPS and PANS-ATM criteria and parameters, the following should be taking into consideration for the management of MID Region ATS route Network:

- a) Where possible, routes should be established to increase efficiency, reduce complexity and provide additional benefits to users;
- b) separation assurance principles should apply;
- c) routes should be established with sufficient separation to operate independently;
- d) where possible, routes in a radar environment should be procedurally (laterally) separated;
- e) segregated tracks should be established on medium/high density routes and be determined by set criteria;
- f) where required, routes should be constructed to support terminal area management procedures, e.g. SID s/STARs and flow management techniques, as applicable;
- g) holding patterns should be laterally separated from other tracks, and tolerances captured within a single sector;
- h) a maximum of two routes containing high traffic density should be blended at a single point. Inbound tracks should be blended at <90 degrees. Up to three low traffic density routes may be blended at a single point;
- i) multiple crossing points involving major traffic flows should be avoided.
- j) en-route crossings should be minimized. Where crossings are inevitable, they should, where possible, be established for cruise configuration. Such crossings should occur, wherever possible, within radar coverage;
- k) airspace sectorization should take account of the route structure, and workload considerations. If necessary, airspace should be re-sectorized to accommodate changes to air route configuration;
- l) routes should be constructed so as to reflect the optimum navigation capabilities of the principle users (e.g. RNAV or conventional);
- m) the prime determinant should not be the number of track miles. A small increase in track miles may optimize traffic flows, avoid unpredicted delays or avoid holding requirements. Consideration should also be given to the provision of a range of routes which will permit operators to choose cost-efficient routes over the range of expected seasonal wind patterns;
- n) due allowance should be given to existing and future flight data processing (FDP) and radar data processing (RDP) capability (i.e. notification of messages for auto hand-off etc.);
- o) periodic safety audit and review process of routes should be conducted to test demand against capacity criteria, and the principles. This should ideally be done in parallel with the annual sectorization review; and
- p) routes that can no longer be justified should be deleted.

Allocation and Assignment of Secondary Surveillance Radar (SSR) Codes in the MID Region

3.2. The Middle East SSR Code Management Plan (MID SSR CMP), endorsed by MIDANPIRG as MID Doc 005, provides States in the ICAO MID Region with means to coordinate the use of SSR codes based on the provisions of the ICAO Doc 4444 and the principles of the Originating Region Code Assignment Method (ORCAM).

3.3. Certain codes are reserved for special purposes on a world-wide scale. The remaining codes series for use in the Region are divided into two distinct categories: Transit codes (T) for international use and Domestic codes (D) for national use

3.4. The MID Code Allocation List (CAL) at **Table ATM II-MID-2** reflects the assignment of SSR codes to the MID States among the series of codes allocated to the MID Region, based on the number of aircraft to be handled simultaneously within a specified area and for a determined period of protection during traffic peaks.

3.5. The MID Doc 005-MID SSR CMP, is available on the ICAO MID website, under eDocuments (https://portal.icao.int/RO_MID/Pages/MIDDocs.aspx), should be managed and maintained up-to-date by the ICAO MID Regional Office.

3.6. States should inform the ICAO MID Regional Office promptly of any deviation from the Plan or proposed changes considered necessary with respect to their code allocations, relevant to ATS infrastructure developments and/or the guidance material provided in the MID SSR CMP.

Special purpose codes

Series 00	Code 0000 is available as a general purpose code for domestic use by any of the MID States.
Series 10	Code 1000 reserved for use as a conspicuity code for Mode S
Series 20	Code 2000 shall be used by flight crews in the absence of any Air Traffic Control (ATC) instructions or regional agreements unless the conditions for the use of codes: 7000, 7500, 7600 and 7700 apply.
Series 70	Code 7000 shall be used by flight crews not receiving ATS service in order to improve detection of suitably equipped aircraft in areas specified by States, unless otherwise instructed by ATS.
Series 75	Code 7500 is reserved for use in the event of unlawful interference.
Series 76	Code 7600 is reserved for use in the event of radio communications failure.
Series 77	Code 7700 is reserved for use in the event of emergencies and interception*. Code 7776 and Code 7777 are reserved for SSR ground transponder monitoring.
Codes 7601-7612	Are reserved for humanitarian flights.

TABLE ATM II-MID-1 MID REGION ATS ROUTE NETWORK

EXPLANATION OF THE TABLE

Column

- 1 Designator of ATS route and Type (Conventional, RNAV5 or RNAV1 etc.)*
- 2 Significant points defining the ATS routes. Only prominent locations have been listed. Additional points where facilities are provided to complete navigational guidance along a route, but not otherwise marking significant characteristics of the route (change of heading of centre line, intersection with other routes, etc.) have normally not been included. Locations shown in parentheses indicate significant points outside the Region.*
- Note 1. Not representing the operator's requirements. Operator's required route and/or nav aids are shown in square brackets ([]).*
- Note 2. Subject to further study. Including the associated navigation aid coverage.*
- Note 3 Subject to military agreement.*
- Note 4. Not acceptable at present.*
- Note 5. At present, implementation possible only during specific periods (e.g. weekends, nights, etc., as published).*
- Note 6. At present, implementation of the RNAV route only possible above FL 300, or as published.*
- Note 7. Unidirectional use.*
- Note 8. For ATS route or part thereof is RNAV 1*

N.B. - The Table is attached to WP/8.

TABLE ATM II-MID-2 – MID SSR CODE ALLOCATION LIST

Code	AMMAN	BAGHDAD	BAHRAIN	BEIRUT	CAIRO	DAMASCUS	EMIRATES	JEDDAH	KHARTOUM	KUWAIT	MUSCAT	SANAA	TEHRAN	TRIPOLI
0001-0077 ²														
0101-0177 ¹									T					
0200-0277 ¹								D						
0300-0377 ²														
0400-0477 ²	D						D							
0500-0577 ¹							T							
0600-0677 ¹					D		D			D				
0700-0777 ¹	T													
1001-1077 ¹		T												
1101-1177 ¹	D						D						D	
1200-1277 ¹			D						D					
1300-1377 ¹		D					D							D
1400-1477 ¹										T				
1500-1577 ¹													D	
1600-1677 ¹					T									
1700-1777 ¹							T							
2001-2077 ³														T
2100-2177 ¹			D											
2200-2277 ¹			T											
2300-2377 ¹					D									
2400-2477 ¹	D													
2500-2577 ¹				D				D						
2600-2677 ¹			T											
2700-2777 ¹			D		D									
3000-3077 ¹						D		D						
3100-3177 ¹								T						
3200-3277 ¹			T											
3300-3377 ¹					T									
3400-3477 ¹							T							
3500-3577 ¹								D						
3600-3677 ¹													T	
3700-3777 ¹										D		D		
4000-4077 ¹											T			
4100-4177 ¹								D					D	
4200-4277 ¹								T						
4300-4377 ¹				T										
4400-4477 ¹			T											
4500-4577 ¹								T						
4600-4677 ¹									D		D			
4700-4777 ¹											T			

Code	AMMAN	BAGHDAD	BAHRAIN	BEIRUT	CAIRO	DAMASCUS	EMIRATES	JEDDAH	KHARTOUM	KUWAIT	MUSCAT	SANA'A	TEHRAN	TRIPOLI
5000-5077 ¹								D						
5100-5177 ¹													T	
5200-5277 ¹								T						
5300-5377 ³														
5400-5477 ¹													T	
5500-5577 ³														
5600-5677 ¹								D					D	
5700-5777 ¹						T								
6000-6077 ¹							D		D					
6100-6177 ¹							D					D		
6200-6277 ¹							T							
6300-6377 ¹								D					D	
6400-6477 ³														
6500-6577 ¹											D			
6600-6677 ¹											D			
6700-6777 ²														
7001-7077 ¹													T	
7100-7177 ²														
7200-7277 ¹		T												
7300-7377 ¹					T									
7400-7477 ¹		D												
7501-7577 ²														
7613-7677 ²														
7701-7775 ²														

T: codes allocated for Transit use

D: codes allocated for Domestic use

¹ Series allocated to the MID Region and Assigned to MID States

² MID Region SSR Reserve List for Domestic use

³ MID Region SSR Reserve List for Transit use

MID ANP, VOLUME II

PART VI - SEARCH AND RESCUE (SAR)

1. INTRODUCTION

1.1 This part of the MID ANP, Volume II, complements the provisions in ICAO SARPs and PANS related to search and rescue (SAR). It contains dynamic plan elements related to the assignment of responsibilities to States for the provision of SAR facilities and services within a specified area in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300); and mandatory requirements related to the SAR facilities and services to be implemented by States in accordance with regional air navigation agreements. Such agreement indicates a commitment on the part of the State(s) concerned to implement the requirement(s) specified.

2. GENERAL REGIONAL REQUIREMENTS

2.1 The Rescue Coordination Centres (RCCs) and Rescue Sub-Centres (RSCs) for the MID Region are listed in **Table SAR II-1** and depicted in **Chart SAR I-1**.

2.2 In cases where the minimum SAR facilities are temporarily unavailable, alternative suitable means should be made available.

2.3 In cases where a SAR alert is proximate to a Search and Rescue Region (SRR) boundary (e.g. 50 NM or less), or it is unclear if the alert corresponds to a position entirely contained within an SRR, the adjacent RCC or RSC should be notified of the alert immediately.

3. SPECIFIC REGIONAL REQUIREMENTS

3.1 The contact details for the SAR Point of Contact (SPOC) – COSPAS-SARSAT in the MID Region are at **Table SAR II-MID-1**

TABLE SAR II-1 - RESCUE COORDINAION CENTRES (RCCs) AND RESCUE SUB CENTRES (RSCs) IN THE MID REGION

EXPLANATION OF THE TABLE

Column

- 1 State
- 2 Name of the Rescue Coordination Centre (RCC) and Rescue Sub-centre (RSC).
- 3 SAR points of contact (SPOC). Name of the SPOC.
- 4 Remarks. Supplementary information such as the type of RCC (e.g. maritime or aviation or joint).

RCC and Rescue Units		SPOC	Remarks
1	2	3	4
BAHRAIN			
RCC	BAHRAIN RCC	RCC ATC Bahrain	
RSC	Qatar	DJRCC	
EGYPT			
RCC	CAIRO RCC	SAR Centre	
RSC	Alexandria		
	Luxor		
	Hurghada		
	M. Matruh		
	EL-Minya		
	El Tor		
	Habata		
	New Valley		
	Ras-Banas		
Siwa			
IRAN			
RCC	TEHRAN RCC	RCC Tehran	
RSC	Bandar Abbass		
	Busherhr		
	Esfahan		
	Kerman		
	Kermanshah		
	Mashhad		
	Tabriz		
	Zahedan		
IRAQ			
RCC	BAGHDAD RCC	CENTAF-AUAB CAOC JSRC	
RSC	Kirkuk		
	Shaibah		
	Basrah		
JORDAN			
RCC	AMMAN RCC	RCC ATC Amman	
RSC	-		
KUWAIT			
RCC	KUWAIT RCC	RCC ATC Kuwait	
RSC	-		

RCC and Rescue Units		SPOC	Remarks
1	2	3	4
LEBANON			
RCC	BEIRUT RCC	RCC Beirut	
RSC	Tripoli		
LIBYA			
RCC	TRIPOLI RCC	CAA	
RSC	Marsa Brega		
	Sirte		
	Tobruk		
OMAN			
RCC	MUSCAT RCC	RCC Muscat Air Force	
RSC	Salalah		
SAUDI ARABIA			
RCC	JEDDAH RCC	SAMCC	
RSC	Dammam		
SUDAN			
RCC	KHARTOUM RCC	ACC Khartoum	
RSC	El Obeid		
	Juba		
	Port Sudan		
SYRIA			
RCC	DAMASCUS RCC	RCC ATC	
RSC	Damascus		
	Latakia		
UAE			
RCC	ABU DHABI RCC	AEMCC	
RSC	Abu Dhabi		
	Dubai		
YEMEN			
RCC	SANA'A RCC	RCC Sanaa	
RSC	Aden		
	Hodeidah		
	Riyan		

TABLE SAR II-MID-1 - MID REGION SAR POINT OF CONTACT (SPOC) – COSPAS-SARSAT

STATE	SPOC NAME	ADDRESS	EMAIL	TEL	FAX	AFTN	ASS. MCC/ STATE ¹	LAST REVISION	REMARK
Bahrain	RCC ATC Bahrain	Bahrain CAA, Air Navigation Directorate P.O. Box 586 Kingdom of Bahrain	Bahatc@caa.gov.bh	(973) 17321081 17321080	(973) 17321905	OBBISARX	SAMCC Saudi Arabia	16-April-2013	
Egypt	SAR Centre	SAR Centre Almaza Air Base Heliopolis, Cairo, Egypt	jrcc136@afmic.gov.eg mmc@saregypt.net nahedh@tra.gov.eg	(202) 24184537 24184531	(202) 24184537 24184531	HECCYCYX	ALMCC Algeria	22-OCT-2013	TELEX: (91) 21095 RCCC RUN
Iran	RCC Tehran	Civil Aviation Organization SAR Coordination Centre Mehrabad Airport Tehran, Iran	SAR@cao.ir IRAN-SAR@airport.ir rcc.IRAN@airport.ir	(9821) 44544107 44544116 44544060	(9821) 44544117 44544106	OIIIZRZX	TRMCC Turkey	1-Jan-2013	
Iraq	RCC ATC Baghdad'	Baghdad ACC, Baghdad International Airport	atc_iraqcaa@yahoo.com	(964) 7901654653	(974) 15430764		TRMCC Turkey	18-Mar.-2015	
Jordan	RCC ATC Amman	RCC Civil Aviation Authority Amman Airport, Jordan		(9626) 4451672	(9626) 4451667	OJACZQZX	SAMCC Saudi Arabia	16-Apr-2013	
Kuwait	RCC ATC Kuwait	RCC DGCA Kuwait International Airport, P.O. Box 17, Kuwait		(965) 24760463 24762994	(965) 24346515 24346221	OKBKZQZX OKBKNSAR	SAMCC Saudi Arabia	16-Apr-2013	
Lebanon	RCC Beirut	RCC, DGCA Lebanon, Hariri Int'l Airport- Beirut, Lebanon		(961) 1628161	(961) 1628186 1629035	OLBIZQZX	SAMCC Saudi Arabia	16-Apr-2013	
Libya	CAA	CAA, Tripoli Int'l Airport, Libya	info@sar.caa.ly	(218.21) 5632332 4446799 3606868	(218.21) 563 0257 360 6868	HLLTYCYX	ALMCC Algeria	16-May-2013	TELEX (218.21) 5632332

¹ Associated COSPAS-SARSAT Mission Control Center / State where it is located

STATE	SPOC NAME	ADDRESS	EMAIL	TEL	FAX	AFTN	ASS. MCC/ STATE ¹	LAST REVISION	REMARK
Oman	RCC Muscat Air Force	RCC, HQ RAFO P.O. Box 730 Central Post Office Muscat Int'l Airport, Oman		(968) 24519209 24519332	(968) 24334776 24338692	OOMSYAYX	SAMCC Saudi Arabia	16-Apr-2013	
Qatar	DJRCC	P.O. Box 37 Doha, Qatar	qatsar@yahoo.com	(974) 44980384		OTBDZTZX	SAMCC Saudi Arabia	02-Apr-2015	
Saudi Arabia*	SAMCC	KSA.GACA / Air Navigation services P.O. Box 929 Jeddah 21421 Saudi Arabia	samcc@gaca.gov.sa	(96612) 6150170 6855812 (96650) 4601445	(96612) 6150171 6402855	OEJNJSAR	SAMCC Saudi Arabia	28-Jun-2013	TEL 3 & FAX 2 for Head of SAMCC
Sudan	ACC Khartoum	Khartoum Airport, Sudan		(249.183) 788192 784925	(249.183) 528323	HSSSYCYX	ITMCC Italy	16-Apr-2013	Thuraya +8821655524 296
Syria	RCC ATC	General Civil Aviation Authority		(963.11) 5400540	(963.11) 5400312	OSDIZQZX	SAMCC Saudi Arabia	16-Apr-2013	
UAE*	AEMCC	SAR Coordination Center P.O. Box 906 GHQ Armed Forces UAE	aemcc@uae-jrcc.ae	(971.2) 4056144 4496866	(971.2) 4496844	OMADYCYX	AEMCC UAE	23-Sep-2011	
Yemen	RCC Sanaa	RCC Department of Civil Aviation Sanaa, Yemen		(967) 1344673	(967) 1345916	OYSNYCYX	SAMCC Saudi Arabia	16-April-2013	

* Associated COSPAS-SARSAT Mission Control Centre/State where it is located

- END -