



International Civil Aviation Organization

AIR NAVIGATION SYSTEMS IMPLEMENTATION GROUP

**Second Meeting (ANSIG/2)
(Cairo, Egypt, 6 – 8 December 2016)**

Agenda Item 4.2.2: Specific Air Navigation Issues

**ATM/SAR ISSUES
(Presented by the Secretariat)**

SUMMARY

This paper presents update on the major ATM/SAR matters that need to be addressed at regional level.

Action by the meeting is at paragraph 3.

REFERENCES

- ATM SG/2 Report
- ICAO AFI/APAC/ MID Inter-regional SAR Workshop
- MSG/5 Report
- RASG-MID/5 Report

1. INTRODUCTION

1.1 The MIDANPIRG/15 meeting was held in Bahrain from 8 to 11 June 2015. The ATM SG/2 meeting was held in Cairo, Egypt from 31 August to 2 September 2015. The MSG/5 meeting was held in Cairo, Egypt from 18 to 20 April 2016. The RASG-MID/5 meeting was held in Doha, Qatar, from 22 to 24 May 2016.

2. DISCUSSION

Phraseology for SIDs and STARs Amendment

2.1 The meeting may wish to note that the amendment to the phraseologies on SIDs and STARs was circulated as State Letter AN 13/2.1-16/54, which formed part of the Amendment 7 to PANS-ATM. This amendment will enhance the comprehensibility as well as the consistency of procedures, which will enable air traffic controllers and flight crews to have a common understanding of the terms and expectations.

2.2 With a view to support the implementation of the amendment to the SIDs and STARs phraseologies, ICAO has developed a set of supporting materials designed to explain and elaborate on those amendments.

2.3 The set of supporting materials includes two separate documents. The first document is a leaflet providing the background and reasons for amendments, as well as the key areas where status quo remain. The new phraseologies core to this amendment is also highlighted in the leaflet.

2.4 The second document contains scenarios explaining the usage of the new phraseologies for SID and STAR, as well as a scenario on the ground. Each scenario is clearly titled and the context is provided to give readers a sense of what the scenario is about. This is followed by an example of ATC clearance and pilot read-back, accompanied by the action(s) that a pilot should anticipated. For ease of reference, the PANS-ATM reference related to the scenario is listed at the end of each scenario. It should be noted that while the set of scenarios covers most of the major aspects to the SID and STAR phraseology amendments, it is by no means an exhaustive list covering all situations.

2.5 It is to be highlighted that CANSO, EUROCONTROL, IATA, ICCAIA, IFALPA and IFATCA are also partnering ICAO in the sharing of these materials with their respective stakeholders.

2.6 The information related to the SIDs and STARs new phraseology are on the following website: http://www.icao.int/airnavigation/sidstar/pages/changes-to-sid_star-phraseologies.aspx

Call Sign Confusion

2.7 The meeting may wish to note the subject has been addressed to RASG-MID /5 meeting (Doha, Qatar, 22-25 May 2016). The RASG-MID/5 meeting recalled that the ICAO MID Regional Office issued the RASG-MID Safety Advisory- RSA-04 through State Letter Ref.: ME 4-15/152 dated 26 May 2015, to provide a set of guidelines and similarity rules for use by airline operators and air traffic controllers. Accordingly, the meeting encouraged States and aircraft operators to implement the RSA-04.

2.8 The RASG-MID/5 meeting was apprised of the MIDANPIRG/15 meeting outcome related to call sign similarity and confusion. The meeting supported the following MIDANPIRG/15 Conclusion and urged States to take necessary measures to implement its provisions:

CONCLUSION 15/2: CALL SIGN SIMILARITY PROVISIONS AND GUIDELINES

That, States be urged to:

- a) take necessary measures to ensure that their Aircraft Operators (AOs) implement a mechanism to de-conflict call similarity between the same AO flights and thereafter between their local AOs and other Middle East AOs flights;*
- b) report call sign similarity/confusion cases using the template at Appendix 4.1C; and*
- c) develop a simplified mechanism to trigger the reporting of call sign similarity/confusion by ATCOs.*

2.9 The RASG-MID/5 meeting was updated on the initiative related to CSC implemented under the framework of the MID Region ATM Enhancement Programme (MAEP), by the MAEP Interim Project Management Office (MAEP IPMO) with Etihad Airways as the Champion, supported by IATA and the ICAO MID Regional Office. The meeting reviewed the progress report on the CSC initiative as presented to the Second Meeting of the MAEP Steering Committee (MAEP SC/2).

Accordingly, the meeting encouraged States to cooperate with the CSC Initiative Team, for successful future testing.

2.10 The meeting may wish to note that a coordination meeting was held at Etihad Headquarters in Abu Dhabi, UAE on 24 August 2016, between IATA, ICAO and several air operators. The meeting reviewed the progress of the CSC Initiative and agreed on the launching of second phase of trials. Additional airlines joined Etihad Airways in the testing of the flight plans starting from this year winter schedule. Accordingly, States have been invited to cooperate and report feedback in order to ensure successful implementation.

ATS Routes/Contingency Planning

2.11 The meeting may wish to note that some airspace users continue to circumnavigate Baghdad, Damascus and Tripoli FIRs due to the conflict zones. With regard to Sana'a FIR, some air operators resumed operations through Sana'a FIR using the ATS routes over the high seas.

2.12 Several Contingency Coordination Teams (CCTs) have been established in accordance with the MID Region ATM Contingency Plan, which succeeded in the provision of a forum for sharing information, identifying the challenges and implementation of contingency measures/routes ensuring the safety of air traffic during contingency situations.

2.13 The meeting may wish to note that the majority of the information posted on the ICAO Conflict Zone Information Repository (CZIR) is related to the MID Region. In this respect States were encouraged to provide updated information related to conflict zones, in accordance with the interim procedure to disseminate information on risks to civil aviation arising from conflict zones attached to State Letter Ref.: SMM 1/4-15/16 dated 20 March 2015.

2.14 The meeting may wish to note that ICAO has been working closely with IATA and States through bilateral and multilateral meetings to discuss, agree and follow-up on the implementation of improved ATS routes at the concerned interfaces.

2.15 In the same vein, ICAO MID Regional Office was supporting the inter-regional meetings related to the implementation of ATS Routes such as, Iran-Turkey, Iraq-Turkey, Kabul FIR, Mogadishu FIR, etc.

2.16 ICAO has also developed the Advanced Inter-regional Air Traffic Services Route Development Task Force (AIRARD) to address ATM issues of mutual interest at the interfaces between Asia Pacific, Europe and Middle East Regions. The first meeting of the AIRARD Task Force (AIRARD TF/1) was held in Tbilisi, Georgia on 21 October 2016 back-to-back with the Twenty Fifth Meeting of the Route Development Group – Eastern Part of the ICAO EUR Region (RDGE/24) from 17 to 20 October 2016.

2.17 It is to be highlighted that the AIRARD TF/1 elected Mr. Kaveh Firouz Deputy Director of Tehran ACC, Iran as the Co-chair of the AIRARD TF from the States side along with a Co-chair from IATA side, who will be nominated by IATA at a later stage. The AIRARD TF/2 meeting was tentatively planned for October 2017, in conjunction with the RDGE/27 meeting in Kazakhstan.

Search and Rescue (SAR)

2.18 The meeting may wish to note that the ICAO AFI/APAC/MID Regional and Inter-regional SAR Workshop was successfully held in Mahe, Seychelles from 19 to 22 July 2016. The Workshop was hosted by the Seychelles Civil Aviation Authority. The Workshop was attended by a total of eighty-five (85) participants from twenty-six (26) States and four (4) international

organizations. Iran, Iraq, Lebanon, Saudi Arabia and UAE participated in the Workshop from the MID Region.

2.19 The main objectives of the Workshop was to bring together States from the four ICAO Regions, to share experiences, identify challenges and agree on measures to ensure harmonized SAR service provisions. The workshop familiarized participants with the latest developments at global, regional and interregional level pertaining to SAR services. In addition, available solutions to challenges facing States in implementing SAR requirements as provided for under Annex 12 (Search and Rescue services) to the Chicago Convention were considered. A search and rescue exercise (SAREX) was carried out by the Seychelles Joint Rescue Coordination Centre, in order to familiarize participants with SAR operational aspects.

2.20 The Workshop also provided an opportunity for the coordination of SAR Letter of Agreements (LoAs) between the present States, which will enhance the status of LoAs signed and may encourage more multilateral agreements.

2.21 The following are the main key points that were highlighted during the workshop based on the lessons learnt from MH370, QZ8501 and MS804, which are considered vital in order to enhance search and rescue services in the four ICAO Regions (APAC, ESAF, MID and WACAF) in an harmonized manner:

- a) Search and Rescue should be given appropriate support at all levels within the International Civil Aviation Organization (ICAO), including other international and regional organizations and States;
- b) ICAO should work with all stakeholders concerned with search and rescue to:
 - i. raise awareness on the importance of search and rescue at a high level and obtain the commitment of States in operationalizing SAR;
 - ii. create forums to enable signing of high-level multi-lateral SAR agreements and harmonization of SAR plans; and
 - iii. coordinate with States' Administrations, including donor States and organizations to improve the availability of SAR funds to support SAR activities, including for search and rescue exercise (SAREX) and the provisions of services during large scale SAR responses, such as Mass Rescue Operations (MRO).
- c) States should work together to share experiences, resources and develop regional or sub-regional SAR JRCC, projects, research development, SAREX, etc.;
- d) States should take necessary measures to enhance the competency of their SAR experts and workforce, including SAR inspectorate staff, through the organization of SAR courses with the support of ICAO and IMO as appropriate;
- e) States should ensure proper cooperation between all their national authorities concerned with SAR, such as aeronautical, military, maritime, etc. through the establishment of national SAR committees; and
- f) States, that have not done so, should finalize their SAR plans and coordinate SAR agreements with all adjacent States as a matter of urgency. States

experiencing challenges in implementation should contact their relevant ICAO Regional Office, which will guide and support the coordination of SAR agreements.

2.22 The Workshop also agreed on a set of recommendation to be implemented for the enhancement of SAR as at **Appendix A**.

2.23 The meeting may wish to note that the MID SAR Action Group established by MSG/5 meeting based on the outcome of the ATM SG/2 meeting is working on the development of a MID Region SAR Plan including an action plan from a SAR regional/sub-regional exercise. The first draft will be presented to the ATM SG/3 meeting (Cairo, Egypt, 22-25 May 2017).

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) encourage States to take necessary measures for the implementation of the SIDs and STARs new phraseologies;
- b) support the coordination meetings related to the enhancement of the ATS route network;
- c) encourage concerned States to participate and contribute to work programme of the AIRAD TF;
- d) implement the relevant recommendations emanating from the ICAO AF/APAC/MID Inter-regional SAR Workshop; and
- e) support the work of the MID SAR Action Group.

APPENDIX A

	Action	Responsible	Timeline	Status / Updates
1.	Organize ICAO Inter-regional AFI/APAC/MID SAR Workshop periodically on a rotational basis between the regions. ICAO ROs to include the workshop venue and dates in 2017 schedule of meetings	ICAO	Dec. 2016	
2.	Coordinate with ICAO HQ to provide more support to SAR through the provision of adequate resources to ensure effective follow-up and assistance regarding global SAR issues.	ICAO	Sep. 2016	
3.	Consider the reduction of the uncertainty phase timing commensurate with adequate communications and surveillance capabilities.	ICAO	TBD	
4.	Clearly define the division of responsibilities regarding command and control and hand over between the search and rescue function (Annex 12) and the air accident investigation search and recovery function (Annex 13).	ICAO	TBD	
5.	Development of AFI and MID Regional SAR Plans in a harmonized manner, taking into consideration the APAC SAR Plan and experience.	ICAO MID ICAO AFI	Mar. 2017 TBD	
6.	Establishment of national SAR committee that manages aeronautical, maritime, and civil/military cooperation aspects.	States ICAO	June 2017	
7.	Establishment of internal Quality Management System (QMS) for RCCs utilizing frameworks such IAMSAR, regional plan, USOAP-CMA protocol questions related to SAR.	States	Ongoing	
8.	Development of a Template for national SAR Plan	ICAO	Jan. 2017	
9.	Development of a comprehensive national SAR Plan addressing the ICAO and IMO requirements, involving the airspace operators and ensuring effective internal and cross borders cooperation, taking into consideration the regional SAR Plan. Aerodrome and airline emergency response plans and disaster management plans should be synchronized with the SAR Plan.	States	June 2017	
10.	Raise awareness related to SAR through promotional material and the conduct of national, regional and inter-regional SAR workshops with the support of ICAO and IMO.	AFCAC (for AFI Region) ICAO IMO States	Ongoing	
11.	Negotiate and sign SAR LoAs between adjacent States	States AFCAC (for AFI Region)	June 2017	

12.	States at the interface with the ICAO MID Region to follow-up with their ACCs the signature of the MID SAR Bilateral Arrangements with their relevant adjacent MID ACCs to ensure that alerting and coordination procedures are in place.	States adjacent to MID States	June 2017	
13.	Staff RCCs with sufficient number of adequately dedicated SAR personnel, and ACC with supervisory resource to ensure swift triggering of the alerting and coordination process.	States	Ongoing	
14.	Develop a short and long term plans for training of search and rescue personnel, including those involved in the oversight of SAR, derived from comprehensive training programmes, manual, etc. in order to ensure effective training and high level of competency.	ICAO IMO States	Ongoing	
15.	Enhance SAR experts' competency thorough the conduct of national, regional and inter-regional SAR courses with the support of ICAO and IMO as appropriate.	States ICAO AFCAC	Ongoing	
16.	RCCs and, as appropriate, RSCs, staffed 24 hours a day by trained and qualified operational personnel using radiotelephony communications who are proficient in the use of the English language.	States	Ongoing	
17.	Training to interact with the media should be provided to SAR Managers or any person involved with public communications.	States	Ongoing	
18.	Alternatives means of communication to promote, coordinate, SAR issues such as social media could be used. <i>Note. Social media should not be used as an initial alerting means in lieu of formal communication mechanism</i>	States	ongoing	
19.	Establishment of a Joint Rescue Coordinator Centre (JRCC) to coordinate aeronautical and maritime SAR operations	States	TBD	
20.	Sharing of resources (Human, assets, funding, etc.) through the establishment of regional and sub-regional SAR JRCC	ICAO States	Ongoing	
21.	Making available funds to ensure effective provision of SAR services, which should cover the running cost of the RCC and the SAR missions in case of incidents and accidents, SAREX and the provisions of services during large scale SAR responses, such as Mass Rescue Operations (MRO).	States Donors Stakeholders	Ongoing	
22.	Review the GADSS Concept and consider their preparedness for implementation.	States Airlines	Ongoing	
23.	Establishment of a legal framework to support the roles and responsibilities of SAR experts to handle various SAR missions.	States	Ongoing	
24.	Conduct national, regional, sub-regional and inter-regional SAREX. SAREX should be effective to test the SAR system in place.	States ICAO IMO	Ongoing	
25.	Signature of Memorandum of Arrangements (MoA) between SPOCs and their relevant MCCs	States	June 2017	

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26.	RCCs should be notified well in advance regarding any activity that may lead to a SAR response (adventure, experimental, etc.) within their area of responsibility by their relevant authorities, for appropriate actions.	States	Ongoing	
27.	Consider the use of drones for SAR services.	States	Ongoing	
28.	Development of guidance on the use of drones for SAR.	ICAO IMO Stakeholders	Dec 2017	
29.	Take note of the emerging space-based ADS-B technology (trial from September 2016)	States	Ongoing	

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