



International Civil Aviation Organization

MIDANPIRG/19 & RASG-MID/9 Meetings

(Saudi Arabia, 14-17 February 2022)

Agenda Item 5.7: ATM-SAR

Enhancement of Saudi Arabian Mission Control Centre (SAMCC) Capabilities

(Presented by Saudi Arabia)

SUMMARY

This paper provides an overview on Saudi Arabian Mission Control Center (SAMCC) activities for the development and enhancement of capabilities to support Search and Rescue Services in the MID region. The coordination framework with government agencies is also described.

1. INTRODUCTION

1.1 The search and rescue service in Saudi Arabia is organized in accordance with General Authority of Civil Aviation (GACA) Regulations and Annex 12 SARPs. Saudi Arabia basic law identifies GACA as the designated authority for search and rescue. The main responsibilities cover the development of SAR regulatory framework, the planning of SAR activities, and oversight of SAR operational units and assessment of their capabilities and readiness during full scale SAR exercises.

1.2 Under COSPAS-SARSAT programme, Saudi Arabia is designated as service provider for the dissemination of alerts within a service area covering Jeddah FIR and Seven MID States. This function is conducted by Saudi Arabian Mission Control Center (SAMCC) established in 2000 at Jeddah Area Control Center. The center is responsible for coordination of Search activities and dissemination of alerts to SAR Point of Contact (SPOC) designated by supported States.

1.3 Saudi Air Navigation Services (The only certified ANS Provider in KSA) is managing the operation of SAMCC and the Aeronautical Rescue Coordination Centre (ARCC) as service provider. SAMCC has established two working arrangements with Bahrain and Lebanon and five SAR bilateral measures that are covered under Annex I of the Letter of Agreement signed between Jeddah ACC and neighboring ACCs located in Amman, Cairo, Kuwait, Muscat and Bahrain.

2. ENHANCEMENT OF SAMCC CAPABILITIES

2.1. Under the development of its capabilities, SAMCC adopted the new specifications required by the COSPAS-SARSAT Programme with the deployment of the Medium-Earth Orbit Search and Rescue (MEOSAR) System in accordance with the specifications and requirements set out in the Cospas-Sarsat documentation and approved by the International Cospas-Sarsat Programme Council.

2.2 The new system consists of LGM-MCC which will enable SAMCC to process, exchange and distribute distress alert data received from Cospas-Sarsat satellite constellations whether the message is provided from Low Earth Orbit Search and Rescue (LEOSAR), Geostationary Orbiting Search and Rescue (GEOSAR), and Medium-Altitude Earth Orbiting Search and Rescue (MEOSAR) systems.

2.3 SAMCC MEOLUT (4034) commissioning report was submitted and reviewed by the Cospas-Sarsat (EWG-1/2019-LUT-03) in October 2019 and the Experts Working Group recommended that the Council approve the commissioning into the Cospas-Sarsat System at the MEOSAR early operational capability (EOC) performance level. The MEOLUT (4034) is located at Jeddah ACC with a Declared Coverage Area DCA radius of 2600 km.

2.4 In November 2019, the Cospas-Sarsat council approved the commissioning of the Saudi MEOLUT (4034) as integrated part of the Cospas-Sarsat system with the following classification: MEOSAR early operational capability performance level with a DCA radius of 2600 Km.

2.5 Regarding the management of 406 Mhz distress beacons, SANS took the initiative to develop an online 406 MHz distress beacons database to register the data on the beacons, their owners/operators. This database will be made available for national SAR authorities and operational units. The online service is hosted in SANS cloud platform and can be accessed through a specific designed web-portal. This initiative is on-going and it is expected that the data migration from the current 406 Mhz database will start during the first quarter of 2022.

2.6 With respect to SAR training, SAMCC organized awareness and briefing sessions at Riyadh, Jeddah ACCs, and Dammam approach Centre. These sessions were attended by ATC supervisors and ATS operational Staff and ATC training specialists and have covered Search and Rescue arrangements with an overview on the ICAO Global Aeronautical Distress and Safety System (GADSS) and related provisions. Moreover, SAMCC organized, at GACA regional Office in Jeddah, briefing sessions for pilots, stakeholders' specialists, and aviation inspectors on the latest developments in Search and Rescue and the ICAO GADSS concept and related provisions.

2.7 Regarding the coordination and cooperation with National authorities, SAMCC organized, regular meetings that are attended by representatives from SAR authorities i.e., GACA, Ministry of Interior (National Centre for Security Operations), Royal Saudi Air force, Saudi Border guard, Transport General Authority, and Communications and Information Technology Commission. During the last meeting, SMACC brief the attendance on the latest developments in Search and Rescue with focus on the upcoming enhancement of space use (satellites) and the ICAO GADSS. The main topics that were covered can be summarized as follows:

- a) GADSS – Concept
- b) 406 Mhz National Database Project
- c) Return Link Services under ELT coding; and
- d) Remote Beacon Activation.

3. SAR EXERCISES (SAREX)

3.1 Under the assessment of readiness of SAR authorities and operational units, the National SAR Committee conducted, at Rabigh on 22nd of December 2021, a Search and Rescue (SAREX-43) simulating Naval Disaster in the Red Sea.

3.2 The scenario of SAREX 43 is dealing with ditching of an international flight after departing from KAIA-Jeddah (OEJN) to ZZZZ, and after passing RBG VOR, the pilot declared an emergency due to engine failure, and request to return to KAIA. The engine failure is getting worst with loss of height. The crew decided to land on water (ditching into water). Jeddah ACC notified the Search and Rescue centre. This latter liaised with Jeddah maritime RCC, and National SAR Plan is immediately activated. 2 Helicopters and one C130 aircraft have been engaged in this exercise.

4. CONCLUSION

4.1 SAMCC is very active in the enhancement of SAR capabilities. The centre is engaged in SAR activities at planning and operational levels and maintained close coordination and cooperation with SAR authorities, operational units and designated focal points at national and regional levels. The experience gained can contribute to the enhancement and improvement of SAR in MID region.

4.2 SAMCC is willing to exchange any SAR experience, development, and improvements to enhance SAR activities in the MID region and to share the lessons learned and practices on the coordination and interaction with SPOCs, SAR authorities, and operational units.

5. ACTION BY THE MEETING

5.1 The meeting is invited to take note of the information described in this paper.

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