



International Civil Aviation Organization

MIDANPIRG Steering Group

Fifth Meeting (MSG/5)
(Cairo, Egypt, 18 - 20 April 2016)

Agenda Item 4: MID Region Air Navigation Planning

SAR PLANNING MATTERS

(Presented by the Secretariat)

SUMMARY

This paper presents the Search and Rescue (SAR) planning matters through the review of the outcome of the ATM SG/2 meeting for consideration and/or endorsement by MSG.

Action by the meeting is at paragraph 3.

REFERENCES

– ATM SG/2 Report

1. INTRODUCTION

1.1 The Second meeting of the MIDANPIRG ATM Sub-Group (ATM SG/2) was successfully held at the ICAO Middle East Regional Office in Cairo, Egypt, from 30 November to 03 December 2015.

1.2 The meeting was attended by a total of thirty one (31) participants from seven (7) States (Bahrain, Egypt, Iran, Qatar, Saudi Arabia, UAE and United States of America) and five (5) Organizations/Industries (CANSO, Google, IATA, IFATCA and MIDRMA).

1.3 The meeting developed three (3) Draft Conclusions and one (1) Draft Decision.

1.4 The ATM SG/2 meeting noted that the deficiencies related to the Search and Rescue (SAR) in the MID Region were mainly related to the:

- a) lack of signature of SAR agreements;
- b) lack of plans of operations for the conduct of SAR operations and SAR exercises;
- c) lack of provision of required SAR services; and
- d) non-compliance with the carriage of Emergency Locator Transmitter (ELT) requirements.

2. DISCUSSION

2.1 The ATM SG/2 meeting reviewed and updated the status of SAR agreements in the MID Region, SAR Points of Contact (SPOCs) and SAR Focal Points contact details.

2.2 The ATM SG/2 meeting was apprised of the outcome of the Twenty Second meeting of the ICAO/IMO Joint Working Group on Harmonization of SAR (JWG/22), (Trenton, Ontario Canada, 14-18 September 2015).

2.3 The JWG/22 meeting noted the good work of the Asia Pacific SAR Task Force and the development of a SAR Plan for the Asia Pacific Region, and considered this information to be very valuable to the Global SAR community and recommended its widespread availability.

2.4 The Council noted the availability of the information provided by the Asia/Pacific SAR Task Force as relevant to the ongoing consideration of the global aeronautical distress and safety system (GADSS) concept of operation and requested that other ICAO Regions provide similar information regarding their own regions.

2.5 The ATM SG/2 meeting recalled that the DGCA-MID/3 and MIDANPIRG/15 meetings recognized the importance of the conduct of regional/sub-regional SAR training exercises.

2.6 The ATM SG/2 meeting reviewed the SAR Plan developed by the Asia/Pacific SAR Task Force and agreed that this should be used for the development of the MID SAR plan, which may be split into two parts (additional requirements to be included in the MID eANP Volume II, Part VI, under Specific Regional Requirements; and guidance material to be published as a MID Doc).

2.7 Based on the foregoing, the ATM SG/2 meeting agreed to the establishment of a MID SAR Action Group composed of SAR Experts from volunteer States and ICAO to develop the MID SAR Plan, and an Action Plan for the conduct of regional/sub-regional SAR training exercises. Accordingly, the meeting agreed to the following Draft Decision:

Why	To develop a SAR Plan for the MID Region based on the Asia/Pacific experience
What	MID SAR Action Group
Who	MSG/5 meeting/ICAO MID Regional Office and States
When	April 2016/ ongoing

DRAFT DECISION 2/4: MID SEARCH AND RESCUE ACTION GROUP

That, a MID SAR Action Group be established to:

- a) carry out a Gap Analysis related to the status of implementation of SAR services in the MID Region;*
- b) develop a SAR Plan for the MID Region based on the Asia/Pacific experience; and*
- c) develop an action plan for the conduct of regional/sub-regional SAR training exercises.*

2.8 The ATM SG/2 meeting recognized that the establishment of a dedicated SAR Task Force may provide an opportunity for a better attendance of SAR experts, especially from the military side. Nevertheless, the meeting agreed that the formal establishment of a dedicated Task Force for SAR should be left to the MSG/5 meeting decision, based on the outcome of the SAR AG.

2.9 The ATM SG/2 meeting reviewed the model Agreement for use between SPOCs and Mission Control Centers at **Appendix A**, developed by the Secretariat of COSPAS-SARSAT and ICAO collaboratively. Accordingly, the meeting urged States to provide their comments on the Agreement to the ICAO MID Regional Office by 15 February 2016.

2.10 The meeting may wish to note that COSPAS-SARSAT Mission Control Centres (MCC) have been conducting Communications tests with SPOCs on monthly basis. The 2015 tests report related to Saudi Arabia Mission Control Centre (SAMCC) is at **Appendix B**. It is to be highlighted that no response was received from Kuwait, Qatar, Syria and Yemen. Some of Jordan and Oman responses were received beyond the 30 minutes interval. Moreover, most of Egypt and Libya responses to Algeria (MCC) were within the 30 minutes interval.

2.11 Based on the results of the communication tests with SPOCs, it was noted that the signature of agreement between MCC and SPOCs will, amongst other enhancements, go a long way to encouraging SPOCs to react more quickly in acknowledging the monthly MCC/SPOC communication test. At present there is either a timely or a slow response beyond the established limit, or no response at all.

2.12 The meeting may wish to note that an inter-regional AFI/APAC/MID SAR Workshop will be held in Seychelles, tentatively during the second half of July 2016.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) take into consideration the global and regional developments related to SAR when developing their national plans;
- b) endorse the Draft Conclusion emanating from the ATM SG/2 meeting;
- c) take decision related to the establishment of a dedicated SAR Task Force; and
- d) encourage States to attend the planned SAR Workshop (Seychelles, July 2016).

Attachment 1

**DRAFT
MCC/SPOC Model Agreement**

**[Agreement]
between**

[name] Mission Control Centre

and

[State name] SAR Point of Contact

**for the Distribution and Reception of COSPAS-SARSAT Distress Alert Data for Search
and Rescue**

DEFINITIONS

“**Agreement**” means this Agreement;

“**Ground Segment Provider**” means any State which establishes and operates the ground segment equipment and avails itself to the System, under the terms of the International COSPAS-SARSAT Programme Agreement (ICSPA) and in the context of this [agreement], [State];

“**Local User Terminal (LUT)**” means a computer hardware system installed to receive signals relayed by the satellites and processes them to determine radio beacon location;

“**Mission Control Centre (MCC)**” means a computer system established to accept the output from the Local User Terminal and convey distress alert and location data to appropriate authorities and in the context of this MOU, the [name] SPOC;

“**Radio beacons**” means distress alert instruments designed to be activated in a distress and to transmit a radio signal at 406 MHz, the characteristics of which comply with appropriate provisions of the International Telecommunication Union and COSPAS-SARSAT specifications;

“**Search and Rescue Point of Contact (SPOC)**” means Rescue Co-ordination Centres and other established and recognized national points of contact which can accept responsibility to receive COSPAS-SARSAT alert data to enable the rescue of persons in distress;

“**Service Area**” means that part of the world within which a COSPAS-SARSAT alert data distribution service is provided by an MCC, in accordance with document C/S P.011 “COSPAS-SARSAT Programme Management Policy”; an MCC Service Area is defined by the list of SPOCs to which that MCC distributes COSPAS-SARSAT alert data;

“**System**” means the COSPAS-SARSAT System comprising a Space Segment, Ground Segment and radio beacons operating at 406 MHz.

1. PURPOSE

- a. The purpose of this Agreement between the [MCC] and [SPOC] is to formalize the exchange of space based distress alerts received through the satellite system of the International COSPAS-SARSAT Programme. This is to ensure that institutional arrangements between the two entities at the operational level are effective.
- b. This Agreement aims to ensure that rapid and reliable two-way communication is established between the two centres servicing the [name] Search and Rescue Region (SRR) for prompt provision of Search and Rescue Services to persons in distress in aviation, maritime and land incidents.

2. INTRODUCTION

- a. Knowing the importance of co-operation in search and rescue (SAR), and of the provision of expeditious and effective SAR services;
- b. Desiring to support the provisions of the Convention on International Civil Aviation of the International Civil Aviation Organisation (ICAO) and the International Convention on Maritime Search and Rescue of the International Maritime Organisation (IMO);
- c. Noting the Standards and Recommended Practices in Annex 12 to the Convention on International Civil Aviation of ICAO and the provisions of the International Convention for the Safety of Life at Sea (SOLAS);
- d. Supporting the principles of the COSPAS-SARSAT Programme as determined by the COSPAS-SARSAT Council;
- e. The [MCC] and [SPOC] have agreed as follows:

3. OBJECTIVES

[Administration of MCC], as signatory to the International COSPAS-SARSAT Programme Agreement, shall pursue the following objectives:

- a. Provide distress alert and location data from the System to the international community in support of SAR operations on a non-discriminatory basis;
- b. Support, by providing these distress alert and location data, the objectives of IMO and ICAO concerning search and rescue;
- c. Cooperate with other national authorities and relevant international organizations in the operation and co-ordination of the System;

- d. Provide and confirm distress alert and location data from the COSPAS-SARSAT System from the [name] MCC to the [SPOC]; and
- e. Provide information concerning the System status to [SPOC].

The [SPOC] shall at all times endeavour to support the [MCC] in its efforts to fulfil its objectives and commitments under the ICSPA in accordance with the provisions of this [Agreement].

The MCC and SPOC shall establish reliable communication links (AFTN, fax, email) and operational procedures, which include backup routines.

In the spirit of close cooperation, the MCC and SPOC shall consult from time to time with a view to ensuring the full implementation of the provisions of this [Agreement] and necessary amendments as appropriate.

4. PROCEDURES

- a. The [name] Mission Control Centre ([.]MCC) established in [location], [State], providing services under the ICSPA shall communicate distress alerts located in the SRR of the SPOC, or for beacons which contain the country code of the SPOC to [SPOC], [State] for undertaking search and rescue services, assisted as required by RCCs within the State of the SPOC.
- b. MCC and SPOC agree that the distribution of alert data by [name] MCC is undertaken on a best effort basis and that [name] MCC cannot guarantee continuous system availability.
- c. [State] shall designate a single SAR point of contact (SPOC), where possible, for receiving COSPAS-SARSAT alert and location data for distress locations in their SAR area of responsibility and provide the address, telephone, telex or facsimile number or AFTN address of their SPOC to [MCC] and the COSPAS-SARSAT Secretariat (Attachment 1).
- d. [SPOC] will immediately notify [MCC] of any changes to the provided contact details in (Attachment 1).
- e. [SPOC] shall develop a comprehensive plan for the distribution of distress alert and location data to SAR authorities within its SRR, as appropriate.
- f. The [SPOC] shall endeavour to minimize false alerts in their country.
- g. The [SPOC] shall provide information on their national point of contact for beacon registers to the COSPAS-SARSAT Secretariat and the [MCC].
- h. The [SPOC] shall maintain reliable communication links with MCC and respond to monthly communication tests from the [name] MCC immediately after receipt thereof (not using an automatically generated response) to verify the integrity of communications links between the MCC and SPOC.
- i. [SPOC] shall communicate routine reports, such as alert summaries and monthly operations reports on SAR incidents that were assisted by Emergency Locator Transmitters (ELTs), Emergency Position-indicating Radio Beacons (EPIRBs) or

Personnel Locator Beacons (PLBs) to [MCC] on a regular basis, with special reports as and when required.

5. DEPOSITARY

The Depositary of this Agreement and any subsequent amendments thereto shall be the Secretariat of the International COSPAS-SARSAT Programme.

The MCC and SPOC will also provide a signed copy of this Agreement to the ICAO Regional Office concerned with the [name] SRR and the IMO Secretariat, if desired by them.

6. ENTRY INTO FORCE, AMENDMENT, RENEWAL AND TERMINATION

This [Agreement] will enter into effect when it has been signed on behalf of all parties. The [Agreement] shall remain in force for a period of **two** years from the date on which it enters into force and shall be extended automatically for successive periods of **two** years.

- a. This [Agreement] is signed on Day ____ of _____ 20xx, between [MCC] and [SPOC].
- b. The [Agreement] will be reviewed as required and may be modified or amended by mutual agreement of both parties in writing.
- c. Both parties, in the event of initiating action to terminate the [Agreement] shall give the other party a minimum of 120 days prior notice in writing.

(I) **SIGNATURE**

AUTHORIZED REPRESENTATIVE

[MCC]

(II) **SIGNATURE**

AUTHORIZED REPRESENTATIVE

[SPOC]

Attachment 1: CONTACT DETAILS

[MCC]

Phone:

Fax:

Email:

AFTN:

Other:

[SPOC]

Phone:

Fax:

Email:

AFTN:

Other:

[Other]

Phone:

Fax:

Email:

AFTN:

Other:

[Add further contacts as required]

- END -

COSPAS-SARSAT SAMCC COMMUNICATION TEST WITH SPOCS

1. ACTION REQUIRED

The South Central DDR participants are invited to note the following results of SAMCC/SPOCs communication tests.

2. BACKGROUND

At the Open Council Session 41 CSC-41, in October 2008, a new requirement for MCCs to conduct monthly communication tests with their SPOCs was approved. It was included at section 4.4.3 in document C/S A.003 "Cospas-Sarsat System Monitoring and Reporting"(Oct-2008), at present 3.1.3.3. "MCC to RCC/SPOC Communication Links" in document C/S A.003 (Oct-2013).

3.1.3.3 MCC to RCC/SPOC Communication Links

[...]

(iii) Reporting of MCC/SPOC Communication Tests

Each MCC should report results of the MCC/SPOC communication test to the Cospas-Sarsat Secretariat, who will provide a summary report to IMO COMSAR as part of the annual Cospas-Sarsat status report.

MCCs should report on a monthly basis (after each communication test) using the format provided at Annex I to this document. All reports should be focused on non-functionality, but a report should be submitted even if all communication tests are successful.

At Joint Committee JC-23, in June 2009, it was agreed that a successful test of a SPOC communication link should require receipt of a manual acknowledgement from the SPOCS.

3. SAMCC COMMUNICATION TEST WITH SPOCS

In accordance with requirements and format provided in the document C/S A.003, Annex I, included at Attachment 1, SAMCC has performed communication tests with each of its SPOCs, on a monthly basis, and has reported the results to the Cospas-Sarsat Secretariat to be included at the annual Cospas-Sarsat status report for further submission to IMO COMSAR Sub-Committee Meeting.

The template test message used for communication links test and sent through every available link was as follows:

FROM: SAMCC COSPAS-SARSAT (SAUDIA ARABIA)
TO: (SPOC NAME)
SUBJECT: MONTHLY COMMUNICATION LINKS TEST

ACCORDING TO COSPAS-SARSAT (SEARCH & RESCUE SATELLITE AIDED PROGRAM) NEW REGULATIONS, EACH MCC (MISSION CONTROL CENTER) MUST CHECK MONTHLY EACH DECLARED COMMUNICATION LINK WITH THE SAR POINTS OF CONTACT IN THE COUNTRIES WITHIN ITS SERVICE AREA. AT PRESENT WE ARE USING FOLLOWING LINKS TO CONTACT YOU, IN ENGLISH LANGUAGE, AS PRIMARY LINKS FOR SEARCH AND RESCUE SERVICES:

AFTN: (XXXXXXXX)
FAX: (XXXXXXXX)
PHONE: (XXXXXXXX)
EMAIL: (XXXXXXXX)

WE WOULD APPRECIATE VERY MUCH IF YOU COULD CONFIRM THESE ADDRESSES AS PRIMARY/MAIN OR IF YOU PREFER US TO USE OTHERS DIFFERENT. ANY 24 HOURS SERVICED LINK WOULD BE ALWAYS PREFERABLE.

A SUCCESSFUL COMMUNICATION TEST REQUIRES THAT THE MANUAL ACKNOWLEDGEMENT FROM THE SPOC/RCC BE RECEIVED WITHIN 30 MINUTES. IF NO REPLY IS RECEIVED, THE TEST WILL BE DECLARED INVALID.

FOR YOUR INFORMATION, OUR LINKS ARE:
AFTN: OEJNJSAR
FAX: +966126150171
PHONE: 966126150170
E-MAIL: SAMCC@gaca.gov.sa

PLEASE, ACKNOWLEDGE RECEPTION OF THIS MESSAGE.

THANKS FOR YOUR COOPERATION.

BEST REGARDS

SAMCC (COSPAS-SARSAT SAUDIA ARABIA MISSION CONTROL CENTRE)

In this template, all communication links in use with the tested SPOC are included, with their appropriate priority order, to be confirmed or updated by the SPOCs. At the same time SAMCC communication links are provided, for their consideration.

SAMCC uses automatic communication links as AFTN and/or Fax to communicate with SPOCs within its service area. The availability of these communication links at SAMCC during 2015 was 100% for AFTN and 100% for Fax.

4. COMMENTS

The results of the monthly communication tests between SAMCC and each Saudis SPOC, from January to December 2015, have been reported to the Cospas-Sarsat Secretariat using the available MS Access form.

During this year, while the communication links seemed to be working properly for AFTN messages with DD priority, only 4 of the 8TH Saudis SPOCs have manually acknowledged receipt of messages, within 30 minutes, during the communication tests. Other 4 SPOCs have confirmed the reception of test messages by (Phone & Fax).

Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	A	T	F	LR
Bahrain													12	12	12	0
Jordan	LR												11	12	12	1
Kuwait				LR									0	12	12	1
Lebanon													11	12	12	0
Oman										LR	LR		9	12	12	2
Qatar													0	12	12	0
Syria													0	5	0	0
Yemen										LR			1	10	4	1
Tested	8	8	8	8	8	8	8	8	8	8	8	8	96			
AFTN Success	3	3	4	4	4	4	4	4	4	3	3	5	45			
Tel	8	7	7	7	7	7	7	7	6	7	7	8	85			
FAX Success	6	7	7	6	7	7	6	6	6	6	7	5	78			
Late Reception	1	0	0	1	0	0	0	1	0	2	1	0	6			
Sup Total	18	17	18	18	18	18	17	18	16	18	18	18	212			
AFTN Success Ratio %	37.5	37.5	50	50	50	50	50	50	50	37.5	37.5	62.5	47%			
A + F Success Ratio %	88.9	80	72.7	80	72.7	72.7	80	80	80	88.9	80	80	79.7%			

NOTE : (A = AFTN Success) , (T = TEL Success) , (F = FAX Success)

G	Manual acknowledgement receipt within 30 minutes.
R	No manual acknowledgement received.
LR	Manual acknowledgment receipt later than 30 minutes (LR = Late reception).

- SAMCC is testing exclusively those links used for the automatic transmissions of messages (AFTN), expecting the reception of a manual acknowledge through any of the available communication links , in the following 30 minutes, in order to consider the test as successful.
- Only if such manual acknowledgement from the SPOC is not received within 30 minutes, the SAMCC uses the phone and Fax links to confirm the reception, although the test will be considered Unsuccessful.

5. CONCLUSIONS

The SAMCC has performed annual communication tests with SPOCs in its service area since 2011, SAMCC has conducted these tests on a monthly basis, following the Cospas-Sarsat requirements.

SAMCC considers that monthly communication tests are a very useful tool to check the correct working of available links and also in order to have all SPOCs data up to date and confirmed the SAR Point of contact at each country.

6. RECOMMENDATION

Based on the results of the communication tests with SPOCs within SAMCC service area shown in this document, SAMCC is encouraged by the Draft MCC/SPOC Letter of Agreement that was submitted during JC29. We look forward to signing with our SPOC as a matter of priority. We note that the LOA will, amongst other enhancements, go a long way to encouraging SPOCs to react more quickly in acknowledging the monthly SAMCC/SPOC communication test. At present there is either a timely or a slow response beyond the established limit, or no response at all.

LIST OF SAMCC SPOC'S OPERATIONAL ADDRESSES

Name	AFTN	FAX	TEL	COMMENTS
BAHRAIN (RCC ATC Bahrain)	OBBIYCYX	973 17321029	973 17321081 973 17321080 973 17321158	Email: Bahatc@caa.gov.bh
JORDAN (RCC ATC Amman)	<i>OJACZQZX</i>	962 6 44 51 667	962 64451672 (ACC SV - RCC)	
KUWAIT (RCC ATC Kuwait)	OKBKZQZX	965 24746515	965 24760463 965 24762994	
LEBANON (RCC Beirut)	<i>OLBIYFYX</i>	961 1 628186 961 1 629035	961 1628161 961 13837833	
OMAN (RCC Muscat AF.)	<i>OOMSYAYX</i>	968 24334776 968 24338692	968 24519209 968 24519332	IN CASE OF INCIDENT CALL DIRECTLY (AIR FORCE) TEL : +968 24 33 4211 / 4244 FAX : +968 24 33 4743 / 8692
QATAR (RCC ATC)	<i>OTBDZTZX</i>	974 44622078 974 44678512	974 44651001 974 44616332 974 44616429	Air Operations Center Tel (+974 44617635) Marine Operations Center Tel (+974 44705412)
SYRIA (RCC ATC)	OSDIZQZX	963 115400312	963 115 400 540	
YEMEN (RCC Sanaa)	OYSNYCYX	967 1345916	967 777214088 (ATCS SV - RCC) 967 1344673	

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