INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE FIRST MEETING OF THE SEARCH AND RESCUE AD-HOC WORKING GROUP

SAR AWG/1

(Cairo, Egypt, 24-26 May 2010)

The views expressed in this Report should be taken as those of the SAR AWG and not of the Organization. This Report will, however, be submitted to the MIDANPIRG and any formal action taken will be published in due course as a Supplement to the Report.

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

TABLE OF CONTENTS

PART I – HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The First Meeting of the Search And Rescue Ad-hoc Working Group (SAR AWG/1) was held at the ICAO Middle East Regional Office, Cairo, Egypt, 24-26 May 2010.

2. OPENING

2.1 The meeting was opened by Mr. Jehad Faqir, ICAO Deputy Regional Director, Middle East Office. In his opening remarks, Mr. Faqir welcomed all delegates to Cairo. He expressed his appreciation at the efforts taken by States; Mr. Faqir highlighted the importance of this meeting and reminded the WG that they should progress on the development of model SAR legislation and regulations to assist States in developing legislative provisions and to review and develop updates to the MID ANP/FASID document.

3. ATTENDANCE

3.1 The meeting was attended by a total of 22 participants from eight (8) States (Bahrain, Egypt, Islamic Republic of Iran, Jordan, Oman, Saudi Arabia, Syria and United Arab Emirates). The list of participants is at **Attachment A** to the Report.

4. OFFICERS AND SECRETARIAT

1.2 The meeting elected Mr. Fareed Abdullah Al Alawi, Head, Air Traffic Operations, Civil Aviation Affairs, Kingdom of Bahrain, as the Rapporteur of the SAR Ad-hoc Working Group. Mr. Saud Humaid Al-Adhoobi, Regional Officer ATM/SAR and Mr. Raza Gulam, Regional Officer CNS were the Secretaries of the meeting. Mr. Jehad Faqir, Deputy Regional Director from the ICAO Middle East Office supported the meeting.

5. LANGUAGE

5.1 The discussions were conducted in the English language and documentation was issued in English.

6. AGENDA

6.1 The following Agenda was adopted:

Agenda Item 1:	Adoption of the Provisional Agenda and Election of a Rapporteur
Agenda Item 2:	Follow-up on MIDANPIRG and other meetings Conclusions and Decisions relevant to Search and Rescue
Agenda Item 3:	3.1 Review the outcome of SAR and Civil/Military Coordination Seminar

3.2 Review the outcome of the Global ATM Forum on Civil/Military Cooperation

Agenda Item 4: Model SAR legislation and Regulations

Agenda Item 5: Review SAR Guidelines

Agenda Item 6: Review/update the deficiencies in the Search and Rescue

Agenda Item 7: Future Work Programme

Agenda Item 8: Any other business

7. CONCLUSIONS AND DECISIONS – DEFINITION

7.1 The MIDANPIRG records its actions in the form of Conclusions and Decisions with the following significance:

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

b) **Decisions** relate solely to matters dealing with the internal working arrangements of the Group and its Sub-Groups

8. LIST OF CONCLUSIONS AND DECISIONS

DRAFT CONCLUSION 1/1: *SAR PART VII OF MID BASIC ANP*

DRAFT CONCLUSION 1/2: *SURVEY ON THE PROVISION OF SAR IN THE MID REGION*

DRAFT CONCLUSION 1/3: *SAR SPOC AND 406MHZ BEACON*

DRAFT DECISION 1/4: *DISSOLVE THE SAR AWG*

PART II: REPORT ON AGENDA ITEMS

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

1.1 The meeting adopted the Provisional Agenda as indicated in paragraph 6 of the History of the Meeting.

1.2 The Representative from Oman nominated Mr. Fareed Abdullah Al Alawi, Head, Air Traffic Operations, Civil Aviation Affairs, Bahrain, as the Rapporteur of the SAR AWG Working Group. The Representatives from Iran, Jordan, and Syria seconded the nomination. As such, Mr. Fareed Al Alawi, was elected as a Rapporteur of the Search And Rescue Ad-hoc Working Group.

1.3 In accepting the election, Mr. Fareed Al Alawi, thanked the participants for their confidence in him, and assured them that he will do his best to serve the Working Group in order to achieve its mandate.

REPORT ON AGENDA ITEM 2: FOLLOW-UP ON MIDANPIRG AND OTHER MEETINGS CONCLUSIONS AND DECISIONS RELEVANT TO SAR

2.1 The meeting noted the status of relevant MIDANPIRG/11 and ATM/SAR/AIS SG/11 Conclusions and Decisions related to the work programme of the SAR AWG and the follow-up actions taken by States, the secretariat and other parties concerned as at **Appendix 2A** to the Report on Agenda Item 2.

2.2 The meeting agreed in its deliberation to review the Conclusions and Decisions which are still current under the relevant Agenda Item.

SAR AWG/1
Appendix 2A to the Report on Agenda Item 2

MIDANPIRG/11 and ATM/SAR /AIS SG/11 Conclusions and Decision pertinent to the work of the Search And Rescue Ad – Hoc Working Group for consideration by the SAR AWG/1 meeting

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONC. 11/30: SEARCH AND RESCUE (SAR) AGREEMENTS That, in order to strengthen search and rescue cooperation and coordination, including the giving effect to ICAO provisions, in particular Annex 12 Chapter 3 and Conclusion 3/7 of LIM MID RAN 1996: a) MID States are urged to sign SAR agreements with their neighbouring States; b) MID States are urged to develop legislative and regulatory provisions to enable the signing of SAR agreements; c) MID States designate SAR focal points with whom other States and ICAO can communicate and coordinate development of SAR agreements, forward contact details of the focal points to ICAO MID Regional Office by 30 June 2009, and update such details as necessary; d) the model of SAR agreement available in the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual, reproduced at **Appendix 5.2 K** to the Report on Agenda Item 5.2 be used to guide States in the development of their own SAR agreements; and e) ICAO assist States in their efforts to sign SAR agreements.	Follow-up Implementation of Conclusion	ICAO States	SAR Agreements Focal Points	Dec. 2009 Jun. 2009	Ongoing (Follow up to be carried out by the SAR AWG/1 Meeting Actioned

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONC. 11/31: 406 MHZ BEACONS That, in order to continue receiving beyond 1 February 2009, the Cospas-Sarsat services that are currently available to owners and users of 121.5/243 Mhz ELTs, and to further benefit from the added services available to owners and users of 406MHz beacons, MID States that have not done so are urged to: a) require ELT owners and users of 121.5/243 Mhz ELTs to upgrade to 406 Mhz ELTs as soon as possible, and register their 406 Mhz ELTs in the International 406 Mhz Registration Database (IBRD); and b) designate to the Cospas-Sarsat Secretariat, an IBRD focal point and request Cospas-Sarsat for access to the IBRD in order to benefit from the services available.	Follow-up Implementation of Conclusion	States ICAO	State Letter Beacon upgrades and registration Focal points	Feb. 2009 Feb. 2009 Feb. 2009	Actioned (further follow-up by SAR AWG/1 meeting) (proposed to be replaced by Draft Conc. 1/ 3)
DEC. 11/32: SAR AD-HOC WORKING GROUP (SAR AWG) That, in order to review and develop updates to the MID ANP with regard to SAR requirements, as well as develop recommendations to foster implementation of provisions in the SAR field, the MID SAR Ad-Hoc Working Group is established with Terms of Reference (TOR) as at **Appendix 5.2L** to the Report on Agenda Item 5.2.	Discussions through email Convene SAR AWG	ICAO States	Implementation Guidance and Assistance	Jul. 2009	Actioned (First meeting held 24-26 May 2010) and replaced supersede by Dec 1/4 Completed To be Closed

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONC. 11/33: CIVIL/MILITARY COORDINATION That, in order to facilitate effective civil/military co-ordination and joint use of airspace in accordance with ICAO provisions, MID States that have not already done so, are urged to: a) implement ICAO provisions in Annexes 2, 11 and 15, and give effect to LIM MID (COM/MET/RAC) RAN 1996, Recommendations 2/9, 2/10 and 2/13 as well as Assembly Resolution A36-13 Appendix O, regarding coordination of civil air traffic with military activities; b) arrange for Letters of Agreement (LOAs) to be signed between ATS authorities and Military authorities in order to establish coordination procedures for the exchange of information; and c) take steps and arrange as necessary for the Military authorities to be: i) fully involved in the airspace planning and management process; ii) aware of the new developments in civil aviation; and iii) involved in national, regional and international aviation meetings, workshops, seminars and training sessions, as appropriate.	Follow-up Conclusion Implementation	States	Input from States Involvement of military in civil airspace management processes Civil/military coordination and cooperation	Nov. 2009 Ongoing Ongoing	Ongoing (proposed to be replaced by Draft Conc. 11/ 11)

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONC. 11/34: COORDINATION OF FLIGHT OPERATION OVER HIGH SEAS That, taking into consideration that the Convention on International Civil Aviation shall be applicable to civil aircraft: a) all parties involved are urged to ensure that proper coordination between the ATS authorities and foreign military units operating over the high seas be carried out to the extent practicable; b) State aircraft operating in the airspace over high seas, should: i. adhere, to the extent practicable, to ICAO provisions; or ii. operate with "Due Regard" for the safety of navigation of civil aircraft where there are operational situations that do not lend themselves to ICAO flight procedures. c) States report any incident/s relating to uncoordinated flights operating over high seas, in a timely manner (within 15 days) and in accordance with the suggested mechanism illustrated in the flow chart at Appendix 5.2N to the Report on Agenda Item 5.2.	Implement Conclusion	States, ICAO	Input from States	Nov. 2009	Ongoing (proposed to be replaced by Draft Conc. 11/11)

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONC. 11/35: UNCOORDINATED FLIGHTS OVER THE RED SEA That, a) the procedures at **Appendix 5.2O** to the Report on Agenda Item 5.2 be followed by all civil uncoordinated flights and, to the extent practicable, by military aircraft operating over the Red Sea area; b) States, that have not yet done so, publish an AIP Supplement, as soon as possible, for the promulgation of these procedures; c) IATA continue effort to ensuring that concerned operators are fully conversant with these procedures; d) all parties involved, through their proper channels, take appropriate action to ensure that the airspace users are informed of and comply with the agreed procedures; and e) States: i) report without delay all incidents relating to civil uncoordinated flights over the Red Sea Area; and ii) report any incident relating to State aircraft operating over the Red Sea Area, in a timely manner (within 15 days) and in accordance with the suggested mechanism illustrated in the flow chart at Appendix 5.2N to the Report on Agenda Item 5.2.	Implement Conclusion	States, ICAO	Implementation of Procedures Input from States Coordination with adjacent Regions	Ongoing Nov. 2009 Ongoing	Ongoing (proposed to be replaced by Draft Conc. 11/12)

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
DRAFT DEC. 11/10: FOLLOW UP ACTION ON IMPLEMENTATION IN THE MID REGION That, a) the SAR Ad-hoc WG/1 meeting propose necessary follow up action on MIDANPIRG/11 Conclusions and Decision related to SAR; and b) the outcome of the SAR Ad-hoc WG/1meeting be reported directly to MIDANPIRG/12.	Convene the SAR AWG/1 meeting	ICAO	SAR AWG/1 Report	Jun. 2010	Actioned

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
DRAFT CONC. 11/11: CIVIL/ MILITARY COOPERATION That, in order to facilitate effective civil/military cooperation and joint use of airspace in accordance with ICAO provisions, and in support of the ICAO's vision for an integrated, harmonized and globally interoperable air traffic management system as laid out in the ATM Operational Concept and in the Global Air Navigation Plan, MID States that have not yet done so, be urged to: a) manage the airspace in a flexible manner with an equitable balance between civil and military users through strategic coordination and dynamic interaction, in order to open up segregated airspace when it is not being used for its originally-intended purpose and allow for better airspace management and access for all users according to their needs; b) develop necessary institutional arrangements to foster civil/military cooperation; and c) take steps and arrange as necessary for the Military authorities to be: i) fully involved in the airspace planning and management process; ii) aware of the new developments in civil aviation; and iii) involved in national, regional and international aviation meetings, workshops, seminars and training sessions, as appropriate.	Implement the Conclusion	ICAO States	WP to MIDANPIRG/12 State Letter Feedback from States	Oct. 2010 Dec. 2010	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
DRAFT CONC. 11/12: UNCOORDINATED FLIGHTS OVER THE RED SEA AREA That, the ICAO MID Regional Office process a Proposal for Amendment to the Supplementary Procedures (Doc 7030) in order to include the procedures to be followed by all civil uncoordinated flights and, to the extent practicable, by military aircraft operating over the Red Sea Area, as shown at Appendix 10A to the Report on Agenda Item 10.	Implement the Conclusion	ICAO	WP to MIDANPIRG/12 Proposal for Amendment to SUPPs	Oct. 2010 Jan. 2011	

SAR AWG/1
Report on Agenda Item 3

REPORT ON AGENDA ITEM 3: 3.1 REVIEW THE OUTCOME OF SAR CIVIL/MILITARY COORDINATION SEMINAR

3.2 REVIEW THE OUTCOME OF THE GLOBAL ATM FORUM ON CIVIL/MILITARY COOPERATION

3.1 The meeting noted that the ICAO MID Regional Office conducted a Search & Rescue (SAR) and Civil/Military Coordination Seminar in Cairo, Egypt from 26-27 May 2008. The objective of the Seminar objective was to provide views, ways, means and share information with participants on ICAO provisions and guidance material, experiences and practices in MID States and other ICAO Regions.

Search & Rescue

3.1.1 The meeting noted the list of documentations presented to the participants at the Seminar which included the relevant provisions of the Chicago Convention, SARPs applicable to SAR particularly Annex 12, Assembly Resolution A36-13 Appendix N: Provisions of Search and Rescue, and available guidance material including the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual (Doc 9731).

3.1.2 The meeting recorded with interest the importance of changing and registering the 406MHz beacons whose services provided by Cospas-Sarsat and the benefits to those of 121.5MHz beacons. The attention of the meeting was drawn to the fact that, the International Cospas-Sarsat System will cease satellite processing the 121.5/243 MHz beacons as of 1 February 2009.

3.1.3 The meeting was further informed that the Cospas-Sarsat 121.5 MHz beacon usage forecast, by 2009 would nearly be 500,000 beacons that would still be in use, which brings up the question of States and users to address, on how services will be provided to these beacons. In this context, the need to register the 406MHz beacons by the February 1, 2009 deadline and the requirement for States to provide SAR Point Of Contact (SPOC) was underscored.

3.1.4 Participants were presented with issues applicable to the Region including material from the MID Basic Air Navigation Plan, and were made aware of the requirement to provide updated information to ICAO regarding the status of implementation of SAR requirements, the SAR Point Of Contact (SPOC), and that such information is to be published in the AIP.

Civil/Military Coordination

3.1.5 The meeting noted that under Civil/Military Coordination and Flexible Use of Airspace (FUA), the presentations covered ICAO SARPs, policies and guidance material contained in Annexes 2 and 11, Assembly Resolutions, the Manual concerning Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft Operations (Doc 9554), Manual concerning Interception of Civil Aircraft (Doc 9433), Global ATM Operational Concept (Doc 9854) applicability to Civil Military coordination and Flexible use of Airspace (FUA), the Global Air Navigation Plan (Doc 9750), and the ICAO Business Plan).

3.1.6 The meeting took note of the LIM MID (COM/MET/RAC) RAN meeting in 1996 in which the difficulty of coordination with non-Regional Military units operating in the Region was underlined. The participants noted however, that the LIM MID RAN meeting had nevertheless, for safety of civil aircraft operations, considered it essential that formal civil/military coordination arrangements be established at the operational level between extra-regional naval units and air traffic control units in adjacent States. The RAN meeting had also identified the need for additional guidance material in this

regard.

3.1.7 The meeting noted that the seminar reviewed the information on Regional achievements in civil/military coordination and application of the FUA concept, Further more the meeting noted that the participants were presented with developments within the ambit of MIDANPIRG, particularly the MIDANPIRG/10 meeting Conclusions regarding the civil/military coordination, uncoordinated flights over high seas, and implementation of Global Plan Initiative 1 (GPI 1): *Flexible Use of Airspace*, for which a project and a list of tasks have been adopted.

3.1.8 Presentations by EUROCONTROL and the USA provided perspectives on experiences of civil/military coordination and FUA from other Regions. The participants appreciated that with the limited airspace in Europe, the high and increasing density of air traffic, the solution to accommodate growth lay in effective civil/military coordination and optimum sharing of available airspace between military and civil aviation operations.

Uncoordinated Flights over the Red Sea Area

3.1.9 The meeting took note of the efforts undertaken by the MID Regional Office towards addressing the problems of uncoordinated flights over the Red Sea area by formal Regional bodies, the initiatives and coordination process undertaken by various stakeholders: States, Arab Civil Aviation Commission (ACAC), and users, which led to the procedures that were adopted by MIDANPIRG.

3.1.10 The meeting further noted that despite the procedures established, problems were still being experienced, particularly by the Sana'a area control centre (ACC) due to some flights and operators who do not fully follow the procedures. The importance of adhering to the procedures and reporting of incidents were highlighted, and so was the continuing role of IATA to promote awareness and adherence to the procedures.

Outcome of the Seminar

3.1.11 The meeting appreciated the results and outcome of the Seminar which are highlighted below:

1) **Under the SAR field, the Seminar**:

a) urged the MID States to assess the need for training of the SAR Technical personnel and to communicate the results to the ICAO MID regional office for appropriate actions;

b) considered that MID States should give increased priority to the implementation of SAR agreement in accordance with MIDANPIRG Conclusion 10/48 and ATM/SAR/AIS SG Draft Conclusion 9/9, and consider the inclusion of Search and Rescue exercises (SAREX) Cooperation as part of SAR agreements;

c) urged the MID States to review and update as necessary the MID ANP SAR requirements through the appropriate regional mechanism; and

d) noted the critical impact of non-availability of Cospas-Sarsat coverage of 121.5MHz beacons as of 1 February 2009, and that States should take necessary action in accordance with MIDANPIRG Conclusion 10/46.

2) **Under Civil/Military Coordination, the Seminar:**

a) urged ICAO to develop global guidance material for civil/military cooperation to assist States to implement the Flexible Use of Airspace (FUA) concept as indicated by the Global Plan Initiative 1 (GPI-1) and that MID States should explore means of using other Regions' experiences in the implementation of FUA; and

b) considered that while the global guidance material is available, the development of Regional guidelines for civil/military cooperation will facilitate optimum use of the airspace by all its users, civil or military. It was also considered that these Regional guidelines for civil/military cooperation should be developed through an appropriate Regional mechanism.

3.1.12 Under the SAR field Oman informed the meeting that it has successfully carried out a comprehensive SAR exercise involving all Civil Aviation , Military , hospitals, Maritime, ,etc.., and the meeting was of the view that Oman should share the experience gained and lessons learned with other MID States and to present the same to the appropriate MIDANPIRG Subsidiary body.

3.1.13 The meeting also noted that in order to enhance the SAR capabilities UAE GCAA are hosting ICAO Global forum on SAR 21-22 June 2010, and the meeting encouraged all MID States to attend the forum to benefit from the experiences of the expertise in SAR field.

The Global ATM Forum on Civil/Military Cooperation

3.2 The meeting noted that the Global Air Traffic Management Forum on Civil/Military Cooperation held at the ICAO Headquarters Montreal 19-21 October 2009 was on a follow up to recommendations from the Eleventh Air Navigation Conference (Doc 9828, Rec. 1/2).

3.2.1 The meeting further noted that the Forum covered a number of subjects of interest aimed at fostering and promoting improved civil/military cooperation and coordination. The Forum further emphasized that a flexible and efficient use of airspace for both civil and military operations would provide benefits in terms of more efficient aircraft operations and environment. One of the key conditions for increasing effective use of available airspace, while maintaining safety and security, was a commitment from both civil and military authorities to improve cooperation and coordination. Good relations and trust were essential elements in this respect.

3.2.2 In discussing optimization of airspace use, speakers provided different approaches to the concept of flexible use of airspace (FUA). ICAO's mandate to ensure global interoperability and harmonization will become increasingly important as the ATM operational concept component elements of the future programmes are introduced. Presentations by a number of States provided ample information on their respective methods and practices for civil/military cooperation in the context of FUA. Representatives of a number of international organizations presented the experiences of pilots and controllers with respect to civil/military coordination as well as the experience gained by these organizations in terms of best practices.

3.2.3 The meeting noted that a draft outline for guidance material on civil/military cooperation, prepared by an ICAO informal drafting group, was presented to the Forum. In this context, States will be requested to provide ICAO with information on their best practices for civil/military cooperation as well as for the management of airspace use.

3.2.4 The Forum agreed that much progress has been achieved in most of the ICAO regions in the management of the airspace and in the civil/military cooperation; however, it was recognized that continued improvements were required with regard to the cooperation between the authorities as well as with air navigation service providers. It was suggested that military representatives should participate in ICAO meetings, seminars and other related events as part of the delegations of States in order to promote and foster cooperation.

3.2.5 In summarizing the results of the Forum, the following statements were made:

a) peace and stability are essential preconditions for social and economic development;

b) mutual trust and confidence are principal requirements for collaboration between civil and military authorities;

c) safety, security and efficiency are common civil and military values;

d) efficiency for civil aviation signifies increased capacity, less delays, reduction of cost, fuel burn and emissions;

e) efficiency for military aviation signifies mission effectiveness (in peace time and through crises) and realistic training along with increased capacity, less delays, reductions in cost, fuel burn, and emissions;

f) cooperation and coordination requires communication;

g) civil/military cooperation is essential at national, regional and international levels;

h) airspace is a continuum and a common limited resource for all civil and military users;

i) broad awareness and application of flexible use of airspace principles form a good common basis for global civil-military ATM coordination;

j) civil/military interoperability is essential to optimize safe and efficient use of airspace for all users and gaps must be duly addressed by the aviation community as a whole;

k) integration of UAS is a challenge and at the same time an opportunity for growth of the aviation system;

l) international civil/military cooperation and coordination are indispensable requirements both in peacetime and in crisis situations;

m) a comprehensive global civil/military approach to security and to incident management is needed; the approach taken should build on existing positive experiences which have a potential for further improvement;

n) further effort is needed, not only on flexible use of airspace but also with respect to compatible standards and procedures and the global interoperability of ATM systems; and

o) successful collaboration requires communication, education, relationship and trust.

3.2.6 The Forum supported the notion that ICAO, States, military authorities and partners should work together for their mutual benefit and progress the following next steps:

a) use ICAO as an open forum for civil/military cooperation, collaboration and the sharing of best practices;

b) develop an ICAO manual on civil/military cooperation;

c) disseminate an ICAO State letter to advise States and international organizations of the outcome of this Forum with follow-up actions and to solicit the submission of best practices and lessons learned which would be included in an ICAO manual on civil/military cooperation;

d) work together toward ensuring the safe and efficient integration of unmanned aircraft systems into non-segregated airspace;

e) work together on ATM security issues;

f) address civil/military cooperation at the 37th Session of the ICAO Assembly in a way that ensures that the momentum gained at this Forum is strengthened at high levels within State administrations and international organizations;

g) present a working paper to the Assembly proposing an amendment to Assembly Resolution A36-13, Appendix O, *Coordination of Civil and Military Air Traffic*, aimed at strengthening States' commitment to enhance cooperation between civil and military authorities;

h) ICAO Regional Directors will further promote civil and military cooperation through the planning and implementation regional groups (PIRGs);

i) all of the civil/military cooperation partners will collaborate to support regional civil/military events; and

j) ICAO will convene, together with its partners, a second global forum at an appropriate time, to measure progress in civil/military cooperation and to determine the next steps.

3.2.7 The meeting noted with interest the need for State administrations, to work closely with air navigation service providers and military authorities to establish political will, develop institutional arrangements, bring civil and military authorities together at the national level, set performance objectives, develop practical and operational measures and implement the necessary changes to make this happen.

3.2.8 The SAR Ad-hoc Working Group encouraged MID Sates willing to contribute in the development of the ICAO manual on civil/military cooperation to send their contributions to the MID Regional Office for onward transmission to ICAO HQs for consideration and inclusion in the ICAO Manual.

REPORT ON AGENDA ITEM 4: MODEL SAR LEGISLATION AND REGULATIONS

4.1 The meeting noted that, in order to assist and facilitate States in discharging their responsibilities in various fields of air navigation, the 36th Session of the General Assembly in September 2007 adopted Resolution A36-13: *Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation*, which is reviewed and updated as necessary at every Assembly Session for which a Technical Commission is established. The meeting noted specifically Appendix N of the Resolution *(Provision of Search and Rescue Services)*, which is reflected at **Appendix 4A** to the Report on Agenda Item 4, and that the Resolution addresses various elements that are pertinent to implementation of SAR provisions, including;

- delimitation of areas
- cooperation with maritime search and rescue services
- agreements with other States
- delegation of responsibilities
- remedies to inadequacies in the provision of efficient SAR services

4.2 The meeting took note of MIDANPIRG/11 outcome related to the difficulties facing States to comply with Annex 12 and MID Basic ANP provisions related to SAR agreements and recognized that the process of signing such agreements should be facilitated through the promulgation of enabling legislation.

4.3 The meeting noted with appreciation a draft agreement developed by Saudi Arabia as complementary effort to facilitate the signing of SAR agreements throughout the MID Region which is at **Appendix 4B** to the Report on Agenda Item 4. Moreover, Saudi Arabia was ready to sign the agreement with willing neighbouring States.

4.4 The meeting reviewed the model of SAR agreement in the International Aeronautical and Maritime Search And Rescue (IAMSAR) Manual which is reproduced at **Appendix 4C** to the report on Agenda Item 4, and was of the view that the model should be used by MID States as a base document for SAR agreements, in addition to the model agreement developed by Saudi Arabia.

4.5 The meeting discussed at length the importance of the legislative and regulatory framework related to the provision of SAR services. In this regard the meeting noted that the Universal Safety Oversight Audit programme (USOAP) findings revealed a lack of SAR regulations, accordingly the meeting reviewed the Sample Legislation for establishing a SAR Organization, from Document 9731 (IAMSAR) as at **Appendix 4D** to the Report on Agenda Item 4, and an extract from (Annex 12 Chapter 3 and Doc 9731Chapter 1) as at **Appendix 4E** to the Report on Agenda Item 4 that could be used for developing National SAR Regulations.

SAR AWG/1
Appendix 4A to the Report on Agenda Item 4

Resolution: 36-13	**Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation**

APPENDIX N

PROVISION OF SEARCH AND RESCUE SERVICES

Whereas in accordance with Article 25 of the Convention each Contracting State undertakes to provide such measures of assistance to aircraft in distress in its territory as it may find practicable and to collaborate in coordinated measures which may be recommended from time to time pursuant to the Convention;

Whereas Annex 12 to the Convention contains specifications relating to the establishment and provision of search and rescue services within the territories of Contracting States as well as within areasover the high seas;

Whereas Annex 12 to the Convention specifies that those portions of the high seas where search and rescue services will be provided shall be determined on the basis of regional air navigation agreements, which are agreements approved by the Council usually on the advice of regional air navigation meetings;

Whereas Annex 12 to the Convention recommends that search and rescue regions should, in so far as practicable, be coincident with corresponding flight information regions and, with respect to those areas over the high seas, maritime search and rescue regions;

Whereas Article 69 of the Convention specifies that, if the Council is of the opinion that the air navigation services of a Contracting State are not reasonably adequate for the safe operation of international air services, present or contemplated, the Council shall consult with the State directly concerned, and other States affected, with a view to finding means by which the situation may be remedied, and may make recommendations for that purpose; and

Whereas the air navigation services referred to in Article 69 of the Convention include, inter alia, search and rescue services;

The Assembly resolves that:

1. search and rescue regions, whether over States' territories or, in accordance with regional air navigation agreement, over an area greater than a State's sovereign airspace or over the high seas, shall be delimited on the basis of technical and operational considerations, including the desirability of coincident flight information regions, search and rescue regions, and, with respect to areas over the high seas, maritime search and rescue regions, with the aim of ensuring safety, and optimizing efficiency with the least overall cost;

2. States shall ensure the closest practicable cooperation between maritime and aeronautical search and rescue services where they serve the same area and, where practical, establish joint rescue coordination centres to coordinate aeronautical and maritime search and rescue operations;

3. if any search and rescue regions need to extend over the territories of two or more States, or parts thereof, agreement thereon should be negotiated between the States concerned;

4. the providing State in implementing search and rescue services over the territory of the delegating State shall do so in accordance with the requirements of the delegating State, which shall establish and maintain in operation such facilities and services for the use of the providing State as are mutually agreed to be necessary;

5. any delegation of responsibility by one State to another or any assignment of responsibility over the high seas shall be limited to technical and operational functions pertaining to the provision of search and rescue services in the area concerned;

6. remedies to any inadequacies in the provision of efficient search and rescue services, including over the high seas, should be sought through negotiations with States which may be able to give operational or financial assistance in search and rescue operations, with a view to concluding agreements to that effect;

and, *furthermore, declares* that:

7. any Contracting State which delegates to another State the responsibility for providing search and rescue services within its territory does so without derogation of its sovereignty; and

8. the approval by Council of regional air navigation agreements relating to the provision by a State of search and rescue services within areas over the high seas does not imply recognition of sovereignty of that State over the area concerned.

Associated practices

1. Contracting States should, in cooperation with other States and the Organization, seek the most efficient delineation of search and rescue regions and consider, as necessary, pooling available resources or establishing jointly a single search and rescue organization to be responsible for the provision of search and rescue services within areas extending over the territories of two or more States or over the high seas.

2. The Council should encourage States whose air coverage of the search and rescue regions for which they are responsible cannot be ensured because of a lack of adequate facilities, to request assistance from other States to remedy the situation and to negotiate agreements with appropriate States regarding the assistance to be provided during search and rescue operations.

SAR AWG/1
Appendix 4B to the Report on Agenda Item 4

LETTER OF AGREEMENT

For the Provision of Search and Rescue Services
Between

Air Navigation Services		**Civil Aviation**
General Authority of Civil Aviation	AND	**Egypt**
Kingdom of Saudi Arabia		

1. AGREEMENT

1.1 Pursuant to the Standards and Recommended Practices of Annex 12 to the Convention on the International Civil Aviation for The Facilitation of Search For Aircraft in Distress And Rescue of Survivors of Aircraft and marine accident, the General Aviation Authority of Civil Aviation Kingdom of Saudi Arabia and Civil Aviation of Egypt hereby agree to mutually assist each other, as provided for their respective Search and Rescue Regions (SRRs).

1.2 This Operational Letter of Agreement supplements the relevant ICAO documents and shall be equally binding on both parties concerned. Any amendments to this Agreement shall be made only with the concurrence of both parties concerned.

2. SCOPE OF AGREEMENT

2.1 Both Departments hereby agree that their respective Rescue Coordination Centres (RCCs) shall:

i) Promptly exchange SAR information concerning a distress situation or a potential distress situation.

ii) Coordinate with and assist national SAR agencies to the extent possible.

iii) Assist each other, to the extent possible, in conducting SAR Operations in their respective SRRs.

iv) Coordinate with respective national SAR agencies for participation in SAR activities when assistance requested by concerned RCC.

v) Exchange information on current SAR resources available to ensure mutual knowledge of SAR capabilities.

vi) Conduct SAR communications test exercises with each other atleast once a month to ensure the efficiency and effectiveness of the SAR organization.

3. STANDARD OPERATING PROCEDURES FOR THE RCCs

The following procedures are agreed upon:

3.1 INITIATION FOR SAR ACTION

3.1.1 While the responsibility for declaring an emergency phase and initiating local action rests with ATS Units, the responsibility for initiating subsequent SAR action rests with the RCCs. The appropriate RCC responsible for initiating SAR action shall be determined as follows:

a) When the accident's position is known, action shall be initiated by the RCC in whose SRR the accident is located.

b) When the accident's position is not known, SAR action shall be initiated by:

i) The RCC first becoming aware of an aircraft or ship needing assistance.

ii) The RCC in whose area of responsibility the aircraft or ship was operating when the last radio contact was made.

iii) The RCC in whose area of responsibility the aircraft or ship was preceding to if the last radio contact was made on the common SRR boundary.

3.2 CONTROL RESPONSIBILITY FOR A SAR MISSION

3.2.1 The RCC initiating SAR action shall remain responsible over the mission until such time the responsibility is transferred to the other RCC when circumstances dictate.

3.2.2 Before a transfer of responsibility for the overall SAR operations takes place, either from subsequent establishment of an accident's position or movement, or because an RCC other than the one initiating the action is more favorably placed to assume control of the mission by reason of better communication proximity to the search area, more readily available facilities or any other reasons, the following procedures shall be adopted:

i) Direct Discussions, wherever possible, shall take place between the Search and Rescue Mission Coordinators (SMCs) concerned to determine the course of action.

ii) If it is decided that a transfer of responsibility is appropriate for the whole mission or part thereof, full details of the SAR mission shall be exchanged.

iii) The initiating RCC shall continue to retain responsibility until the accepting RCC formally assumes control for the mission.

3.3 ENTRY PROCEDURES FOR SAR UNITS INTO ADJACENT SRR's

3.3.1 When it becomes necessary for an RCC to deploy SAR Units into the area of responsibility of another RCC, the SMC of the RCC initiating the SAR action shall immediately deploy SAR Units for the mission. Simultaneously, he shall send an Aeronautical Fixed Telecommunication Network (AFTN) message to the other RCC informing of the entry of the SAR Units into the SRR of the other State with the following information:

a) Notification of the SAR Operation
b) Details of the distressed aircraft such as:

i) Identification and type

ii) Last known position

iii) Point of departure, route and destination

iv) Total persons on board

v) Radio frequencies in use

vi) Nature of emergency and other details

c) SAR area of operations

d) Number, identity and types of SAR aircraft / vessels deployed.

3.3.2 If the AFTN circuits are deemed to be inadequate, the information detailed in para 3.3.1 above shall be forwarded by any of the following means:

a) Inter-centre ATS speech circuits

b) Public Services

3.3.3 The SMC at the counterpart RCC shall, on receipt of the above message, immediately send an acknowledgement to the initiating RCC and indicate the conditions, if any, under which the projected mission is to be undertaken. He shall also render all possible assistance to enable the SAR mission to be carried out successfully.

3.4 PROMULGATION OF SEARCH AREA(s) BY NOTAM

3.4.1 Once the area of probability has been determined, the RCC initiating the SAR action shall, in coordination with the counterpart RCC, arrange for the issuance of a joint NOTAM Class One to promulgate the search area(s).

3.5 LIAISON DURING A SAR MISSION

3.5.1 During the course of a SAR mission, the RCC's concerned shall maintain close liaison in order to ensure the smooth and successful execution of the SAR mission. The RCC in charge of the mission shall periodically keep the other RCC informed of the number of SAR Units engaged in the SAR mission, areas to be searched, active taken to date and the decision to suspend or terminate the SAR mission.

4. ENTRY INTO AND USE OF FACILITIES BY SAR UNITS OF STATES

4.1 A state shall recognize the vested interests of the other State whose aircraft is the subject of SAR operations and shall permit without delay the entry of SAR units of that State into its SRR for the purposes of rendering SAR assistance.

4.2 SAR Units assigned by another State to the RCC in control of a SAR mission, shall be placed under the charge of that RCC for the period of their assignment.

4.3 The RCC of the State requesting for assistance or for the use of suitable facilities of another State, shall provide all pertinent details on the scope of the assistance / facilities required. The requesting RCC shall provide full briefing, directly or indirectly, to the SAR Units that have been made available, on the scope of the mission before the units enter the SRR of the requesting RCC. If it is deemed necessary for SAR Units of a state to land at an airfield and / or to make use of the facilities of the requesting State in the course of performing an assigned SAR task, the RCCs concerned shall make all necessary arrangements to facilitate the above.

5. POINT OF CONTACT

GACA Saudi Arabia	**Civil Aviation Egypt**
AFTN Address: _____	AFTN Address: _____
Phone Number: _____	Phone Number: _____
Fax Number: _____	Fax Number: _____

6. VALIDITY

7.1 This Agreement becomes effective upon the date the signatures of the authorized representatives of both parties concerned have been affixed, and will remain valid unless modified by mutual agreement. This agreement may be terminated at any time by mutual consent or by either party upon giving 90 days notice in writing.

FOR		FOR
Air Navigation Services **General Authority of Civil Aviation** **Kingdom of Saudi Arabia**	AND	**Civil Aviation** **Egypt**
Date: _____		Date: _____

Doc 9731-AN/958
Appendix I

IAMSAR MANUAL

(Volume I)

SAR AGREEMENTS

Notes regarding SAR agreements, and the sample agreement that begins on the following page:

Parties may be organizations within a State, maritime and/or aeronautical SAR authorities of two or more different States (particularly with neighbouring search and rescue regions), or higher authorities of two or more States, i.e., the sample agreement can be adapted for local, national, or international use.

Each section of the sample agreement may be optionally used or adapted as the Parties agree, bearing in mind consistency with the principles of international law, and the goals of IMO, ICAO and the States and organizations concerned.

It is generally advisable to include specific information, such as phone numbers or addresses, in appendices or other documents separate from the basic signed agreement.

When SRRs are addressed in the agreements, normally only the lines separating the SRRs of the Parties are described, since other delimitation of the SRRs would normally involve States other than the Parties. Agreements between national organizations may or may not need to address geographic areas of responsibility. It should be recognized among the Parties that the establishment of SRRs is mainly for ensuring the availability of SAR services, and to facilitate proper distribution of distress alerts to RCCs; SRRs should not be viewed as affecting political boundaries, and do not need to align with political boundaries if the Parties so agree for the sake of improving or simplifying SAR operations. SRR delimitation over international waters is not intended to obstruct the provision of SAR services in any way. Furthermore, the provision of SAR services within an SRR shall be without regard to the nationality or circumstances of the persons in distress.

If agreements discuss territorial entry for SAR, provisions should account for a balance of concerns for sovereignty and concerns for saving lives.

The concept of "territory" is understood to include territorial land, airspace and seas.

It is advisable that SAR agreements address sensitive issues to the degree necessary for practical SAR co-operation between or among the Parties, while emphasizing the humanitarian nature of SAR, and avoiding topics which are unrelated to SAR, or which are both politically sensitive and unnecessary.

Agreement on [Aeronautical and/or Maritime] Search and Rescue between [name the Parties]

1. INTRODUCTION

Knowing the importance of co-operation in search and rescue (SAR), and of the provision of expeditious and effective SAR services;

Desiring to support the provisions of the [International Convention on Maritime Search and Rescue of the International Maritime Organization (IMO) and/or the Convention on International Civil Aviation of the International Civil Aviation Organization (ICAO)]; and

Seeking to provide an overall plan for SAR co-ordination, use of available resources, mutual assistance, and efforts to improve SAR services;

The Parties have agreed as follows:

2. EXTENT OF ASSISTANCE

The Parties agree to co-operate in the following areas:

(a) Support each other by pooling SAR facilities as appropriate for operations within their respective search and rescue regions (SRRs);

(b) Make, and respond to, requests for operational assistance between the designated rescue co-ordination centres (RCCs) or rescue sub-centres (RSCs) of the Parties as capabilities allow;

(c) Develop procedures and communications appropriate for co-ordination among facilities of both Parties responding to the same distress incident, and for co-ordination between the RCCs or RSCs of the Parties;

(d) Normally apply the guidance of the International Aeronautical and Maritime SAR Manuals regarding SAR operational procedures and communications;

(e) Work to establish agreed procedures, which balance concerns for sovereignty and for saving lives, regarding entry of various types of SAR facilities into the territory of the other Party, solely for a search or a rescue operation; and

(f) Enter into other collaborative SAR efforts which may include:

- mutual visits by SAR personnel of the Parties;
- joint training or exercises;
- co-operation in development of SAR procedures, techniques, equipment, or facilities;

- exchange of pertinent SAR or communications information; and

- establishment of one or more SAR committees to provide a means for ongoing co-operation in improving SAR effectiveness.

3. SEARCH AND RESCUE REGIONS

Establishment of SRRs is intended only to effect an understanding concerning where each Party accepts primary responsibility for co-ordinating or providing SAR services. SRRs of the Parties shall be separated by lines connecting points as follows: [appropriate co-ordinate points describing applicable lines]

4. TERMS OF AGREEMENT

Each Party will:

(a) Keep information readily available on availability of any SAR facilities or other resources which may be needed for implementing this Agreement.

(b) Keep each other fully and promptly informed of all SAR operations of mutual interest, or which may involve use of facilities of the other Party;

(c) Authorize its RCC(s) to request assistance via the RCC(s) of the other Party, and to provide all pertinent information on the distress situation and the scope of assistance needed;

(d) Authorize its RCC(s) to promptly respond to a request for assistance from an RCC of the other Party;

(e) Authorize its RCC(s) to promptly arrange, or arrange in advance, with other national authorities for territorial entry of SAR facilities of the other Party (including overflight or landing of SAR aircraft, and similar accommodation of surface (land or water) SAR units) as circumstances dictate for fuelling, medical, or other appropriate and available operational support, or in response to a request to the RCC of the other Party for assistance of those facilities which would involve territorial entry;

(f) Normally fund its own activities in relation to this Agreement unless otherwise arranged by the Parties in advance, and, in any event, will not allow a matter of reimbursement of cost to delay response to persons in distress.

5. GENERAL PROVISIONS

This Agreement:

shall enter into force . . . [provisions as appropriate];
may be amended . . . [provisions as appropriate]; and
may be terminated or superseded . . . [provisions as appropriate].

Sample Legislation Establishing a SAR Organization

Note: The sample legislation can be adapted for use by aeronautical, maritime, or authorities of both.

[Type of Legislation] of the [Legislative Body]

Concerning

the Establishment of a Search and Rescue Organization

[Date]

Article 1

A Search and Rescue Organization shall be established for the provision of search and rescue services in accordance with the IMO International Convention on Maritime Search and Rescue, 1979, as amended, and the Convention on International Civil Aviation, Annex 12. The Search and Rescue Organization shall, as far as its primary function permits, assist in other emergencies.

Article 2

The competent national authorities shall be responsible for the provisions of the Search and Rescue services.

Article 3

During search and rescue operations, the competent national authorities shall be entitled to call for the collaboration and support of other Government services. The competent national authorities shall be authorized to conclude agreements concerning the provision of assistance with local (State, provincial, municipal) authorities and suitable private agencies or persons.

Article 4

The competent national authorities shall be responsible for negotiating the terms of international agreements with the Search and Rescue organization of other States.* All Government services concerned shall take measures to facilitate, as far as possible, the immediate and temporary entry of personnel, and their equipment, from other States who, in agreement with the competent national authorities are participating in search and rescue operations. All Government services concerned shall seek to implement, as appropriate, the search and rescue recommendations and standards of the International Civil Aviation Organization and/or the International Maritime Organization.

Article 5

Questions of assignment of costs, connected with the conduct of a search and rescue operation, shall not be allowed to interfere with its prompt and effective execution by the [Departments in charge of Civil Aviation and/or Merchant Marine].

Article 6

This [type of legislation] shall be effective as of [date]

[place] [date]

For the [legislative body]

[signature]

SAR AWG/1
Appendix 4E to the Report on Agenda Item 4

Annex 12, Chapter 3 – Cooperation, establishes that contracting States shall:

3.1 Coordinate their SAR Organizations with those of neighbouring States, subject to conditions prescribed by their own authorities.

3.2 Arrange for all aircraft vessels and local services and facilities which do not form part of the SAR Organization to cooperate fully with the latter in SAR to extend any possible assistance to survivors of aircraft incidents.

3.3 Publish and disseminate all information necessary for entry of SAR units of other States into its territory or alternatively include this information in SAR Services arrangements.

Document 9731 Chapter 1 and Chapter 5 (C)

1.2 **Benefits of Services**

1.2.1 Besides reduction of loss of life and suffering by providing rescue services, a State's concern and involvement with SAR may offer other advantages, such as the following.

(a) A safer and more secure environment for aviation and maritime related industries, commerce, recreation, and travel. Increased safety may promote use and enjoyment of aviation and maritime environments, tourism and economic development. This is especially true when the SAR system is associated with programmes aimed at preventing or reducing the effects of mishaps, sometimes referred to as ''Preventive SAR.''

(b) Availability of SAR resources often provides the initial response and relief capabilities critical to saving lives in early stages of natural and man-made disasters. Therefore, SAR services are sometimes made an integral part of any local, national or regional emergency management system

(c) Well performed SAR operations can provide positive publicity about situations which may otherwise be viewed negatively. However, the opposite is also true; a poor response or ineffective response to a major accident or disaster can also result in world-wide publicity and adversely affect sensitive industries such as tourism and transportation.

(d) SAR provides an excellent means for promoting co-operation and communication among States and between organizations at local, national, and international levels, because it is a relatively noncontroversial and humanitarian mission. Co-operation in this area can lead to co-operation in other areas as well and can be used as a leadership tool for promoting good working relationships.

(e) The value of property which can be saved in association with SAR activities can be high and provide additional justification for SAR services.

5.3.10 **Maximizing System Effectiveness and Benefits**

(c) **''Preventive SAR''** is important. All SAR systems should include activities aimed at the prevention and mitigation of SAR incidents. Patrols, supervision of large events such as regattas, air shows, safety inspections and public awareness campaigns are some of the ways to help prevent SAR incidents or mitigate the effects of those that do occur. Volunteer organizations can often assist in these activities at little or no cost to the SAR authorities.

REPORT ON AGENDA ITEM 5: REVIEW SEARCH AND RESCUE GUIDELINES

5.1 The meeting noted that, MIDANPIRG/11 recalled that, in order to assist and facilitate States in discharging their responsibilities in various fields of air navigation, the 36th Session of the General Assembly in September 2007 adopted Resolution A36-13 Appendix N which provides the necessary provision of Search And Rescue services.

5.2 According to the TOR of the SAR AWG it was necessary to develop guidelines to assist States in ensuring effective coordination in the provision of SAR services, with parties including maritime and military entities. Consequently the meeting was presented with guidance material at **Appendix 5A** to the Report on Agenda Item 5 that could be used by States for the development of National Regulations and procedures related to the provision of SAR services.

5.3 The SAR Ad-hoc Working Group further noted that the MID ANP contains the basic principles, operational requirements and planning criteria related to search and rescue services. However, it was pointed out that the majority of the provisions of the MID Basic ANP Part VII, SAR have already been included in the ICAO Annex 12. Accordingly the meeting developed a draft proposal for amending the MID BASIC ANP Doc 9708 as at **Appendix 5B** to the Report on Agenda Item 5 and agreed to the following Draft Conclusion:

DRAFT CONCLUSION 1/1: SAR PART VII OF MID BASIC ANP

*That, the SAR part VII of the MID BASIC ANP be replaced with the new developed material at **Appendix 5B** to the Report on Agenda Item 5.*

5.4 The meeting recognized that the FASID Table SAR 1 at **Appendix 5C** to the Report on Agenda Item 5 is not serving its purpose since it is currently containing data which is available in the AIPs and national SAR plans of operation, while it should specify the minimum units and facilities necessary for the provision of SAR operations within a search and rescue region (SRR). Accordingly, the meeting agreed that the format and content of the FASID Table SAR 1 should be completely reviewed.

5.5 Based on the above, the meeting agreed that a survey be conducted by the ICAO MID Regional Office in order to collect information on the status of implementation of SAR provisions in the MID Region and agreed accordingly to the following Draft Conclusion:

DRAFT CONCLUSION 1/2: SURVEY ON THE PROVISION OF SAR IN THE MID REGION

That,

a) the ICAO MID Regional Office send a State Letter with a questionnaire to all MID States, prior to 15 June 2010, to collect information on the status of implementation of SAR provisions in the MID Region and update the list of Air Navigation Deficiencies accordingly;

b) States send their replies to the ICAO MID Regional Office prior to 15 July 2010; and

c) in case of non-receipt of reply by the agreed deadline, concerned States will be added to the list of Air Navigation Deficiencies for non-provisions of required SAR services.

5.6 The meeting noted that the Cospas-Sarsat has ceased processing of 121.5/243 MHz ELTs from 1 February 2009 and only 406 MHz ELTs will be detected. Accordingly, all ELT owners and users of 121.5/243 MHz ELTs should upgrade to 406 MHz in a timely manner.

5.7 The meeting noted that, when a 406 MHz ELT signal is relayed through the Cospas-Sarsat system, SAR Authorities, using the ELT identification, interrogate a registration database and retrieve characteristics of the subject aircraft and contact details of the ELT owner. This system could operate effectively only if owners register their ELTs and SAR providers have access to registration databases.

5.8 The meeting further noted that the International 406 MHz Beacon Registration Database (IBRD) is not intended to replace existing national ELT registration facilities. It is provided by Cospas-Sarsat to supplement the 406 MHz registration process by providing 24-hour access and to assist SAR service providers in retrieving valuable data during SAR operation, and also for assisting States that cannot justify the establishment and maintenance of their own database due to the limited number of beacons where they can register the 406 MHz beacons.

5.9 SAR service providers are able to query the IBRD directly over the Internet at: www.406registration.com, which is freely available. The process for registering an ELT is elaborated at the Cospas-Sarsat website at: www.cospas-sarsat.org.

5.10 The meeting noted that MIDANPIRG/11 urged MID States to request owners of ELT to upgrade their ELT from 121.5/243 MHz and register the 406MHz Beacon and agreed to the following Conclusion:

CONCLUSION 11/31: 406 MHZ BEACONS

That, in order to continue receiving beyond 1 February 2009, the Cospas-Sarsat services that are currently available to owners and users of 121.5/243 MHz ELTs, and to further benefit from the added services available to owners and users of 406 MHz beacons, MID States that have not already done so are urged to:

a) require ELT owners and users of 121.5/243 MHz ELTs to upgrade to 406 MHz ELTs as soon as possible, and register their 406 MHz ELTs in the International 406 MHz Registration Database (IBRD); and

b) designate to the Cospas-Sarsat Secretariat, an IBRD focal point and request Cospas-Sarsat for access to the IBRD in order to benefit from the services available.

5.11 The meeting while reviewing the above conclusion was of the opinion that clarification is necessary for the designation of focal points since it is required to assign two focal points one as a SPOC for Cospas-Sarsat and other as SAR SPOC as called by Annex 12. Accordingly, the meeting developed the following Draft Conclusion to replace and supersede the above MIDANPIRG/11 Conclusion 11/31 mentioned above:

DRAFT CONCLUSION 1/3: SAR SPOC AND 406MHZ BEACON

That, MID States:

a) designate a SAR Point Of Contact;

b) take appropriate action to ensure that all beacon owners/operators upgrade to 406 MHz ELTs register their 406 MHz ELT in the IBRD database and establish their own database;

c) designate to the Cospas-Sarsat Secretariat, SAR Point Of Contact and:

d) update the ICAO MID Regional Office on their implementation status.

5.12 The meeting developed table as at **Appendix 5D** to the Report on Agenda Item 5 for the SAR Point Of Contact.

SAR AWG/1
Appendix 5A to the Report on Agenda Item 5

1 SAR as a System

1.1 The SAR system, like any other system, has individual components that must work together to provide the overall service, The primary system components are:

- communications throughout the SRR and with external SAR services;
- an RCC for the co-ordination of SAR services;
- if necessary, one or more RSCs to support an RCC within its SRR;
- SAR facilities, including SRUs with specialized equipment and trained personnel, as well as other resources which can be used to conduct SAR operations;
- on-scene co-ordinator (OSC) assigned, as necessary, for co-ordinating the on-scene activities of all participating facilities; and
- support facilities that provide services in support of SAR operations.

2 Communications

2.1 Good communications are essential. They should promptly provide the RCC with alerting information permitting the RCC to dispatch SRUs and other resources to search areas without delay and to maintain two-way contact with the persons in distress, Figure 2-1 outlines the general SAR communications system.

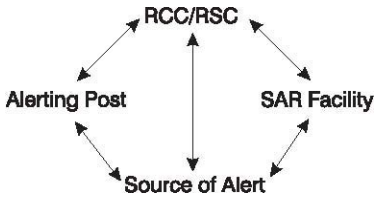

Figure 2-1 – General SAR system communications

2.2 Use of the ICAO Aeronautical Fixed Telecommunications Network (AFTN) or digital Aeronautical Fixed Network (AFN) can meet some communications needs and preserve message priority. All voice equipment, including telephones, should be attached to a multichannel tape recorder, preferably with a time recording.

Locating

2. 3 Locating capabilities enable the responding SAR facilities to minimize the search time and to get to the actual position of distress for rescue. There are basic international requirements for the types of equipment that must be carried by ships and aircraft.

(a) Most civil aircraft operating over ocean areas and remote land areas, and many other aircraft, are required to carry an emergency locator transmitter (ELT). need to insert information on ELT 406

(b) Ships and some other craft are required to carry emergency position-indicating radio beacons (EPIRBs) capable of transmitting signals. The purpose of the EPIRB signals is to indicate that a distress exists and to facilitate the location of survivors in SAR operations

SAR Co-ordination

2.4 Communications among SAR facilities will depend on local agreements and the organization of the SAR services in the SRR and on the equipment available. Communications with mobile facilities may be handled directly by the RCC or RSC or via capable associated alerting posts. Communications with alerting posts or other elements of the SAR system, including international communications among RCCs, should be reliable and, ideally, either be dedicated or preserve message priority or pre-emptive handling. RCCs normally assign a SAR Mission Co-ordinator (SMC) to handle a SAR incident. The SMC may specify pre-planned communications channels for co-ordination with the OSC and for communications among facilities on-scene.

3 Rescue Co-ordination Centres

3.1 The RCC is an operational facility responsible for promoting efficient organization of SAR services and for coordinating the conduct of SAR operations within an SRR. An RCC co-ordinates, but does not necessarily provide, SAR facilities throughout the internationally recognized SRR described in either the Regional Air Navigation Plans (RANPs) of ICAO or the Global SAR Plan of IMO. Aeronautical SAR responsibility may be met by means of an aeronautical RCC (ARCC). Coastal States with the added responsibility for maritime SAR incidents can meet this with a maritime RCC (MRCC). When practicable, States should consider combining their SAR resources into a joint RCC (JRCC), responsible for both aeronautical and maritime SAR incidents or co-locating their maritime and aeronautical RCCs.

3.2 JRCCs can be established at minimal cost by combining aeronautical and maritime RCCs. This cooperation could help in developing better capabilities and plans to assist both aircraft and ships in distress. Benefits include:

- fewer facilities to establish or maintain;
- reduced cost;
- less complexity for alerting posts in forwarding distress alerts; and
- better co-ordination and sharing of SAR expertise.

3.3 A fully capable RCC may be viewed as having two sets of capabilities, ‘‘required’’ and ‘‘desired.’’ Figure 2-2 outlines these capabilities.

Required	Desired
24-hour availability Trained persons Persons with a working knowledge of the English language Charts which apply to the SRR (aeronautical, nautical, topographic and hydrographic) Means of plotting Ability to receive distress alerts, e.g., from MCCs, CESs, etc. Immediate communications with: associated ATS units associated RSCs DF and position-fixing stations associated CRSs	Wall chart depicting SRR, SRSs, and neighbouring SRRs, SAR resources Computer resources Databases

Rapid and reliable communications with: Parent agencies of SRUs adjacent RCCs designated meteorological offices employed SRUs alerting posts Plans of operation	

Figure 3-1 Capabilities of a fully capable RCC

Plans of Operation

3.4 Each RCC is responsible for preparing comprehensive plans for the conduct of SAR in its SRR and for coordinated actions within adjacent SRRs. These plans must cover the whole SRR and be based on agreements between the SAR service and the providers of facilities or other support for SAR operations.

Search and Rescue Regions

3.5 An SRR is an area of defined dimensions associated with an RCC within which SAR services are provided. ICAO RANPs depict aeronautical SRRs for most of the world. States have agreed to accept SAR responsibility for an area which is composed of one or more aeronautical SRRs. Maritime SRRs are published in the IMO SAR Plan, and could be similar, or different, to aeronautical SRRs

4 Rescue Sub-Centres

4.1 There may be situations where an RCC is not able to exercise direct and effective control over SAR facilities in an area within its SRR. The establishment of an RSC with its SRS may be appropriate. Examples of such situations include:

- where the communications facilities in a portion of an SRR are not adequate for close coordination between the RCC
- and SAR facilities; where the SRR encompasses a number of States or territorial divisions of a State in which, for
- political or administrative reasons, local facilities can only be directed and controlled through designated local
- authorities; and where local control of SAR operations will be more effective.

4.2 The SAR system greatly benefits from using all available facilities. (**Attachment A part 1 to Appendix A**) provides a list of possible sources for SAR assistance, and (**Attachment A Part 2 to Appendix A**) discusses steps that SAR managers can take to reduce false alerts.

5. Hierarchy of SAR Documents

5. 1 There are different levels and types of SAR documents as illustrated in Figure 5-1. Global SAR plans include IMO's SAR Plan and ICAO's Regional Air Navigation Plans (RANPs). These global plans are a basis for implementing national and regional (bilateral or multilateral) plans, manuals, agreements and related SAR documents. The IMO Global SAR Plan and applicable ICAO RANP would be followed by a regional SAR plan where a regional SAR system exists. Next would be the national SAR plan, and so forth down to the RCC and local levels.

5.2 SAR manuals provide guidance on implementing the plans. International SAR manuals may be followed by regional or national manuals, and then by plans of operation for the RCCs and RSCs. Some plans have an administrative character while others have an operational focus.

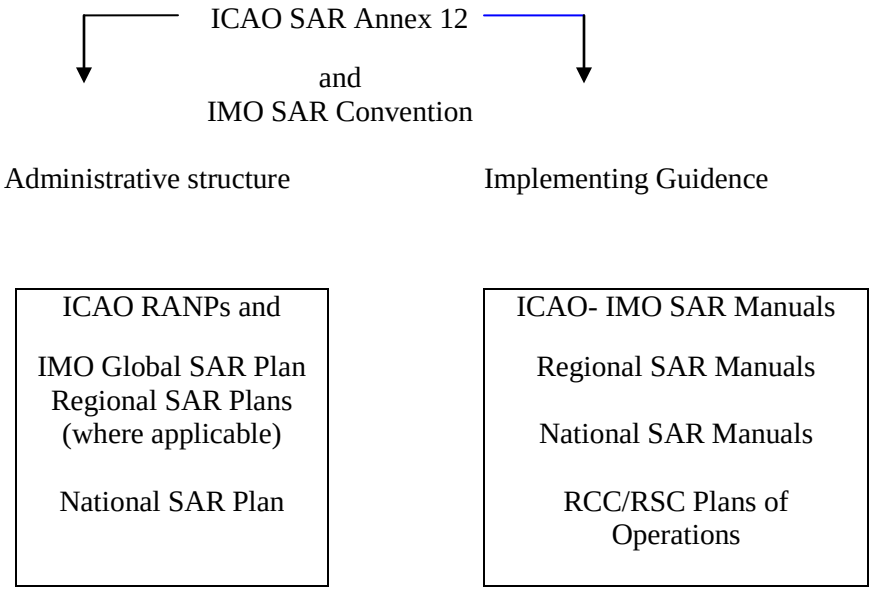

Figure 5-1 – *Basic SAR documents*

PART 1

Sources for SAR Assistance

C.1 State, Provincial, and Local Government Departments

C.1.1 Many Government departments can give valuable aid to SAR operations. The national SAR Plan should specify the extent and manner in which each department is expected to aid the SAR system when called upon. Consideration should be given to calling upon public departments for assistance, rather than upon private concerns, as the latter may demand considerable payment for services. Examples of public departments and the facilities they may provide for SAR assistance are:

(a) Agricultural and forestry departments. Personnel and organization for land searches, fire fighters and first-aid personnel, communication networks, light aircraft and helicopters.

(b) Broadcasting stations. Communications networks and public information broadcasts.

(c) Civil aviation administrations. Air traffic services personnel, communications networks and departmental aircraft.

(d) Coastguard and lifeboat authorities. Where established, these authorities are typically the primary source of maritime SAR assistance. The services which these authorities may provide cover a wide range, but the following are among the more important:

- trained personnel and specialized, all-weather SAR equipment;
- medical assistance and emergency medical evacuation;
- alerting posts, communications networks, direction-finding and radio facilities;
- survival equipment; and
- testing, prototype and experimental equipment.

(e) Electric and public works departments. First-aid personnel, helicopters and communication lines.

(f) Fire departments. Fire departments are often focal points to which the general public turns for help or to report an accident. They may provide:

- alerting post services; and
- rescue units, including vessels, ambulances, emergency medical technician teams and fire-fighting brigades.

(g) Health departments. Hospital and first-aid facilities, ambulances and medical stations in remote areas.

(h) Hydrographic and other marine survey departments. Marine navigation warnings and information, and vessels.

(i) Land survey departments. Aircraft, aerial photography and photo-interpretation personnel.

(j) Lighthouse and pilotage authorities. Vessels and crews.

(k) Marine and fisheries departments. Vessels and crews, and vessel reporting systems.

(l) Meteorological departments. Weather information and communications networks.

(m) Military services. Often the military services are the best source of all-weather facilities and trained personnel, rivalling even an established coastguard or lifeboat service in SAR capabilities. With their communications networks, military operations centres make excellent sites for co-locating an RCC.

(n) Police departments, including municipal, State or provincial police forces. Police departments are focal points to which the general public often report abnormal observations. SAR-related services that police departments may provide are:
- alerting posts;
- helicopters, small aircraft, rescue boats and land search parties;
- communications facilities;
- traffic control; and
- fencing and guarding of accident sites.

(o) Railway departments. Communication networks.

(p) Telephone and telegraph departments. Communications networks and repair personnel.

C.2 Communications Facilities

C.2.1 Communications are vital to an effective SAR system. The SAR system must have ways to receive distress alerts and to direct the efforts of responding SAR facilities. Immediate access to the lines of communication owned by Government departments and private concerns is most important. SAR managers should ensure that, whenever possible, each RCC has access to the following communications networks:

- air traffic services networks;
- amateur radio stations;
- State-owned and private broadcasting stations;
- cable, telephone and telegraphic corporations;
- coast radio stations;
- meteorological communications networks;
- military communications networks;
- railway communications systems;
- dedicated SAR communications networks;
- satellite communications systems, e.g., Inmarsat and Cospas–Sarsat; and
- transport communications systems.

C.3 Aircraft Operating Agencies

C.3.1 Arrangements should be made with aircraft operating agencies for their co-operation in SAR. They may be able to provide limited assistance by:

- requesting air crews to keep a visual or radio watch for aircraft or vessels lost in the vicinity of their route;
- diverting en-route aircraft to the extent practicable for SAR purposes;
- making suitable aircraft and crews available for SAR operations;
- providing RCCs with detailed information concerning one of their own aircraft in distress and the survival equipment carried by that aircraft; and
- encouraging aircraft operators and aerodromes to monitor the radio frequency 121.5 MHz.

C.4 Fishing Vessels, Yachts, and Small Craft

C.4.1 Fishing vessels, yachts, and other private small craft are sources from which volunteer assistance may be obtained. Those sources will have various levels of training in SAR operations. Police, customs and harbor authorities also usually have small craft suitable for SAR operations in coastal or protected waters.

C.5 Merchant Vessels

C.5.1 Several international conventions require that the master of a vessel, on receiving a message that persons are in distress at sea, proceeds to assist them when it can be done without undue risk to the safety of the responding vessel and crew.

C.5.2 Vessels at sea, although not always available to participate in extended search operations, are potential SAR assets. Masters of vessels have a duty to assist others whenever it can be done without endangering the assisting vessel or crew. A ship reporting system enables the SMC to quickly know the approximate positions, courses, and speeds of vessels in the vicinity of a distress situation and other information about the vessels which may be valuable, e.g., whether a doctor is aboard. Masters of vessels sailing the areas of concern should be encouraged to send regular reports to the authority operating a ship reporting system for SAR in the area. Ships are a key SAR resource for RCCs, but requests for them to assist must be weighed against the considerable cost to shipping companies when they do divert to assist. Ship reporting systems enable RCCs to quickly identify the capable vessel which will be least harmed by a diversion, enabling other vessels in the vicinity to be unaffected. The basic functional requirements of a ship reporting system are:

- one or more communications stations that receive and relay vessels' reporting messages;
- a facility (personnel and equipment) for recording, plotting, updating and filing vessels' reports;
- a standard operating procedure available to participating ships; and
- immediate access to system information by any RCC which may need the data.

C.6 Auxiliaries

C.6.1 Auxiliaries, both maritime and aeronautical, are organizations which provide training and an operational framework for privately owned craft that volunteer to do SAR. Though not specifically designed for SAR, these craft frequently are useful over land and in coastal waters. These craft vary in size, type, design, power, endurance and durability. SAR planners should maintain updated information on how to contact these volunteer resources and be familiar with their capabilities and limitations.

C.7 Sports Clubs and Similar Organizations

C.7.1 Aviation clubs, parachute jumping clubs, scouting troops, mountain climbing and hiking clubs may give valuable assistance, particularly with SAR over land. Aircraft operated by parachute clubs may be used for dropping supplies and aircraft operated by aviation clubs may be used for air searches that must be conducted at low speed and altitudes in areas well known to the pilots.

C.8 Commercial Businesses

C.8.1 A number of commercial businesses may be able to contribute substantially to SAR, in view of their location, equipment and the nature of their business. They may include:

(a) Crop and insect spraying corporations. Aircraft and helicopters.
(b) Polar trading posts and tropical plantations. Alerting posts.
(c) Oil companies and others exploiting natural resources. Vessels and crews; aircraft and helicopters normally used for patrolling pipelines, transportation and surveying; and first-aid and communications facilities.
(d) Salvage companies. Undersea salvage equipment and personnel, vessels and crews, salvage expertise, equipment and ocean-going tugs.
(e) Shipping information agencies and classification societies. Sailing and arrival schedules, descriptive information and shipping particulars.

C.9 Other Institutions

C.9.1 Institutions situated in isolated locations are particularly valuable to the SAR system. They are generally well equipped to serve as alerting posts, organize search parties and give medical aid. Examples include missionary and medical stations, monasteries, convents and other voluntary enclaves.

PART 2

False Alerts

E.1 Importance of Preventing False Alerts

E.1.1 False alerts are any alerts received by the SAR system which indicate an actual or potential distress situation, when no such situation actually exists. Some causes of false alerts include equipment malfunctions, interference, testing and inadvertent human error. A false alert transmitted deliberately is called a hoax.

E.1.2 With the advent of more alerting equipment which transmits automatic pre-formatted data messages, a tendency for the numbers of false alerts received to increase is inevitable. If counter-measures are not developed, this will place increasing strain on the SAR system, bring increasing risk to SAR personnel and harm the credibility of alerting systems needed to inform the SAR system when help is needed.

E.1.3 It is essential that SAR personnel treat every distress alert as genuine until they know differently.

E.1.4 For a false alert, an unnecessary SAR alert (UNSAR) message should be sent by the RCC to the appropriate authorities for follow-up to prevent re-occurrence of similar false alerts. The follow-up should include the person or persons responsible for the false alert and may include information such as the effort expended by the SAR organization in response to the false alert.

E.2 Preventing False Alerts

E.2.1 Steps SAR authorities can take to reduce false alerts are suggested below:

- inform aircraft and vessel owners and operators about implications of the rising number of false distress alerts;
- provide for vessels to properly register all communications equipment, and to ensure that this registration data is readily available to RCCs;
- follow-up on UNSAR messages;
- consider establishing or using enforcement measures to prosecute those who:
- inadvertently transmit a false distress alert without proper cancellation, or who fail to respond to a distress acknowledgement due to misuse or negligence;
- repeatedly transmit false alerts; and
- deliberately transmit false alerts.
- use the ITU violation reporting process for false distress alerts;
- ensure that communications equipment operators are well informed on how to operate their equipment, the importance of avoiding false alerts and steps to be taken to prevent transmitting false alerts;
- inform equipment approval authorities of false alert problems to draw their attention to testing and alerting functions of radio equipment during the type approval process;

- urge companies installing radio equipment to train the users to ensure they become familiar with operation of the installed equipment;
- investigate the cause when a specific model of communications equipment repeatedly transmits unwanted alerts and inform appropriate organizations;
- ensure that surveyors and inspectors are informed about communications equipment and particularly how to operate and test it without transmitting a false alert;
- require that operators be appropriately certificated for installed communications equipment.
- urge manufacturers, suppliers, and installers of communications equipment to:
- provide clear and precise operating instructions that are easy to understand (maintenance and operating instructions should be separated, and should be delivered in English and any other language deemed necessary);
- ensure that supplier and installation personnel understand how the equipment works and the consequences of transmitting a false alert;
- ensure that equipment is designed for distress alerting so that it will be impossible to transmit an alert unintentionally; any panel for emergency operation is separated from the one for normal operation, is fitted with a cover, and has colour-coded switches; and that there are standardized arrangements of control panels and standard operational procedures;
- design test features so that testing equipment will not result in false distress alerts;
- ensure that when any communications equipment has been installed, necessary instructions are given to users, specifically pointing out the operating procedures (log that the instructions have been given);
- ensure that any distress alert activation is indicated visually and/or aurally, showing that the equipment is transmitting a distress alert, until manually deactivated;
- implement any appropriate technical and operational measures to avoid unwanted transmission of alerts;
- ensure that the ELT or EPIRB handling procedures and installations, including the location on board the aircraft or vessel and the release and activation mechanisms, preclude unwanted activation;
- design EPIRBs so that when they are out of their brackets they must also be immersed in water to activate automatically; when operated manually, a two-step activation procedure should be required; and
- consider ELT and EPIRB installation locations for new aircraft and vessels at early stages of the craft design and construction.
- urge trainers and educators to:
- ensure that aviation and maritime education centres are informed and teach about false alert problems and implications to safety and SAR;
- obtain and use actual case histories as examples when teaching;
- emphasize the need to avoid false distress alerts in all aviation and maritime training and education; and
- ensure that no inadvertent transmissions of false distress alerts occur during communications training.
- educate users of communications equipment and their employers to:

- ensure that all personnel responsible for sending a distress alert have been instructed and are competent to operate all radio equipment aboard the aircraft or vessel;
- have the person(s) responsible for communications during distress incidents give necessary instructions and information to any crew members who should know how to send a distress alert;
- give instruction to the crew during each drill on evacuating the aircraft or vessel on how emergency equipment should be used for emergency functions;
- ensure that equipment testing is only undertaken under supervision of the person responsible for communications during distress incidents;
- ensure that equipment testing or drills are never allowed to cause false distress alerts;
- ensure that encoded identities of satellite ELTs and EPIRBs, which are used by SAR personnel responding to emergencies, are properly registered in a database accessible 24 hours per day or automatically provided to SAR authorities (aircraft and vessel operators should confirm that their beacons have been registered with such a database to help SAR services to identify the unit in the event of distress and to rapidly obtain other information to help them respond);
- immediately update ELT, EPIRB, Inmarsat and DSC registration data and, if necessary, reprogram the equipment codes, if the aircraft or vessel change ownership, name, flag, or similar information;
- install and maintain satellite ELTs and EPIRBs carefully in accordance with manufacturers' instructions and using qualified personnel;
- avoid activating EPIRBs if help is already available (EPIRBs are intended to call for assistance if the vessel is unable to obtain help by other means, and provide position information and homing signals for SAR units);
- once an EPIRB is switched on, whether accidentally or intentionally, the vessel should make every reasonable attempt to communicate with SAR authorities by other means to advise them of the situation before turning the EPIRB off;
- after emergency use, if possible, retrieve and deactivate the EPIRB;
- when an ELT or EPIRB is damaged and needs to be disposed of, or if an aircraft or vessel is sold for scrap or for any other reason a beacon will no longer be used, ensure that it is made inoperable by removing its battery if possible and returning it to the manufacturer or demolishing it;
- take measures, such as wrapping the ELT or EPIRB in tin foil, to prevent transmission of signals during shipment to the manufacturer for any reason; and
- when the ELT or EPIRB is destroyed or demolished, ensure that the beacon is removed from registration lists.

SAR AWG/1
Appendix 5B to the Report on Agenda Item 5

Draft Proposal for Amendment to the MID Basic ANP (Doc 9708)

PART VII

SEARCH AND RESCUE (SAR) SERVICES

1. States should arrange for the establishment of a SAR system including a legal framework, available resources, communication facilities and a workforce skilled in coordination and operational functions for providing SAR services on a 24-hour basis, in accordance with ICAO Annex 12 provisions.

2. Planning for search and rescue services should be based to the maximum practicable extent on existing services and facilities even if these are not provided primarily for search and rescue purposes, in order to obtain a reasonable cost-effectiveness relationship in maintaining these services and facilities in the required state of readiness.

3. SAR facilities should be so located and appropriate arrangements for their use formalized, that they can be activated with the least possible delay.

4. The minimum units and facilities necessary for provision of search and rescue operations within a search and rescue region are set out in FASID Table SAR 1.

5. The Standards, Recommended Practices and Procedures to be applied and related guidance material are contained in:

a) Annex 12 — Search and Rescue;

b) International Aeronautical and Maritime Search and Rescue Manual (Doc 9731- AN/958 Volume I, II and III) (IAMSAR Volumes); and

c) Regional Supplementary Procedures (Doc 7030) —Search and Rescue (EUR and MID/ASIA Chapter 11).

SAR AWG/1
Appendix 5C to the Report on Agenda Item 5

FASID TABLE SAR 1 C **SEARCH AND RESCUE FACILITIES**

*Note 1.*C *The plan of search and rescue regions (SRR) is an element of the basic air navigation plan and is contained in the MID Basic ANP (Doc 9708), Part VII.*

EXPLANATION OF THE TABLE

Column

1 Name of the rescue co-ordination centre (RCC) or rescue sub-centre (RSC) followed by the location of each rescue unit.

2 Minimum requirements for land rescue units (LRU) including mountain rescue units (MRU) and desert rescue units (DRU).

Extra Long Range (ELR): Those aircraft with a radius of action of 2 780 km (1 500 NM) or more, plus 22 hours search remaining.

Very Long Range (VLR): Those aircraft with a radius of action of more than 1 850 km (1 000 NM) plus 22 hours search remaining.

Long Range (LRG): Those aircraft with a radius of action of 1 390 km (750 NM) plus 22 hours search remaining.

Medium Range (MRG): Those aircraft with a radius of action of 740 km (400 NM) plus 22 hours search remaining.

Short Range (SRG): Those aircraft with a radius of action of 280 km (150 NM) plus 2 hour search remaining.

Helicopter (HEL-L): A helicopter suitable for rescue purposes with, in normal circumstances, a radius of action for rescue purposes of up to 185 km (100 NM) and a capacity for evacuating 1 to 5 persons.

Helicopter (HEL-M): A helicopter suitable for rescue purposes with, in normal circumstances, a radius of action for rescue purposes of 185 to 370 km (100 to 200 NM) and a capacity for evacuating 6 to 15 persons.

Helicopter (HEL-H): A helicopter suitable for search and rescue purposes with, in normal circumstances, a radius of action for rescue purposes of more than 370 km (200 NM) and a capacity for evacuating more than 15 persons.

Rescue Boat (RB): Short-range coastal and river craft with a speed approaching 14 knots or better.

Rescue Vessel (RV): Vessel possessing sea-going qualities, long range and reasonable speed. Patrol, customs, pilotage and other craft fulfil the purpose if assigned a high priority for search and rescue operations.

Notes:

1 Coverage by aircraft with shorter range than recommended at LRG range.
2 The Sri Lanka Government can only provide SAR facilities within a 370 km (200 NM) radius of its principal airports.
3 Rescue team.

RCC and rescue units RCC et groupe de sauvetage RCC y brigadas de salvamento	Required rescue facilities Moyens de sauvetage requis Instalaciones de salvamento requeridas
1	2
~~**AFGHANISTAN**~~ ~~KABUL RCC~~ ~~Kandahar~~ ~~Kabul~~	 ~~MRG~~ ~~HEL-M~~ ~~MRG~~ ~~HEL-M~~
BAHRAIN BAHRAIN RCC Bahrain Doha RSC	 HEL-L RB RV HEL-M RB SRG RV
EGYPT CAIRO RCC Cairo	 VLR MRU LRG DRU MRG LRU SRG HEL-L PRU HEL-M HEL-H
Alexandria Luxor Hurghada M. Matruh	HEL-M RB RV HEL-M DRU HEL-M RB DRU RV HEL-M RB DRU RV
EL-Minya El Tor Habata New Valley Ras-Banas Siwa	 DRU DRU DRU DRU RB DRU RV DRU
IRAN, ISLAMIC REPUBLIC OF TEHRAN RCC Tehran Bandar Abbass Busherhr Esfahan Kerman	 LRG MRU HEL-M LRU HEL-M RB DRU HEL-M RB HEL-M MRU DRU HEL-M MRU

RCC and rescue units RCC et groupe de sauvetage RCC y brigadas de salvamento	Required rescue facilities Moyens de sauvetage requis Instalaciones de salvamento requeridas
1	2
Kermanshah Mashhad Tabriz Zahedan	DRU HEL-M MRU HEL-M MRU DRU HEL-M MRU HEL-M MRU DRU
IRAQ BAGHDAD RCC Baghdad Kirkuk Shaibah Basrah	 MRG HEL-M HEL-M HEL-M RB RV
ISRAEL BEN GURION RCC Eilat Haifa Ben Gurion	 RV RV SRG HEL-M
JORDAN AMMAN RCC Amman	 MRG RB HEL-M
KUWAIT KUWAIT RCC Kuwait	 LRG RB HEL-M RV
LEBANON BEIRUT RCC Beirut Tripoli **OMAN** MUSCAT RCC Muscat	SRG RV MRU HEL-M RB RB MRG RV DRU ELR MRU LRU

RCC and rescue units RCC et groupe de sauvetage RCC y brigadas de salvamento	Required rescue facilities Moyens de sauvetage requis Instalaciones de salvamento requeridas		
1	2		
Salalah	MRG	RB RV	MRU
SAUDI ARABIA			
JEDDAH RCC Jeddah	LRG HEL-M	RB	
	HEL-M	RB	
Dammam	HEL-M		LRU
SYRIAN ARAB REPUBLIC			
DAMASCUS RCC Damascus	MRG MRU		
Latakia	HEL-M		
		RB RV	
UNITED ARAB EMIRATES			
ABU DHABI RCC Abu Dhabi	SRG	RB	
Dubai	HEL-H	RB	
Fujairah		RB	
~~Doha RSC~~	~~HEL-M~~	~~RB~~ ~~RV~~	~~SRG~~
YEMEN			
SANA'A RCC Sana'a	MRG HEL-M		DRU
Aden	MRG HEL-H	RV	
Hodeidah	MRG HEL-M	RV	
Riyan	MRG HEL-H	RV	

RCC and rescue units RCC et groupe de sauvetage RCC y brigadas de salvamento	Required rescue facilities Moyens de sauvetage requis Instalaciones de salvamento requeridas
1	2

SAR AWG/1
Appendix 5D to the Report on Agenda Item 5

SAR AWG POINT OF CONTACT

STATE	NAME	TITLE	ADDRESS	EMAIL	FAX	TEL	MOBILE
Bahrain							
Egypt	Mr. Ibrahim Khalifa Mahmoud	General Director of Operations Centers & Crisis Management	Ministry of Civil Aviation Cairo - EGYPT	crisar@civilaviation.gov.eg	202 2268 1371	202 2267 8548	20124469052
Iran							
Iraq							
Israel							
Jordan	Mr. Khalaf Al-Shawabka	Chief Amman TACC and SAR	Queen Alia Airport	kshowbki@yahoo.co.nz	+962 445132	+ 962 4451672	96) 77790 4724
Kuwait							

STATE	NAME	TITLE	ADDRESS	EMAIL	FAX	TEL	MOBILE
Lebanon							
Libya							
Oman							
Qatar							
Saudi Arabia	Mr. Ahmad B. Altunisi	Manager SAR Head of SAMCC	General Authority of Civil Aviation	jaf-2010@hotmail.com	966-2 671 9041	966-2 671 7717/1840	966-50 460 1445
Sudan							
Syria	Mr. Monif Abdulla	Head of S.A.R. Department Syrian Civil Aviation Authority	Damascus Airport	monif77@hotmail.com	963-11 540 0312	963-11 540 0312	963 932 710351
UAE							
Yemen							

SAR AWG/1
Report on Agenda Item 6

REPORT ON AGENDA ITEM 6: REVIEW AND UPDATE THE DEFICIENCIES IN THE SEARCH AND RESCUE

6.1 The meeting noted that the major deficiency is related to the Lack of Search and Rescue Agreements between neighbouring States.

6.2 It was recalled that MIDANPIRG/11 developed Conclusion 11/86 related to the elimination of air navigation deficiencies as follows:

CONCLUSION 11/86: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE MID REGION

That,

a) States review their respective lists of identified deficiencies, define their root causes and forward an action plan for rectification of outstanding deficiencies to the ICAO MID Regional Office;

b) States and users Organizations use the online facility offered by the ICAO MID Air Navigation Deficiency Database (MANDD) for submitting online requests for addition, update and elimination of air navigation deficiencies;

c) States increase their efforts to overcome the delay in mitigating air navigation deficiencies identified by MIDANPIRG and explore ways and means to eliminate deficiencies;

d) ICAO continue to provide assistance to States for the purpose of rectifying deficiencies when required, States request ICAO assistance through Technical Co-operation Programme, Special Implementation Projects (SIP) and/or other available mechanisms such as IFFAS, and

e) State are encouraged to seek support from regional and international organizations (i.e ACAC, GCC, etc) for the elimination of identified air navigation deficiencies.

6.3 The meeting noted that the main deficiency related to the SAR in the MID Region is the SAR agreements consequently the meeting developed the table as at **Appendix 6A** to the Report on Agenda Item 6 to reflect the agreement and their status of implementation.

6.4 The meeting was of opinion that the deficiency would persist for a long time until States develop the necessary legislations and regulations for regulating SAR services and that States could use the guidelines and the standards in Annex 12 or seek assistance from experts in the industry to develop their own regulations.

SAR AWG/1
Appendix 6A to the Report on Agenda Item 6

SAR AGREEMENT STATUS

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	**Facilities/ Services**	**Description**	**Date First Reported**	**Remarks/ Rationale for Non-elimination**		**Description**	**Executing Body**	**Date of Completion**	**Priority for Action**
1	LIM/MID/RANConcl. 3/7Cooperation between States in SAR		Lack of Search and Rescue Agreements between neighboring States	Nov, 1994	Work ongoing to sign agreements	S	A. States to commence negotiations with neighbors to establish SAR agreements B. Implement operational SAR agreements C. Implement entry agreements for SAR aircraft of other States			A

STATE	CORRESPONDING STATES	STATUS
BAHRAIN	IRAN KUWAIT OMAN QATAR SAUDI ARABIA UAE	
EGYPT	GREECE ISRAEL JORDAN LYBIA CYPRUS SAUDI ARABIA SUDAN	
IRAN	ARMENIA AZERBAIJAN TURKMANISTAN AFGHANISTAN BAHRAIN IRAQ KUWAIT OMAN PAKISTAN TURKEY UAE	
IRAQ	IRAN JORDAN KUWAIT SAUDI ARABIA SYRIA TURKEY	
ISRAEL	EGYPT JORDAN LEBANON CYPRUS	

STATE	CORRESPONDING STATES	STATUS
JORDAN	EGYPT IRAQ ISRAEL SAUDI ARABIA SYRIA	
KUWAIT	BAHRAIN IRAN IRAQ SAUDI ARABIA	
LEBANON	ISRAEL CYPRUS SYRIA	
OMAN	BAHRAIN INDIA IRAN PAKISTAN SAUDI ARABIA UAE YEMEN	
QATAR	BAHRAIN	
SAUDI ARABIA	BAHRAIN EGYPT ERITREA IRAQ JORDAN KUWAIT OMAN SUDAN YEMEN	
SYRIA	IRAQ JORDAN LEBANON CYPRUS TURKEY	 YES YES

STATE	CORRESPONDING STATES	STATUS
UAE	BAHRAIN IRAN OMAN SAUDI ARABIA	
YEMEN	DJIBOUTI ERITREA ETHIOPIA INDIA OMAN SAUDI ARABIA SOMALIA	

REPORT ON AGENDA ITEM 7: FUTURE WORK PROGRAMME

7.1 The meeting recalled that in accordance with the ICAO Business plan and the requirements for performance monitoring, the Study Group has to develop a follow-up action plan on the results of the meeting. Accordingly, the meeting developed the action plan as at **Appendix 7A** to the Report on Agenda Item 7.

7.2 The meeting reviewed the Term of Reference and work programme of the SAR Ad-hoc Working Group and noted that since most of the requirement from the Group has been fulfilled during this meeting and the rest of the requirements of the SAR should be followed within the normal mechanism of the ATM/SAR/AIS SG. Accordingly, the meeting agreed that the SAR AWG be dissolved and formulated the following Draft Decision:

DRAFT DECISION 1/4: DISSOLVE THE SAR AWG

That, the SAR AWG is dissolved and the ATM/SAR/AIS SG follow the SAR requirements.

SAR AWG/1
Appendix 7A to the Report on Agenda Item 7

FOLLOW-UP ACTION PLAN ON SAR AWG/1 CONCLUSIONS AND DECISIONS

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
DRAFT CONC. 1/1: SAR PART VII OF MID BASIC ANP That, the SAR Part VII of the MID BASIC ANP be replaced with the new developed material at Appendix 5B to the Report on Agenda Item 5.	Proposal for Amendment	ICAO	Amendment Proposal	June 2010	
DRAFT CONC. 1/2: SURVEY ON THE PROVISION OF SAR IN THE MID REGION That, a) the ICAO MID Regional Office send a State Letter with a questionnaire to all MID States, prior to 15 June 2010, to collect information on the status of implementation of SAR provisions in the MID Region and update the list of Air Navigation Deficiencies accordingly; b) States send their replies to the ICAO MID Regional Office prior to 15 July 2010; and c) in case of non-receipt of reply by the agreed deadline, concerned States will be added to the list of Air Navigation Deficiencies for non-provision of required SAR services.	Conduct Survey	ICAO States	State Letter Replies	15 June 2010 15 July 2010	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
DRAFT CONC. 1/3: SAR SPOC AND 406MHZ BEACON That MID States: a) designate a SAR Point Of Contact; b) take appropriate action to ensure that all beacon owners/operators upgrade to 406 MHz ELTs and register their 406 MHz ELT in the IBRD database or establish their own database; c) designate to the Cospas-Sarsat Secretariat, SAR Point Of Contact and: d) update the ICAO MID Regional Office on their implementation status.	Implement Conclusion	ICAO States	State letter on SPOC 406 MHz Registration in Database	October 2010	
DRAFT DEC. 1/4: DISSOLVE THE SAR AWG That, the SAR AWG is dissolved and the ATM/SAR/AIS SG follow the SAR requirements.	Present to MIDANPIRG/12	MIDANPIRG/12 Approval	WP to MIDANPIRG/12	October 2010	

REPORT ON AGENDA ITEM 8: ANY OTHER BUSINESS

8.1 Nothing has been discussed under this Agenda Item.

SAR AWG/1
Attachment A to the Report

NAME	TITLE & ADDRESS
STATES **BAHRAIN** Mr. Fareed Abdullah Al Alawi	Head, Air Traffic Operations Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: (973) 17 32 1992 Tel: (973) 17 321 158 Mobile: (973) 39 651 596 Email: falalawi@caa.gov.bh
Mr. Hussain Abdulla Aloraifi	Assis. of Chief of Operation and Safety Royal Bahraini Air Force Bahrain Defence Force P.O. Box 245 KINGDOM OF BAHRAIN Fax: (973) 17 895 530 Tel: (973) 17 895 557 Mobile: (973) 36 873 738 Email: oraifi_85@hotmail.com
Mr. Saeed Rabeea Sabt	Assis. of Chief of Operation for Control and Communication Royal Bahraini Air Force Bahrain Defence Force P.O. Box 245 KINGDOM OF BAHRAIN Fax: (973) 17 895 542 Tel: (973) 17 895 559 Mobile: (973) 36 611 102 Email: rabeea@batelco.com.bh
Mr. Waleed Faisel Al Khalifa	Air Traffic Controller Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: (973) 17 32 1992 Tel: (973) 17 321 158 Mobile: (973) 39 30 7777 Email: waleed-atc@hotmail.com

NAME	TITLE & ADDRESS
EGYPT Mr. Ahmed Islam Mousleh Fareg	Search and Rescue Specialist Ministry of Civil Aviation Cairo - EGYPT Fax: (202) 2268 1371 Tel: (202) 2267 8548 Mobile: (2010) 373 4394 Email: a_eslam86@yahoo.com
Mr. Ibrahim Khalifa Mahmoud	General Director of Operations Centers & Crisis Management Ministry of Civil Aviation Cairo - EGYPT Fax: (202) 2268 1371 Tel: (202) 2267 8548 Mobile: (2012) 4469052 Email: crisar@civilaviation.gov.eg
Mr. Alaa Eldin Aly Mohamed	Chief of JRCC – Cairo Search and Rescue Center in Egypt Almaza Air Base Cairo - EGYPT Fax: (202) 2418 4531 Tel: (202) 2418 4537 Mobile: (2011) 309 3979
ISLAMIC REPUBLIC OF IRAN Mr. Abbas Majdinasab	Expert in charge of Iranian Airports Company Mehrabad International Airport Tehran - ISLAMIC REPUBLIC OF IRAN Fax: (9821) 4454 4101 Tel: (9821) 4454 4107 Mobile: (98-912) 260 9623 Email: abbasmajdinasab2000@yahoo.com
Mr. Seyedhamidreza Ameli	Expert of ATC of Iranian Airports Company Mehrabad International Airport Tehran - ISLAMIC REPUBLIC OF IRAN Fax: (9821) 44649269 Tel: (9821) 66025108 Mobile: (98-912) 614 4976

NAME	TITLE & ADDRESS
JORDAN	
Mr. Khalaf Al-Shawabka	Chief Amman TACC and SAR Jordan Civil Aviation Authority Queen Alia Airport P.O. Box 7547 Amman - JORDAN Fax: (962-6) 551 677 Mobile: (962) 77790 4724 Email: kshowbki@yahoo.co.nz
Mr. Majed Khaled Malkawi	Chief Air Traffic Control Royal Jordanian Air Force RJAF Air Operation Amman - JORDAN Tel: (962-6) 488 8446 Mobile: (962) 777 463737 Email: majed7505257@yahoo.com
Mr. Tarek Hani Al Emoush	Nav. Branch Operation Royal Jordanian Air Force RJAF Air Operation Amman - JORDAN Fax: (962-6) 551 677 Tel: (962-6) 489 6351 Mobile: (962) 7777 83696 Email: tha.nav@gmail.com
OMAN	
Mr. Hamoud Bin Said Bin Salim Al-Yahyai	Senior Officer ATC Royal Air Force Oman Muscat, SULTANATE OF OMAN Fax: (968-24) 334 776 Tel: (968-24) 334 420 Mobile:(968) 99415696 Email: hamood1526@hotmail.com
Mr. Khalaf Bin Saud Al-zaidi	ATC Controller Directorate General of Meteorology & Air Navigation (DGMAN) Muscat International Airport P.O. Box 1-Code 111 SULTANATE OF OMAN Fax: (968-24) 519 930 Tel: (968-24) 519 123 Email: kalsidi1231@gmail.com

NAME	TITLE & ADDRESS
Mr. Nasr Ghalib Al-Busaidy	Assistant Director – ATC Department Directorate General of Meteorology & Air Navigation (DGMAN) Muscat International Airport P.O. Box 1-Code 111 SULTANATE OF OMAN Fax: (968-24) 518 990 Tel: (968-24) 518 991 Mobile: (968) 9902 4991 Email: nasr@dgcam.gov.om
Mr. Saif Saleh Al-Harthy	Chief of Approach Directorate General of Meteorology & Air Navigation (DGMAN) Muscat International Airport P.O. Box 1-Code 111 SULTANATE OF OMAN Fax: (968-24) 519 930 Tel: (968-24) 519 040 Mobile: (968) 9942 1218 Email: saif@dgcam.gov.om
SAUDI ARABIA Mr. Ahmad B. Altunisi	Manager SAR Head of SAMCC General Authority of Civil Aviation P.O. Box 929 Jeddah 21421 Kingdom of Saudi Arabia Fax: (966-2) 671 9041 Tel: (966-2) 671 7717/1840 Mobile: (966-50) 460 1445 Email: jaf-2010@hotmail.com
Mr. Faisal Al Zahrani	Air Navigation System Engineer General Authority of Civil Aviation P.O. Box 15441 Jeddah 21444 Kingdom of Saudi Arabia Fax: (966-2) 671 9041 Tel: (966-2) 671 7717 Mobile: (966-54) 134 1000 Email: f115@hotmail.com

NAME	TITLE & ADDRESS
SYRIA Mr. Haitham Uthman	ATC – SAR Department Syrian Civil Aviation Authority 1, Al Najmeh Square P.O. Box 6257 Damascus - SYRIA Fax: (963-11) 3315 547 Tel: (963-11) 3315547 Mobile: (963) 932 986 503
Mr. Monif Abdulla	Head of S.A.R. Department Syrian Civil Aviation Authority 1, Al Najmeh Square P.O. Box 6257 Damascus - SYRIA Fax: (963-11) 540 0312 Tel: (963-11) 540 0312 Mobile: (963) 932 710351 Email: monif77@hotmail.com
UNITED ARAB EMIRATES Mr. Stewart Murphy	Air Traffic Control Supervisor General Civil Aviation Authority P.O. Box 666 Abu Dhabi UNITED ARAB EMIRATES Fax: (971-2) 599 6836 Tel: (971-2) 599 6831 Mobile: (971-50) 842 0227 Email: smurphy@szc.gcaa.ae
Mr. Brian Day	ATS Inspector - SAR General Civil Aviation Authority P.O. Box 6558 Abu Dhabi UNITED ARAB EMIRATES Fax: (971-2) 405 4406 Tel: (971-2) 405 4278 Mobile: (971-50) 935 3617 Email: bday@gcaa.ae bday@icao.int

- END -