



International Civil Aviation Organization

CAR/SAM Regional Planning and Implementation Group (GREPECAS)

Sixteenth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/16)

Punta Cana, Dominican Republic, 28 March – 1 April 2011

GREPECAS/16 – WP/13

08/03/11

Agenda Item 3: Performance framework for Regional Air Navigation Planning and Implementation

**REPORT OF THE NAM/CAR/SAM SAR MEETING
ESTABLISHMENT OF THE SAR PERFORMANCE FRAMEWORK**

(Presented by the Secretariat)

SUMMARY

This Working Paper presents a summary of the Search and Rescue (SAR) Meeting for the North American, Caribbean and South American Regions which was held at Puntarenas, Costa Rica, from 18 to 22 May 2009, and a strategy based in the performance to improve the Search and Rescue (SAR) for the CAR/SAM Regions as a result from that meeting.

References:

- Annex 12
- Report from the Search and Rescue (SAR) Meeting for the North American, Caribbean and South American Regions (SAR/NAM/CAR/SAM) (Puntarenas, Costa Rica, 18 to 22 May 2009)

1. Introduction

1.1 During the Search and Rescue (SAR) Meeting for the North American, Caribbean, and South American Regions (SAR/NAM/CAR/SAM) held in Puntarenas, Costa Rica, on 18-22 May 2009, it was recognised that the recommendation RAN/CAR/SAM 2/3 and GREPECAS/11 conclusions concerning SAR were ten years old and it was expected that they would be implemented and updated, so they are considered completed.

1.2 It was noted that some States in the CAR/SAM Regions had difficulties in the implementation of some of the recommendations as several actions require the establishment of high level institutional agreements to be implemented as well as some actions require that States gather information from collaborating agencies and organizations to provide SAR service within their airspace and jurisdictional waters.

2. Analysis

2.1 The Meeting took note that the norm application for the implementation of the ELT operating on 406 MHz is already valid, so the States which have not done so, should take measures to publish the regulations and procedures for the aircraft operators. It was noted that currently there are many aircraft not equipped with an ELT operating on 406 MHz, most of which are general aviation operating on ELT 121.5 MHz. It was noted that the use of frequency 121.5 MHz is still used for alert and homing broadcasting purposes, in accordance with ICAO guidelines.

2.2 The Meeting took note of the national procedures for aircraft search using ELTs on 125.5 MHz from the United States which are included in **Appendix A** to this Working Paper and the Meeting considered that these procedures are very useful for those States where ELT operations on 121.5 MHz are used, and therefore it recommended that they be included in the SAR national procedures and training manuals, as applicable.

2.3 The Meeting considered that Aeronautical Rescue Coordination Centres should include the Cospas-Sarsat document G.007 *Handbook on Distress Alert Messages for Rescue Coordination Centres (RCCs), Search and Rescue Points of Contact (SPOCs) and IMO Ship Security Alert Competent Authorities* on the list of required documents. The Cospas-Sarsat document G.007, other references and related documents of the Cospas-Sarsat System, are available free-of-charge from the Cospas-Sarsat website at: <http://www.cospas-sarsat.org/Documents/gDocs.htm> .

2.4 The Meeting also noted that, among the latest amendments to Volumes I, II and III to Doc 9731, IAMSAR, are guidelines for practical application of risk management. In this regard, and in order to proceed with its application in the SAR units, it was recognized that a first step of the implementation of these programmes would be to envisage safety management systems (SMS) for SAR personnel, in accordance with ICAO guidelines.

2.5 The Meeting reviewed and updated CAR/SAM ANP - FASID Table SAR 1 — *Search and Rescue Facilities*. During 2009 the Secretariat took the appropriate action for the approval of the corresponding amendment.

2.6 The Meeting noted that, according to USOAP results, many findings are related to lack of an appropriate legislative framework, including basic civil aviation law, rules and procedures, documentation, and guidance material. SAR findings are related to lack of qualified and experienced personnel, adequate training, certification and licensing systems, and lack of capacity of authorities to oversee performance proficiency of service providers.

2.7 Training development should include a documented process to identify training requirements in accordance with Doc 9731; contents and times of the programmes, including the use of emerging technologies to locate aircraft accidents, as well as TRAINAIR methodologies and a validation process that measures the effectiveness of training. The instructors profile should comply with appropriate knowledge, skills and wide experience of SAR services.

2.8 Likewise, in view that needs for safety oversight have been detected, the Secretariat was requested to take the corresponding actions to provide regional guidelines to train SAR inspectors, in line with USOAP requirements. Therefore, the Meeting formulated the following:

CONCLUSION 1 TRAINING FOR SAR INSPECTORS

That ICAO, considering the amendments to Doc 9731 and the implementation of safety oversight management system, take the necessary actions to foster the organization of training events for SAR inspectors in the CAR and SAM Regions during 2010.

2.9 The Meeting received information reference a high level multilateral agreement signed by the Ministries of several States of the NAM, CAR and SAM Regions involving mainly military authorities of the Americas Air Forces Cooperation Systems SICOFAA (Sistema de cooperación de las Fuerzas Aéreas Americanas). After a thorough analysis, it was concluded that said agreement does not foresee aeronautical SAR coordination between civil authorities, and therefore it is necessary that ICAO continue fostering operational agreements between the involved RCCs in order to harmonise SAR systems in the Western Hemisphere. To this end, the Meeting agreed to hold periodic meetings so that ICAO can review the compliance of SAR agreements. Therefore, the Meeting formulated the following conclusion:

CONCLUSION 2 PERIODIC NAM/CAR/SAM SAR MEETINGS

That

- a) ICAO consider in its annual work programme the organization of SAR NAM/CAR/SAM meetings in order to follow-up on the SAR regional work programme, any agreements established, and GREPECAS SAR conclusions, replacing separate SAR meetings for the CAR and SAM Regions; and
- b) NAM/CAR/SAM States/Territories/International Organizations nominate a representative to participate at the SAR meetings and inform the name to its respective ICAO Regional Office by **30 June 2010**.

2.10 Taking into account that a modern SAR system should be built under a regional co-operation perspective between States/Territories/International Organizations without border limits to provide the necessary humanitarian aid, the Meeting considered that States should adopt specific co-operation measures to fulfill service requirements in the NAM/CAR/SAM Regions. To this end, it is necessary to ratify and/or establish bilateral and multilateral agreements in line with the SAR Multilateral Agreement model included in **Appendix B** to this part of the report.

2.11 Considering the advantages of the Multilateral Agreement Model, the Meeting was of the opinion that it should be reviewed in a specific meeting by SAR experts and therefore formulated the following:

CONCLUSION 3 ADOPTION OF A SAR MULTILATERAL AGREEMENT MODEL

That,

- a) involved States/Territories/International Organizations analyse the feasibility of adopting the SAR Multilateral Agreement Model for the NAM/CAR/SAM Regions, included in Appendix A to this part of the report, and inform ICAO on the progress of the agreements reached; and

- b) ICAO take the appropriate actions to assist States/Territories in the development of said agreements, and keep an updated list of SAR agreements in the NAM/CAR/SAM Regions catalogue.

2.12 The Meeting received information on SAR agreements reached in a bilateral and/or multilateral manner. A catalogue summarizing the status of SAR agreements in the NAM/CAR/SAM Regions is included in **Appendix C** to this part of the report.

2.13 The Meeting agreed that each participating delegation should review the draft Search and Rescue Services Quality Assurance Manual. The manual was presented to the First Meeting of the CNS/ATM/SG. The information is presented in WP/11.

2.14 The Secretariat presented information on the performance objectives approved by GREPECAS/15, in order to focus on future regional implementation activities and to ensure that resources are efficiently used and work is not duplicated. The new working method also will ensure that performance objectives may be measured against established deadlines and that they facilitate reporting to ICAO on progress attained.

2.15 **Appendix D** to this part of the report includes the SAR performance objectives agreed to by the Meeting for States/Territories/International Organizations to develop their respective work programmes. Based on the above, the Meeting formulated the following:

CONCLUSION 4 DEVELOPMENT OF WORK PROGRAMMES WITH A PERFORMANCE-BASED APPROACH

That States/Territories/International Organizations of the NAM/CAR/SAM Regions involved in the provision of SAR system develop their respective plans and work programmes based on the performance objective to improve the SAR system included in the Appendix to this part of the report and provide ICAO an annual report on the progress achieved including performance indicators attained by implementation activities.

3. Suggested Action

3.1 The Meeting is invited to:

- a) take note of the information and support the Conclusions and information provided in this Working Paper;
- b) urge the NAM/CAR/SAM States, Territories and International Organisations to adopt the sample form based on the SAR performance objective, contained in the Appendix D to this Working Paper, in order to improve the SAR service; and
- c) adopt the necessary measures that it considers appropriate.

APPENDIX A



Search Planning for audible 121.5 MHz





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Command Duty Officer
Rescue Coordination Center Miami

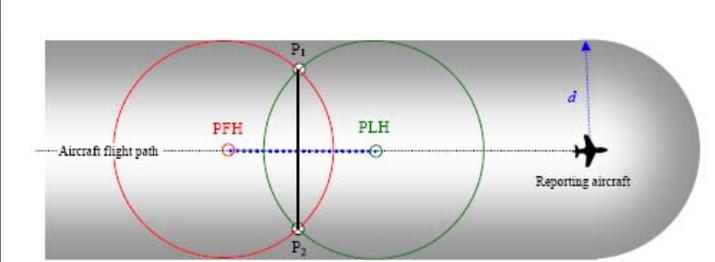


Search Planning for audible 121.5 MHz

- 121.5 MHz VHF AM is still the international aeronautical voice distress frequency
- 121.5 MHz is still a low-power homing signal on the ELT and EPIRB International carriage requirements under ICAO and the International
- Maritime Organization are for the 406 MHz distress beacon and no longer the 121.5 MHz version but, national regulations may provide for domestic use on 121.5 MHz.
- There are many 121.5 MHz ELTs and EPIRBs still in use.
- Personal Locator Beacon (PLB) is growing in use by many travellers but its 406 MHz distress alert signal may cause confusion for national authorities as to which agency has responsibility.
- There is a need to determine the location of audible 121.5 MHz distress beacon alerts.



Search Planning for audible 121.5 MHz



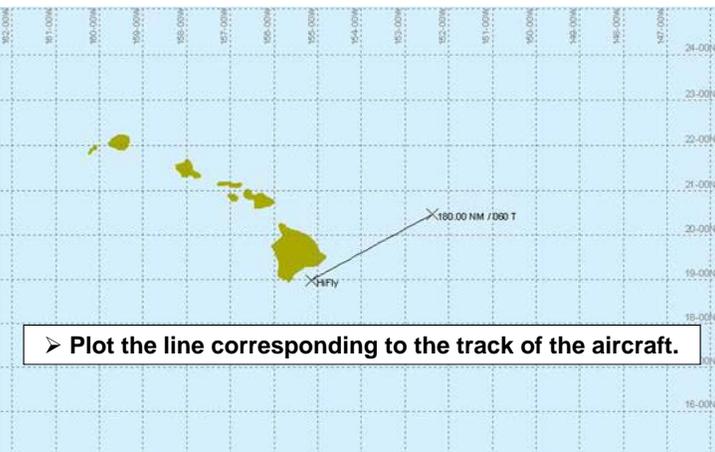
Where:

- PFH = point first heard
- PLH = point last heard
- d = horizon distance for radio reception at a given height of antenna (aircraft altitude)
- P_1 = Intersect position one
- P_2 = Intersect position two

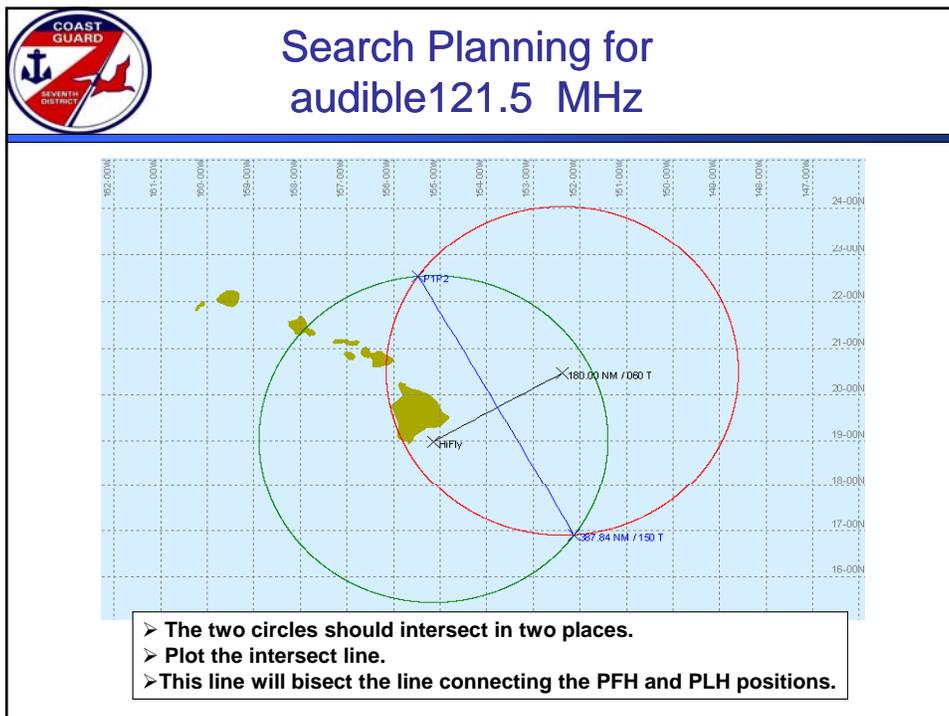
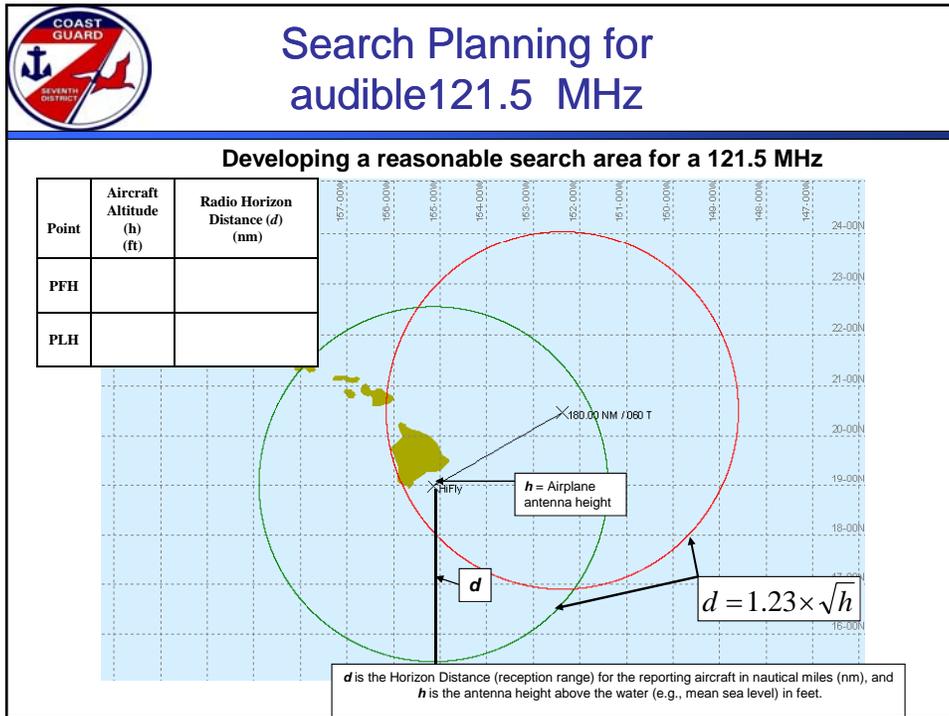
Audible Beacon Alert; Geometry for typical case where reporting aircraft passes within reception range of beacon signal



Search Planning for audible 121.5 MHz



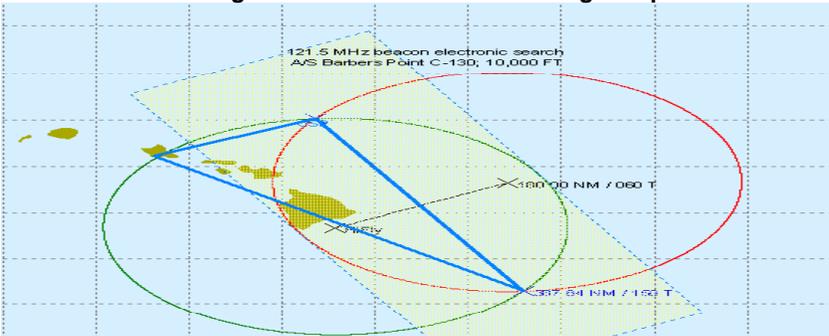
➤ Plot the line corresponding to the track of the aircraft.





Search Planning for audible 121.5 MHz

Determining Search Areas based on a Single Report.



- With only a single report from a high-flying aircraft and the associated long distances, the result will be large search areas and search options will be limited.
- Generally, with a single report only an electronic search may be possible to attempt to reacquire the beacon and then use radio direction finding capabilities to home in on the signal. The electronic search may be accomplished reasonably and quickly with a single track search under most circumstances.
- If a Search and Rescue Unit (SRU) is deployed, it should proceed to the nearest point where the two circles intersect and then fly to the other point where the two circles intersect at a high altitude. Once the beacon is acquired, the SRU can home in on it until located.



Search Planning for audible 121.5 MHz





Search Planning for
audible 121.5 MHz



Any Questions???



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U.S. Coast Guard District Seven
District Seven Command Center (DRMC)



APPENDIX B**SAMPLE SAR MEMORANDUM OF UNDERSTANDING****MEMORANDUM OF UNDERSTANDING FOR COOPERATION BETWEEN THE [name of national organization] AND [name of national organization] CONCERNING AERONAUTICAL AND MARITIME SEARCH AND RESCUE****1. Introduction.**

- 1.1 The [name of national organization], and [name of national organization], hereinafter referred to as the “Participants” in this Memorandum of Understanding (MOU), recognize the benefits enjoyed from previous close cooperation with regard to search and rescue (SAR) operations and training, and further recognize that additional benefits may be enjoyed from the cooperative arrangements detailed herein.
- 1.2 The Participants have been recognized by their respective governments as having primary responsibility for coordinating and providing aeronautical and maritime SAR services within their respective aeronautical and maritime SAR regions.
- 1.3 The Participants recognize the great importance of cooperation in aeronautical and maritime SAR, and in the provision of expeditious and effective SAR services to save lives and reduce risks. The Participants also recognize the assumed responsibilities for SAR within the framework of the International Convention on Maritime Search and Rescue, 1979, the Convention on International Civil Aviation, 1944, and the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR Manual).
- 1.4 The Participants have reached the following understanding.

2. Objectives and Scope.

- 2.1 This MOU establishes a framework for cooperation among the Participants in carrying out activities related to SAR, and sets out their various responsibilities.
- 2.2 The Participants should ensure close coordination with their respective aeronautical and maritime SAR authorities to help promote common and effective SAR services.

3. Responsibilities.

- 3.1 The [name of national organization] is responsible for maintenance of safety of life at sea and waters subject to [nation’s] jurisdiction, and within its respective aeronautical and maritime SAR regions, under its Rescue Coordination Center (RCC).
- 3.2 The [name of national organization] is responsible for the maintenance of safety of life at sea and on waters subject to [nation’s] jurisdiction and within its aeronautical and maritime SAR regions under its RCCs.
- 3.3 Each Participant, on receiving information of an incident where any person is in distress within its respective SAR regions as designated in the International Civil Aviation Organization (ICAO) Regional Air Navigation Plan and the International Maritime Organization (IMO) SAR Plan, is to

take urgent measures to provide the most appropriate assistance regardless of the nationality or status of such a person, or the circumstances in which the person is found.

- 3.4 SAR operations should normally be carried out in accordance with the relevant SAR manuals and recommendations of ICAO and IMO, including the IAMSAR Manual, taking into account national SAR procedures.
- 3.5 The Participants are to make every effort to retrieve persons in distress, provide for their initial medical or other needs and deliver them to a place of safety; additionally, when it does not involve excessive risk or cost to the units involved in SAR operations, the Participants may attempt to rescue the craft that the persons in danger are aboard.
- 3.6 To ensure that SAR operations are conducted in an efficient and coordinated manner, the Participants should consult and cooperate with each other as necessary and appropriate, lending mutual assistance as their capabilities allow. If primary responsibility for coordination of a SAR response or operation cannot be immediately ascertained, the RCCs concerned should consult with each other to resolve the responsibility.
- 3.7 For any SAR operation involving coordination between the Participants, the Participants, through appropriate consultation, intend to decide in each case which Participant is to act as SAR Mission Coordinator.
- 3.8 SAR facilities of either Participant may conduct SAR operations within the SAR region of the other Participant with coordination carried out by each Participant's RCC.
- 3.9 Entry of SAR units of one Participant onto or over the territory of the country of the other Participant for the purpose of conducting SAR operations should, to the best of each Participant's ability, be expeditiously arranged via the appropriate RCCs.
- 3.10 In accordance with customary international law, solely for the purpose of rendering emergency rescue assistance to persons, vessels, or aircraft in danger or distress, when the location is reasonably well known, SAR facilities of a Participant may immediately enter onto or over the territory of the other Participant, with notification of such entry made as soon as practicable.
- 3.11 To facilitate the coordination referred to in this Section, the Participants should, to the best of their ability, keep each other fully and promptly informed of SAR operations. The Participants should develop appropriate procedures in accordance with the IAMSAR Manual to provide for the most effective and efficient means of communication.

4. SAR Regions.

- 4.1 The aeronautical and maritime SAR regions of [nation] and [nation] are separated geographically by a continuous line as per the following:

[Provide the geographic coordinates of the lines of delimitation between both States' SAR regions only. Add additional States lines of delimitation for regional SAR MOU.]

- 4.2 The establishment of SAR regions is intended only to affect an understanding concerning the regions within which a Participant accepts primary responsibility for coordinating SAR operations.

4.3 The delimitation of SAR regions is not related to and does not prejudice the maritime boundaries between countries.

5. Rescue Coordination Centers (RCCs).

5.1 The primary operational points of contact under this MOU are the internationally recognized aeronautical and maritime RCCs of the Participants.

5.1.1 [Identify national RCC]

5.1.2 [Identify national RCC]

5.2 Participants, to the best of their ability, are to provide any information which might be useful in order to expedite and improve SAR coordination.

5.3 Identification of these operational points of contact, as referred to in this Section, is not intended to preclude appropriate direct coordination between any SAR facility or other organizational elements of the Participants, especially when time is of the essence in the saving of lives at sea.

5.4 Any transfer of SAR mission coordination responsibilities between the RCCs should be conducted by consultation between RCCs.

6. Cooperation.

6.1 The subordinate elements of the Participants may provide for further coordination and cooperation by the establishment of appropriate operational arrangements and procedures consistent with this MOU.

6.2 In addition to that related to specific SAR cases, Participants may exchange information that may serve to improve the effectiveness of SAR operations. This information may include, but not be limited to:

6.2.1 communication details;

6.2.2 information about SAR facilities;

6.2.3 descriptions of available airfields;

6.2.4 knowledge of fueling and medical facilities; and

6.2.5 information useful for training SAR personnel.

6.3 The Participants intend to endeavor to promote mutual SAR cooperation by giving due consideration to collaboration including, but not limited to:

6.3.1 arranging exchange visits between SAR personnel;

6.3.2 carrying out joint SAR exercises and training;

6.3.3 using AMVER reporting systems for SAR purposes;

6.3.4 sharing information systems, SAR procedures, techniques, equipment, and facilities;

6.3.5 providing services in support of SAR operations;

6.3.6 coordinating national positions on international SAR issues of mutual interest;

6.3.7 supporting and conducting joint research and development initiatives aimed at reducing search time, improving rescue effectiveness, and minimizing risk to SAR personnel; and

6.3.8 conducting regular communications checks and exercises, including the use of alternative means of communications that would be used to handle communication overloads during major SAR operations.

7. Finances.

7.1 Unless otherwise previously determined by the Participants, each Participant is to fund its own expenses for activities pertinent to this MOU.

7.2 The provisions of the MOU are contingent upon the availability of SAR personnel, facilities and funding.

7.3 SAR services provided by the Participants to persons in danger or distress are to be without subsequent cost recovery from the person(s) assisted.

8. Application of this MOU.

8.1 This MOU does not create binding obligations under international law.

8.2 Nothing in this MOU is intended to affect in any way rights and duties based on international agreements or other arrangements between the Participants or their respective governments.

8.3 All activities conducted under this MOU are subject to the regulations and policies of the Participants and to all laws, regulations, and policies to which the Participants are subject.

8.4 No provision of this MOU should be construed as an obstacle to prompt and effective action by any Participant to relieve distress whenever and wherever found.

8.5 Any dispute regarding the interpretation or implementation of this MOU, or any of its subordinate memoranda of understanding, is to be resolved by consultation with ICAO.

9. Modification. This MOU may be modified in writing by the Participants.

10. Duration, Withdrawal and Discontinuation.

10.1 Cooperation under this MOU may commence as of the date of signature and may continue indefinitely.

10.2 Either Participant may withdraw from this MOU at any time, but should give not less than six (6) months' notice in writing to the other Participant.

10.3 Cooperation under this MOU may be discontinued mutually by the Participants in writing, or by any superseding arrangement.

10.4 The Participants intend to consult regarding any SAR operations or other cooperation in progress at the time such discontinuation would take effect.

Signed in duplicate at [City, Nation], this ____ day of _____, 2009.

For the [national organization]:

Signed in duplicate at [City, Nation], this ____ day of _____, 2009.

For the [national organization]:

**STATUS OF SAR LETTERS OF AGREEMENT IN CAR/SAM REGIONS
ESTADO SOBRE CARTAS DE ACUERDO SAR EN LAS REGIONES CAR/SAM**

RCC from State / RCC del Estado	Estado / State.	Status of LOAs / Estado de LOAs									Remarks / Observaciones /
		Draft /Borrador I			Final II			Signed Firmada III			
		Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	
Antillas Neerlandesas/ Netherlands Antilles	Colombia							X			
	EEUU/SA							X			
	Jamaica							X			
	Haití							X			
	Rep. Dominicana/ Dominican Rep.							X			
	Venezuela							X			
Argentina	Bolivia								X		
	Brasil/Brazil							X	X		
	Chile									X	
	Paraguay	X									
	South Africa									X	
	United Kingdom									X	
	Uruguay					X					
Bolivia	Argentina									X	
	Brasil/Brazil							X	X		
	Chile							X			
	Paraguay							X			Paso III-2 en proceso/Step 2 on-going

RCC from State / RCC del Estado	Estado / State.	Status of LOAs / Estado de LOAs									Remarks / Observaciones /
		Draft /Borrador I			Final II			Signed Firmada III			
		Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	
	Perú								X		
Brasil/Brazil	Argentina							X			Paso III -2 en proceso/Step 2 on-going
	Bolivia							X	X		Paso III -2 en proceso/Step 2 on-going
	Colombia	X									Paso III -2 en proceso/Step 2 on-going
	Guyana							X			Paso III -2 en proceso/Step 2 on-going
	Guyana Francesa/ French Guyana							X			Paso III -2 en proceso/Step 2 on-going
	Paraguay							X			Paso III-2 en proceso/Step 2 on-going
	Peru							X			Paso III -2 en proceso/Step 2 on-going
	Suriname	X									Paso III -2 en proceso/Step 2 on-going
	Uruguay	X									Paso III -2 en proceso/Step 2 on-going
	Venezuela							X			Paso III -2 en proceso/Step 2 on-going
Chile	Argentina									X	
	Bolivia							X			
	Perú										
Colombia	Antillas Neerlandesas/ Netherlands Antilles							X			
	Brasil/Brazil	X	X					X			Paso III 1-2 en proceso/Step III 1 & 2 on-going

RCC from State / RCC del Estado	Estado / State.	Status of LOAs / Estado de LOAs									Remarks / Observaciones /
		Draft /Borrador I			Final II			Signed Firmada III			
		Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	
	Ecuador	X									
	Jamaica										
	Panamá										
	Perú	X									
	Venezuela	X									
	COCESNA						X				
Cuba	Haití										
	Jamaica										
	México										
	USA										
	COCESNA										
Ecuador	Colombia										
	Perú										
	COCESNA										
EEUU/USA	Antillas Neerlandesas/ Netherlands Antilles										
	México									X	
	Cuba										Operational coordination / coordinación operacional
	Haití										

RCC from State / RCC del Estado	Estado / State.	Status of LOAs / Estado de LOAs									Remarks / Observaciones /
		Draft /Borrador I			Final II			Signed Firmada III			
		Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	
Jamaica	Antillas Neerlandesas/ Netherlands Antilles										
	Colombia										
	Cayman Islands / Islas Caimanes										
	Cuba										
	Haiti										
	Panama										
	COCESNA										
México	Cuba										
	USA									X	
	COCESNA	X									
Panamá	Colombia										
	Jamaica										
	COCESNA							X			
Paraguay	Argentina	X									Borrador/Draft
	Bolivia							X			Borrador Paso 2/Step 2: draft
	Brasil/Brazil							X			
Perú	Bolivia							X			
	Brasil/Brazil		X					X			
	Chile	X									

RCC from State / RCC del Estado	Estado / State.	Status of LOAs / Estado de LOAs									Remarks / Observaciones /
		Draft /Borrador I			Final II			Signed Firmada III			
		Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	
	Colombia							X			
	Ecuador										
Rep. Dom/Dominican Rep.	Antillas Neerlandesas/ Netherlands Antilles									X	-Acuerdos con diversas agencias SAR nacionales e internacionales -Agreements with national and international SAR Agencies
	Haití			X							
	USA									X	
Suriname	Brasil/Brazil	X	X								Paso III 1 & 2 en proceso/Step III-1& 2 on- going
	Guyana										
	Guyana Francesa/ French Guiana										
	Trinidad & Tobago										
Trinidad & Tobago (Barbados, Antigua & Barbuda, France, St. Lucia, St. Kitts and the Grenadines, and United Kingdom)	Guyana										Additional coordination with Dakar/Santa María Coordinación adicional con Dakar/Santa María
	Guayana Francesa/ French Guiana	X									Acuerdos entre los Estados del Caribe del Este.
	USA (New York, San Juan)										Operational agreement / acuerdo operacional
	Venezuela	X									Agreements between Eastern Caribbean States
Uruguay	Argentina							X			

RCC from State / RCC del Estado	Estado / State.	Status of LOAs / Estado de LOAs									Remarks / Observaciones /
		Draft /Borrador I			Final II			Signed Firmada III			
		Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	Step/ Paso 1	Step/ Paso 2	Step/ Paso 3	
	Brasil/Brazil	X	X								Paso III 1 y 2 en proceso/Step III- 1 & 2 on-going
Venezuela	Antillas Neerlandesas/ Netherlands Antilles							X			
	Bolivia	X									
	Brasil/Brazil		X					X			Paso III 2 en proceso/Step III- 2 on-going
	Colombia	X									
	Guyana										
	Panama	X									
	Trinidad & Tobago							X			
	USA							X			
Central America /RCC Centroamérica (COCESNA -Belice, Costa Rica,, El Salvador, Guatemala, Honduras, Nicaragua)	Colombia							X			Acuerdos aeronáuticos entre todos los Estados Centroamericanos, y entre el RCC CA con USCG y Sistema ANVER
	Cuba	X									
	Ecuador										Aeronautical Agreements between All Central American States; and between the RCC CA with USCG and ANVER System
	Jamaica										
	México	X									
	Panamá										

Note/Nota:

Step 1:

Preparation of SAR letters of agreement for the utilization of Communications with the aim to carry out SAR coordinations between two adjacent RCCs, without regulation of entrance to a neighbour State for SAR purposes. Also, agreements related with training, familiarization of SAR personnel and execution of SAR services in their different modalities, should be contemplated.

Step 2:

Preparation of SAR letters of agreement for the utilization of communications with the aim to carry out SAR coordinations between two adjacent RCCs, and establish specific cases in which the assignment of means and personnel involving the entrance to a neighbour State for SAR purposes are agreed. Also, agreements related with training, familiarization of SAR personnel and execution of SAR services in their different modalities, should be contemplated.

Step 3:

Preparation of SAR letters of agreement as proposed in ICAO Annex 12 – Search and Rescue Services – and IAMSAR Manual. Also, agreements related with training, familiarization of SAR personnel and execution of SAR services in their different modalities, should be contemplated.

Paso 1

Confección de Cartas de acuerdos para la utilización de las comunicaciones con el objeto de coordinar operaciones SAR entre dos RCC adyacentes, sin que regulen la entrada a un Estado vecino por motivos SAR. Asimismo, deberían contemplar acuerdos relacionados con la instrucción/entrenamiento/familiarización del personal SAR y realización de Ejercicios SAR en sus distintas modalidades.

Paso 2

Confección de Cartas de acuerdos para la utilización de las comunicaciones con el objeto de coordinar operaciones SAR entre dos RCC adyacentes, como también establecer los casos específicos en los cuales se acuerda la asignación de medios y personal que involucren la entrada de un Estado vecino por motivos SAR. Asimismo, deberían contemplar acuerdos relacionados con la instrucción/entrenamiento/familiarización del personal SAR y realización de Ejercicios SAR en sus distintas modalidades.

Paso 3

Confección de Cartas de acuerdos según lo propuesto en el Anexo 12-Búsqueda y Salvamento y en el Manual IAMSAR. Asimismo, deberían contemplar acuerdos relacionados con la instrucción/entrenamiento/familiarización del personal SAR y realización de Ejercicios SAR en sus distintas modalidades.

APPENDIX D

IMPROVE SAR SYSTEM				
Benefits				
Efficiency	<ul style="list-style-type: none"> • enhanced traffic surveillance; • enhanced collaboration between stakeholders; • improved operational efficiency; 			
Safety	<ul style="list-style-type: none"> • improved implementation on a cost-effective basis; • improved safety management. 			
Strategy				
ATM Component	TASK DESCRIPTION	START-END	RESPONSIBLE	STATUS
SDM	a) Develop regional strategy to improve SAR System	End 2009	ICAO	Completed
	b) Identify parties concerned	End 2009	ICAO	Completed
	c) Conduct comprehensive analysis of SAR requirements based on risk assessment and quality assurance principles	2009 – 2011	States, Territories, Int. Org, ICAO	Valid
	d) Foster the harmonization of policies, regulations, practices and procedures of the aeronautical/maritime SAR services, in accordance with ICAO Standards and Recommended Methods.	2009 – 2013	States, Territories, Int. Org, ICAO	Valid
	e) Develop, update and ratify SAR agreements with RCCs of adjacent States.	2009 – 2013	States, Territories, Int. Org	Valid
	f) Develop, update and ratify SAR agreements with SAR service International agencies.	2009 - 2013	States, Territories, Int. Org	Valid
	g) Foster the establishment of joint aeronautical/maritime SAR Committees, including the integration of voluntary SAR organizations, as well as the development of agreements between all the stakeholders of the national SAR service	2009 – 2013	States, Territories, Int. Org, ICAO	Valid
	h) Develop human resources and training planning strategy in line with ICAO SAR guidelines and the regional agreements reached.	2009 – 2013	States, Territories, Int. Org, ICAO	Valid
	i) Monitor implementation progress	2009 - 2013	ICAO	Valid
GPIs	GPI/6: air traffic flow management; and GPI/9: Situational awareness			

- END -