

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
SOUTH AMERICAN REGIONAL OFFICE**

**INFORMAL MEETING ON SEARCH AND RESCUE SERVICES FOR THE SAM REGION
(SAM 90/03 SAR)**

(Lima, Peru, 8 to 12 September 2003)

Agenda Item 1: Evaluation of the SAR Service in the SAM Region

b) Review of the current situation – Organization of the Aeronautical SAR Service and SAM States search and rescue means affected

(Presented by the Secretariat)

Summary

This working paper presents the results of the actions carried out in the CAR and SAM Regions, aimed at reviewing and updating the data related with search and rescue facilities as shown in Table SAR 1 of the ANP CAR/SAM, Volume II – FASID.

References

- Report of the Second ATM/CNS Subgroup Meeting (ATM/CNS/SG/2)
- Report of the GREPECAS/11 Meeting
- ANP CAR/SAM, Volume II – FASID

1. Background

1.1 The CAR/SAM Planning and Implementation Regional Group (CAR/SAM), within the ATM Committee of the CNS/ATM Subgroup work programme (ATM/CNS/SG/2 Meeting) assigned, among others, Task ATM/SAR/500, which consisted in reviewing and analyzing the minimum requirements of the Search and Rescue and Facilities of CAR/SAM FASID.

2. Analysis

2.1 Among the actions foreseen for the compliance of this task, the second meeting of the ATM/CNS Subgroup prepared an updating draft of the Search and Rescue Regions Plan, with the pertinent recommendations.

2.2 In view of this, a request has been circulated to all CAR and SAM States involved in the mentioned SAR Plan, with the aim to review the minimum requirements corresponding to their respective jurisdictions and inform whether the same were updated according to CAR/SAM/3 RAN Meeting recommendations 6/2, 6/3, 6/4 and 6/5, or if these requirements deserved an amendment.

2.3 To this end, the GREPECAS/11 Meeting (December 2002) reviewed Table SAR 1 – Search and Rescue Facilities, ANP FASID Volume II, with the amendments proposed by States/Territories and International Organizations during the consultation process carried out by the Secretariat and those received during the meeting, which is attached to this WP as **Appendix A**, for final review of the data corresponding to the SAM States, and enable continuation of the process of amendment to the mentioned Table by this ICAO South American Regional Office.

3. **Suggested action**

3.1 The meeting is invited to review the draft Table SAR 1 – Search and Rescue Facilities, ANP FASID, Volume II, shown in Appendix A, for further updating and amendment.

PART VII – SEARCH AND RESCUE (SAR) SERVICES (FASID)

1. INTRODUCTION

1.1 The Standards, Recommended Practices and procedures to be applied and related guidance material are as listed in paragraph 1, Part VII – SAR of the Caribbean/South American (CAR/SAM) Basic ANP. The material in this part complements that contained in Part I – Statement of Basic Operational Requirements and Planning Criteria of the Basic ANP and should be taken into consideration in the overall planning processes for the CAR/SAM Regions.

1.2 This part contains the details of the facilities and services to be provided to fulfil the basic requirements of the plan and are as agreed between the provider and user States concerned. Such agreement indicates a commitment on the part of the State(s) concerned to implement the requirement(s) specified. This element of the FASID, in conjunction with the CAR/SAM ANP, is kept under constant review by the GREPECAS in accordance with its schedule of management, in consultation with user and provider States and with the assistance of the ICAO North American, Central American and Caribbean (NACC) and the South American (SAM) Offices.

2 SEARCH AND RESCUE FACILITIES

2.1 FASID, Table SAR-1
[CAR/SAM/3, Rec. 6/2]

2.1.1 The list of search and rescue (SAR) facilities as contained in Table SAR-1 should constitute the plan for SAR facilities for the CAR/SAM Regions.

PARTE VII – SERVICIOS DE BUSQUEDA Y SALVAMENTO (SAR) (FASID)

1. INTRODUCCIÓN

1.1. Las normas, métodos recomendados y procedimientos que deben aplicarse y los textos de orientación conexos se enumeran en el párrafo 1, Parte VII – SAR, del ANP Básico Caribe/Sudamérica (CAR/SAM). El texto de esta parte constituye un complemento del que figura en la Parte I – Exposición de los requisitos operacionales básicos y criterios de planificación del ANP Básico, y debería tenerse en cuenta en los procedimientos globales de planificación para las Regiones CAR/SAM.

1.2. Esta parte contiene las características de las instalaciones que han de proporcionarse para satisfacer los requisitos básicos del plan y corresponden a lo convenido entre el Estado proveedor y el Estado usuario en cuestión: En dicho acuerdo se indica el compromiso de los Estados interesados a satisfacer los requisitos especificados. Este elemento del FASID, junto con el ANP CAR/SAM, es objeto de revisión constante por el GREPECAS de conformidad con su calendario de gestión, en consulta con los Estados usuarios y proveedores con la asistencia de las oficinas Norteamérica, Centroamérica y Caribe (NACC) y Sudamérica (SAM) de la OACI.

2. Instalaciones de Búsqueda y Salvamento

2.1. FASID, Tabla SAR-1
[CAR/SAM/3, Rec. 6/2]

2.1.1. La lista de instalaciones de búsqueda y salvamento que aparece en la Tabla SAR-1 debería constituir el Plan de instalaciones y servicios SAR en las Regiones CAR/SAM.

APPENDIX A
APÉNDICE A

TABLE SAR 1 — SEARCH AND RESCUE FACILITIES

EXPLANATION OF THE TABLE

Column

- 1 Name of rescue co-ordination centre (RCC) or rescue sub-centre (RSC) followed by the location of each rescue unit.
SPOC — SAR point of contact for the reception of alert messages detected by the Cospas-Sarsat* system.
- 2 Minimum requirements for other services, including parachute rescue units (PRU), mountain rescue units (MRU), mission control centres (MCC) of the Cospas-Sarsat* system and the automated mutual-assistance vessel rescue (AMVER) system.
- Extra long-range (ELR)* — aircraft with a radius of action of 2,780 kms (1 500 NM) or more, plus 2 ½ hours search remaining.
- Very long range (VLR)* — aircraft with a radius of action of more than 1850 kms (1 000 NM) plus 2 ½ hours search remaining.
- Long range (LRG)* — aircraft with a radius of action of 1390 kms (750 NM) plus 2 ½ hours search remaining.
- Medium range (MRG)* — aircraft with a radius of action of 740 kms (400 NM) plus 2 ½ hours search remaining.
- Short range (SRG)* — aircraft with a radius of action of 280 kms (150 NM) plus ½ hour search remaining.
- Helicopter (HEL-L)* — light helicopter with a radius of action for rescue purposes of up to 185 kms (100 NM) and a capacity for evacuating 1 to 5 persons.
- Helicopter (HEL-M)* — medium helicopter with a radius of action for rescue purposes of 185/370 kms (100/200 NM) and a capacity for evacuating 6 to 15 persons.
- Helicopter (HEL-H)* — heavy helicopter with a radius of action for rescue purposes of more than 370 kms (200 NM) and a capacity for evacuating more than 15 persons.
- Rescue boat (RB)* — short-range coastal or river craft with an approximate speed of 14 knots or higher.
- Rescue vessel (RV)* — seagoing craft, good manoeuvrability, long range, and relatively high speed. Patrol boats, customs and pilot launches, among others, are of particular value if assigned as high priority for search and rescue operations.

NOTES

1. Aircraft and marine craft will be made available as required.
2. Marine craft with a greater radius of action are available whenever necessary
3. Aircraft and marine craft coverage from San Juan and Guantánamo U.S. Naval Base (Cuba).

* Cospas = Space system for search of vessels in distress
Sarsat = Search and rescue satellite-aided tracking

4. Only limited service presently provided by collaboration.
5. Additional rescue units available at Cuzco HEL-L; HEL-M.
6. Additional rescue units available at Panamá RCC; David RSC and Changuinola RSC

TABLA SAR 1 — INSTALACIONES DE BÚSQUEDA Y SALVAMENTO

EXPLICACIÓN DE LA TABLA

Columna

- 1 Nombre del centro coordinador de salvamento (RCC) o del subcentro de salvamento (RSC) y el lugar en que se encuentra cada brigada de salvamento.
- SPOC -Punto de contacto SAR para la recepción de mensajes de alerta detectados por el sistema COSPAS-SARSAT*.
- 2 Requisitos mínimos para otros servicios, entre otros los siguientes: brigadas paracaidistas de salvamento (PRU); brigadas alpinas (MRU); control de control de misión del sistema COSPAS-SARSAT*; y sistema mutua para el salvamento de buques (AMVER).
- Radio de acción sumamente grande (ELR)* - aeronave con un radio de acción de 2.780 kms (1500 NM) o más, más 2 ½ horas de reserva para búsqueda.
- Radio de acción muy grande (VLR)* - aeronave con un radio de acción de más de 1850 Kms (1000 NM) más 2 ½ horas de reserva para la búsqueda.
- Gran radio de acción (LRG)* - aeronave con un radio de acción de 1390 Kms. (750 NM) más 2 ½ horas de búsqueda.
- Radio de acción medio (MRG)* - aeronave con un radio de acción de 740 Kms (400 NM) más 2 ½ horas de búsqueda.
- Pequeño radio de acción (SRG)* - aeronave con un radio de acción de 280 kms (150 NM) más ½ hora de búsqueda.
- Helicóptero (HEL-L)* - helicópteros ligeros con un radio de acción para fines de búsqueda, de hasta 185 kms. (100 NM) y capacidad para evacuar de 1 a 5 personas.
- Helicóptero (HEL-M)* - helicópteros medios con un radio de acción para fines de búsqueda, de 185/370 kms. (100/200 NM) y capacidad para evacuar de 6 a 15 personas.
- Helicóptero (HEL-H)* - helicópteros pesados con un radio de acción para fines de búsqueda superior a 370 kms. (200 NM) y capacidad para evacuar a más de 15 personas.
- Embarcación de salvamento (RB)* - embarcación costera o fluvial de corto radio de acción con una velocidad aproximada a 14 nudos o mayor.
- Buque de salvamento (RV)* - embarcación apta para la navegación de altura, buena maniobrabilidad, de gran radio de acción y velocidad relativamente grande. Las lanchas patrulleras, aduaneras y la de los prácticos, entre otras, son particularmente útiles si se les ha asignado alta prioridad para las operaciones de búsqueda y salvamento.

* Cospas -Sistema espacial para la búsqueda de naves en peligro
Sarsat -Búsqueda y salvamento por satélite

NOTAS

1. Se dispondrá de aeronaves y barcos según se requiera.
2. Se dispone de embarcaciones de mayor radio según sea necesario.
3. Aeronaves y embarcaciones estacionadas en San Juan y Guantánamo U.S. Naval Base (Cuba).
4. Actualmente sólo se presta servicio limitado por colaboración.
5. Brigada de salvamento suplementaria disponible en Cusco HEL-L; HEL-M.
6. Brigadas de Salvamento suplementarias disponibles en Panamá RCC; David RSC y Changuinola RSC.

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RCC and Rescue units	Required rescue facilities
RCC et équipes de sauvetage	Moyens de sauvetage requis
RCC y brigadas de salvamento	Medios exigidos para el salvamento
1	2

RCC and Rescue units	Required rescue facilities
RCC et équipes de sauvetage	Moyens de sauvetage requis
RCC y brigadas de salvamento	Medios exigidos para el salvamento
1	2

ANGUILLA (United Kingdom)

SAN JUAN RSC

Anguilla RB

ANTIGUA AND BARBUDA

PIARCO RCC
(Trinidad and Tobago)

Antigua RB

ARGENTINA

COMODORO RIVADAVIA RCC

Base Marambio	ELR		
	MRG		PRU
	HEL-H		
Comodoro Rivadavia	VLR	RV	PRU
	HEL-H	RB	MRU
	VLR	RV	
Río Gallegos	SRG	RB	

CORDOBA RCC

Córdoba	MRG		PRU
	SRG		
Salta	SRG		MRU

Ezeiza RCC (SPOC)

Buenos Aires	ELR	RV	PRU
	VLR	RB	
	HEL-H		
San Carlos de Bariloche	SRG	RB	MRU
	HEL-H		

MENDOZA RCC

Mendoza	MRG		MRU
	HEL-H		

RESISTENCIA RCC

Resistencia	MRG	RB	PRU
	SRG		
	HEL-H		

ARUBA

CURACAO RCC

Aruba RB

BAHAMAS

MIAMI RCC (1)

Nassau

BARBADOS

PIARCO RCC
(Trinidad and Tobago)

Barbados			
Bridgetown	SRG	RB	

BELIZE

CENTRAL AMERICAN RCC (SPOC)
(Tegucigalpa, Honduras – COCESNA)

Belize	SRG	RB	
	HEL-L		

BOLIVIA

LA PAZ RCC (SPOC)

La Paz	MRG		
Santa Cruz	HEL-M		

RCC and Rescue units	Required rescue facilities
RCC et equips de sauvetage	Moyens de sauvetage requis
RCC y brigadas de salvamento	Medios exigidos para el salvamento
1	2

RCC and Rescue units	Required rescue facilities
RCC et equips de sauvetage	Moyens de sauvetage requis
RCC y brigadas de salvamento	Medios exigidos para el salvamento
1	2

BRAZIL

AMAZONICA RCC

Belem MRG RV
 HEL-L RB
 Manaus HEL-L

BRASILIA RCC (SPOC)

Rio de Janeiro ELR RV MCC
 PRU
 VLR RB
 MRG
 HEL-H
 HEL-L

CURITIBA RCC

Campo Grande MRG
 HEL-M
 HEL-L
 Florianópolis MRG RV
 Río Grande RB
 Santa María HEL-L
 Santos HEL-L

RECIFE RCC

Natal RV
 RB
 Recife HEL-L
 Salvador MRG

CHILE

IQUIQUE RCC

Iquique **SRG** RV
ELR RB
HEL-L
 Antofagasta **SRG** RV
ELR RB
HEL-L

PUERTO MONTT RCC

Puerto Montt **SRG** RV
ERL RB
HEL-M
 Punta Arenas RCC **SRG** RV
ELR RB
HEL-M
 Tte. Marsh **SRG** RB
ELR
HEL-M
HEL-H

SANTIAGO RCC (SPOC)

Santiago **SRG** RV
ELR RB
HEL-L

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 Apéndice/Appendix A

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RCC and Rescue units	Required rescue facilities
RCC et équipes de sauvetage	Moyens de sauvetage requis
RCC y brigadas de salvamento	Medios exigidos para el salvamento
1	2

RCC and Rescue units	Required rescue facilities
RCC et équipes de sauvetage	Moyens de sauvetage requis
RCC y brigadas de salvamento	Medios exigidos para el salvamento
1	2

EL SALVADOR

CENTRAL AMERICAN RCC (SPOC)
 (Tegucigalpa, Honduras – COCESNA)

San Salvador RSC SRG RB

FRENCH ANTILLES

PIARCO RCC
 (Trinidad and Tobago)

Fort-de-France RSC MRG RV

Pointe-a-Pitre RSC MRG RB

HEL-L

FRENCH GUIANA

CAYENNE RCC

Cayenne ELR

VLR

MRG RB

HEL-L

Saint-Laurent du Maroni RB

GRENADA

PIARCO RCC
 (Trinidad and Tobago)

Pointe Salines RB

GUATEMALA

CENTRAL AMERICAN RCC (SPOC)
 (Tegucigalpa, Honduras – COCESNA)

Guatemala RSC MRG

HEL-M

Caribbean Sea RV

Pacific Ocean

RV

GUYANA

GEORGETOWN RCC

Georgetown SRG RB

HEL-L

HAITI

PORT-AU-PRINCE RCC

Port-au-Prince SRG RB

HEL-L

HONDURAS

CENTRAL AMERICAN RCC (SPOC)
 (Tegucigalpa, Honduras – COCESNA)

Tegucigalpa RSC MRG

HEL-M

LRG

Caribbean Sea RV

Pacific Ocean RV

JAMAICA

KINGSTON RCC (3)

Kingston SRG RV

HEL-L

Montego Bay RB

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RCC and Rescue units	Required rescue facilities
RCC et équipes de sauvetage	Moyens de sauvetage requis
RCC y brigadas de salvamento	Medios exigidos para el salvamento
1	2

RCC and Rescue units	Required rescue facilities
RCC et équipes de sauvetage	Moyens de sauvetage requis
RCC y brigadas de salvamento	Medios exigidos para el salvamento
1	2

MÉXICO

MÉXICO RCC (4) (SPOC)

México	MRG	
Guadalajara	MRG	
Mazatlán		RV
Ensenada	MRG	RV
La Paz	MRG	
Cozumel	MRG	RV
Veracruz	MRG	RV
Acapulco	ELR	
	VLR	
Puerto Vallarta	MRG	

MONTSERRAT (United Kingdom)

ANTIGUA RSC

Montserrat		RB
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NETHERLANDS ANTILLES

CURACAO RCC

Curacao	LRG	RV
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NICARAGUA

**CENTRAL AMERICAN RCC (SPOC)
(Tegucigalpa, Honduras – COCESNA)**

Managua RSC	MRG	
	SRG	
Caribbean Sea		RV

Pacific Ocean

RV

PANAMA

**PANAMA RCC (SPOC)
(1) (2) (6)**

Panama	MRG	RV	MRG
	HEL-L	RB	
	LRG		
	SRG		
David RSC (Enrique Malek)	SRG	RB	MRU
	HEL-L		
Changuinola RSC (Manuel Niño)	SRG	RB	MRU

PARAGUAY

ASUNCION RCC (SPOC)

Asunción	SRG
	HEL-L
Concepción	SRG

PERU

LIMA RCC (5) (SPOC)

Piura	SRG	RV	
	HEL-L		
Callao	LRG	RV	
	HEL-L		
Arequipa	SRG	RV	
	HEL-L		

MCC

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 Apéndice/Appendix A

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RCC and Rescue units	Required rescue facilities
RCC et équipes de sauvetage	Moyens de sauvetage requis
RCC y brigadas de salvamento	Medios exigidos para el salvamento
1	2

RCC and Rescue units	Required rescue facilities
RCC et équipes de sauvetage	Moyens de sauvetage requis
RCC y brigadas de salvamento	Medios exigidos para el salvamento
1	2

Juanjuí **SRG**
HEL-L

Iquitos LRG
 HEL-L

PUERTO RICO (United States)

SAN JUAN RSC

San Juan ELR AMVER
 HEL-L

SAINT KITTS AND NEVIS

ANTIGUA RSC

Saint Kitts RB

SAINT LUCIA

FORT-DE-FRANCE RSC RB

Saint Lucia RB

SAINT MAARTEN (Netherlands Antilles)

SAN JUAN RSC

Saint Maarten RB

SAINT VINCENT AND THE GRENADINES

PIARCO RCC
 (Trinidad and Tobago)

Saint Vincent RB

SURINAME

CAYENNE RCC (SPOC)

Zandery RSC MRG RB
 HEL-L

TRINIDAD AND TOBAGO

PIARCO RCC (SPOC)

Port-of-Spain SRG RV
 HEL-M RB

UNITED STATES

MIAMI RCC

Cape Cañaveral RV
 RB

Clearwater ELR
 HEL-M

Key West RV
 RB

Miami LRG RV AMVER

HEL-L RB

Panama City RV

RB

San Juan RSC HEL-L RB AMVER

St. Petersburg RV

NEW ORLEANS RCC

Corpus Christi LRG

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RCC and Rescue units	Required rescue facilities
RCC et equips de sauvetage	Moyens de sauvetage requis
RCC y brigadas de salvamento	Medios exigidos para el salvamento
1	2

RCC and Rescue units	Required rescue facilities
RCC et equips de sauvetage	Moyens de sauvetage requis
RCC y brigadas de salvamento	Medios exigidos para el salvamento
1	2

	HEL-L	
Freeport	RB	
Galveston	RV	
Houston	HEL-L	
Mobile	LRG	
	HEL-M	
New Orleans	HEL-L	AMVER
Pensacola	RV	

Maracaibo	SRG	RB
	HEL-H	
CIUDAD BOLÍVAR (RSC)		
Ciudad Bolívar	SRG	
	HEL-H	
BARQUISIMETO (RSC)		
Barquisimeto	SRG	
	HEL-L	

URUGUAY

MONTEVIDEO RCC (SPOC)

Carrasco

LRG RV
MRG RB
SRG
HEL-L

SAN FERNANDO (SRC)

San Fernando

SRG
HEL-L

BARINAS (SRC)

Barinas

SRG
HEL-L

VIRGIN ISLANDS (United Kingdom)

SAN JUAN RSC

Beef Island

RB

VENEZUELA

MAIQUETÍA RCC (SPOC)

Maiquetía

SRG RV
MRG
HEL-L
HEL-M
HEL-H

MARACAIBO (RSC)