



International Civil Aviation Organization

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)

SAR/NAM/CAR/SAM WP/05

07/04/09

Agenda Item 2:

SAR Organization in the NAM/CAR/SAM Regions

2.2 Review of the National SAR Plan of the States of the CAR/SAM Regions

REVIEW OF THE STATES NATIONAL SAR PLAN

(Presented by the Secretariat)

SUMMARY

This working paper analyses the requirements established in Doc 8733, ANP CAR/SAM.

References

- Doc 7300 - *Convention on International Civil Aviation*
- Doc 8733 - *Air Navigation Plan - CAR and SAM Regions*
- Report of the CAR/SAM/3 RAN Meeting.

1. Background

1.1 Based on the Chicago Convention, during the CAR/SAM/3 RAN meeting, SAR planning was reviewed by the participating CAR/SAM States/Territories/International Organizations in order to provide efficient SAR services in the Caribbean and South American Regions.

1.2 In the **Appendix** to this working paper, Table 1 of the CAR/SAM ANP FASID, Part VII – *Search and Rescue Facilities*, the minimum requirements of SAR facilities in the Caribbean and South American Regions are established.

2. Analysis

2.1 ICAO's objective is to create an efficient global SAR system allowing the provision of SAR services as required. To this end, the national SAR initiatives should be considered as an integral part of the regional and global SAR system that will have an impact on the general approach adopted by a State to establish, provide and improve SAR services.

2.2 Hazardous situations may occur anywhere, anytime. Therefore, the SAR global vision is inspired by humanitarian assistance without making a distinction between nationalities; it is based on international law and States obligations should focus on ensuring safety.

2.3 An aircraft may suffer an emergency during long haul flights; likewise, a person in danger at sea may require to be rescued at a considerable distance. In both cases, finding the location of this emergency occurrence may involve crossing one or more Search and Rescue Region(s) (SRRs). A regionally-coordinated SAR system eliminates the need for each State to provide SAR services for their own citizens wherever they travel throughout the world.

2.4 In order to promote the best efficiency and cost-effectiveness when providing and using SAR facilities, CAR/SAM States must comply with established SAR requirements to provide an efficient SAR service. Likewise, States/Territories should encourage that all aircraft be equipped with Emergency Locator Transmitters (ELTs) at 406 MHz and establish a record of those ELTs.

3. **Suggested Action**

3.1 The Meeting is invited to note the information presented and update the CAR/SAM SAR Table included in the Appendix to this working paper

APPENDIX / APÉNDICE

**DRAFT MATERIAL FOR PROPOSAL FOR AMENDMENT OF FASID TABLE SAR 1
BORRADOR DE MATERIAL PARA ENMIENDA TABLA SAR 1 DEL FASID**

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).
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
7. Aircraft and marine craft will be made available at Amazónico RCC; Brasília RCC; Curitiba RCC; Recife RCC, as required

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

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); centro de control de misión (MCC) del sistema Cospas/Sarsat*; y sistema mutuo 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.

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.
7. Dispondrá de aeronaves y barcos disponibles en Amazónico RCC; Brasilia RCC; Curitiba RCC; Recife RCC, según se requiera.

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

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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

ANGUILLA (United Kingdom)

SAN JUAN RCC

Anguilla	RB
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ANTIGUA AND BARBUDAPIARCO RCC
(Trinidad and Tobago)

Antigua	RB
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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)			MCC
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		

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

RESISTENCIA RCC

Resistencia	MRG	RB	PRU
	SRG		
	HEL-H		

ARUBA (NETHERLANDS)

CURACAO RCC

Aruba	RB
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BAHAMAS

MIAMI RCC (1)

Nassau

BARBADOSPIARCO RCC
(Trinidad and Tobago)

Barbados			
Bridgetown	SRG	RB	

BELIZECENTRAL 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 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

BRAZIL

AMAZONICO RCC

Belém MRG RV

HEL-L RB

Manaus HEL-L

ATLÁNTICO RCC (7)

BRASILIA RCC (SPOC) MCC

Rio de Janeiro ELR RV 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

CAYMAN ISLANDS (UNITED KINGDOM)

KINGSTON RCC

CAYMAN ISLANDS RSC

GEORGE TOWN,
GRAND CAYMAN SRG RV**CHILE**

IQUIQUE RCC

Iquique SRG RV

ELR RB

HEL-L

Antofagasta SRG RV

ELR RB

HEL-M

PUERTO MONTT RCC

Puerto Montt SRG RV

ELR RB

HEL-M

Punta Arenas RCC SRG RV

ELR RB

HEL-M

Tte. Marsh SRG RB

ELR

HEL-M

HEL-H

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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

SANTIAGO RCC (SPOC)

Santiago SRG RV
ELR RB
HEL-M
HEL-M

Isla de Pascua RCC SRG RV
ELR RB

COLOMBIA**BOGOTA RCC (SPOC)**

Bogotá MRG HEL-M
Medellín MRG HEL-M
Cali SRG
Cúcuta SRG
Villavicencio SRG
Leticia SRG

BARRANQUILLA RCC

Barranquilla SRG RB
San Andrés SRG RB

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

San José RSC SRG
HEL-L
Puntarenas RV
Puerto Limón RV
Guanacaste RB

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

CUBA**HABANA RCC (2) (SPOC)**

PLAYA BARACOA HEL-M
MRG RB
Holguín MRG RV
HEL-M
Santa Clara MRG RB
HEL-M

DOMINICA**PIARCO RCC**
(Trinidad and Tobago)

Fort-de-France RSC

POINTE-A-PITRE RSC

Dominica RB

DOMINICAN REPUBLIC**SANTO DOMINGO RCC**

Santo Domingo SRG RV

ECUADOR**GUAYAQUIL RCC (SPOC)**

Guayaquil LRG RV
HEL-M RB
HEL-H

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

Quito

LRG

HEL-M

MRU

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

HEL-L

Pointe-a-Pitre RSC MRG RV

HEL-L

FRENCH GUIANA

CAYENNE RCC

Cayenne MRG
HEL-L RB

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

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

HEL-M

Caribbean Sea RV

Pacific Ocean RV

GUYANA

GEORGETOWN RCC

Georgetown SRG RB

HEL-L

HAÏTÍ

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 (Netherlands)**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)

Panamá	MRG RV MRU
	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)****MCC**

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

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

Iquitos

LRG

HEL-L

PUERTO RICO (United States)

SAN JUAN RSC

San Juan

RB

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 GRENADINESPIARCO RCC
(Trinidad and Tobago)

Saint Vincent

RB

SURINAME

CAYENNE RCC (SPOC)

Zandery RSC

MRG RB

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

TRINIDAD AND TOBAGO

PIARCO RCC (SPOC)

Port-of-Spain

SRG

RV

HEL-M RB

UNITED STATES

U.S. MISSION CONTROL CENTRE (SPOC)

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

HEL-L

Freeport

RB

Galveston

RV

Houston

HEL-L

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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

Mobile LRG
HEL-M
New Orleans HEL-L AMVER
Pascagoula RV

URUGUAY

MONTEVIDEO RCC (SPOC) LRG RV
Carrasco MRG RB
SRG
HEL-L

VENEZUELA

MAIQUETÍA RCC (SPOC)
Maiquetía SRG RV
MRG
HEL-L
HEL-M
HEL-H

MARACAIBO (RSC)

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

BARINAS (RSC)

Barinas SRG
HEL-L

VIRGIN ISLANDS (United Kingdom)

SAN JUAN RSC
Beef Island RB

- END / FIN -