

**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 5: Cospas-Sarsat in the SAM Region

- b) Review of the implementation and operation of ground segments in South America. Evaluation for the assignment of a Nodal MCC for the Cospas-Sarsat South American Region.**

(Presented by the Secretariat)

Summary

This working paper presents to the meeting with information related to the regional status as regards the implementation of terrestrial segments of the Cospas-Sarsat System and makes reference to the relationship between an MCC and the service area.

References

- Report of the CAR/SAM/2 RAN Meeting
- Report of the ATS-SAR Informal Meeting
- Report of GREPECAS/6 Meeting
- Document C/S A.006 of the Cospas-Sarsat Council

1. Background

1.1 The CAR/SAM/2 RAN Meeting (Santiago de Chile, 2-19 May 1989), through Conclusion 7/10 agreed that the CAR/SAM Regional Planning and Implementation Group (GREPECAS), would be the appropriate body to study the implementation and utilization of the Cospas-Sarsat at a regional level.

1.2 The ATS/SAR Informal Meeting (Lima, Peru, 29 November to 1 December 1995) after considering the material presented by the Secretariat and Argentina, Brazil, Chile, Peru and the Cospas-Sarsat Council, formulated Conclusion 3/3 – “LUTs required to cover SAM Region”, in which it is expressed that SAM States should consider, once the implementation of Argentina, Brazil, Chile and Peru

LUT/MCC is completed, the requirements of these systems in the SAM Region would be met, and that in case a SAM State plans to acquire new terrestrial segments, a prior coordination should be made with the ICAO SAM Regional Office.

1.3 Further, the GREPECAS/6 Meeting (Mexico, October 1996), considered that the four SAM States mentioned above (Argentina, Brazil, Chile and Peru) would have to adopt actions for a prompt implementation of the mentioned terrestrial segments, provided that the CAR Region and part of the SAM Region was covered by the United States LUT (California, Houston and Puerto Rico). With these four implementations, the total CAR and SAM coverage would be completed and therefore the use of the Cospas-Sarsat Satellite Alert System would be accessible to both regions.

2. Analysis

General distribution concept of the Cospas-Sarsat System data

2.1 Summarizing, the distribution of Cospas-Sarsat System alert data is as follows:

- The LUTs receive the ELT or EPIRB signal re-transmitted by the satellite segment; and
- The signal is processed and the alert data are sent to the associated MCC, for its distribution.

2.2 Each MCC distributes alert data according to its Data Distribution Plan (DDP) according to its own requirements and procedures, to any country within its service area that has accepted such services. The alert data is delivered to the SPOC, that may be an RCC or any other recognized point of contact, which shall use this data to enable a fast and efficient SAR operation to assist persons involved in an emergency.

2.3 Any MCC receiving an alert message by an ELT or EPIRB, which source is located outside its service area and shall immediately retransmit it to the MCC in charge of the area of service within which such emergency signal is located.

2.4 The service area of an MCC is that geographical part within which the emergency signal distribution service received from the satellite segment is responsible for a specific MCC.

2.5 The service area of an MCC includes maritime, terrestrial and airspace regions covering them, within which the corresponding national authority is in charge to provide SAR service. Since this may include jurisdictions of other nations, it is convenient that the MCC has agreements or other appropriate instruments for the provision of the Cospas-Sarsat satellite alert service.

2.6 In cases where no previous arrangements exist with regard to the distribution of satellite alert between an MCC and a specific country, the MCC will also transmit the alert information received to its SAR authorities.

2.7 The data distribution region (DDR) consists in two or more service areas with its corresponding MCC. In these cases, a MCC is assigned to act as point of contact of such DDR. This MCC is identified as a Nodal MCC of the referred DDR. The Cospas-Sarsat satellite alert information system foresees the exchange of information between DDRs through their respective Nodal MCC.

Establishment of new Nodal MCC

2.8 The implementation of a new Nodal MCC Cospas-Sarsat System may significantly affect the rest of the MCC and Nodal MCC established, requiring great coordination efforts with all elements affected, changes in software and possibly new communication channels.

2.9 Consequently the establishment of a new Nodal MCC may be considered when:

- The Cospas-Sarsat Council recognizes the need for strengthen the data distribution system, either to increase its effectiveness or to reduce the workload of a Nodal MCC already implemented;
- A MCC implemented is prepared to accept the responsibility to be a Nodal MCC of a new Data Distribution Region (DDR) to be implemented, or
- The applicant to Nodal MCC is in condition to provide all functions assigned to a Nodal MCC to at least one MCC located within the DDR projected.

2.10 The Cospas-Sarsat Council has published document C/S A.006, which contains the regulation to be complied by the MCCs commissioning.

2.11 This working paper contains all the considerations and steps to be followed in the previous process, during and after the implementation of a Nodal MCC.

3. Suggested action

3.1 The meeting is invited to take note of the information provided in this working paper and issue its point of view with regard to this matter.