

**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**

- a) Review of the status of application of standards for the use of ELT in 406 MHz and review of the status of implementation and operation of the Data bank and data supplier, of SAM States**

(Presented by Argentina)

**Summary**

This information paper has the aim to inform on the recent incorporation by the Republic of Argentina to the Full Operational Capability (FOC) operational status as a provider of the terrestrial COSPAS-SARSAT segment for the satellite detection of 406 MHz emergency marker radio beacon signals.

**1. Background**

1.1 The responsibility of the Republic of Argentina related with human life safety, as well as search and rescue within delimited continental and maritime spaces in the international agreements subscribed, has been the principle that has guided the decision from the Government to integrate as a provider of the Terrestrial Segment of the COSPAS-SARSAT Programme.

1.2 On 9 January 2002, this State associated to the COSPAS-SARSAT International Programme, necessary requirement in order to be able to operate the terrestrial segment installed and integrate to the global network. As a result of this, the Satellite Emergency Alert Service, National Agency representing the country upon the COSPAS-SARSAT organization, and his representative, as per the agreement established between the Army and the Air Force, shall rotate between the Forces, being the Army in charge for the time being.

1.3 During the sessions of the 29<sup>th</sup> meeting of the Council COSPAS-SARSAT Meeting (CSC 29) carried out from 14 to 17 October 2002, our State was declared in operational status (FOC) for reaching successfully the commissioning trials of the integrated system of LUTs-MCCs.

## 2. **Analysis**

2.1 The objective pursued by the Republic of Argentina, in integrating this system, is to receive through a terrestrial segment associated to the COSPAS-SARSAT system, the 121.5 MHz, 243.0 MHz and 406 MHz maritime and personal aeronautical emergency marker radio beacons within the SAR area under the responsibility of the Republic of Argentina. A faster location of aircraft is achieved thus saving efforts of search means and reducing the time to provide assistance to survivors, consequently increasing probabilities of survival. This facility also enables the provision of such service in other countries of the region.

2.2 The facility of the Argentinean terrestrial segment in local mode (through LEO LUT) would attend most of the Atlantic maritime area under the responsibility of the Argentinean SAR, which was not provided with satellite coverage and shall improve the service through overlapping in terrestrial areas with coverage from neighbor States.

## 3. **Architecture of the System**

3.1 The State has installed a terrestrial segment provided by EMS TECHNOLOGIES, which architecture is based in a state-of-the-art technology (OPEN VMS) and during the system level trials (at a global level), last January has obtained excellent results regarding technologies used in the region.

3.2 The Argentinean system is composed by the following equipment:

3.2.1 Two receiver terminals of satellite signals with low orbit (LEO LUT):

3.2.1.1 ARLUT II, located in the southern part of the country (in Rio Grande city).

3.2.1.2 ARLUT III, located in the northern part of the country (in Parana City).

3.2.2 A receiving ARLUT I (GEO LUT) terminal of geo-stationary satellite signals located in EZE.

3.2.3 A Mission Control Centre (ARMCC) located at Ezeiza International Airport, which coordinates and directs the operations of three receiving terminals for the dissemination of danger alerts in the service area assigned to the country, as well as link of the global network among MCCs.

## 4. **Communications facilities**

4.1 The system provides the following communications links among MCCs, to the RCCs and future SPOCs:

4.1.1 Primary link through X.25 network

4.1.2 Secondary link through AFTN network

4.1.3 Communications link for back-up through Telex service

4.1.4 Communications link through FTP link

4.1.5 E-mail

4.1.6 Telephone and fax

5. **Chronology of the commissioning of the terrestrial segment**

5.1 The chronology of the commissioning is as follows:

5.1.1 On 14 August 2001, the installation of the MCC and LUTs was completed.

5.1.2 On 30 August 2001, SAT trials were initiated (acceptance of the system instead of operation) of the installed systems prior to commissioning.

5.1.3 On 11 December 2001, the commissioning trials of ARMCC controlled by the USMCC, were initiated.

5.1.4 On 11 March 2002 the IOC (Initial Operational Capability) status was reached.

5.1.5 On March and April 2002 the commissioning trials of ARLUT II and III (LEO LUTs) and ARLUT I (GEOLUT) were initiated.

5.1.6 On 14 October 2002 ARLUT I, II and III reached the FOC status.

5.1.7 On 1 December 2002 the ARMCC reached the FOC status.

6. **Suggested action**

6.1 The meeting is requested to take note of the information provided hereby.

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