INTERNATIONAL CIVIL AVIATION ORGANIZATION

AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP
EIGHTEENTH MEETING (APIRG/18)
Kampala, Uganda (27 – 30 March 2012)

Agenda Item: 2.2   Global, Regional and Interregional Activities

CO-OPERATION IN REGIONAL SAR SERVICES (SADC)

(Presented by South Africa)

SUMMARY
This paper provides the status of co-operation in Search and Rescue (SAR) services within the SADC region
REFRENCE(S): **Annex 12 to the Convention on International Civil Aviation; IAMSAR Manual, Vol.1 ; Saly-Portudal Declaration, SADC Protocol, International COSPAS-SARSAT Programme Agreement**
Related ICAO Strategic Objective(s): A

1.   INTRODUCTION

1.1   Chapter 3.1 of Annex 12 to the Convention on International Civil Aviation deals with co-operation between States. Recommendation 3.1.2 provides that Contracting States should, whenever necessary, co-ordinate their search and rescue operations with those of neighbouring States especially when these operations are proximate to adjacent search and rescue regions. South Africa identified about 13 countries bordering on her search and rescue region for the purpose of entering into agreements to strengthen search and rescue co-operation and co-ordination in compliance with recommendation 3.1.5 of Annex 12.

2.   DISCUSSIONS

Bilateral Agreements (State to State Letter of Agreements)

2.1   The table marked Attachment "A" depicts the status of bilateral agreements (LOAs) on a country to country basis. It will be realized from the table that out of the 13 countries identified for this purpose, 9 agreements were signed, 1 agreement has been concluded and is ready for signature, 2 have been negotiated and 1 is still to be negotiated.

2.2   The LOAs makes provision for an annual liaison or meeting between personnel of Parties to the LOAs to discuss issues of mutual interest and the results of the operations and exercises of the preceding year and if necessary, determine what changes should be made in the plan of operations. To this end, what is referred to as Joint Bilateral Search and Rescue Committees (JBSARCOMs) are being established. The purpose of JBSARCOMs is to oversee the implementation of, compliance with and propose amendments to the LOAs. JBSARCOMs with clear Terms of Reference have already been established with Botswana, Lesotho, France (La Reunion) Mozambique and Namibia. The Terms of Reference may vary from country to country but have some basic elements or principles. A sample is attached at Attachment "B".

Regional Co-operation/ Multilateral Agreements

2.3   Regional co-operation is critical to the efficient and effective provision of SAR services. Through it, duplication of efforts and facilities can be eradicated, services provision can be more uniform across large areas and most importantly, services can be provided even near and within States with limited resources. A regional approach therefore ensures greater cost-effectiveness and relieves the unnecessary sense of obligation otherwise imposing on some States unable to provide a State-wide service.

Multilateral Agreement on the Co-ordination of Maritime SAR Services

2.4   The 2000 IMO Florence Conference on Search and Rescue and GMDSS, sought to establish regional maritime SAR arrangements in Africa and invited all African coastal States to agree to the establishment of sub-regional RCCs. South Africa was identified as one of the five countries to host a regional MRCC. In pursuance of these resolutions, a multilateral agreement on the co-ordination of maritime search and rescue services was concluded and signed by 5 countries out of the 6 identified for this purpose in February 2007. The countries that signed the multilateral agreement are the Comoros, Madagascar, Mozambique, Namibia and South Africa. Angola still has to consider signing the Agreement.

Multilateral Agreement on the Co-ordination of Aeronautical SAR Services

2.5   Encouraged by the developing events in the maritime SAR fraternity, in particular, the signing of the above multilateral agreement and guided by the provisions of the SADC Protocol, the delegates that attended the 2007 Port Elizabeth Consultative Conference on the integration of SAR services resolved to pursue a similar arrangement for the aeronautical component. The agreement is part of the draft basic documents adopted by participants during the ICAO SAR Administrators Course and Seminar held from 5-9 December 2011 in Johannesburg and sponsored by the General Civil Aviation Authority of the United Arab Emirates.

Overview of the International Cospas-Sarsat System

2.6   The Cospas-Sarsat System is a satellite system that provides distress alert and location information to search and rescue (SAR) services throughout the world for maritime, aviation and land users in distress. The System comprises of:

> *Satellites* in low-altitude Earth orbit (LEOSAR) and geostationary orbit (GEOSAR). These satellites processes and / or relay signals transmitted by distress beacons;

> *Ground receiving stations* called Local User Terminals (LUTs). The LUTs process the satellite signals to locate the beacon; and

> *Mission Control Centres (MCCs).* MCCs have been set up in most countries operating at least one LUT. Their main functions are to collect, store and sort the data from LUTs and other MCCs; provide data exchange within the Cospas-Sarsat System; and distribute alert and location data to associated Rescue Co-ordination Centres (RCCs) or SAR Points Of Contacts (SPOCs). In a nutshell MCCs provide the distress alert and other related information to SAR authorities.

> *Rescue Co-ordination Centres (RCCs).* The RCC receives Cospas- Sarsat distress alerts from MCCs and coordinate the rescue response

> *Emergency Beacons.* There are two types of emergency beacons namely, 121.5/243 MHz and 406 MHz. Emergency beacons have four applications i.e Emergency Position Indication Radio Beacons (EPIRB) for Maritime Use, Emergency Locator Transmitters (ELT) for Aviation Uses , Personal Locator Beacons (PLB) for Remote Area Personal Use, Ship Security Alerting System (SSAS) for Shipboard Terrorism/Piracy Alerting (covert)

2.7   The COSPAS-SARSAT System detects and locates distress beacons that operate on 406 MegaHerts (MHz). Satellite processing of old analogue technology beacons that transmitted on 121.5 MHz terminated on 1 February 2009.

South Africa's Participation in the Cospas-Sarsat System

2.8   Prior to South Africa's installation of the Local User Terminal (LUT) and the establishment of a Mission Co-ordination Centre (MCC) in Cape Town in 1999, there was a huge gap or void in the Cospas-Sarsat coverage of the African continent particularly in the Southern Africa region.

2.9   Seeing the benefits that could be reaped by SAR authorities in the Southern Africa region in using the Cospas-Sarsat system, South Africa took a decision to install and fund the LUT and MCC. This decision paved the way for South Africa to become a member of the International Cospas-Sarsat Programme Agreement as a ground segment provider in 1999 after Parliamentary approval was granted for South Africa to associate herself with the Programme. The relevant instrument of association, namely, the Letter of Notification of Association with the International Cospas-Sarsat Programme was signed by the Minister of Foreign Affairs on 1 September 2000 and deposited with the Secretary-General of the International Maritime Organization soon thereafter in terms of the requirements thereof. South Africa was formally accepted as a member of the International Cospas-Sarsat Programme in November 2001.

2.10   The system is managed and operated by Telkom SA Ltd on behalf of the government. Telkom provides the operating personnel, technical support, maintenance and other programs and software upgrades to ensure the system is kept compliant with all the specifications as agreed to by Cospas-

Sarsat Council on a regular basis. In line with the responsibilities South Africa assumed in terms of the International Cospas-Sarsat Programme Agreement, South Africa ensures representation at all the meetings of the Programme.

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South Africa's Service Area

2.11   The countries that are being serviced by the South African Mission Control Centre (ASMCC) in the South African Cospas-Sarsat area of responsibility are regarded as SPOCs. Since the installation of the LUT and the establishment of the ASMCC, their areas enjoy coverage and the benefits that come with the Cospas-Sarsat system.

The following countries are currently being served by the ASMCC:

- Angola
- Botswana
- Burundi
- Democratic Republic of Congo
- Lesotho
- Malawi
- Mozambique
- Namibia
- Rwanda
- St Helena
- Swaziland
- Uganda
- Zimbabwe
- Zambia

Non-responsive SPOCs

2.12   The challenge of SPOCs not responding to distress alerts or acknowledging receipt thereof is a world-wide phenomenon but it is entrenched in the African continent. South Africa has experienced a fair share of this challenge in her dealings with SPOCs in her area of responsibility or service area.

2.13   The ASMCC conducts SPOC communication and response tests with fourteen countries/territories within its Cospas-Sarsat service area on a monthly basis as per requirement C/S A.003 Annex I. These tests (thirteen countries) are carried out by ARCC / ATC at O R Tambo Airport in Johannesburg on behalf of the ASMCC by utilising direct AFTN links to these countries. The test to the Island of St.Helena is carried out using email from the ASMCC site. ASMCC communicates on a daily basis to the local MRCC and ARCC by means of telex and AFTN respectively.

2.14   The graph below clearly indicates the poor success rate achieved in carrying out these SPOC tests over the previous calendar year with some of the countries within the region. The test results are communicated to the Cospas-Sarsat Secretariat on a monthly basis

and form part of annual paper presented by the Secretariat at Joint Committee – SPOC Communications Testing (JC-25/6/4).

ASMCC SPOC TESTS 2011
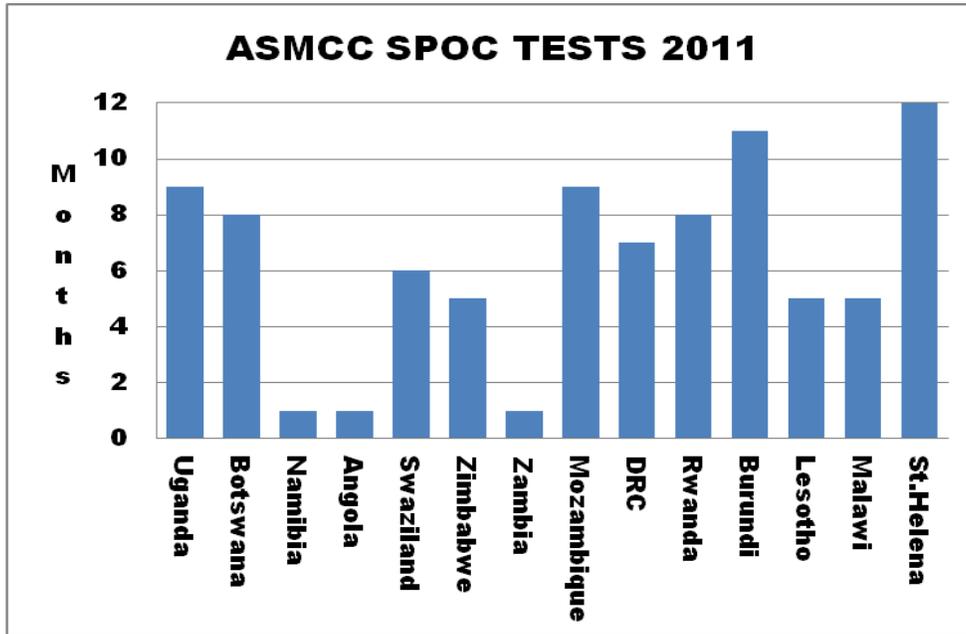
3.   **ACTION BY THE MEETING**

The meeting is invited to:

take note of the information contained in this paper and take action as it deems appropriate.

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