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ASSEMBLY — 37TH SESSION

TECHNICAL COMMISSION

Agenda Item 46: Other issues to be considered by the Technical Commission

**IMPLEMENTATION OF SUB-REGIONALIZED
SEARCH AND RESCUE (SAR) SERVICES**

(Presented by the United Arab Emirates)

EXECUTIVE SUMMARY

The ultimate goal of the ICAO safety programme is to reduce the incidence of accidents as much as possible. Notwithstanding proper and constantly reinforced efforts directed to the erection of safeguards and safety defences, however, accidents will continue to occur and it remains for the SAR service, as the safety net of last resort, to locate survivors, provide life support and remove them to a place of safety.

ICAO could support States by building the work of restructuring and strengthening SAR services into the forthcoming triennial work programme in Headquarters, Regional Offices and Planning and Implementation Regional Groups (PIRGs), including participation in Cospas-Sarsat Programme meetings to determine operational requirements for the next generation of 406 MHz emergency locator transmitters, and a rewrite of certain ICAO SAR documents.

Action: The Assembly is invited to:

- a) agree that in the interest of safety and efficiency of air navigation, States should, in keeping with their national prerogatives and, especially, their sovereignty, start to implement sub-regionalized SAR services to strengthen the global SAR system in areas of need;
- b) urge the ICAO Secretariat to take the actions to support States, facilitate and coordinate restructured SAR services along subregional lines through the establishment of a global SAR project with a mandate to educate and encourage States to establish sub-regionalized SAR services; and
- c) instruct the Council to provide a progress report on implementation of worldwide sub-regionalized SAR services to the next ordinary session of the Assembly.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objectives A and D with regard to all of domestic, regional and international operations that stand to benefit from more consistently effective SAR services wherever aircraft fly.
<i>Financial implications:</i>	Adequate financial support is essential to assist States strategize, coordinate and implement sub-regionalized SAR services in a phased manner consistent with overall operational and technical factors, individual State prerogatives and, especially, issues of sovereignty.
<i>References:</i>	Annex 12 — <i>Search and Rescue</i> Doc 9731, <i>International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual</i> Doc 9935, <i>Report of the High-level Safety Conference (2010)</i>

1. INTRODUCTION

1.1 Various audits, evaluations and investigations have indicated an urgent need for ICAO to support States' ability to locate accident sites promptly and rescue survivors expeditiously.

1.2 States most in need of SAR services are those States where accidents most frequently occur but these are the States with the least effective SAR services or none at all. Further, in those non-compliant States where there are SAR services of any description, the SAR services are themselves least safe. The African and Indian Ocean (AFI) Region is the most compromised.

1.3 Of the 113 States audited under the Universal Safety Oversight Audit Programme (USOAP) programme to the end of 2008:

- a) 70% had not coordinated their SAR organizations with those of neighbouring States; and
- b) 50% had no workforce skilled in SAR mission coordination and no detailed plans of operation for the conduct of SAR operations.

2. BACKGROUND

2.1 The 16th Session of the ICAO/International Maritime Organization (IMO) Joint Working Group on Harmonization of Aeronautical and Maritime SAR (ICAO/IMO JWG SAR/16), 28 September to 2 October, 2009, expressed deep disquiet about long standing unresponsiveness of many State SAR points of contact (SPOCs) through which the emergency locator transmitter (ELT) crash alert and location messages are channelled. Without SPOCs relaying these messages to the responsible Rescue Coordination Centres (RCCs), and regardless of the technological benefits of the Cospas-Sarsat satellite detection system, SAR services may never be activated or, if so, belatedly, and lives may be lost.

2.2 The High-level Safety Conference (HLSC), 29 March – 1 April, 2010, recommended that ICAO should review Standards and Recommended Practices (SARPs) and guidance material to improve surveillance, flight monitoring and communications of aircraft operating in oceanic and remote areas and to improve the provision of timely and adequate search and rescue services in areas of need (Recommendation 3.2 (b)).

2.3 The ICAO Global SAR Forum, 21 to 22 June, 2010, identified key gaps in coverage of global SAR services and made findings, et al, that:

- a) urgent and focused attention should be given to more closely implementing the established ICAO policy of sub-regionalized SAR services; and
- b) a project is required to educate, encourage, facilitate and coordinate the efforts of State governments, authorities and agencies in the development of subregional SAR services. External funding is necessary for its inception.

3. DISCUSSION

3.1 Subregional SAR service provision

3.1.1 Globally, the SAR system has traditionally depended upon all States' SAR services being compliant and knitting together to make a seamless, effective universal system. In practice, this has never been completely achieved and despite repeated institution building efforts, serious gaps remain in global SAR coverage. ICAO and IMO have agreed to encourage closer implementation of their long standing policies of subregional SAR service provision in those areas of the globe where independent States have experienced long-standing difficulty in establishing effective and compliant SAR services within their own Search and Rescue Regions (SRRs).

3.1.2 The geographic areas most suited to sub-regionalized aviation SAR provision should be determined regionally by ICAO offices and Planning and Implementation Regional Groups (PIRGs) in consideration of operational, technical and economic factors. Each State should consider its position in balanced regard to its sovereign prerogatives, needs and capacities and its obligations as a Contracting State to the Chicago Convention with the greater safety of international aviation operations in mind.

3.1.3 Some project initiatives have already been taken in geographic areas where States have made specific requests for assistance in consolidating aviation SAR services. In particular, an ICAO project funded by the United Arab Emirates (UAE) and managed by the UAE General Civil Aviation Authority (GCAA) is presently underway in the area of the Southern African Development Community (SADC). UAE GCAA has also announced its intention to support the ICAO MID office in efforts to advance the establishment of a Regional Civil Aviation SAR Coordinating Committee in the sub-region of the Gulf and to host a regional SAR event to that topic in the first half of 2011.

3.1.4 The Australian aeronautical SAR authority (Australian Maritime Safety Authority) has expressed its intention to explore the prospects for closer cooperation with neighbouring States on oceanic aeronautical and maritime search and rescue in the Indian Ocean. It is already working with the United States, France and New Zealand in the South-West Pacific.

4. CONSIDERATION OF ISSUES

4.1 ICAO documents

4.1.1 The ICAO regional Air Navigation Plans presently provide inappropriate data concerning minimum necessary resources for the provision of SAR services from a regional perspective. A study is required to consultatively decide upon required data and how it should be solicited, collated and published. A rewrite of relevant ICAO documents such as to detail subregional rather than State-by-State requirements would be strongly supportive of restructured SAR services.

4.2 **Surveillance, flight monitoring and communications of aircraft operating in oceanic/remote areas and the provision of timely and adequate search and rescue services**

4.2.1 Extensive areas still exist over the ocean and remote areas where neither real time presentation of aircraft position nor reliable, direct air-ground communications are available. Technical efforts to research how emerging technology might offer benefits in providing more timely and adequate search and rescue services needs to be assessed in conjunction with action to strengthen States' provision of existing SAR alerting services by air traffic controllers.

4.3 **Language proficiency requirement in SAR**

4.3.1 Rescue Coordination Centres staff require proficiency in a common language to guard against errors in the transfer of operational information between RCCs. The ICAO/IMO JWG on SAR has called upon ICAO to develop appropriate guidance material for SAR providers to facilitate their staff acquiring an adequate degree of language proficiency. A greater degree of common language proficiency of SAR staff will facilitate the establishment of sub-regionalized SAR services. Further, once sub-regionalized services are established, the training needs of SAR staff, in aviation language competence and all other subjects, will be met more readily.

4.4 **Review of the provisions regarding carriage of emergency locator transmitters (ELTs)**

4.4.1 An expert working group associated with the Cospas-Sarsat Programme has been convened to determine the operational requirements for the next generation of 406 MHz distress beacon. ICAO should be involved in this study.

5. **FINANCIAL IMPLICATIONS**

5.1 Some of the work required will be achievable within the ICAO Secretariat while a greater part of it will require field consultation, collaborative involvement and on-site development. External funding will be required. The ICAO Global SAR Forum, June, 2010, found that international airline operators should accept some responsibility for assisting in the organizational reconstruction and, thus, the strengthening of SAR services.

6. **CONCLUSION**

6.1 While the all-important aspect of State sovereignty must remain beyond question, it is inappropriate that SAR service providers should pay singular heed to State borders. Closely coordinated SAR response requires an operational invisibility of borders, the application of global technology that reaches to every geographic sector, and a structure that is multi-modal and inclusive.