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CAMEROON CIVIL AVIATION AUTHORITY

The Director General

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Providing operational guidelines for aeronautical search and rescue services providers.

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1. INTRODUCTION

1.1. Subject

The purpose of this circular is to provide operational guidelines for the providers of aeronautical search and rescue services to aircraft in distress within the territory of the Republic of Cameroon.

1.2. Applicability

- (1) This circular applies to the search and rescue services provider in Cameroon and its operating unit: the Yaoundé Rescue Subcentre (RSC), hereafter referred as the "RSC".
- (2) The search and rescue services provider referred to in this circular is composed of the Cameroon Civil Aviation Authority (CCAA), through the SEGC Unit, and the Air Force Staff (EMAA).

1.3. Description of changes

Not applicable.

2. REQUIREMENTS AND REFERENCES

2.1. Requirements

Not applicable.

2.2. Reference documents

- (a) ICAO Annex 12 Search and Rescue, Eight edition, July 2004, Amendments 1 18;
- (b) ICAO Doc 7474, AFI Air Navigation Plan, Volume 2;
- (c) Décision N°0040/D/MINT/MINDEF du 22 mars 2012 portant organisation et fonctionnement du centre secondaire de sauvetage de Yaoundé ;
- (d) ICAO Doc 9731, The International Aeronautical and Maritime Search and Rescue (IAMSAR) manual, Volume 1, 2019 Edition;
- (e) Civil aviation draft regulation, ICAO Search and Rescue project to the States of the Southern African Development Community, 2011.

3. DEFINITIONS AND ABBREVIATIONS

- (1) The following definitions are used in this circular:
 - (a) Air traffic services unit: Generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office.
 - (b) **Alert phase**: Situation wherein apprehension exists as to the safety of an aircraft and its occupants.



- (c) **Distress phase**: Situation wherein there is a reasonable certainty that an aircraft and its occupants are threatened by grave and imminent danger and require immediate assistance.
- (d) **Emergency phase**: Generic term meaning, as the case maybe, uncertainty phase, alert phase or distress phase.
- (e) **Rescue coordination centre**: Unit responsible for promoting efficient organization of search and rescue services and for coordinating the conduct of search.
- (f) **Rescue subcentre**: Unit subordinate to a rescue coordination centre, established to complement the latter according to particular provisions of the responsible authorities.
- (g) **Rescue**: Operation to retrieve persons in distress, provide for their initial medical or other needs, and deliver them to a place of safety.
- (h) **Search and rescue provider**: Relevant authority(ies) designated by the State to provide search and rescue services within the Cameroonian territory.
- (i) **Search and rescue region**: Area of defined dimensions, associated with a rescue coordination centre, within which search and rescue services are provided.
- (j) **Search and rescue service**: Performance of distress monitoring, communication, coordination and search and rescue functions, initial medical assistance or medical evacuation, through the use of public and private resources, including cooperating aircraft, vessels and other craft and installations.
- (k) **Search and rescue unit**: Mobile resource composed of trained personnel and provided with equipment suitable for the expeditious conduct of search and rescue operations.
- (I) **Search**: Operation normally coordinated by a rescue coordination centre or rescue subcentre using available personnel and facilities to locate persons in distress.
- (m) **Uncertainty phase**: A situation wherein uncertainty exists as to the safety of an aircraft and its occupants.
- (2) The following abbreviations are used in this circular:
 - (a) ACO Aircraft coordinator
 - (b) ACC Area Control Center
 - (c) **ATS** Air traffic Services
 - (d) **CCAA** Cameroon Civil Aviation Authority
 - (e) **EMAA** Air Force Staff (Etat-Major de l'Armée de l'Air)

- (f) **OSC** On-scene coordinator
- (g) **RCC** Rescue coordination centre
- (h) **RSC** Rescue subcentre
- (i) SAR Search and rescue
- (j) **SECG** Unit for Airspace Surveillance and Crisis Management (Cellule de la Surveillance de l'Espace Aérien et de la Gestion de Crises)
- (k) **SRR** Search and rescue region
- (I) **SRS** Search and rescue sub-region

4. CONTEXT

- (1) Article 25 of the Chicago Convention provides that each contracting State undertakes to provide such measures of assistance to aircraft in distress in its territory as it may find practicable.
- (2) Having ratified the Chicago Convention, Cameroon has the obligation to rapidly locate and rescue survivors of aircraft accidents through the provision of search and rescue services.
- (3) Cameroon has established an operational unit responsible for coordinating the conduct of search operations, the Yaoundé Rescue Subcentre (RSC). The functioning of this unit is supported by the CCAA's SEGC Unit and EMAA, both playing the role of SAR provider.
- (4) Despite the operationalization of the Yaoundé RSC since 2012, improvements are still needed at different levels. This circular contains guidelines which aims at improving the provision of SAR services from an operational perspective.

5. GENERAL

- (1) The SAR service provider should:
 - (a) Use established processes to plan, develop, conduct and improve aeronautical search and rescue operations in accordance with the provisions contained in Annex 12 Search and Rescue to the Convention on International Civil Aviation and relevant and appropriate guidance material contained in the IAMSAR manual;
 - (b) Prepare an annual report that contains:
 - i) an assessment of prevailing risks to SAR operations in Cameroon;
 - ii) an evaluation of the integrity and coverage of its services;
 - iii) an identification of any shortcomings and deficiencies;
 - iv) a formal notification to the competent authorities of proposed

changes that effectively respond to its findings on such assessment, evaluation and identification.

6. SAFETY MANAGEMENT SYSTEM

- (1) The SAR service provider should implement a safety management system which is acceptable to the CCAA and which, as a minimum:
 - (a) Identifies safety hazards;
 - (b) Ensures the implementation of remedial action necessary to maintain agreed safety performance;
 - (c) Provides for continuous monitoring and regular assessment of the safety performance; and
 - (d) Is subject to regular review which has as its objective the improvement in the overall performance of the safety management system.
- (2) The safety management system should clearly define to the satisfaction of the CCAA, the safety accountability of the senior personnel and staff of the SAR service provider.

7. RESOURCES AND FACILITIES

- (1) The SAR service provider should ensure the availability of sufficient accommodation, equipment, and resources to coordinate an aeronautical search and rescue operation at any one time.
- (2) The SAR service provider should establish a contingency plan that includes completed arrangements to secure access to alternative accommodation and resources in order to ensure the ongoing provision of aeronautical search and rescue services in the event of primary accommodation or equipment becoming unavailable for any reason.
- (3) The SAR service provider should ensure the RSC is staffed on a 24-hour basis by personnel who are trained, qualified, proficient and certified to levels of competence relevant to the functions and responsibilities appropriate to aeronautical SAR services in Cameroun.
- (4) The SAR service provider should ensure that:
 - (a) Provision is made for a 406 MHz ELT register that is updated whenever necessary;
 - (b) Registered ELT information is immediately available to RSC staff and other authorized SAR parties.

8. DOCUMENT LIBRARY

(1) The SAR service provider should establish and maintain a document

library that is readily accessible by its operational and management staff that contains up to date editions of relevant documentation that is immediately accessible by its operational and management staff at all times.

- (2) The library should at all times have available for reference current editions of:
 - (a) Annex 12;
 - (b) ICAO Doc 9731 IAMSAR Manual;
 - (c) Handbook on Distress Alert Messages for Rescue Coordination Centres (RCCs);
 - (d) Search and Rescue Points of Contact (SPOCs);
 - (e) IMO Ship Security Competent Authorities (Cospas-Sarsat Document Reference G.007);
 - (f) International Code of Signals (IMO Sales Numbers IA994E); and
 - (g) Other technical documentation relevant to the effective delivery of SAR services in Cameroon.
- (3) The SAR service provider should produce, maintain and update master copies of all manuals required for the safe, effective and timely provision of aeronautical SAR services in Cameroon and provide copies, on request, to the CCAA.

9. COMPETENCE AND TRAINING

- (1) The SAR provider should ensure that initial and recurrent training of all RCC/RSC operational and immediate supervisory staff is conducted.
- (2) The syllabus of the training referred to in paragraph 1 should:
 - (a) Include:
 - i) the content of IAMSAR Manual
 - ii) aviation law:
 - iii) rules of the air:
 - iv) air traffic control;
 - v) aeronautical charts;
 - vi) aeronautical information;
 - vii) aircraft accident and incident investigation;
 - viii) aircraft performance;
 - ix) airspace management;
 - x) aeronautical communications including proficiency in the English

language;

- xi) aeronautical meteorology;
- xii) aircraft security; and
- (b) be acceptable to the CCAA.
- (3) The SAR service provider should ensure that RSC staff are given regular proficiency training and exercises to maintain skills, knowledge and attitudes as appropriate to the provision of aeronautical SAR services to domestic and international civil aviation operations. The training and exercises should be acceptable to the CCAA.
- (4) The SAR service provider should ensure that RSC staff involved in the conduct of radiotelephony communications is proficient in the use of the English language.

10. COMMUNICATIONS

The SAR service provider should ensure that the RSC have means of rapid and reliable two-way communication with:

- (a) The associated RCC;
- (b) Associated air traffic services;
- (c) Associated police forces;
- (d) Adjacent rescue sub-centres;
- (e) Associated meteorological office or meteorological watch office;
- (f) Appropriate designated SAR Units;
- (g) Appropriate designated alerting posts; and
- (h) Associated aviation and maritime security and surveillance centers in the SRRs Cameroon's territory belongs to.

11. SEARCH AND RESCUE UNITS AND FACILITIES

- (1) The SAR provider should:
 - (a) Designate and make formal arrangements for cooperative and appropriate use of public and private SAR Units that are suitably located, equipped and crewed for search and rescue operations throughout the Cameroonian SRS;
 - (b) Designate and make formal arrangements for cooperative and appropriate use of craft, vehicles and personnel that do not qualify as SAR Units but which may be able to effectively participate in SAR operations; and
 - (c) Maintain an accurate and complete database of SAR Units and

- other SAR facilities and resources within the Cameroonian territory and make arrangements to received timely advice of any change in their readiness or capability.
- (2) The SAR service provider should provide relevant information on the availability of SAR Units within the Cameroonian territory to the CCAA for publication in the AIP.
- (3) The SAR service provider should ensure the availability of appropriately packed, droppable life support equipment that is securely positioned and maintained at strategic locations throughout the Cameroonian territory and readily available for rapid loading onto SAR Units.
- (4) The SAR service provider should ensure the availability of trained personnel and necessary personal safety equipment at strategic locations within the Cameroonian territory for the airborne and surface delivery of life support equipment to accident survivors by SAR Units.

12. COLLABORATION AND COOPERATION WITH OTHER SERVICES

- (1) The SAR service provider should, under the direction of the competent authorities, seek to establish formal, documented agreements of cooperation with SAR service providers of all contiguous States with a view to:
 - (a) strengthen SAR cooperation and coordination, in accordance with the concluded SAR agreements.
 - (b) specify the conditions for entry of each other's SAR Units into their respective territories; and
 - (c) Expedite entry of such SAR Units.
- (2) The SAR service provider should include in agreements of cooperation with SAR service providers of contiguous States information concerning its SAR services and capabilities including details of SAR Units able to assist in the conduct of SAR operations in contiguous SRRs.
- (3) The SAR service provider should publish and disseminate all information necessary for the entry of SAR Units of other States into the territory of the Republic of Cameroon or, alternatively, include this information in formal SAR agreements.
- (4) The SAR service provider should coordinate SAR operations that are proximate to contiguous SRRs or SRSs with SAR providers of those States.
- (5) The SAR service provider should encourage, to the fullest extent possible, operators of all aircraft, vessels and appropriate local services and facilities which do not form part of the SAR organization to cooperate fully, as their capacities allow, in the planning and conduct of SAR operations.

- (6) The RSC should establish formal, documented agreements of cooperation, that are acceptable to the CCAA, with State air traffic service providers that clearly define respective responsibilities in providing emergency response services to civil aircraft including the exchange of flight plan and operational data, communication services, temporary attribution of staff and other specialised services as may be deemed necessary from time to time.
- (7) The SAR service provider should cooperate, as far as practicable, with all properly accredited authorities and entities investigating incidents and accidents.
- (8) The SAR service provider should designate a SAR Point of Contact for receipt of crash alert and location messages and associated data from authorities and users of the Cospas-Sarsat system.
- (9) The SAR service provider should recommend and prepare documentation for declaration of a Restricted Area by the competent ATS provider, whenever deemed necessary for safe and efficient SAR operations.
- (10) The SAR service provider should seek to arrange joint training exercises involving their SAR Units and those of other States.
- (11) The SAR service provider should seek to arrange:
 - (a) Periodic liaison visits for its staff to cooperating entities within Cameroon, as well as ATS and SAR service providers in contiguous States;
 - (b) Attendance at local, regional and international meetings of SAR authorities.
- (12) The SAR service provider should seek to encourage the closest possible cooperation and coordination with relevant aeronautical, maritime and military emergency response authorities.

13. OPERATIONAL PROCEDURES

13.1. Preparatory information

- (1) The SAR service provider should ensure that the RSC always has immediate access to comprehensive, accurate and up-to-date data concerning the following assets and facilities in the Cameroonian territory:
 - (a) SAR Units;
 - (b) Locations where supplies of droppable emergency and survival equipment are stored;
 - (c) Alerting posts;

- (d) ATS Units;
- (e) Means of communication that can be used in SAR operations;
- (f) Addresses (electronic and postal) and telephone numbers of duly authorised operators' representatives; and
- (g) Any other public and private resources including medical and transportation facilities that are likely to be useful in SAR operations.

13.2. Plans of operation

- (1) The SAR service provider should prepare detailed plans with procedures of operation for the safe and effective conduct of SAR operations within the Cameroonian territory.
- (2) The plans of operation should specify, as a minimum:
 - (a) Structure of functional responsibilities including authority, delegation and lines of reporting;
 - (b) Essential search procedures;
 - (c) Arrangements for the servicing and re-fueling of aircraft, vessels and vehicles employed in SAR operations;
 - (d) Arrangements for expeditious access to weather information and other operational information including NOTAM; and
 - (e) Strategies for effective and rapid rescue.
- (3) SAR plans of operation should include details of actions to be taken with respect to:
 - (a) Available communication systems and facilities;
 - (b) Alerting en-route aircraft and ships at sea;
 - (c) Duties and prerogatives of all participating personnel;
 - (d) Possible redeployment of personnel and equipment that may be necessitated by meteorological or other dynamic conditions;
 - (e) Particular assistance appropriate to distressed aircraft confronted with the need to ditch, including rendezvous with surface craft;
 - (f) In-flight diversion to and intercept and escort of aircraft in distress; and
 - (g) Cooperative procedures taken in conjunction with ATS, security and other appropriate authorities to assist aircraft known or believed to be subject to unlawful interference or a bomb warning.
- (4) The SAR service provider should ensure that plans of operation are integrated with aerodrome emergency procedures to provide for optimal, coordinated response to aircraft emergencies that may arise in

the vicinity of airports, including, for coastal aerodromes, areas of water.

13.3. SAR units

- (1) The SAR service provider should ensure that arrangements are made for:
 - (a) the constant readiness of the required number of SAR units and facilities;
 - (b) adequate supplies of rations, medical provisions, signaling devices and other appropriate survival and rescue equipment.
- (2) The SAR provider should ensure that each SAR Unit:
 - (a) Is cognizant of all parts of the plans of operations that are necessary for the effective conduct of its tasks:
 - (b) Keeps the RSC informed of its preparedness.

13.4. Information concerning emergencies

- (1) Any authority or element of the SAR organization, having reason to believe that a civil aircraft is experiencing an emergency, should immediately give all available, relevant information to the RSC.
- (2) The RSC should, upon receipt of advice that a civil aircraft is experiencing a state of emergency, immediately evaluate such information and assess the extent of the measures to be taken.
- (3) The RSC should, upon receiving advice of a civil aircraft experiencing an emergency from a source other than an ATS Unit, determine to which emergency phase the situation corresponds and apply the procedures applicable to that phase.

13.5. Procedures for RSC during emergency phases

- (1) Upon the declaration of an uncertainty phase, the RSC should:
 - (a) Cooperate closely with appropriate ATS Units;
 - (b) Acquire relevant data;
 - (c) Research the situation with respect to the subject aircraft, affected personnel and the environment, and
 - (d) Evaluate the circumstance with the purpose of making preparatory arrangements for management of any developing emergency.
- (2) Upon the declaration of an alert phase, the RSC should:
 - (a) Immediately alert appropriate personnel, suitable SAR Units and SAR facilities;
 - (b) Continue to acquire relevant data;
 - (c) Continue to research the situation with respect to the subject aircraft, affected personnel and the environment; and

- (d) Develop an action plan in the context of the appropriate plan of operation.
- (3) Upon the declaration of a distress phase, the RSC provider should:
 - (a) Immediately activate the action plan including use of SAR Units and SAR facilities, as appropriate;
 - (b) Determine the last known position of the aircraft, assess its subsequent trajectory, and, in consideration of all intelligence, determine the area to be searched, or monitor the aircraft's flight movement and take appropriate action;
 - (c) Notify the operator when possible and keep the operator informed of developments;
 - (d) Notify other RCCs/RSCs whose help might be required or which may be affected by the operation;
 - (e) Notify the associated ATS Unit when emergency information is received from another source:
 - (f) At an early stage, request aircraft, vessels, vehicles and other appropriate facilities not specifically included in the plan of operation and able to assist to:
 - i) Maintain a listening watch for transmissions from the aircraft in distress, survival equipment or ELT;
 - ii) Assist the aircraft in distress however practicable;
 - iii) Inform the competent RCC of any developments;
 - (g) From the information available, draw up a detailed action plan for the conduct of the search and/or rescue operation required and communicate such plan for the guidance of the authorities immediately directing the conduct of the operation;
 - (h) Amend the action plan as necessary in the light of evolving circumstances;
 - (i) Notify the appropriate accident investigation authorities; and
 - (j) Notify the State of registry of the aircraft.

13.6. Initiation of search and rescue operations in respect of an aircraft whose position is unknown

- (1) In the event that an emergency phase is declared in respect of an aircraft whose position is unknown and it is uncertain whether the aircraft is located in the Cameroonian territory or another SRS/SRR, the following should apply:
 - (a) When the competent RCC or the RSC as appropriate, is notified of a

civil aircraft emergency and is unaware of other RCCs/RSCs taking responsive action, the competent RCC should take responsibility for initiating suitable procedures and should confer with contiguous RCCs to agree upon a single RCC that will assume responsibility forthwith:

- (b) Unless otherwise decided by common agreement of the RCCs concerned, the RCC to coordinate SAR action should be the centre responsible for:
 - i) the SRR in which the aircraft last reported its position; or
 - ii) the SRR to which the aircraft was proceeding when its last reported position was on the border separating two SRRs; or
 - iii) the SRR to which the aircraft was destined when it was not equipped with suitable two-way radio communication or not under obligation to maintain radio communication; or
 - iv) the SRR in which the distress site is located as identified by the Cospas-Sarsat system;
- (c) After declaration of the distress phase, the SAR provider with overall coordination responsibility should inform all RCCs that may become involved in the operation of all the circumstances of the emergency and subsequent developments. Likewise, all RCCs becoming aware of any information pertaining to the emergency should inform the RCC that has overall responsibility.

13.7. Termination and suspension of operations

- (1) SAR operations should continue, when practicable, until all survivors are delivered to a place of safety or until all reasonable hope of rescuing survivors is lost.
- (2) The RSC should be responsible for determining when to discontinue SAR operations and in taking that decision will take into full account advice received from appropriate government authorities.
- (3) When a SAR operation has been successful or when the RSC considers that an emergency no longer exists, the emergency phase should be cancelled, the SAR operation should be terminated, and any authority, facility or service that has been activated or notified should be promptly informed.
- (4) If, for any reason, a SAR operation becomes impracticable and the RSC concludes that there is still some prospect of survivors being found, the RSC should temporarily suspend on-scene activities pending further developments and should promptly inform any authority, facility or service which has been activated or notified. Relevant information that

is subsequently received should be evaluated and SAR operations resumed when deemed by the RSC to be justified and practicable.

13.8. Procedures at the scene of an emergency

- (1) When multiple facilities are engaged in SAR operations on-scene and the RSC designates an OSC or aircraft coordinator (ACO) to coordinate tactical activity on-scene to improve the safety and efficiency of operations, the OSC or ACO should perform the assigned tasks in full account of the nature of the search target, the type, number and capacity of SAR Units and the environment and keep the RSC fully informed of actions taken and proposed.
- (2) When a pilot-in-command observes that either another aircraft or a surface craft is in distress, the pilot should, if possible and unless considered unreasonable or unnecessary:
 - (a) Keep the craft in distress in sight until compelled to leave the scene or advised by the ATS Unit, on advice from the RSC, that it is no longer necessary;
 - (b) Determine the position of the craft in distress;
 - (c) As appropriate, report to the ATS Unit as much of the following information as possible:
 - i) type of craft in distress, its identification and condition;
 - ii) position of the craft expressed in geographical coordinates or as a true bearing and distance from a distinctive landmark or ground radio navigation aid;
 - iii) time of observation expressed in hours and minutes in Coordinated Universal Time (UTC);
 - iv) number of persons observed;
 - v) whether the persons have been seen to abandon the craft in distress;
 - vi) apparent physical condition of the survivors;
 - vii) on-scene weather conditions;
 - viii) apparent best ground access route to the distress site; and
 - (d) Act as instructed by the ATS Unit on advice from the RCC.

13.9. Passing of information to aircraft in respect of which an emergency phase has been declared

Where the RSC has responsibility for a SAR action within the Cameroonian territory, it should forward to the area control center (ACC) information about the SAR action sufficient to enable communication of useful and relevant

information to the subject aircraft and other aircraft operating in the Flight Information Region as deemed appropriate.

13.10. Procedures for authorities in the field

(1) When cooperating authorities vested with functions and responsibilities under the national SAR plan engage in the field in SAR-related activity being coordinated by the RSC, they should keep the RSC informed of instructions given to the units under their direction and relevant developments.

14. RECORDKEEPING

(1) The SAR service provider should ensure that the RSC retain all data relating to every SAR action undertaken in an orderly and easily accessed manner for a period of at last twelve (12) calendar months.

15. REPORTING SYSTEM

- (1) The SAR service provider should establish a reporting system covering documentation of occurrences that occur during the conduct of SAR operations.
- (2) The SAR service provider should notify any such occurrences to the CCAA and other competent authorities within three (03) days containing explanation of the event and specifying any proposed mitigation measures.

CONTACT

(1) For more information, please contact:

sdnaa@ccaa.aero

(2) Any suggestion to modify this circular will be highly appreciated and can be submitted via the above-mentioned email address.

