STANDARDS DOCUMENT
-
SEARCH AND RESCUE

(SD – SAR)

3rd Edition
xx July 2024

Published by
Civil Aviation Authority of Fiji
Private Mail Bag, NAP 0354
Nadi International Airport
Fiji

www.caaf.org.fj

FOREWORD

General

Fiji's National Aviation Law consists of a three-tier regulatory system, comprising Acts, Regulations and Standards Documents; the purpose of which is to ensure, where deemed appropriate, compliance and conformance with ICAO Standards and Recommended Practices (SARPS).

The three-tier regulatory system represents Fiji's Primary Legislation System and Specific Operating Regulations to meet Critical Elements CE1 and CE2 of ICAO's Eight Critical Elements of a safety oversight system.

Standards Documents (SD) are issued by the Civil Aviation Authority of Fiji under the provision of Section 14 (3) (b) of the Civil Aviation Authority Act 1979 (CAP 174A). Where appropriate, the SD also contains guidance information (Critical Element CE5) on standards, practices, and procedures that are acceptable to the Authority.

Notwithstanding the above, and where specifically indicated in this Standards Document that such a provision is available, consideration may be given to other methods of compliance that may be presented to the Authority provided they have compensating factors that can demonstrate a level of safety equivalent to or better than those prescribed herein. Accordingly, the Authority will consider each case based on its own merits holistically in the context of and relevancy of the alternative methods to the individual applicant. When new standards, practices, or procedures are determined to be acceptable, they will be added to this document.

Purpose

This Standards Document - Search and Rescue is issued by the Civil Aviation Authority of Fiji pursuant to the Civil Aviation Reform Act 1999 (as amended), section 6 (3) and (4) (c), where, although the State is responsible for the provision of a search and rescue service in respect of aircraft, arrangements may be made with Fiji Airports for the provision of this service on the State's behalf. Fiji Airports in performing its functions under this arrangement shall be duly approved/certified by the Authority and act in accordance with the standards contained in this SD-SAR.

Change Notice

This Standards Document has been developed pursuant to the Authority's obligation to provide oversight on the organisation authorised to provide search and rescue service in respect of aircraft, as well as their obligation to comply with standards notified by the Authority and is the means by which such notification is given.

Theresa Levestam
Chief Executive

TABLE OF CONTENTS

APPENDIX

AMENDMENT RECORDS

The amendments listed below have been incorporated into this copy of the Standards Document – Search and Rescue.

Amendment no.	Version no.	Subject	Source	Sections affected	Entered by (Date)	Approved by (Date)	Effective date
	1.0	Initial Issue	CAAF				2008
	2.0		CAAF				2012
	3.0	New Edition – Transposition of Annex 12 with Amendments up to Amendment 19 to Annex 12	CAAF	ICAO Annex 12 (incorporating Amdt 1 to Amdt 19)	ANSI-SAR (xx July 2024)	EMGS (xx July 2024)	xx July 2024
		Inclusion of local provisions in SD-SAR Version 2	CAAF	Appendix 2 – Appendix 5	SOSC-GS (xx July 2024)	EMGS (xx July 2024)	xx July 2024

DEFINITIONS and ABBREVIATIONS

Definitions

Alerting post

Any facility intended to serve as an intermediary between a person reporting an emergency and a rescue coordination centre or rescue subcentre.

Alert phase

A situation wherein apprehension exists as to the safety of an aircraft and its occupants.

Distress phase

A situation wherein there is a reasonable certainty that an aircraft and its occupants are threatened by grave and imminent danger and require immediate assistance.

Ditching

The forced landing of an aircraft on water.

Emergency phase

A generic term meaning, as the case may be, uncertainty phase, alert phase or distress phase.

Joint rescue coordination centre

A rescue coordination centre responsible for both aeronautical and maritime search and rescue operations.

Operator

A person, organisation or enterprise engaged in or offering to engage in an aircraft operation.

Pilot-in-command

The pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.

Rescue

An operation to retrieve persons in distress, provide for their initial medical or other needs, and deliver them to a place of safety.

Rescue coordination centre

A unit responsible for promoting efficient organisation of search and rescue services and for coordinating the conduct of search and rescue operations within a search and rescue region.

Rescue subcentre

A unit subordinate to a rescue coordination centre, established to complement the latter according to particular provisions of the responsible authorities.

Search

An operation normally coordinated by a rescue coordination centre or rescue subcentre using available personnel and facilities to locate persons in distress.

Search and rescue aircraft

An aircraft provided with specialized equipment suitable for the efficient conduct of search and rescue missions.

Search and rescue facility

Any mobile resource, including designated search and rescue units, used to conduct search and rescue operations.

Search and rescue organisation

The provider of aeronautical search and rescue services within the Fiji (Nadi) search and rescue region).

Search and rescue service

The 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.

Search and rescue region

An area of defined dimensions, associated with a rescue coordination centre, within which search and rescue services are provided.

Search and rescue unit

A mobile resource composed of trained personnel and provided with equipment suitable for the expeditious conduct of search and rescue operations.

State of Registry

The State on whose register the aircraft is entered.

Uncertainty phase.

A situation wherein uncertainty exists as to the safety of an aircraft and its occupants.

Abbreviations

APAC	Asia and Pacific (ICAO Region)
AIP	Aeronautical Information Publication
AIS	Aeronautical Information Services
ARSC	Aeronautical Rescue Sub-Centre
ATC	Air Traffic Control
ATS	Air Traffic Services
CAAF	Civil Aviation Authority of Fiji
FIR	Flight Information Region
IAMSAR	International Aeronautical and Maritime Search and Rescue
ICAO	International Civil Aviation Organisation
JRCC	Joint Rescue Coordination Centre
LRSC	Land Rescue Sub-Centre
MRSC	Maritime Rescue Sub-Centre
RCC	Rescue Coordination Centre
RSC	Rescue Sub-Centre
SAR	Search and Rescue
SD	Standards Document
SRR	Search and Rescue Region

Chapter 1 – INTRODUCTION

1.1 General

1.1.1 Search and Rescue (SAR) comprises the search for and provision of aid to persons who are, or are believed to be in imminent danger of loss of life. The two operations – search and rescue – may take many forms, depending on whether they are both required or not, on the size and complexity of the operation and on the available staff and facilities.

1.1.2 This Standards Document – Search and Rescue (SD-SAR) provides standards and requirements for the establishment, maintenance and operation of aeronautical search and rescue services within the Fiji (Nadi) Search and Rescue Region (SRR).

1.1.3 The primary purpose of the SD-SAR is to ensure that the SAR organisation meets the aeronautical search and rescue needs and obligations, for Fiji, under the Convention on International Civil Aviation.

1.1.4 The SAR organisation should develop and improve its SAR services, co-operate with neighbouring States and to consider the SAR services to be part of a global system.

1.2 Standards Document – Search and Rescue

1.2.1 This Standards Document should be read in conjunction with:

(a) ICAO Annex 12 – Search and Rescue

(b) ICAO Annex 13 – Aircraft Accident and Incident Investigation

(c) IAMSAR Standards Document Vol 1 – Organisation and Management

(d) IAMSAR Standards Document Vol II – Mission Co-Ordination

(e) IAMSAR Standards Document Vol III – Mobile Facilities

(f) ICAO Doc 7030 – Regional Supplementary Procedures for Alerting and SAR services applicable in the Asia/Pacific (APAC) Region

1.2.2 Where there is a difference between a standard in this Standards Document and that of the above-mentioned ICAO documents, the standard in this Standards Document shall prevail.

1.2.3 In this Standards Document, standards are preceded by the word “shall”, whereas recommended practices are preceded by the word “should”. The SAR organisation shall comply with all standards at all times and should endeavour to comply with all recommended practices.

1.2.4 When the SAR organisation is not able to comply with any standards specified or referenced in this Standards Document, the SAR organisation shall apply to CAAF for exemption or deviation from the relevant standards. Applications shall be supported in writing with the reasons for such exemption or deviation including any safety assessment or other studies undertaken, and where appropriate, an indication of when compliance with the current standards can be expected.

1.2.5 When the SAR organisation is not able to comply with any recommended practices specified or referenced in this Standards Document, the SAR organisation shall notify the CAAF of the non-compliance or deviation with the supporting reason including any safety assessment or other studies undertaken, and where appropriate, an indication of when compliance with the current recommended practices can be expected.

1.2.6 Any exemption or deviation granted to the SAR organisation shall also be recorded in the CAAF Exemptions Database. The CAAF Exemptions Database shall also contain the details of the exemption or deviation, such as the reason that the exemption or deviation was requested and any resultant limitations or conditions imposed.

1.2.7 In addition to the Standards Document, the following may also be issued as and when required to supplement the Standards Document:

(a) Aeronautical Information Circulars (AIC) – this is a mandatory requirement to be complied by the SAR organisation. It is published for purposes of immediate promulgation of local standards and recommended practices in response to, but not limited to, amendments to ICAO Annexes. AIC will be incorporated into subsequent amendments of the Standards Document, if applicable.

(b) Guidance Material (GM) – this is published for purposes of promulgating supplementary guidance materials to the standards and recommended practices in the Standards Document. The publications are intended to provide recommendations and guidance to illustrate a means, but not necessarily the only means, of complying with the Standards

Document. Guidance Materials may explain certain regulatory requirements by providing interpretive and explanatory materials. Where appropriate, the material in the GM may be incorporated into subsequent amendments of the Standards Document

(c) Aviation Safety Bulletins (ASBs)- are published by the Civil Aviation Authority of Fiji (CAAF) with the aim of promoting safety awareness and disseminating educational materials related to aviation safety. These publications may be initiated in response to ICAO State letters, which do not necessarily mandate immediate changes to local regulations. ASBs also address new safety initiatives and international best practices at CAAF. The SAR organisation is encouraged to review and adopt the material if practicable.

1.2.8 Search and Rescue Operations Manual

1.2.8.1 The SAR organisation shall develop and maintain a search and rescue operations Manual.

1.2.8.2 The SAR operations manual shall serve to demonstrate how the SAR organisation will comply with the requirements set out in this Standards Document – Search and Rescue.

1.2.8.3 The contents of the SAR operations manual shall include but not limited to the following:

a) the information required of the SAR organisation as mentioned in this Standards Document; and

b) a description of the SAR organisation that shows the role, responsibilities and job functions of the search and rescue personnel who are responsible for ensuring the compliance of the organisation with the requirements in sub-paragraph (a).

1.2.8.4 The SAR organisation shall:

a) keep the SAR operations manual in a readily accessible form;

b) ensure that SAR personnel have ready access to the SAR operations manual; and

c) amend the SAR operations manual whenever necessary to keep its content up to date.

1.2.8.5 The SAR organisation shall submit a copy of the most current SAR operations manual to CAAF.

.

Chapter 2 – ORGANISATION

2.1 Search and Rescue Services

2.1.1 The SAR organisation shall, individually or in cooperation with other States, arrange for the establishment and prompt provision of search and rescue services within the Fiji (Nadi) SRR to ensure that assistance is rendered to persons in distress. Such services shall be provided on a 24-hour basis.

2.1.1.1 Those portions of the high seas or areas of undetermined sovereignty for which search and rescue services will be established shall be determined on the basis of regional air navigation agreements. The SAR organisation, having accepted the responsibility to provide search and rescue services in such areas, shall thereafter, individually or in cooperation with other States, arrange for the services to be established and provided in accordance with the provisions of this SD-SAR.

2.1.1.2 Basic elements of search and rescue services shall include organised available resources, communication facilities and a workforce skilled in coordination and operational functions.

2.1.1.3 Search and rescue services shall establish processes to improve service provision, including the aspects of planning, domestic and international cooperative arrangements and training.

2.1.2 In providing assistance to aircraft in distress and to survivors of aircraft accidents, the SAR organisation shall do so regardless of the nationality or status of such persons or the circumstances in which such persons are found.

2.1.3 The SAR organisation having accepted responsibility to provide search and rescue services shall use search and rescue units and other available facilities to assist any aircraft or its occupants that are or appear to be in a state of emergency.

2.1.4 Where separate aeronautical and maritime rescue coordination centres serve the same area, the SAR organisation shall ensure the closest practicable coordination between the centres. The SAR organisation should facilitate consistency and cooperation between their aeronautical and maritime search and rescue services. Joint rescue coordination centres should be established to coordinate aeronautical and maritime search and rescue operations, where practical.

2.1.5 **Recommendation.** — *The SAR organisation should facilitate consistency and cooperation between their aeronautical and maritime search and rescue services.*

2.1.6 **Recommendation. —** *The SAR organisation should establish joint rescue coordination centres to coordinate aeronautical and maritime search and rescue operations, where practical.*

2.2 Search and Rescue Region

2.2.1 The search and rescue region (SRR) shall coincide with the boundaries of the Fiji (Nadi) Flight Information Region (FIR) within which the SAR organisation will provide search and rescue services.

2.3 Rescue coordination centre and rescue subcentres

2.3.1 The SAR organisation shall establish a rescue coordination centre within the SRR.

Note. — A SAR organisation may establish a rescue coordination centre with an associated search and rescue region that, in accordance with regional air navigation agreement, extends over an area greater than its sovereign airspace.

2.3.2 **Recommendation. —** *Where all or part of the airspace of a SAR organisation is included within a search and rescue region associated with a rescue coordination centre in another State, that SAR organisation should establish a rescue subcentre subordinate to the rescue coordination centre wherever this would improve the efficiency of search and rescue services within its territory.*

2.3.3 Each rescue coordination centre and, as appropriate, rescue subcentre, shall be staffed 24 hours a day by trained personnel proficient in the use of the language used for radiotelephony communications.

2.3.4 **Recommendation**. *— RCC personnel involved in the conduct of radiotelephony communications should be proficient in the use of the English language.*

2.3.5 **Recommendation. —** *In areas where public telecommunications facilities would not permit persons observing an aircraft in emergency to notify the rescue coordination centre concerned directly and promptly, The SAR organisation should designate suitable units of public or private services as alerting posts.*

2.3.6 Each rescue coordination centre and, as appropriate, rescue subcentre shall maintain up-to-date contact details in the OPS Control Directory.

2.3.7 Each rescue coordination centre and, as appropriate, rescue subcentre shall subscribe and maintain access to the location of an aircraft in distress repository (LADR).

Note. — Guidance on the use of the OPS Control Directory and the LADR is contained in the Manual on Global Aeronautical Distress and Safety System (GADSS) (Doc 10165).

2.4 Search and rescue communications

2.4.1 The rescue coordination centre shall have means of rapid and reliable two-way communication with:

a) associated air traffic services units;

b) associated rescue subcentres;

c) appropriate direction-finding and position-fixing stations;

d) where appropriate, coastal radio stations capable of alerting and communicating with surface vessels in the region;

e) the headquarters of SAR units in the region;

f) all maritime rescue coordination centres in the region and aeronautical, maritime or joint rescue coordination centres in adjacent regions;

g) a designated meteorological office or meteorological watch office;

h) SAR units;

i) alerting posts; and

j) the COSPAS-SARSAT Mission Control Centre servicing the search and rescue region.

2.5 Search and rescue units

2.5.1 The SAR organisation shall designate as search and rescue units elements of public or private services suitably located and equipped for search and rescue operations.

2.5.2 As parts of the search and rescue plan of operation, the SAR organisation shall designate elements of public or private services that do not qualify as SAR units but are nevertheless able to participate in search and rescue operations.

2.6 Search and rescue equipment

2.6.1 SAR units shall be provided with equipment for locating promptly, and for providing adequate assistance at, the scene of an accident.

2.6.2 Each SAR unit should have means of rapid and reliable two-way communication with other search and rescue facilities engaged in the same operation.

2.6.3 Each search and rescue aircraft shall be equipped to be able to communicate on the aeronautical distress and on-scene frequencies and on such other frequencies as may be prescribed.

2.6.4 Each search and rescue aircraft shall be equipped with a device for homing on distress frequencies.

2.6.5 Each search and rescue aircraft, when used for search and rescue over maritime areas, shall be equipped to be able to communicate with vessels.

Note. — Until 25 November 2026, many vessels can communicate with aircraft on 2182 kHz, 4125 kHz and 121.5 MHz. However, these frequencies, and in particular 121.5 MHz, may not be routinely monitored by vessels.

Note. — As of 26 November 2026, many vessels can communicate with aircraft on 2182 kHz, 4125 kHz, and 121.5 MHz and 123.1 MHz. However, these frequencies, and in particular 121.5 MHz and 123.1 MHz, may not be routinely monitored by vessels. Rather, vessels monitor Channel 16 (156.8 MHz), the international maritime distress, safety and calling frequency.

2.6.6 Each search and rescue aircraft, when used for search and rescue over maritime areas shall carry a copy of the *International Code of Signals* to enable it to overcome language difficulties that may be experienced in communicating with ships.

Note. — The International Code of Signals *is published in English, French and Spanish by the International Maritime Organisation as documents 994E, 995F and 996S.*

2.6.7 Unless it is known that there is no need to provide supplies to survivors by air, at least one of the aircraft participating in a search and rescue operation should carry droppable survival equipment.

2.6.8 The SAR organisation should locate, at appropriate aerodromes, survival equipment suitably packed for dropping by aircraft.

2.6.9 **Recommendation. —** *As of 26 November 2026, each search and rescue aircraft, when used for search and rescue over maritime areas, should carry a droppable device for measuring actual surface drift.*

Chapter 3 – COOPERATION

3.1 Cooperation between States

3.1.1 The SAR organisation shall coordinate their search and rescue efforts with those of neighbouring States. They should, when necessary, coordinate their search and rescue operations with those of neighbouring States especially when these operations are proximate to adjacent search and rescue regions.

3.1.2 Subject to the SAR agreements that had been concluded between Fiji and the SAR authorities or agencies of neighbouring States, the SAR organisation shall permit immediate entry into its territory of SAR units of other States for the purpose of searching for the site of aircraft accidents and rescuing survivors of such accidents.

3.1.3 SAR units entering the territory of neighbouring States for search and rescue purposes shall transmit a request, giving full details of the projected mission and the need for it, to the rescue coordination centre of the neighbouring State concerned or to such other authority as had been designated by the State.

3.1.4 Requests for the entry of aircraft, equipment and personnel from other States to engage in search for aircraft in distress or to rescue survivors of aircraft accidents should be transmitted to the RCC. The RCC shall:

(a) immediately acknowledge the receipt of such a request, and

(b) as soon as possible, indicate the conditions, if any, under which the projected mission may be undertaken.

3.1.5 Instructions as to the control which will be exercised on entry of such aircraft and/or personnel shall be given by the RCC in accordance with the standing plan for the conduct of search and rescue in the area.

3.1.6 The SAR organisation shall:

(a) request from other rescue coordination centres such assistance, including aircraft, vessels, persons or equipment, as may be needed;

(b) grant any necessary permission for the entry of such aircraft, vessels, persons or equipment into its territory; and

(c) make the necessary arrangements with the appropriate customs, immigration or other authorities with a view to expediting such entry.

3.1.7 The SAR organisation shall provide, when requested, assistance to other rescue coordination centres, including assistance in the form of aircraft, vessels, persons or equipment.

3.1.8 **Recommendation. —** *Until 25 November 2026, The SAR organisation should make arrangements for joint training exercises involving their search and rescue units, those of other States and operators, in order to promote search and rescue efficiency.*

Recommendation. — *As of 26 November 2026, The SAR organisation should make arrangements for joint training exercises involving their RCCs, RSCs and search and rescue units, those of other States and operators, in order to promote search and rescue efficiency.*

3.1.9 The SAR organisation should make arrangements for periodic liaison visits by personnel of its RCC to the centres of neighbouring States.

3.2 Cooperation with other services

3.2.1 The SAR organisation shall arrange for all aircraft, vessels and local services and facilities which do not form part of the SAR organisation to cooperate fully with the latter in search and rescue and to extend any possible assistance to the survivors of aircraft accidents.

3.2.2 To provide for the most effective and efficient search and rescue services, the SAR organisation should maintain the closest practicable coordination between the relevant aeronautical and maritime authorities.

3.2.3 The SAR organisation shall ensure that their search and rescue services cooperate with those responsible for investigating accidents and with those responsible for the care of those who suffered from the accident. To facilitate accident investigation, rescue units should, when practicable, be accompanied by persons qualified in the conduct of aircraft accident investigations.

3.2.4 The SAR organisation shall designate a search and rescue point of contact for the receipt of COSPAS-SARSAT distress data.

3.2.5 Until 25 November 2026, The SAR organisation shall designate a search and rescue point of contact for the receipt of COSPAS-SARSAT distress data.

As of 26 November 2026, The SAR organisation shall designate a 24-hour search and rescue point of contact available for the receipt and acknowledgement of COSPAS-SARSAT distress alert data that

ensures timely notification to the responsible RCC for the initiation of appropriate search and rescue response action.

3.3 Dissemination of information

3.3.1 The SAR organisation shall publish and disseminate all information necessary for the entry of SAR units of other States into its territory or, alternatively, include this information in search and rescue service arrangements.

3.3.2 When such information could benefit the provision of search and rescue services, the SAR organisation should make available, through the RCC or other agencies, information regarding their SAR plans of operation.

3.3.3 The SAR organisation should, to the extent desirable and practicable, disseminate information to the general public and emergency response authorities regarding actions to be taken when there is reason to believe that an aircraft's emergency situation may become cause for public concern or require a general emergency response.

Chapter 4 – PREPARATORY MEASURES

4.1 Preparatory information

4.1.1 The RCC shall have readily available at all times up-to-date information concerning the following in respect of its search and rescue region:

(a) SAR units and alerting posts;

(b) air traffic services units;

(c) means of communication that may be used in search and rescue operations;

(d) addresses and telephone numbers of all operators, or their designated representatives, engaged in operations in the region; and

(e) any other public and private resources including medical and transportation facilities that are likely to be useful in search and rescue.

4.1.2 **Recommendation. —** *Each rescue coordination centre should have readily available all other information of interest to search and rescue, including information regarding:*

(a) the locations, call signs, hours of watch, and frequencies of all radio stations likely to be employed in support of search and rescue operations;

(b) the locations and hours of watch of services keeping radio watch, and the frequencies guarded;

(c) locations where supplies of droppable emergency and survival equipment are stored;

(d) objects which it is known might be mistaken for unlocated or unreported wreckage, particularly if viewed from the air;

(e) *as of 26 November 2026, the position, course and speed of aircraft that may be able to provide assistance to aircraft in distress; and*

(f) *as of 26 November 2026, where the search and rescue region includes maritime areas, the position, course and speed of ships that may be able to provide assistance to aircraft in distress.*

4.1.3 **Recommendation. —** *Until 25 November 2026[1], each rescue coordination centre whose search and rescue region includes maritime areas should have ready access to information regarding the position, course and speed of ships within such areas that may be able to provide assistance to aircraft in distress and information on how to contact them.*

Note. — This information may either be kept in the rescue coordination centres or be readily accessible.

4.1.4 The SAR organisation should, individually or in cooperation with other States, either establish ship reporting systems in cooperation with maritime authorities or arrange communication links with

AMVER or regional ship reporting systems to facilitate search and rescue operations at sea.

Note. — AMVER is a cooperative international ship reporting system with worldwide coverage that is available for interrogation by all rescue coordination centres. A number of States also operate regional ship reporting systems.

4.2 Plans of operation

4.2.1 The RCC shall prepare detailed plans of operation for the conduct of search and rescue operations within its search and rescue region.

4.2.2 SAR plans of operation should be developed jointly with representatives of the operators and other public or private services that may assist in providing search and rescue services or benefit from them, taking into account that the number of survivors could be large.

4.2.3 The plans of operation shall specify arrangements for the servicing and refuelling, to the extent possible, of aircraft, vessels and vehicles employed in search and rescue operations, including those made available by other States.

4.2.4 The search and rescue plans of operation shall contain details regarding actions to be taken by those persons engaged in search and rescue, including:

(a) the manner in which search and rescue operations are to be conducted in the search and rescue region;

(b) the use of available communication systems and facilities;

(c) the actions to be taken jointly with other rescue coordination centres;

[1] Paragraph 4.1.3 and the accompanying Note will be deleted as of 26 November 2026.

(d) the methods of alerting en-route aircraft and ships at sea;

(e) the duties and prerogatives of persons assigned to search and rescue;

(f) the possible redeployment of equipment that may be necessitated by meteorological or other conditions;

(g) the methods for obtaining essential information relevant to search and rescue operations, such as weather reports and forecasts, appropriate NOTAM, etc.;

(h) the methods for obtaining, from other rescue coordination centres, such assistance, including aircraft, vessels, persons or equipment, as may be needed;

(i) as of 26 November 2026, the methods for obtaining approval to allow search and rescue units from an assisting State to enter into the territory of the State of the RCC;

(j) the methods for assisting distressed aircraft being compelled to ditch to rendezvous with surface craft;

(k) the methods for assisting search and rescue or other aircraft to proceed to aircraft in distress; and

(l) cooperative actions to be taken in conjunction with air traffic services units and other authorities concerned to assist aircraft known or believed to be subject to unlawful interference.

4.2.5 **Recommendation. —** Search and rescue plans of operation should be integrated with airport emergency plans to provide for rescue services in the vicinity of aerodromes including, for coastal aerodromes, areas of water.

4.3 Search and rescue units

4.3.1 Each SAR unit shall:

(a) be cognizant of all parts of the plans of operation prescribed in Para 4.2 that are necessary for the effective conduct of its duties; and

(b) keep the rescue coordination centre informed of its preparedness.

4.3.2 The SAR organisation shall:

(a) maintain in readiness the required number of search and rescue facilities; and

(b) maintain adequate supplies of rations, medical stores,

signalling devices and other survival and rescue equipment.

4.4 Training and exercises

Until 25 November 2026, to achieve and maintain maximum efficiency in search and rescue, the SAR organisation shall provide for regular training of their search and rescue personnel and arrange appropriate search and rescue exercises.

As of 26 November 2026, to achieve and maintain maximum efficiency in search and rescue, The SAR organisation shall provide for regular training and exercises for their search and rescue personnel, which include both land and maritime environments as appropriate, containing both search and rescue elements, remote from an aerodrome.

Note. — The need for regular training and exercises may be moderated commensurate with the frequency of real search and rescue responses which demonstrate satisfactory and effective search and rescue performance.

4.5 Wreckage

(Applicable until 25 November 2026)

Recommendation.— *Each SAR organisation should ensure that wreckage resulting from aircraft accidents within its territory or, in the case of accidents on the high seas or in areas of undetermined sovereignty, within the search and rescue regions for which it is responsible, is removed, obliterated or charted following completion of the accident investigation, if its presence might constitute a hazard or confuse subsequent search and rescue operations.*

4.5 Accident sites and wreckage

(Applicable as of 26 November 2026)

4.5.1 The SAR organisation shall ensure that search and rescue personnel that may be required to respond to an aircraft accident site are trained in the management of related occupational health risks.

Note.— Guidance related to effective occupational health practices at aircraft accident sites is contained in the Manual of Aircraft Accident and Incident Investigation, *Part I* – Organisation and Planning *(Doc 9756) and Circular 315* – Hazards at Aircraft Accident Sites.

4.5.2 **Recommendation.—** *The SAR organisation should ensure that wreckage resulting from aircraft accidents within its territory or, in the case of accidents on the high seas or in areas of undetermined sovereignty, within the search and rescue regions for which it is responsible, is removed, obliterated or charted following completion of the accident investigation, if its presence might constitute a hazard or confuse subsequent search and rescue operations.*

Chapter 5 – Operating procedures

5.1 Information concerning emergencies

5.1.1 Any authority or any element of the SAR organisation having reason to believe that an aircraft is in an emergency shall give immediately all available information to the RCC.

5.1.2 RCC shall, immediately upon receipt of information concerning aircraft in emergency, evaluate such information and assess the extent of the operation required.

5.1.3 When information concerning aircraft in emergency is received from other sources than air traffic services units, the RCC shall determine to which emergency phase the situation corresponds and shall apply the procedures applicable to that phase.

5.2 Procedures for rescue coordination centres during emergency phases

5.2.1 Uncertainty phase

Upon the occurrence of an uncertainty phase, the RCC shall cooperate to the utmost with air traffic services units and other appropriate agencies and services in order that incoming reports may be speedily evaluated.

5.2.2 Alert phase

Upon the occurrence of an alert phase the RCC shall immediately alert SAR units and initiate any necessary action.

5.2.3 Distress phase

Upon the occurrence of a distress phase, the rescue coordination centre shall:

(a) immediately initiate action by SAR units in accordance with the appropriate plan of operation;

(b) ascertain the position of the aircraft, estimate the degree of uncertainty of this position, and, on the basis of this information and the circumstances, determine the extent of the area to be searched;

(c) notify the operator, where possible, and keep the operator informed of developments;

(d) notify other RCCs, the help of which seems likely to be required, or which may be concerned in the operation;

(e) notify the associated air traffic services unit, when the information on the emergency has been received from another source;

(f) request at an early stage such aircraft, vessels, coastal stations and other services not specifically included in the appropriate plan of operation and able to assist to:

i. maintain a listening watch for transmissions from the aircraft in distress, survival radio equipment or an ELT;

Note. — Until 25 November 2026, the frequencies contained in the specifications for ELTs given in Annex 10, Volume III, are 121.5 MHz and 406 MHz.

Note. — As of 26 November 2026, the frequencies contained in the specifications for ELTs given in Annex 10, Volume III, are 121.5 MHz and 406.0 to 406.1 MHz. The COSPAS-SARSAT 406 MHz channel assignment plan is contained in COSPAS-SARSAT Document C/S T.012.

ii. assist the aircraft in distress as far as practicable; and

iii. inform the rescue coordination centre of any developments;

(g) from the information available, draw up a detailed plan of action 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 such an operation;

(h) amend as necessary, in the light of evolving circumstances, the detailed plan of action;

(i) notify the appropriate accident investigation authorities; and

(j) notify the State of Registry of the aircraft.

The order in which these actions are described shall be followed unless circumstances dictate otherwise.

5.2.4 Initiation of search and rescue action in respect of an aircraft whose position is unknown

In the event that an emergency phase is declared in respect of an aircraft whose position is unknown and may be in one of two or more search and rescue regions, the following shall apply:

(a) When a rescue coordination centre is notified of the existence of an emergency phase and is unaware of other centres taking appropriate action, it shall assume responsibility for initiating suitable action in accordance with Para 5.2 and confer with neighbouring rescue coordination centres with the objective of designating one rescue coordination centre to assume responsibility forthwith.

(b) Unless otherwise decided by common agreement of the RCCs concerned, the RCC to coordinate search and rescue action shall be the centre responsible for:

— the region in which the aircraft last reported its position; or

— the region to which the aircraft was proceeding when its last reported position was on the line separating two search and rescue regions; or

— the region 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

— the region in which the distress site is located as identified by the COSPAS-SARSAT system.

(c) After declaration of the distress phase, the RCC with overall coordination responsibility shall inform all RCCs that may become involved in the operation of all the circumstances of the emergency and subsequent developments. Likewise, all rescue coordination centres becoming aware of any information pertaining to the emergency shall inform the rescue coordination centre that has overall responsibility.

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

Whenever applicable, the RCC responsible for SAR action shall forward to the air traffic services unit serving the flight information region in which the aircraft is operating, information of the SAR action initiated, in order that such information can be passed to the aircraft.

5.3 Procedures where responsibility for operations extends to two or more Search and Rescue Regions

Where the conduct of operations over the entire SRR is the responsibility of more than one State, each involved State shall take action in accordance with the relevant plan of operations when so requested by the RCC of the region.

5.4 Procedures for authorities in the field

The authorities immediately directing the conduct of operations or any part thereof shall:

(a) give instructions to the units under their direction and inform the RCC of such instructions; and

(b) keep the RCC informed of developments.

5.5 Procedures for rescue coordination centres — termination and suspension of operations

5.5.1 SAR operations shall continue, when practicable, until all survivors are delivered to a place of safety or until all reasonable hope of rescuing survivors has passed.

5.5.2 The responsible RCC shall normally be responsible for determining when to discontinue search and rescue operations.

5.5.3 When a SAR operation has been successful or when a RCC considers, or is informed, that an emergency no longer exists, the emergency phase shall be cancelled, the SAR operation shall be terminated and any authority, facility or service that has been activated or notified shall be promptly informed.

5.5.4 If a SAR operation becomes impracticable and the RCC concludes that there might still be survivors, the centre shall temporarily suspend on-scene activities pending further developments and shall promptly inform any authority, facility or service which has been activated or notified. Relevant information subsequently received shall be evaluated and SAR operations resumed when justified and practicable.

5.6 Procedures at the scene of an accident[2]

5.6.1 When multiple facilities are engaged in SAR operations on-scene, the RCC shall designate one or more units on-scene to coordinate all actions to help ensure the safety and effectiveness of air and surface operations, taking into account facility capabilities and operational requirements.

[2] As of 26 November 2026, section 5.6 will be titled:
5.6 Procedures at the distress scene

5.6.2 When a pilot-in-command observes that either another aircraft or a surface craft is in distress, the pilot shall, 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 RCC that it is no longer necessary;

(b) determine the position of the craft in distress;

(c) as appropriate, report to the RCC or air traffic services unit as much of the following information as possible:

— type of craft in distress, its identification and condition;

— its position, expressed in geographical or grid coordinates or in distance and true bearing from a distinctive landmark or from a radio navigation aid;

— time of observation expressed in hours and minutes Coordinated Universal Time (UTC);

— number of persons observed;

— whether persons have been seen to abandon the craft in distress;

— as of 26 November 2026, whether any distress signals, including distress beacon transmissions, have been received or observed;

— on-scene weather conditions;

— apparent physical condition of survivors;

— until 25 November 2026, apparent best ground access route to the distress site; and

— as of 26 November 2026, apparent best ground access route to the distress scene;

— as of 26 November 2026, position and description of any other craft in the area that may assist; and

(d) act as instructed by the RCC or the air traffic services unit.

5.6.2.1 Until 25 November 2026, if the first aircraft to reach the scene of an accident is not a search and rescue aircraft, it shall take charge of on-scene activities of all other aircraft subsequently arriving until the first search and rescue aircraft reaches the scene of the accident. If, in the meantime, such aircraft is unable to establish communication with the appropriate rescue coordination centre or air traffic services unit, it shall, by mutual agreement, hand over to an aircraft capable of establishing and maintaining such communications until the arrival of the first search and rescue aircraft.

5.6.2.1 As of 26 November 2026, if the first aircraft to reach the distress scene is not a search and rescue aircraft, it shall take charge of on-scene activities of all other aircraft subsequently arriving until the first search and rescue aircraft reaches the distress scene. If, in the meantime, such aircraft is unable to establish communication with the appropriate rescue coordination centre or air traffic services unit, it shall, by mutual agreement, hand over to an aircraft capable of establishing and maintaining such communications until the arrival of the first search and rescue aircraft.

5.6.3 When it is necessary for an aircraft to convey information to survivors or surface rescue units, and two-way communication is not available, it shall, if practicable, drop communication equipment that would enable direct contact to be established, or convey the information by dropping a hard copy message.

5.6.4 When a ground signal has been displayed, the aircraft shall indicate whether the signal has been understood or not by the means described in Para 5.6.4 or, if this is not practicable, by making the appropriate visual signal.

5.6.5 When it is necessary for an aircraft to direct a surface craft to the place where an aircraft or surface craft is in distress, the aircraft shall do so by transmitting precise instructions by any means at its disposal. If no radio communication can be established, the aircraft shall make the appropriate visual signal.

Note.— Until 25 November 2026, air-to-surface and surface-to-air visual signals are published in Volume III of Doc 9731.

Note.— As of 26 November 2026, air-to-surface and surface-to-air visual signals are published in the Appendix and in the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual, *Volume III* — Mobile Facilities (*Doc 9731*).

5.6.6 **Recommendation.**— *As of 26 November 2026, when carrying a device for measuring actual surface drift in accordance with 2.6.9, a search and rescue aircraft should drop the device as soon as it reaches the scene of an accident.*

Note.— The deployment of such devices will assist with search area planning accuracy and, therefore, minimize search times.

5.7 Procedures for a pilot-in-command intercepting a distress transmission

(Applicable until 25 November 2026)

5.7.1 Whenever a distress transmission is intercepted by a pilot-in command of an aircraft, the pilot shall, if feasible:

(a) acknowledge the distress transmission;

(b) record the position of the craft in distress if given;

(c) take a bearing on the transmission;

(d) inform the appropriate RCC or air traffic services unit of the distress transmission, giving all available information; and

(e) at the pilot's discretion, while awaiting instructions, proceed to the position given in the transmission.

5.7. Procedures for a pilot-in-command intercepting a distress transmission

(Applicable as of 26 November 2026)

5.7.1. Whenever a distress transmission is intercepted by a pilot-in command of an aircraft, the pilot shall, if feasible:

(a) acknowledge the distress transmission;

(b) record the position of the craft in distress if given;

(c) take a bearing on the transmission;

(d) inform the appropriate RCC or air traffic services unit of the distress transmission, giving all available information;

(e) at the pilot's discretion, while awaiting instructions, proceed to the distress position; and

(f) attempt to establish communications with the person(s) in distress.

5.7.2. Whenever a pilot monitors 121.5 MHz, and intercepts a transmission from a distress beacon, the pilot shall also:

(a) record, and report as soon as possible, the position where the transmission was first received;

(b) not alter any settings for squelch on the aircraft's radio; and

(c) if feasible, continue to monitor the frequency until such time as the signal ceases, and inform the appropriate rescue coordination centre or air traffic services unit of such.

Note.— Retaining the existing settings for squelch from the time the transmission is first received until the signal ceases provides rescue coordination centres with the most accurate potential location of the distress beacon.

5.8. Search and rescue signals

5.8.1. The air-to-surface and surface-to-air visual signals in Appendix 1 shall, when used, have the meaning indicated therein. They shall be used only for the purpose indicated and no other signals likely to be confused with them shall be used.

5.8.2. Upon observing any of the signals in Appendix 1, aircraft shall take such action as may be required by the interpretation of the signal given in Appendix 1.

5.9. Maintenance of records

5.9.1. The RCC should keep a record of the operational efficiency of the SAR organisation in its region.

5.9.2. RCC should prepare appraisals of actual SAR operations in its region. These appraisals should comprise any pertinent remarks on the procedures used and on the emergency and survival equipment, and any suggestions for improvement of those procedures and equipment. Those appraisals which are likely to be of interest to other States should be submitted to CAAF for information and dissemination as appropriate.

APPENDIX 1 – Search and Rescue Signals

A1.1 Signals with surface craft

A1.1.1 The following manoeuvres performed in sequence by an aircraft mean that the aircraft wishes to direct a surface craft towards an aircraft or a surface craft in distress:

(a) circling the surface craft at least once;

(b) crossing the projected course of the surface craft close ahead at low altitude and:

i. rocking the wings; or

ii. opening and closing the throttle; or

iii. changing the propeller pitch.

(c) heading in the direction in which the surface craft is to be directed.

Repetition of such manoeuvres has the same meaning.

A1.1.2 The following manoeuvres by an aircraft means that the assistance of the surface craft to which the signal is directed is no longer required:

— crossing the wake of the surface craft close astern at a low altitude and:

i. rocking the wings; or

ii. opening and closing the throttle; or

iii. changing the propeller pitch.

Note. — The following replies may be made by surface craft to the signal in 1.1:

— for acknowledging receipt of signals:

i. the hoisting of the "code pennant" (vertical red and white stripes) close up (meaning understood);

ii. the flashing of a succession of "T's" by signal lamp in the Morse code;

iii. the changing of heading to follow the aircraft.

— for indicating inability to comply:

i. the hoisting of the international flag "N" (a blue and white checkered square);

ii. the flashing of a succession of "N's" in the Morse code.

A1.2 Ground-air visual signal code

A1.2.1 Ground-air visual signal code for use by survivors

No	Message	Code Symbol
1	Require assistance	**V**
2	Require medical assistance	**X**
3	No or Negative	**N**
4	Yes or Affirmative	**Y**
5	Proceeding in this direction	↑

A1.2.2 Ground-air visual signal code for use by rescue units

No	Message	Code Symbol
1	Operation completed	L L L
2	We have found all personnel	L L
3	We have found only some personnel	++
4	We are not able to continue, Returning to base	X X
5	Have divided into two groups. Each proceeding in direction indicated	
6	Information received that aircraft is in this direction	→ →
7	Nothing found. Will continue to search	N N

A1.2.3 Symbols shall be at least 2.5 metres (8 feet) long and shall be made as conspicuous as possible.

Note 1. — Symbols may be formed by any means such as: strips of fabric, parachute material, pieces of wood, stones or such like material; marking the surface by tramping, or staining with oil.

Note 2. — Attention to the above signals may be attracted by other means such as radio, flares, smoke and reflected light.

A1.3 Air-to-ground signals

A1.3.1 The following signals by aircraft mean that the ground signals have been understood:

(a) during the hours of daylight:

— by rocking the aircraft's wings;

(b) during the hours of darkness:

— flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights.

A1.3.2 Lack of the above signal indicates that the ground signal is not understood.

APPENDIX 2 – CURRENT SD-SAR LOCAL PROVISIONS

A2.1 To ensure positive control and co-ordination, SAR operations are classified as follows:

1) Class I – Land Search.

   This is coordinated by the Police and involves SAR action for persons missing on land. It is treated as a routine police matter.

2) Class II – Sea Search.

   This involves extensive local search for missing persons and vessels in the Domestic SAR area. (Search effort on the land is coordinated by the police and search at sea is coordinated by the Naval division.) Aircraft may be charted to assist.

3) Class III – Air Search.

   All searches other then Class I and Class II searches, being:

   a) all searches associated with activated emergency location transmitters (ELT);

   b) all searches associated with missing or distressed aircraft;

   c) search and rescue operations, including those for missing or distressed surface vessels or aircraft, requiring the use of national and international civil and/or military resources, or coordination with other States, controlled by the Nadi RCC;

   d) search and rescue operations begun as Class I or Class II when responsibility is transferred by mutual agreement to the Nadi RCC.

A2.2 Search and Rescue Region (SRR)

A2.3.1 The Fiji Aeronautical Search and Rescue Region (SRR) is coincident with the boundaries of the Nadi Flight Information Region (Nadi FIR).

A2.3 Search and Rescue Communications

A2.4.1 The Aeronautical (Class III) SAR service provider shall ensure that the rescue coordination centre has means of rapid and reliable two-way communication with—

(1) associated air traffic services units;

(2) the Fiji rescue coordination centre (Fiji RCC/MRSC);

(3) the Land Rescue Sub-Centre (LRSC), Central Police station Suva and Tontouta rescue sub centre;

(4) appropriate direction-finding and position-fixing stations;

(5) where appropriate, coastal radio stations capable of alerting and communicating with surface vessels in the region – Suva Radio 3DP;

(6) the headquarters of search and rescue units in the region;

(7) aeronautical, maritime or joint rescue coordination centers in adjacent regions;

(8) Nadi meteorological office

(9) search and rescue units;

(10) alerting posts; and

(11) the Cospas-Sarsat Mission Control Centre servicing the search and rescue region (Canberra, Australia).

A2.4 List of Publications and Documents

A2.5.1 Hierarchy of SAR Documents

A2.5.1.1 There are different levels and types of SAR documents as illustrated in Figure 2-1. Global SAR plans include IMO's SAR Plan and ICAO's Regional Air Navigation Plans (RANPs). These plans are a basis for implementing national and regional (bilateral or multilateral) plans, manuals, agreements and related SAR documents. The IMO Global SAR Plan and applicable ICAO RANP would be followed by a regional SAR plan where a regional SAR system exists. Next would be the national SAR plan, and so forth down to the RCC and local levels.

A2.5.1.2 SAR manuals provide guidance on implementing the plans. International SAR manuals may be followed by regional or national manuals, and then by plans of operation for the RCCs and RSCs. Some plans have an administrative character while others have an operational focus.

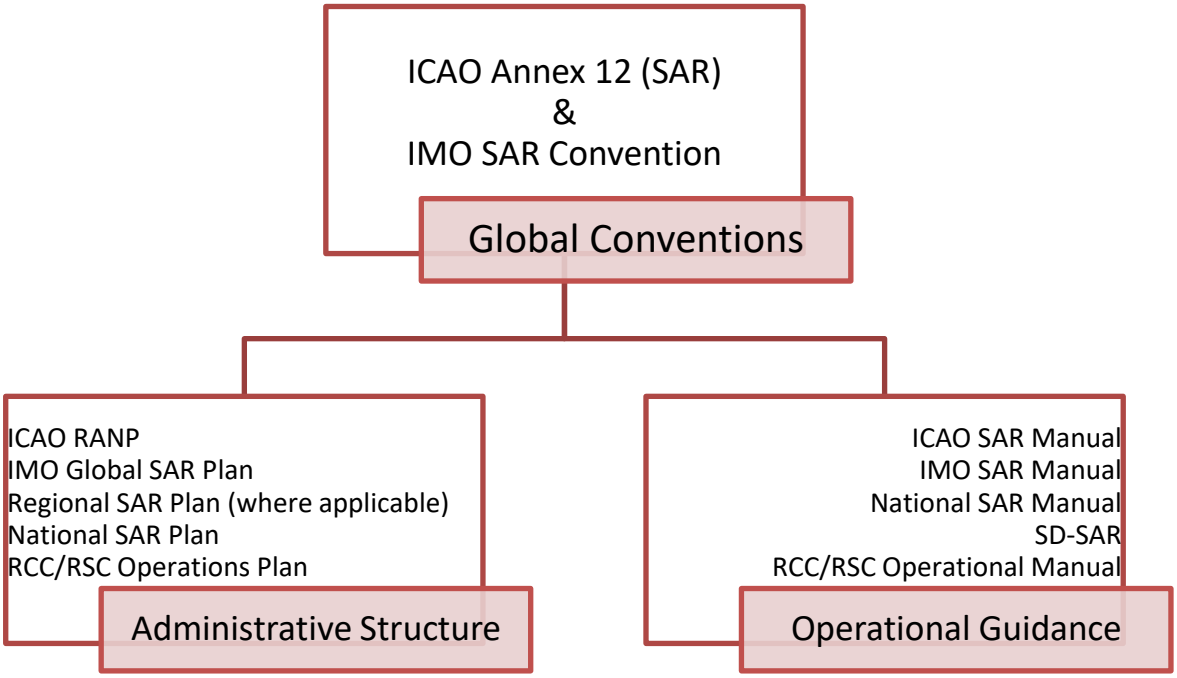

Figure 2-1

A2.5.2 Document Control

A2.5.2.1 The Class III SAR service provider shall ensure that ARSC personnel have access to those documents needed for operational applications and references within the ARSC.

A2.5.2.2 The Class III SAR service provider shall ensure that there is in place a documentation control system that will ensure that the documents listed in 2.5.3 below are timely amended and that there are procedures to ensure that operational RCC personnel will be notified and that they have read and understood the amendments.

A2.5.3 Within Fiji, the Class III SAR service provider shall ensure that the minimum scale of fully amended publications and documents as tabulated below is held within the ARSC and available for ARSC personnel to consult.

1.	Annex 12
2.	ICAO Doc 9673 – Regional Air Navigation Plan (Asia and Pacific Region)
3.	ICAO Doc 9731 - International Aeronautical and Maritime Search and Rescue Manuals (Volumes I, II & III)
4.	ICAO Doc 9432 – Manual of Radiotelephony
5.	Annex 2 – Rules of the Air
6.	Annex 10 – Aeronautical Telecommunications
7.	Annex 11 – Air Traffic Services
8.	ICAO Circular 185 – The COSPAS-SARSAT system
9.	CAAF Standards Document – SAR (SD-SAR)
10.	Fiji Search and Rescue Manual Volume I and Volume II
11.	Nadi Aeronautical Rescue Sub-Centre SAR Operations Plan
12.	SAR publications of national and neighboring SAR authorities;
13.	Letters of Agreement/Memorandums of Understanding with adjacent SAR authorities and SAR facilities
14.	Current Fiji Civil Aviation Legislation including but not limited to: Acts, Regulations and the Relevant Standards Documents
15.	Fiji Manual of Air Traffic Services
16.	Local Unit Orders
17.	ATS Temporary Instructions
18.	Fiji AIC
19.	AIP Fiji & AIP Supplement
20.	Pacific AIP & AIP Supplement
21.	Aerodrome Manuals
22.	Fiji Domestic Aerodrome Data
23.	Aerodrome Emergency Plans
24.	File containing information on all SAR facilities available, capability and contact numbers for activation
25.	Fiji Nautical Almanac
26.	Indexes of names, addresses, telephone and facsimile numbers
27.	Relevant checklists and forms

A2.5 SAR Forms

A2.6.1 The Class III SAR service provider shall ensure that the appropriate SAR forms are available for use in the ARSC.

Note: -SAR forms serve many purposes and are in different formats. Their purposes include documenting information from the distressed craft, facilitating communications between RCCs and RSCs, briefing SAR crews, search planning, and facilitating communications among the SMC, OSC and SAR facilities.

A2.6 SAR Charts and Overlays

A2.7.1 The Class III SAR service provider shall ensure that:

i. the appropriate SAR Charts and overlays are available for use in the ARSC, and

ii. a SAR mission chart must be kept for every search mission. All relevant details should be plotted as they are received.

Note: -It is recommended that all case-related information is plotted on flimsy paper or clear plastic laid over the top of the appropriate chart. If a separate flimsy overlay is used for basic case information and for laying out each search, it is much easier to evaluate what areas have been covered adequately and what areas will need further effort. To correlate SAR action over a period of days, the overlays can be placed over one another to give a total search picture.

At the end of the case, these overlays should be marked with the date that each pertains to and with the case name or identifying case number. They should then be filed in the case incident folder.

A2.7.2 The Class III SAR service provider shall establish procedures to ensure that the following information is clearly displayed on each overlay:

i. Date and times of period covered by the chart
ii. Search and designations
iii. Detection probability at the end of an area search
iv. Total size of area searched

A2.7 SAR Case Files

A.2.8.1 The Class III SAR service provider shall ensure that procedures are in place for all information pertaining to a specific SAR incident to be placed in an easily identified and labeled file folder and then stored. Such records shall be retained in storage for a period of 7 years. After this period the ARSC Chief shall be responsible for placing files dealing with significant, historically important, or sensitive incidents into permanent secure storage, discarding those dealing with routine matters.

A2.8.2 The Class III SAR service provider shall establish a policy to determine which types of cases belong in the ‘‘routine’’ category. Files pertaining to incidents that become the subject of legal proceedings should be retained until those proceedings are complete, including all appeals and legal reviews. Files that are to be permanently retained should be prominently marked so that they are not inadvertently discarded with the routine files.

A2.8 SAR Case Analysis

A2.9.1 The Class III SAR service provider shall ensure that procedures are in place for SAR case analysis to be conducted in an effort to improve the overall SAR system effectiveness. This would involve:

i. reviewing specific cases to uncover lessons learned that can be applied in future operations; and

ii. analysing cumulative data to discover trends that may impact the allocation and location of SAR resources.

APPENDIX 3 TRAINING

Training is critical to performance and safety.

A3.1 The formal training of ARSC personnel should include the following disciplines:

a) organization:
   i. knowledge of the SAR organization and its relationship to the air traffic services;
   ii. knowledge of the SAR organization and its relationship to maritime safety and communication services;
   iii. knowledge of agreements made with facilities, neighbouring SAR services, etc.;
   iv. knowledge of capabilities and limitations of available facilities; and
b) knowledge of legal aspects, e.g., in a maritime incident, policies on towing and salvage procedures:
   i. how to obtain and evaluate information and reports;
   ii. alerting of facilities and commencement of SAR operations; interpretation of different systems of position reporting; determination of a search area;
   iii. search techniques and patterns for air, maritime and land facilities; plotting of search information;
   iv. communications procedures;
   v. rescue procedures;
   vi. supply-dropping procedures;
   vii. ditching assistance, interception and escort procedures; and briefing and questioning of SAR personnel;
c) knowledge of accident investigation, particularly preservation of the accident site and powers/responsibilities of the investigator in charge;
d) administration:
   i. routine administrative functions; and
e) information:
   i. visits to SAR facilities and supply depots, and participation in exercises, including packing and loading of survival stores; and
   ii. instruction through films, relevant journals, etc., on recent developments in the field of SAR.

A3.2 ARSC and ARSC SAR training should also include at least the following specific topics:

Aeronautical drift
AFN
AFTN
Bailout scenarios and planning
Briefing/questioning SRUs
Case studies
Charts
Coastal SAR planning
Computer applications
Cospas-Sarsat
Datum marker buoys
Datum determination
Dealing with public and news media
Dealing with families
Documentation of incidents
Drift Measurement
Electronic sweep width
Emergency care
Environmental factors
Evaluation of flare sightings
Fatigue factors
GADSS
GPS/WGS 84
Inmarsat
International aspects
Interviewing techniques
Leeway drift
Legal concerns
Manoeuvring boards
Medical evacuations
Medical advice
Obtain and evaluate data
On board observer skills and limitations
On-scene coordinator duties
Parachute drift
Plotting skills
Registration databases
Rescue procedures
Resource allocation
Risk assessment
SAR agreements
SAR communications
SAR mission co-ordination
SAR operations conclusion
SAR phases, stages, and components
SAR resource capabilities
SAR system organization
SAR technology
Search areas
Search patterns
Search planning
Ship reporting systems for SAR
SRU selection
Stress management
Supply dropping methodologies
Survival equipment
Visual sweep width
Water currents

A3.3 How to Train SAR Personnel

A3.3.1 There are three ways to train:

i. Training based on performance helps SAR specialists and teams to perform their duties effectively. The SAR manager has the responsibility to ensure that the overall training programme is effective. The ARSC chief and others must ensure that all SAR service personnel reach and maintain the required level of competence.

ii. Training based on knowledge provides information necessary for the SAR experts and students to perform their duties. One method is to provide knowledge to enable them to review SAR cases. Resulting recommendations can be used to review policy, update standard procedures, and improve training and other processes.

iii. Awareness training is required for those persons infrequently involved in SAR, such as high-level executives, budget authorities, general transportation operators and national transportation authorities.

A3.3.2 On-the-Job Training. With on-the-job training, trainees learn and, at the same time, contribute to the aims of the organization. This economical approach requires competent specialists who can teach and coach trainees.

i. Checklists - Training specialists develop checklists of job duties, skills, tasks, and procedures to be taught through on-the-job training. This ensures that all trainees receive the same information. Items on the checklist can typically be covered in any order.

ii. Planned Progression - This technique gives SAR specialists a clear idea where they are going. The specialist knows the requirements for advancement and the means to achieve it. Planned progression is a step-by-step approach which requires tasks to be performed well at each level before proceeding to the next level.

iii. Assignment Rotation. This broadens the knowledge of specialists. Rotation to different jobs allows the specialist to understand broader aspects of the organization.

iv. Coaching. This is the responsibility of every specialist in a management position. Effective coaches develop the strengths and potential of subordinates and help them overcome their weaknesses. Coaching saves time, money and costly mistakes by subordinates.

v. Library - A training library is useful for students to increase their level of knowledge. Libraries can include different materials such as video tapes, lesson plans, reference books and papers, and audio tapes. Video tapes can be made by simply taping good classroom training sessions. A professionally produced video tape can be even more effective.

A3.3.3 Formal Classroom Training: Many facilities now conduct courses, workshops, conferences and other programmes for training SAR specialists.

i. Train-the-trainer. When a person must travel abroad to receive formal SAR training, it may be more cost-effective if arrangements are made for the person to also observe use of the procedures in real operations, and to learn how to teach them. States could then make maximum use of this person upon return to conduct well-planned and organized training within the home State or region. Part of the SAR training strategy should be to train individuals in such a way that they can help train others where they work. This reduces the reliance on formal training centres and the burden of training costs.

ii. Maintain a Training Facility. A formal training facility within the State or region helps to maintain professionalism and standardization. Sending students long distances for training is costly and inefficient and courses may include irrelevant topics. Importing formal training from other nations has mostly short-term benefits and is seldom possible on a consistent and reliable basis. Local trainers understand local needs best, can provide an ongoing programme and are particularly useful when a language difference could be a problem.

iii. Add to Curriculum. Usually, the most economical and effective way to provide formal SAR training is to add SAR to the curriculum of an existing training centre. The staff might be jointly provided by organizations that use the training, providing good cross-exposure for instructors and students. For aeronautical SAR, it is particularly useful to have staff expertise in maritime and land SAR since rescues must be carried out within both environments.

iv. Conferences. Formal training should be supplemented to enhance SAR professionalism. Through mutual visits and conferences between operating units, individuals learn from real-life experiences of others and obtain information about a particular topic of interest.

APPENDIX 4: SAR Co-ordination

B1.1 The SAR system has several levels of co-ordination associated with SAR coordinators (SC), RCC Chiefs, SAR mission co-ordinators (SMCs), and on-scene co-ordinators (OSCs).

B1.1.1 SAR Co-ordinators. SCs have the overall responsibility for establishing, staffing, equipping, and managing the SAR system, including providing appropriate legal and funding support, establishing RCCs and rescue sub-centres (RSCs), providing or arranging for SAR facilities, coordinating SAR training, and developing SAR policies. SCs are the top-level SAR managers; each State normally will have one or more persons or agencies for which this designation may be appropriate. More information on SAR management responsibilities may be found in the International Aeronautical and Maritime Search and Rescue Manual on Organization and Management. SCs are not normally involved in the conduct of SAR operations.

B1.1.2 RCC Chief. The RCC chief may be a person who also performs other functions. Whenever an RCC is established in conjunction with an ATS unit or similar operations centre, responsibilities for the RCC are often placed on the chief of that facility. In such instances, another person should be appointed to handle day-to-day management of the RCC. The RCC chief must make appropriate preparations, plans, and arrangements as well as oversee, if not delegated, the daily operations of the RCC, to ensure that when an incident occurs the SAR operation can be promptly performed.

B1.1.3 SAR Mission Co-ordinator. Each SAR operation is carried out under the guidance of an SMC. This function exists only for the duration of a specific SAR incident and is normally performed by the RCC chief or a designee. For complex cases or those of long duration, the SMC usually has an assisting team.

- The SMC is in charge of a SAR operation until a rescue has been affected or until it has become apparent that further efforts would be of no avail, or until responsibility is accepted by another RCC. The SMC should be able to use readily available facilities and to request additional ones during the operation. The SMC plans the search and co-ordinates the transit of SAR facilities to the scene.
- The SMC should be well trained in all SAR processes and be thoroughly familiar with the applicable SAR plans. The SMC must competently gather information about distress situations, develop accurate and workable action plans, and dispatch and co-ordinate the resources which will carry out SAR missions. The SAR Operations Plan maintained by the RCC provide information to assist in these efforts.

B1.1.3.1 Guidelines for SMC duties include:

- obtain and evaluate all data on the emergency;
- ascertain the type of emergency equipment carried by the missing or distressed craft; remain informed of prevailing environmental conditions;
- if necessary, ascertain movements and location of vessels and alert shipping in

likely search areas for rescue, lookout and/or radio watch on appropriate frequencies to facilitate communications with SAR facilities;

- plot the area to be searched and decide on the methods and facilities to be used;
- develop the search action plan (and rescue action plan as appropriate), i.e., allocate search areas, designate the OSC, dispatch SAR facilities and designate on-scene communications frequencies;
- inform the RCC chief of the search action plan;
- co-ordinate the operation with adjacent RCCs when appropriate; arrange briefing and debriefing of SAR personnel;
- evaluate all reports from any source and modify the search action plan as necessary;
- arrange for the fuelling of aircraft and, for prolonged search, make arrangements for the accommodation of SAR personnel;
- arrange for delivery of supplies to sustain survivors;
- maintain in chronological order an accurate and up-to-date record with a plot, where necessary, of all proceedings;
- issue progress reports;
- recommend to the RCC chief the abandoning or suspending of the search; release SAR facilities when assistance is no longer required; notify accident investigation authorities;
- if applicable, notify the State of registry of the aircraft in accordance with established arrangements; and
- prepare a final report on the results of the operation.

B1.1.4 On-scene Co-ordinator. When two or more SAR units are working together on the same mission, there is sometimes an advantage if one person is assigned to co-ordinate the activities of all participating units. The SMC designates this on-scene coordinator (OSC), who may be the person in charge of a search and rescue unit (SRU), ship or aircraft participating in a search, or someone at another nearby facility in a position to handle OSC duties. The person in charge of the first SAR facility to arrive at the scene will normally assume the function of OSC until the SMC directs that the person be relieved. Conceivably, the OSC may have to assume SMC duties and actually plan the search if the OSC becomes aware of a distress situation directly and communications cannot be established with an RCC. The OSC should be the most capable person available, taking into consideration SAR training, communications capabilities, and the length of time that the unit the OSC is aboard can stay in the search area. Frequent changes in the OSC should be avoided. Duties which the SMC may assign to the OSC, depending on needs and qualification, include any of the following:

- assume operational co-ordination of all SAR facilities on-scene; receive the search action plan from the SMC;
- modify the search action plan based on prevailing environmental conditions and keeping the SMC advised of any changes to the plan (do in consultation with the SMC when practicable);

- provide relevant information to the other SAR facilities;
- implement the search action plan;
- monitor the performance of other units participating in the search; co-ordinate safety of flight issues for SAR aircraft;
- develop and implement the rescue plan (when needed); and make consolidated reports (SITREPs) back to the SMC.

B1.1.5 Airborne SRUs should make a standard joining entry report to the ACO when entering a search and rescue mission area, including:

- call sign;
- nationality;
- type (specify fixed wing or helicopter and type); position;
- altitude (on pressure setting used);
- ETA (at relevant point or search area); endurance on scene; and
- remarks (specific equipment or limitations).

B 1.1.6 Aircraft Co-ordinator. The purpose of the aircraft coordinator (ACO) function is to maintain high flight safety and co-operate in the rescue action to make it more effective. The ACO function should be seen as a co-operating, supporting and advisory service. The ACO should normally be designated by the SMC, or if that is not practicable, by the OSC. The ACO function will normally be performed by the facility with the most suitable mix of communication means, radar, GNSS (Global Navigation Satellite System) combined with trained personnel to effectively co-ordinate the involvement of multiple aircraft in SAR operations while maintaining flight safety. Generally, the ACO is responsible to the SMC; however, the ACO work on-scene must be coordinated closely with the OSC, and if no SMC or OSC, as the case may be, the ACO would remain in overall charge of operations. Duties of the ACO can be carried out from a fixed-wing aircraft, helicopter, ship, a fixed structure such as an oil rig, or an appropriate land unit. Depending on needs and qualifications, the ACO may be assigned duties that include the following:

- co-ordinate the airborne resources in a defined geographical area; maintain flight safety - issue flight information;
- practise flow planning (example: point of entry and point of exit); prioritize and allocate tasks;
- co-ordinate the coverage of search areas;
- forward radio messages (can be the only duty);
- make consolidated situation reports (SITREPs) to the SMC and the OSC, as appropriate; and work closely with the OSC; and
- it is important that the ACO is aware of the fact that the participating airborne units, if possible, try to avoid disturbing other participating units with, for example, noise and rotor wind.

APPENDIX 5: EXERCISES

C1.1 Exercises test and improve operational plans and communications, provide learning experience, and improve liaison and co-ordination skills.

C1.2 Exercises, conducted on a realistic basis, help to demonstrate and assess the true effectiveness of training and the operational efficiency and competence of the SAR service. Exercises will reveal deficiencies that may exist in SAR plans and enable them to be improved. It is safer to have shortcomings revealed by exercises rather than during actual operations.

C1.3 The need for exercises varies. Some States have many SAR operations so exercises may add little to their learning experience, except when conducted with other States with which they may not routinely work. Other States may have very few SAR operations each year, so exercises will be critical to sustaining proficiency. Joint exercises among neighbouring States or parties to SAR agreements will also be valuable. It may be necessary to assign persons full-time to planning and evaluating exercises. Success of an exercise is measured by:

- how many problems are discovered;
- how much is learned;
- how much operating plans are improved; and
- how few mistakes are repeated during the next exercise.

C1.4 Exercises are conducted on the three levels:

(1) The simplest type of exercise, a Communications Exercise, requires the least planning. It consists of periodic use of all means of communications between all potential users to ensure capability for actual emergencies.

(2) A Co-ordination Exercise involves simulated response to a crisis based on a series of scenarios. All levels of the SAR service are involved but do not deploy. This type of exercise requires considerable planning, and usually one to three days to execute.

(3) The third type, a Full-Scale Exercise or a Field Exercise, differs from the previous types in that actual SAR facilities are deployed. This increases the scope of SAR system-testing and adds realistic constraints due to times involved in launching, transit and activities of the SRUs.

C1.5 Adjacent RCCs should periodically carry out SAR exercises together to develop and maintain efficient co-operation and co-ordination between their services. These exercises need not always be on a large scale,
but at least those SAR facilities which are likely to operate together should engage periodically in coordinating exercises. Much may be learned by exchanging information on training methods (e.g.,

programmes, literature, and films) and visits between staff of adjacent SRRs.

C2.1 Exercise Elements

Successful exercises require planning, execution and evaluation. Exercises are carried out for training, to evaluate established plans and procedures and to test new concepts. Exercises also offer experience in the management of risks and safety for SAR operations.

(1) Planning. The typical exercise sequence involves: development of the concept (broad goals and objectives) of what is to be exercised; selection of participants (staff and facilities); detailed planning for how the exercise will be conducted; conduct of the exercise; and evaluation to determine lessons learned and to develop recommendations for improvement. It is essential to have a clear understanding of which plans and procedures are being exercised. Scenarios can then be developed that include specific situations to which personnel will react and respond. Response, or lack of response, to established policy and guidance, and need for additional policy guidance, is evaluated.

(2) Execution. Those who plan exercises should not be the same ones who respond to the created scenarios. This avoids covering up known weaknesses to ensure ideal results, instead of revealing what would occur in an actual SAR situation.

i. Scenarios must be as realistic as possible. The decision as to how large and realistic exercises should be will depend on the extent of the SAR service, the demands expected to be made upon it and general considerations of economy. If primary responsibility for SAR has been delegated to military authorities or Government services, full-scale exercises involving as many units and facilities as possible may provide satisfactory means of implementing training programmes. Where private concerns are relied upon to play a major part in SAR, the timing of major exercises should be arranged so as to minimize disruption to normal activities.

ii. Opportunities should be taken to complement formal training programmes with exercises conducted on a unit basis by combining them with normal activities during quiet periods. They should be carried out at regular intervals and arranged so that all personnel participate. This is particularly important in respect of those facilities which seldom receive operational calls.

iii. Exercises carried out separately by facilities will not be as valuable as combined operations, but they can ensure that the SAR service will function in an emergency.

iv. As many facilities, including air and surface craft, should be exercised as possible. Communications between the SRUs is a vital test of co-ordination.

v. It is not always practicable for organizations to engage in formal SAR training programmes. Whenever possible, personnel from these organizations should be invited to participate in or observe training exercises. They should be provided with documents, publications or other literature which describe the SAR policies and procedures used by the SAR service, showing the desired roles of the participating organizations in SAR operations.

vi. Adjacent RCCs should periodically execute SAR exercises together to

develop and maintain efficient co-operation and co-ordination between their services. These exercises need not always be on a large scale, but at least those SAR units which are likely to operate together should engage periodically in coordinating exercises. Much may be learned by exchanging information on training methods (e.g., programmes, literature, and films) and visits between staff of adjacent SRRs.

vii. Safety requirements, particularly when using live ‘‘survivors’’, may impose significant constraints on the conduct of SAR exercises. SAR co-ordinating authorities should ensure that specific safety rules and limitations are issued for use during both the planning and conduct of SAR exercises.

(3) Evaluation. The evaluation process is crucial. Inputs should come from a team of evaluation experts who observe the exercise, and from the people who actually participated in the exercise scenarios. Those observing and evaluating the response must have expertise in the areas they are evaluating, and clearly understand what is being evaluated. The evaluators should know the situations being posed and then record the participant’s response to the objectives of the exercise. The final step is identification of weaknesses and development of recommendations for improvement. Subsequent exercises would emphasize these recommended changes as well as other concerns.

C2.2 Sample scenarios for a co-ordination exercise are provided below.

(1) A light aircraft that has not filed a flight plan is reported missing. Based on information received
subsequently, the flight is reconstructed and all necessary actions are taken.

(2) A transport aircraft with a flight plan fails to make a position report or makes a distress call without
giving a position. A simulated communication search is carried out and an air search is planned. A
simulated search is then conducted with input from various simulated sources.

(3) A ship is reported 24 hours overdue at its destination. A simulated search is carried out, using datum
line search planning techniques. A simulated communication search is conducted involving relevant
RCCs. Radio or satellite broadcasts are simulated.

C2.3 The full-scale exercise requires detailed planning since actual SAR facilities are deployed, and it offers detailed realistic experience. The following may serve as a guide in developing a distress scenario.

(1) A search object resembling an aircraft is set up at an undisclosed location. A simulated flight plan is filed and one or two simulated position reports are received, but nothing more is heard until the

aircraft is overdue at its destination. The appropriate emergency phase is declared and a simulated communication search is conducted. The SMC will assess all available information, plan a search (based on chapters 4 and 5 of this Volume), and dispatch search facilities. Also, simulated reports from other reporting sources are received. Some of these reports will help in determining the correct search areas while others may be deliberately misleading. The text of all messages between participants in the exercise should begin with ‘‘EXERCISE ONLY’’ to avoid any misunderstanding. The exercise ends when the search object is found.

(2) If the exercise concerns only the rescue of survivors, the SMC is given the exact location of the distress scene and the apparent condition of the survivors. The SMC must decide on the best method for rescue with available facilities and may send land vehicles, vessels and aircraft. A doctor, if available, could accompany the SAR facilities. On-scene SAR personnel may be required to transfer stretcher cases to the evacuation craft. Pararescue and medical teams could be sent and required to set up triage arrangements and support survivors using air-dropped survival stores.

C2.4 The scale on which a combined multiple-agency exercise should be conducted and the number of facilities which should take part will depend upon the following:

- extent of the particular SAR service;
- anticipated demands upon the SAR service;
- extent to which private organizations and other agencies could be involved and on the SAR experience of their personnel;
- time interval since the last combined exercise; and
- general considerations of economy and value to and availability of participating facilities and resources.

— END —