



**CIVIL AVIATION SAFETY AUTHORITY
OF PAPUA NEW GUINEA**

**PNG
Civil Aviation Rule
Part 176**

**Search and Rescue Service Organisation
– Certification and Operation**

Applicable 04 November 2024

DESCRIPTION

Part 176 prescribes –

- rules governing the certification and operating requirements for organisations providing search and rescue services for Papua New Guinea; and
- operational and technical standards for search and rescue services in accordance with ICAO Annex 12.

BULLETIN

This Part will come into force on 11 November 2018.

Amendment	Effective Date
Amendment 1	13 November 2018
Amendment 2	02 November 2021
Amendment 3	03 April 2023
Amendment 4	04 November 2024

Summary of amendments:

Amendment 4:

(Docket 24/14/CAR176/47)

*Amendment 4 aligns Part 176 with ICAO Annex 12
Amendment 18 and 19.*

- (a) CAR Part 176 Description Page editorials - inclusion of the words organisation(s) and; regulatory.
- (b) New Rule. Addition of 176.52 – Rescue Coordination Center and Rescue Sub-centers
- (c) Deletion of title. Retitled 176.53 Search and Rescue Communications.
 - (1) Deletion of 176.53 (a) and (b)
 - (2) Renumber 176.53 (e) to (a)
- (d) New Rule. Addition of 176.54 Search and Rescue Units
- (e) Deletion of Security Programme and security programme requirements. 176.55 retitled to Search and Rescue Equipment.
 - (1) New Rule. Addition of paragraphs 176.55 (a) – (d)
- (f) New Rule. Addition of 176.56 Scope of Search and Rescue Services
- (g) Deletion of title Scope of Search and Rescue Service. Retitled to 176.57 Security Programme.
 - (1) New Rule. Addition of 176.57 (a) – (c)
- (h) 176.61 Preparatory of information
 - (1) Deletion of 176.61 (b) and (c)
- (i) 176.63 Plans of Operations
 - (1) Rule 176.63(a) deletion of the sentence – “containing details regarding actions to be taken by those persons engaged in search and rescue, including”
 - (2) New Rule. Addition of paragraphs 176.63 (b) and (c) (1-11).
 - (3) Deletion of 176.63(c)12
 - (4) New Rule. Additions of 176.63(d), (e), (f)(g)

- (j) 176. 69 Training and Exercises
 - (1) New Rule Addition of 176.69 (a) – (e)
- (k) New Rule. Additions of 176.75 (9) (10), (11), (12), (13), (14), (15), (16), (17), (18), (19), (20)
 - Deletion of 176.75(9)-Is now 176.75(20)
- (l) Deletion of 176.109 Cooperation between States. 176.109 is now Reserved.
- (m) Deletion of 176. 111 Information concerning emergencies. 176.111 is now Reserved
- (n) Subpart D – Titled deleted and renamed - Cooperation
- (o) 176.151 Emergency Phases Deletion of title and requirements.
 - (1) 176.151 Cooperation between States
 - (2) New Rule. Addition of 176.151 (a) (b) (c)
- (p) 176.153 Initiation of SAR action in respect to position of aircraft which is unknown. Cooperation with other Services
 - (1) New Rule. Addition of 176.153 (a) (b) (c)
- (q) New Rule. Addition of 176.154 Dissemination of Information
- (r) 176.155 Titled deleted to “Reserved”
- (s) New Subpart. Addition of Subpart E – Operating Procedures.
- (t) New Rule. Addition of 176.201 – Information concerning emergencies
- (u) New Rule. Addition of 176.203 – Procedures for RCC during emergency phases
- (v) New Rule. Addition of 176.205 – Initiation of SAR Action in respect of an aircraft whose position is unknown.
- (w) New Rule. Addition of 176.207 – Passing of information to aircraft in respect of which an emergency phase has been declared.
- (x) New Rule. Addition of 176.209 – Procedures where responsibility for operations extend to two or more SRR.
- (y) New Rule. Addition of 176.211 – Procedures for SAR Organisation in the field.
- (z) New Rule. Addition of 176.213 – Procedures for RCCs – termination and suspension of operations.
- (aa) New Rule. Addition of 176.215 – Procedures at the scene of an accident.

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Subpart A—General

176.1 Purpose

This Part prescribes—

- (1) rules governing the certification and operating requirements for organisations providing search and rescue services for Papua New Guinea; and
- (2) operational and technical standards for search and rescue services in accordance with ICAO Annex 12.

176.2 Definitions

In this Part-

Alerting post means any facility intended to serve as an intermediary between a person reporting an emergency and a rescue coordination centre or rescue subcentre.

Alert phase means a situation wherein apprehension exists as to the safety of an aircraft and its occupants.

Distress phase means 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 means the forced landing of an aircraft on water.

Emergency phase is a generic term meaning, as the case may be, uncertainty phase, alert phase or distress phase.

Joint rescue coordination centre (JRCC) means a rescue coordination centre responsible for both aeronautical and maritime search and rescue operations.

Rescue means 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 (RCC) means 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 (RSC) means a unit subordinate to a rescue coordination centre, established to complement the latter according to particular provisions of the responsible authorities.

Search means 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 means an aircraft provided with specialised equipment suitable for the efficient conduct of search and rescue missions.

Search and rescue facility means any mobile resource, including designated search and rescue units, used to conduct search and rescue operations.

Search and rescue service means 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 (SRR) means an area of defined dimensions, associated with a rescue coordination centre, within which search and rescue services are provided.

Search and rescue unit means a mobile resource composed of trained personnel and provided with equipment suitable for the expeditious conduct of search and rescue operations.

Uncertainty phase means a situation wherein uncertainty exists as to the safety of an aircraft and its occupants.

176.5 Requirement for certificate

No person must provide search and rescue service for the Port Moresby FIR except under the authority of, and in accordance with, the provisions of a search and rescue service certificate issued under this Part.

176.7 Application for certificate

An applicant for the grant of a search and rescue service certificate must complete form CA 176/01 and submit it to the Director with—

- (1) the exposition required by 176.75; and
- (2) a payment of the appropriate application fee prescribed by regulations made under the Act.

176.9 Issue of certificate

An applicant is entitled to a search and rescue service certificate if the Director is satisfied that—

- (1) the applicant meets the requirements of Subpart B; and
- (2) the applicant, and the applicant's senior person or persons required by 176.51(a)(1)(2) and (3) are fit and proper persons; and
- (3) the granting of the certificate is not contrary to the interests of aviation safety and security.

176.11 Privileges of certificate

The search and rescue service certificate specifies the search and rescue services that the certificate holder is authorised to provide.

176.13 Duration of certificate

- (a) A Search and Rescue service certificate may be granted or renewed for a period of up to 5 years.
- (b) The holder of a search and rescue service certificate that expires or is revoked must forthwith surrender the certificate to the Director.
- (c) The holder of a search and rescue service certificate that is suspended, must forthwith produce the certificate to the Director for appropriate endorsement.

176.15 Renewal of certificate

- (a) An application for the renewal of a search and rescue service certificate must be made on form CA 176/01, and
- (b) The application must be submitted to the Director before the application renewal date specified on the certificate or, if no such date is specified, not less than 30 days before the certificate expires.

Subpart B — Certification Requirements

176.51 Personnel requirements

- (a) An applicant for the grant of a search and rescue service certificate must engage, employ, or contract—
 - (1) a senior person identified as the Chief Executive who has the authority within the applicant's organisation to ensure that all activities undertaken by the organisation can be financed and carried out to meet applicable operational requirements, and in accordance with the requirements prescribed by this Part; and
 - (2) a senior person or group of senior persons who are responsible for ensuring that the applicant's organisation complies with the requirements of this Part. Such nominated person or persons must be ultimately responsible to the Chief Executive; and
 - (3) sufficient personnel to supervise, plan, coordinate and conduct search and rescue operations in accordance with the applicant's exposition; and
- (b) The applicant must –
 - (1) establish a procedure to initially assess the competence of those personnel authorised by the applicant to conduct search and rescue operations listed in their exposition; and
 - (2) establish a procedure to maintain the competence of those authorised personnel; and
 - (3) provide those authorised personnel with written evidence of the scope of their authorisation.

176.52 Rescue Coordination Centres and Rescue Sub-centres

An applicant for the grant of a search and rescue service certificate must ensure the:

- (a) establishment of rescue coordination centre offices and facilities that are appropriate for the search and rescue services listed in their exposition; and
- (b) rescue coordination centre and, as appropriate, rescue sub-centres, is staffed 24 hours a day by trained personnel proficient in the use of the language used for radio telephony communications; and
- (c) rescue coordination centre and the rescue sub-centre maintain up-to-date contact details in the Operations Control Directory; and
- (d) rescue coordination centre and as appropriate, the rescue sub-centre subscribe and maintain access to the location of an aircraft in distress repository.

176.53 Search and Rescue Communications

An applicant for the grant of a search and rescue service certificate must ensure that the rescue coordination centre have means of rapid and reliable two-way communication with:

- (1) associated air traffic services units;
- (2) appropriate direction-finding and position-fixing stations;
- (3) where appropriate, coastal radio stations capable of alerting and communicating with surface vessels in the region;
- (4) the headquarters of search and rescue units in the region;
- (5) all maritime rescue coordination centres in the region and aeronautical, maritime or joint rescue coordination centres in adjacent regions;
- (6) a designated meteorological office or meteorological watch office;
- (7) search and rescue units (or elements of public or private services suitably located and equipped for search and rescue operations);
- (8) the Cospas-Sarsat Mission Control Centre servicing the search and rescue region, and
- (9) each rescue subcentre must have means of rapid and reliable two-way communication with:
 - (i) adjacent rescue subcentres;
 - (ii) a meteorological office or meteorological watch office;
 - (iii) search and rescue units; and
 - (iv) alerting posts.

176.54 Search and Rescue Units

An applicant for the grant of a search and rescue service certificate must designate:

- (1) search and rescue units, elements of public or private services suitably located and equipped for search and rescue operations; and
- (2) parts of the search and rescue plans of operation, elements of public and private services that do not qualify as search and rescue units but able to participate in search and rescue operations.

176.55 Search and Rescue Equipment

An applicant for the grant of a search and rescue service certificate must ensure;

- (a) search and rescue units are provided with equipment for locating promptly, and providing adequate assistance at the scene of the accident; and
- (b) each aircraft participating in search and rescue operations must be equipped:
 - (1) to be able to communicate on the aeronautical distress and on-scene frequencies and on such other frequencies that may be prescribed; and
 - (2) with a device for homing on distress frequencies; and
 - (3) when used for search and rescue over maritime areas, to communicate with vessels; and
 - (4) when used for search and rescue over maritime areas, to carry a copy of the International Code of Signals to overcome language difficulties that may be experienced in communicating with ships.

176.56 Scope of Search and Rescue Service

An applicant for the grant of a search and rescue service certificate must specify; —

- (1) the geographic area of its search and rescue responsibilities; and
- (2) the location of its rescue coordination centre and rescue sub-centres, and alerting posts within the search and rescue region; and
- (3) processes to improve service provision, including the aspects of planning for domestic and international cooperative arrangements and training; and
- (4) search and rescue services and assistance to aircraft in distress, and to survivors of aircraft accidents regardless of the nationality or status of such persons or circumstances in which persons are found; and
- (5) the use of 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; and
- (6) where separate aeronautical and maritime rescue coordination centres serve the same geographic area, closest practical coordination between the centres.

176.57 Security Programme

- (a) An applicant for the grant of a search and rescue service certificate must establish a security programme for the facilities listed in their exposition.
- (b) The security programme required by paragraph (a) must specify the physical security requirements, practices and procedures that may be necessary-
 - (1) to minimise the risk of destruction, damage, or interference, to the certificate holder's facilities if such an act to a facility is likely to endanger the safety of air navigation; and
 - (2) to prevent unauthorised access to a facility; and
 - (3) for personnel to follow in the event of a bomb threat or other threat of violence at a facility; and
 - (4) to monitor unattended facilities to detect unauthorised intrusion or interference at a facility.
- (c) The security programme required under paragraph (a) must include procedures to notify, investigate and report security incidents to the Director in accordance with Rule Part 12.

176.59 Documentation

- (a) An applicant for the grant of a search and rescue service certificate must—
 - (1) document the standards and procedures for search and rescue services published under the authority of their certificate; and
 - (2) ensure that the standards and procedures take into account improvement to service provision, including the aspects of planning, domestic and international cooperative arrangements and training; and
 - (3) hold copies of relevant reference material, standards, practices and procedures (including Annex 12), and any other documentation that is necessary for search and rescue services listed in their exposition.
- (b) The applicant must establish a procedure to control all the documentation required by paragraph (a), to ensure that—

- (1) the documentation is reviewed and authorised by appropriate personnel before issue; and
- (2) current issues of relevant documentation are available to staff at all locations where they need access to such documentation for the provision of search and rescue services; and
- (3) all obsolete documentations are promptly removed from all points of issue or use; and
- (4) changes to documentation are reviewed and approved by appropriate personnel; and
- (5) the current version of each item of documentation can be identified to preclude the use of out-of-date editions.

176.61 Preparatory of information

- (a) An applicant for the grant of a search and rescue service certificate must ensure that the RCC has readily available at all times, up-to-date information concerning the following in respect of its search and rescue region:
 - (1) search and rescue units, rescue subcentres and alerting posts;
 - (2) air traffic service units;
 - (3) means of communications that may be used in search and rescue operations;
 - (4) addresses and telephone numbers of all operators, or their designated representatives, engaged in operations in the region: and
 - (5) any other public and private resources including medical and transportation facilities that are likely to be useful in search and rescue.

176.63 Plans of operation

- (a) An applicant for the grant of a search and rescue service certificate must ensure that the RCC establish detailed plans of operation for the conduct of search and rescue operations within its search and rescue region.
- (b) The plans of operation referred to in (a) must;
 - (1) specify arrangements for the servicing and refueling, to the extent possible, of aircraft, vessels and vehicles employed in search and rescue operations, including those made available by other States; and
 - (2) contain in detail, actions to be taken by those persons engaged in search and rescue, including;
 - (i) the manner in which search and rescue operations are to be conducted in the search and rescue region; and
 - (ii) the use of available communication systems and facilities; and
 - (iii) the actions to be taken jointly with other rescue coordination centres; and
 - (iv) the methods of alerting en route aircraft and ships at sea; and
 - (v) the duties and prerogatives of persons assigned to search and rescue; and
 - (vi) the possible redeployment equipment that may be necessitated by meteorological or other conditions; and
 - (vii) the methods for obtaining essential information relevant to SAR operations, such as weather reports, forecasts, and appropriate NOTAM; and

- (viii) the methods for obtaining, from other rescue coordination centres, such assistance, including aircraft, vessels, persons or equipment, as may be needed; and
 - (ix) the methods for assisting distressed aircraft being compelled to ditch to rendezvous with surface craft; and
 - (x) the methods for assisting search and rescue or other aircraft to proceed to aircraft in distress; and
 - (xi) cooperative actions to be taken in conjunction with ATS Units and other authorities concerned to assist aircraft known or believed to subject to unlawful interference.
- (c) The search and rescue units must;
- (1) be cognizant of all parts of the plans of operation prescribed in (b) necessary for the effective conduct of its duties; and
 - (2) keep the RCC informed of its preparedness.
- (d) The applicant for a SAR service certificate must;
- (1) be prepared in readiness the required number of search and rescue facilities; and
 - (2) maintain adequate supplies of rations, medical stores, signaling devices and other survival and rescue equipment.

176.65 Search and Rescue Signals

An applicant for the grant of a search and rescue service certificate must ensure that the signals used for search and rescue meets the requirements of Appendix A.

176.67 Records

- (a) An applicant for the grant of a search and rescue service certificate must establish procedures to identify, collect, index, store, maintain and dispose of the records that are necessary for the search and rescue services listed in their exposition.
- (b) The procedures required by paragraph (a) must ensure that—
 - (1) there are records enabling all incoming and outgoing search and rescue information to be readily identified by serial number and date, and that supplementary information can be similarly verified and, where necessary, authenticated; and
 - (2) there are records of every internal quality assurance review of the applicant's organisation carried out under the procedures required by rule 176.73; and
 - (3) all records are legible and of a permanent nature.

176.69 Training and exercises

An applicant for the grant of a search and rescue service certificate must ensure that it provide regular training of its search and rescue personnel and arrange for the conduct and evaluation of appropriate search and rescue exercises.

176.71 Safety management system

An applicant for the grant of a search and rescue service certificate must establish, implement and maintain a safety management system which meets the requirements of Part 100.

176.73 Quality management system

An applicant for the grant of a search and rescue service certificate must establish, implement and maintain a quality management system which meets the requirements of Part 100.

176.75 Organisation exposition

- (a) An applicant for the grant of a search and rescue service certificate must provide the Director with an exposition containing—
- (1) a statement signed by the Chief Executive on behalf of the applicant's organisation confirming that—
 - (i) the exposition and any included manuals define the organisation and demonstrate its means and methods for ensuring ongoing compliance with this Part; and
 - (ii) the exposition and any included manuals will be complied with at all times; and
 - (2) the titles and names of the senior person or persons required by 176.51(a)(1) and (2); and
 - (3) the duties and responsibilities of the senior persons specified in paragraph (a)(2) including matters for which they have responsibility to deal directly with the Director or the Authority on behalf of the organisation; and
 - (4) an organisation chart showing lines of responsibility of the senior persons specified in paragraph (a)(2); and
 - (5) a summary of the applicant's staffing structure for each search and rescue service listed under paragraph 176.51(a) (2, 3); and
 - (6) a list of the search and rescue services to be covered by the certificate; and
 - (7) the location and address details of the applicable offices required by 176.53(a); and
 - (8) details of the applicant's procedures required by—
 - (i) 176.51(b) regarding the competence of personnel; and
 - (ii) 176.55 regarding the applicant's security programme; and
 - (iii) 176.59(b) regarding the control of documentation; and
 - (iv) 176.67(a) regarding the identification, collection, indexing, storage, maintenance, and disposal of records; and
 - (v) 176.71 regarding safety management system; and
 - (vi) 176.73 regarding quality management system; and
 - (9) procedures for the Cooperation between States required by rule 176.151; and
 - (10) procedures for the Cooperation with other services required by rule 176.153; and
 - (11) procedures for dissemination of information required by rule 176.154; and
 - (12) procedures for information concerning emergencies required by rule 176; and
 - (13) procedures for RCC in emergency phases required by rule 176.203; and
 - (14) procedures for initiation of SAR action in respect of an aircraft whose position is

unknown required by rule 176.205; and

- (15) procedures for the passing of information to aircraft in respect of which an emergency phase has been declared required by rule 176.207; and
- (16) procedures where responsibility of operations extend to two or more SRR required by rule 176.209; and
- (17) procedures for SAR Organisation in the field required by rule 176.211; and
- (18) procedures for RCC for the termination and suspension of SAR operations required by rule 176.213; and
- (19) procedures at the scene of an accident required by rule 176.215; and
- (20) procedures to control, amend and distribute the exposition.

- (b) The applicant's exposition must be acceptable to the Director.

Subpart C — Operating Requirements

176.101 Continued compliance

The holder of a search and rescue service certificate must—

- (1) hold at least one complete and current copy of their exposition at each office listed in their exposition; and
- (2) comply with all procedures and standards detailed in their exposition; and
- (3) make each applicable part of their exposition available to personnel who require those parts to carry out their duties; and
- (4) continue to meet the standards and comply with the requirements of Subpart B prescribed for certification under this Part; and
- (5) notify the Director of any change of address for service, telephone number, or facsimile number required by form CA 176/01 within 28 days of the change.

176.103 Reserved

176.105 Search and rescue services

- (a) The holder of a search and rescue service certificate must provide, for compliance by its personnel, an operations manual or system of manuals for the services listed in its exposition.

176.107 Changes to certificate holder's organisation

- (a) The holder of a search and rescue service certificate must ensure that their exposition is amended so as to remain a current description of the holder's organisation and services.
- (b) The certificate holder must ensure that any amendments made to the holder's exposition meet the applicable requirements of this Part and comply with the amendment procedures contained in the holder's exposition
- (c) The certificate holder must provide the Director with a copy of each amendment to the holder's exposition as soon as practicable after its incorporation into the exposition.

- (d) Where a certificate holder proposes to make a change to any of the following, prior notification to and acceptance by the Director is required:
 - (1) the Chief Executive;
 - (2) the listed senior persons;
 - (3) the search and rescue services provided by the holder;
 - (4) the format and standards for the search and rescue services published under the authority of their certificate.
- (e) The Director may prescribe conditions under which a certificate holder may operate during or following any of the changes specified in paragraph (d).
- (f) The certificate holder must comply with any conditions prescribed under paragraph (e).
- (g) Where any of the changes referred to in this rule requires an amendment to the certificate, the certificate holder must forward the certificate to the Director as soon as practicable.
- (h) The certificate holder must make such amendments to the holder's exposition as the Director may consider necessary in the interests of aviation safety.

Subpart D — Cooperation

176.151 Cooperation between States

The certificate holder shall;

- (1) coordinate with search and rescue organisations of neighboring States; and
- (2) subject to conditions as may be prescribed in international cooperative arrangements, permit the immediate entry into Papua New Guinea SRR, of search and rescue units of other contracting States for the purpose of;
 - (i) searching for the site of aircraft accidents; and
 - (ii) rescuing survivors of such accidents; and
- (3) for the purpose of search and rescue in another States, transmit a request giving full details of the projected mission and the need for it to the RCC of the State concerned, or to such other authority as designated by that State; and
- (4) upon the receipt of a transmitted request from another State, for entry into the Papua New Guinea SRR for the purpose of SAR -
 - (i) immediately acknowledge the receipt of such request; and
 - (ii) as soon as practicable, indicate the conditions, if any, under which the projected mission may be undertaken.

176.153 Cooperation with other Services

The certificate holder must:

- (a) arrange for all aircraft, vessels, and local services and facilities, which do not form part of the SAR organization to cooperate fully in SAR operations to extend any possible assistance to the survivors of aircraft accidents; and
- (b) ensure its SAR services cooperates with those responsible for -
 - (1) investigating accidents; and

- (2) the care of those who suffered from the accident; and
- (c) designate a point of contact for the receipt of Cospas-Sarsat distress data.

176.154 Dissemination of Information

The certificate holder must:

- (1) publish and disseminate all information necessary for the entry of SAR units from other contracting states into Papua New Guinea SRR; or
- (2) include this information in SAR service arrangements.

176.155 Reserved

Subpart E — Operating Procedures

176.201 Information concerning emergencies

The certificate holder must ensure -

- (1) that any element of the SAR organisation, having reason to believe that an aircraft is in an emergency, immediately provides all available information to the RCC concerned; and
- (2) the RCC immediately upon receipt of information concerning aircraft in emergency, evaluates such information and assesses the extent of the operation required; and
- (3) the RCC, when receiving information concerning aircraft in emergency from sources other than the ATS Unit-
 - (i) determines which emergency phase the situation corresponds; and
 - (ii) applies the procedures applicable to that phase.

176.203 Procedures for Rescue Coordination Centre during Emergency Phases.

- (a) The certificate holder must, in the event of;
 - (1) an uncertainty phase, ensure that the RCC cooperates with ATS Units and other relevant agencies and services in order that incoming reports may be evaluated without delay; and
 - (2) an alert phase, ensure that the RCC immediately alerts SAR units and initiates any necessary actions; and
 - (3) a distress phase, ensure that the RCC:
 - (i) immediately initiates action by SAR units in accordance with the appropriate plans of operation; and
 - (ii) ascertains the position of the aircraft, estimates the degree of uncertainty of this position, and, on the basis of this information and the circumstances, determines the extent of the area to be searched; and
 - (iii) notifies the operator, where possible, and keeps the operator informed of the developments; and
 - (iv) notifies other RCC or RSC, the assistance of which may be required, or concerned in the operation; and
 - (v) notifies the associated ATS Units, when the information on the emergency has

- been received by another source; and
 - (vi) requests without delay, such aircraft, vessels, coastal stations and other services not included in the appropriate plans of operation, and able to assist;
 - A. maintain a listening watch for the transmissions from the aircraft in distress, survival radio equipment or an ELT; and
 - B. the aircraft in distress as far as practicable; and
 - C. inform the RCC of any developments; and
 - (vii) using the available information –
 - A. prepares a detailed plan of action for the conduct of SAR operation or both required; and
 - B. communicates such plan to the authorities immediately directing the conduct of such an operation; and
 - (viii) amends as necessary, in light of the evolving circumstances, the detailed plans of action; and
 - (ix) notifies the appropriate accident investigation authorities; and
 - (x) notifies the state of registry of the aircraft.
- (b) The order in which the actions in (a) are described, must be followed unless circumstances dictate otherwise.

176.205 Initiation of SAR Action in respect of an aircraft whose position is unknown.

The certificate holder, where an emergency phase is declared in respect of an aircraft whose position is unknown, and may be in one, or two, or more SRRs, must ensure the RCC;

- (1) assumes responsibility for initiating appropriate action in accordance with rule 176.203, and
- (2) confers with neighboring RCCs with the objective of designating one RCC to assume responsibility forthwith; and
- (3) unless otherwise agreed by the RCCs concerned, the RCC to coordinate SAR action must be the center responsible for the region;
 - (i) in which the aircraft last reported its position; or
 - (ii) to which the aircraft was proceeding when its last reported position was on the line separating two SRRs; or
 - (iii) to which the aircraft was destined when it was not equipped with suitable two-way radio communication or not under obligation to maintain radio communications; or
 - (iv) the region in which the distress site is located as identified by the Cospas-Sarsat system; and
- (4) after declaration of the distress phase, the RCC with overall coordination responsibility must inform all RCCs that may be involved in the operation of all the emergency and subsequent developments; and
- (5) informs the RCC that has overall coordination responsibility, when becoming aware of any information pertaining to the emergency.

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

The certificate holder where applicable, shall ensure the RCC forwards to the ATS Units servicing the FIR in which the aircraft is operating, information of the SAR action initiated, for such information to be provided to the aircraft.

176.209 Procedures where responsibility for operations extend to two or more SRR.

The certificate holder must, where the conduct of operations over a SRR involves Papua New Guinea, take action in accordance with relevant plans of operations as requested by the RCC of the region.

176.211 Procedures for SAR Organisation in the field.

The certificate holder, when directing the conduct of operations or any part thereof must;

- (a) provide instructions to the units under its direction, and
- (b) inform the RCC of such instructions and developments.

176.213 Procedures for RCCs – termination and suspension of operations.

The certificate holder must ensure;

- (a) SAR operations continue until all survivors are delivered to a place of safety, or until all reasonable efforts of rescuing survivors has passed; and
- (b) the RCC is responsible for determining when to discontinue SAR operations; and
- (c) when a SAR operation has been successful, or when the RCC considers or is informed, that an emergency no longer exists;
 - (i) cancels the emergency phase; and
 - (ii) terminates the SAR operation; and
 - (iii) informs any authority, facility or service that has been activated or notified.
- (d) where the SAR operation becomes impracticable and the RCC concludes that there may be survivors, the RCC;
 - (i) suspends on-scene activities; and
 - (ii) informs any authority, facility or service which was activated; and
 - (iii) evaluates subsequent information received, and may resume SAR operations when justified and practicable.

176.215 Procedures at the scene of an accident.

The certificate holder must ensure -

- (a) where multiple facilities are engaged in SAR operations on-scene, the RCC or RSC designates one or more units on-scene to coordinate all actions to ensure the safety and effectiveness of air and surface operations taking into account facility capabilities and operational requirements.

Appendix A: Search and Rescue Signals

A.1 Signals with surface craft

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:
 - (1) rocking the wings; or
 - (2) opening and closing the throttle; or
 - (3) changing the propeller pitch.

Note. - Due to high noise level on board surface craft, the sound signals in (2) and (3) may be less effective than the visual signal in (1) and are regarded as alternative means of attracting attention.

- (c) heading in the direction in which the surface craft is to be directed. Repetition of such manoeuvres has the same meaning.

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:
 - (1) rocking the wings; or
 - (2) opening and closing the throttle; or
 - (3) changing the propeller pitch.

Note. – The following replies may be made by surface craft to the signal in 1: for acknowledging receipt of signals:

- (1) the hoisting of the “code pennant” (vertical red and white stripes) close up (meaning understood);
- (2) the flashing of a succession of “T’s” by signal lamp in the Morse code;
- (3) the changing of heading to follow the aircraft.

- for indicating inability to comply;

- (1) the hoisting of the international flag “N” (a blue and white checkered square); (2) the flashing of a succession of “N’s” in the Morse code.



Note. – See Note following 1. (b), (3).

A.2 Ground-air visual signal code

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	↑

Ground-air visual signal code for use by rescue units

No.	Message	Code symbol
1	Operation completed	LLL
2	We have found all personnel	<u>LL</u>
3	We have found only some personnel	++
4	We are not able to continue. Returning to base	XX
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	NN

Symbols must be at least 2.5 metres (8 feet) long and must 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.

A.3 Air-to-ground signals

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.

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