



Public Authority for Civil Aviation

# **Guidance Material**

for

# **CAR-176**

## **Civil Aviation Regulation**

# **Search and Rescue**

Effective: 31 May 2019

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**Corrigendum of Amendments**

<b>No.</b>	<b>Ref</b>	<b>Description</b>
01	Initial	Initial issued 31 May 2019 to accompany CAR 176

## FOREWORD

- (a) This Guidance Material has been issued by the Public Authority for Civil Aviation of Oman (hereinafter referred to as PACA or “the AUTHORITY”) under the provisions of the Civil Aviation Law of the Sultanate of Oman.
- (b) Civil Aviation Regulation 176 (CAR 176), *Search and Rescue*, prescribes the requirements for all organizations and entities that are delegated by the AUTHORITY to provide search and rescue services for domestic and international civil aviation aircraft operating in the Muscat Flight Information Region (FIR). For purposes of CAR 176 and this associated Guidance Material, the delegated search and rescue organizations and entities are hereinafter referred to as “the DELEGATE”.
- (c) For CAR 176 elements that are not covered by this Guidance Material, the intent is that there is sufficient detail in the original CAR element itself that precludes any further explanation.
- (d) Requests for additional explanation, clarification, or questions can be sent to the Air Navigation Safety Department (ANSD) of the PACA DG CAR.
- (e) As amendments are made to the original CAR, this Guidance Material shall be reviewed to ensure continued applicability.
- (f) The editing practices used in this document are as follows:
  - (1) ‘Shall’ and ‘Must’ are used to indicate a mandatory requirement and may appear in this CAR.
  - (2) ‘Should’ is used to indicate a recommendation.
  - (3) ‘May’ is used to indicate discretion by the AUTHORITY, or the DELEGATE, as appropriate.
  - (4) ‘Will’ indicates a mandatory requirement and is used to advise of action incumbent on the AUTHORITY.

***Note: The use of the male gender implies the female gender and vice versa.***

**SUBPART A - GENERAL****CAR 176.001 Applicability**

To provide a Search and Rescue service in the Flight Information Region of Oman (the Muscat FIR), the organization or entity must be delegated and/or certified by PACA in accordance with the operating and technical standards of this CAR.

**CAR 176.003 Definitions**

The definitions in ICAO Annex 12, *Search and Rescue*, have been the basis for the definitions in CAR 176.

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**SUBPART B – ORGANIZATION****CAR 176.051 Search and Rescue (SAR) Services**

(a) The Search and Rescue Region (SRR) for Oman coincides with the Muscat Flight Information Region (FIR). Within the SRR are the Rescue Coordination Center (RCC) in Muscat and three Rescue Subcenters (RSC); these are Muscat, Masirah and Salalah. The AUTHORITY's delegated SAR provider may cover the RCC and all three RSCs, or the AUTHORITY may delegate SAR provision to more than one SAR provider. Additionally, the DELEGATE may provide SAR service individually or in cooperation with other States.

Regardless of the SAR arrangement, all SAR services are to be made available on a 24-hour basis.

(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 ICAO Middle East regional air navigation agreements. The DELEGATE, 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 CAR 176.

(2) The DELEGATE for SAR must have:

- a legal framework such as a Letter of Agreement with the AUTHORITY;
- its own responsible authority;
- organized and available resources including the provision of SAR vessels, aircraft and equipment;
- communication facilities for rapid communication between the RCC and RSCs including the RCCs from adjacent States;
- a sufficient workforce that is skilled in SAR coordination and operation functions; and
- job descriptions for its technical staff.

(3) The DELEGATE for SAR shall establish processes to improve SAR service provision including:

- aspects of planning;
- domestic and international cooperative arrangements; and
- implemented training programs for SAR technical staff.

(c) For those areas that the DELEGATE has accepted responsibility to provide SAR service, the DELEGATE shall use SAR units and other available facilities to assist any aircraft, regardless of nationality, or its occupants that are, or appear to be, in a state of emergency.

(d) If within the same SAR area the maritime SAR service is a separate entity from the aeronautical SAR service, the DELEGATE shall ensure the closest practicable coordination between the two SAR entities, preferably documented in a Letter of Agreement.

**CAR 176.053 Search and Rescue (SAR) Regions (SRR)**

Although the DELEGATE shall establish the SRRs where it will provide SAR service, this should be done in coordination with the AUTHORITY so as to ensure that the entire FIR is covered. In any event, such regions shall not overlap and shall be contiguous with adjacent SRRs.

**CAR 176.055 Rescue Coordination Centers and Rescue Subcenters**

- (a) The DELEGATE shall ensure that it establishes at least one rescue coordination center in each search and rescue region.
- (b) Each rescue coordination center and, as appropriate, rescue subcenter, shall be staffed 24 hours a day by trained personnel proficient in the use of the English language used for radiotelephony communications. The basis for English Language Proficiency (ELP) should be ICAO ELP Level 4 which is used by both air traffic controllers and international civil aviation pilots.

**CAR 176.057 Search and Rescue Communications**

(a) Each rescue coordination center shall have means of rapid, such as a direct-speech circuit and reliable, with redundancy, two-way communication with:

- (1) associated air traffic services units;
- (2) associated rescue subcenters;
- (3) appropriate direction-finding and position-fixing stations;
- (4) where appropriate, coastal radio stations capable of alerting and communicating with surface vessels in the region;
- (5) the headquarters of search and rescue units in the region;
- (6) all maritime rescue coordination centers in the region and aeronautical, maritime or joint rescue coordination centers in adjacent regions.

*Note: Maritime rescue coordination centers are identified in relevant documents of the International Maritime Organization.;*

- (7) a designated meteorological office or meteorological watch office;
  - (8) search and rescue units;
  - (9) alerting posts; and
  - (10) the COSPAS-SARSAT Mission Control Centre servicing the search and rescue region.
- (b) Each rescue sub-center shall have means of rapid and reliable two-way communication with:
- (1) adjacent rescue subcenters;
  - (2) a meteorological office or meteorological watch office;
  - (3) search and rescue units; and
  - (4) alerting posts.

**CAR 176.059 Search and Rescue Units**

In addition to the DELEGATE's own SAR units and facilities, the DELEGATE shall designate the following through documented coordination:

- elements of public or private services suitably located and equipped for search and rescue operations; and
- elements of public or private services that do not qualify as search and rescue units but are nevertheless able to participate in search and rescue operations.

Examples of public services may include:

- other military organizations such as the navy, army, marines and coast guard;
- the Royal Oman Police (ROP);
- fire-fighting units;
- hospitals, clinics, medical facilities and ambulance services; and
- other Omani Ministries or Public Authorities.

Examples of private services may include:

- entities located in non-populated areas such as crude oil production facilities;
  - entities that have vessels and are engaged in maritime operations such as fishing and transportation;
  - entities that have vehicles capable of operating in desert or mountainous terrain;
  - entities that have aircraft and/or helicopters capable of operating in VFR conditions; and
  - entities that have light and/or heavy machinery if needed to reach remote locations.
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## SUBPART C – COOPERATION

### CAR 176.101 Cooperation Between States

- (a) The DELEGATE shall coordinate their search and rescue organizations with those of neighboring States. The coordination should be documented in the form of a Letter of Agreement or similar document and should be periodically reviewed to ensure applicability.
- (b) Subject to such conditions as may be prescribed by its own authorities, a DELEGATE shall permit immediate entry into its territory of search and rescue units of other States for the purpose of searching for the site of aircraft accidents and rescuing survivors of such accidents. In prescribing the conditions to permit immediate entry, pre-coordinated arrangements should be made and documented so as to allow a minimum amount of elapsed time from when the neighboring State requests entry until the permission is granted.
- (c) The authorities of an ICAO Contracting State who wish their search and rescue units to enter the territory of the DELEGATE 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 center of the DELEGATE concerned or to such other authority as has been designated by the DELEGATE. As stated in (b), the DELEGATE should already have documented 'on file' any specific requirements needed for immediate entry. These requirements may be different for each adjacent State. The authorities of the DELEGATE shall:
  - (1) immediately acknowledge the receipt of such a request;
  - (2) as soon as possible, indicate the conditions, if any, under which the projected mission may be undertaken; and
  - (3) provide, when requested, assistance to the other RCCs in the form of aircraft, vessels, persons or equipment.

### CAR 176.103 Cooperation with Other Services

- (a) The DELEGATE shall arrange for all aircraft, vessels and local services and facilities which do not form part of the search and rescue organization to cooperate fully with the latter in search and rescue and to extend any possible assistance to the survivors of aircraft accidents. Consideration should be given to establishing and documenting arrangements beforehand with appropriate public and private facilities as identified in the Guidance Material for CAR 176.059, *Search and Rescue Units*.
- (c) The DELEGATE shall designate a search and rescue point of contact for the receipt of COSPAS-SARSAT distress data. The point of contact shall be published in the OMAN Aeronautical Information Publication (AIP). The DELEGATE should periodically review the AIP and the COSPAS-SARSAT website to ensure the contact information is both the same and up-to-date. The website address is <<https://cospas-sarsat.int>>.

### CAR 176.105 Dissemination of Information

Further to CAR 176.101, the DELEGATE shall publish and disseminate all information necessary for the entry of search and rescue units of other States into its territory or, alternatively, include this information in search and rescue service arrangements.

## SUBPART D – PREPARATORY MEASURES

### CAR 176.203 Plans of Operation

- (a) Each rescue coordination center shall prepare detailed plans of operation for the conduct of search and rescue operations within its search and rescue region. These plans should be periodically reviewed to ensure accuracy and applicability including up-to-date contact information.

### CAR 176.207 Training and Exercises

To achieve and maintain maximum efficiency in search and rescue, the DELEGATE shall provide for regular training of their search and rescue personnel and arrange appropriate search and rescue exercises. The training and exercises conducted by search and rescue personnel shall be recorded in accordance with CAR 176.317.

In conducting SAR training exercises, exercises with neighboring States should also be conducted so as to ensure the efficient cooperation between States.

When practicable, and subject to the DELEGATE's requirements, the SAR inspectors of the PACA Air Navigation Safety Department should be allowed to observe SAR training exercises to ensure overall performance and compliance with CAR 176.

### CAR 176.303 Procedures for Rescue Coordination Centers During Emergency Phases

As part of its training program, the DELEGATE should ensure that its technical staff review and are familiar with the various procedures for RCCs during emergency phases including:

- Uncertainty phase;
- Alert phase; and
- Distress phase.

Additionally, the DELEGATE should include as part of its refresher training:

- the initiation of search and rescue action in respect of an aircraft whose position is unknown; and
- the passing of information to aircraft in respect of which an emergency phase has been declared.

### CAR 176.317 Maintenance of Records

(a) Each rescue coordination center shall keep a record of the operational efficiency of the search and rescue organization in its region including the training records for their technical staff. The training records may be either hard or soft copy, and should be retained for the duration of the technical person's tenure in the SAR organization.

(b) Each rescue coordination center shall prepare appraisals of actual search and rescue 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 ICAO for information and dissemination as appropriate. These appraisals should also be kept on file for a minimum of three years.