



# EAC

# No. 139-56

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## **RESCUE AND FIRE FIGHTING SERVICES**

### **1 Administration**

1.1 The rescue and fire fighting service at an aerodrome should be under the administrative control of the aerodrome management, which should also be responsible for ensuring that the service provided is organized, equipped, staffed, trained and operated in such a manner as to fulfil its proper functions.

1.2 In drawing up the detailed plan for the conduct of search and rescue operations in accordance with Search and Rescue Regulation, the aerodrome management should co-ordinate its plans with the relevant rescue co-ordination centres to ensure that the respective limits of their responsibilities for an aircraft accident within the vicinity of an aerodrome are clearly delineated.

1.3 Co-ordination between the rescue and fire fighting service at an aerodrome and public protective agencies, such as local fire brigade, police force, coast guard and hospitals, should be achieved by prior agreement for assistance in dealing with an aircraft accident.

1.4 A grid map of the aerodrome and its immediate vicinity should be provided for the use of the aerodrome services concerned. Information concerning topography, access roads and location of water supplies should be indicated. This map should be conspicuously posted in the control tower and fire station, and available on the rescue and fire fighting vehicles and such other supporting vehicles required to respond to an aircraft accident or incident. Copies should also be distributed to public protective agencies as desirable.

1.5 Co-ordinated instructions should be drawn up detailing the responsibilities of all concerned and the action to be taken in dealing with emergencies. The appropriate authority should ensure that such instructions are promulgated and observed.

### **2 Training**

The training curriculum should include initial and recurrent instruction in at least the following areas:

- (a) Airport familiarization;
- (b) Aircraft familiarization;
- (c) Rescue and fire fighting personnel safety;
- (d) Emergency communications systems on the aerodrome, including aircraft fire related alarms;
- (e) Use of the fire hoses, nozzles, turrets and other appliances required for compliance with Subpart L, 139.337;
- (f) Application of the types of extinguishing agents required for compliance with Subpart L, 139.337;
- (g) Emergency aircraft evacuation assistance;
- (h) Fire fighting operations;
- (i) Adaptation and use of structural rescue and fire fighting equipment for aircraft rescue and fire fighting;
- (j) Dangerous goods;
- (k) Familiarization with fire fighters' duties under the aerodrome emergency plan; and
- (l) Protective clothing and respiratory protection.

### **3 Level of protection to be provided**

3.1 In accordance with Subpart L, 139.337 aerodromes should be categorized for rescue and fire fighting purposes and the level of protection provided should be appropriate to the aerodrome category.

3.2 However, Subpart L, 139.337(b) permits a lower level of protection to be provided for a limited period where the number of movements of the aeroplanes in the highest category normally using the aerodrome is less than 700 in the busiest consecutive three

months. It is important to note that the concession included in Subpart L, 139.337(b) is applicable only where there is a wide range of difference between the dimensions of the aeroplanes included in reaching 700 movements.

#### **4 Rescue equipment for difficult environments**

4.1 Suitable rescue equipment and services should be available at an aerodrome where the area to be covered by the service includes water, swampy areas or other difficult environment that cannot be fully served by conventional wheeled vehicles. This is particularly important where a significant portion of approach/departure operations takes place over these areas.

4.2 The rescue equipment should be carried on boats or other vehicles such as helicopters and amphibious or air cushion vehicles, capable of operating in the area concerned. The vehicles should be so located that they can be brought into action quickly to respond to the areas covered by the service.

4.3 At an aerodrome bordering the water, the boats or other vehicles should preferably be located on the aerodrome, and convenient launching or docking sites provided. If these vehicles are located off the aerodrome, they should preferably be under the control of the aerodrome rescue and fire fighting service or, if this is not practicable, under the control of another competent public or private organization working in close co-ordination with the aerodrome rescue and fire fighting service (such as police, military services, harbour patrol or coast guard).

4.4 Boats or other vehicles should have as high a speed as practicable so as to reach an accident site in minimum time. To reduce the possibility of injury during rescue operations, water jet-driven boats are preferred to water propeller driven boats unless the propellers of the latter boats are ducted. Should the water areas to be covered by the service be frozen for a significant period of the year, the equipment should be selected accordingly. Vehicles used in this service should be equipped with life rafts and life preservers related to the requirements of the larger aircraft normally using the aerodrome, with two-way radio communication, and with floodlights for night operations. If aircraft operations during periods of low visibility are expected, it may be necessary to provide guidance for the responding emergency vehicles.

4.5 The personnel designated to operate the equipment should be adequately trained and drilled for rescue services in the appropriate environment.

#### **5 Facilities**

5.1 The provision of special telephone, two-way radio communication and general alarm systems for the rescue and fire fighting service is desirable to ensure the dependable transmission of essential emergency and routine information. Consistent with the individual requirements of each aerodrome, these facilities serve the following purposes:

- (a) Direct communication between the activating authority and the aerodrome fire station in order to ensure the prompt alerting and dispatch of rescue and fire fighting vehicles and personnel in the event of an aircraft accident or incident;
- (b) Direct communication between the rescue and fire fighting service and the flight crew of an aircraft in emergency;
- (c) Emergency signals to ensure the immediate summoning of designated personnel not on standby duty;
- (d) As necessary, summoning essential related services on or off the aerodrome; and
- (e) Maintaining communication by means of two-way radio with the rescue and fire fighting vehicles in attendance at an aircraft accident or incident.

5.2 The availability of ambulance and medical facilities for the removal and after-care of casualties arising from an aircraft accident should receive the careful consideration of the appropriate authority and should form part of the overall emergency plan established to deal with such emergencies.