

CHAPTER 9. AERODROME OPERATIONAL SERVICES, EQUIPMENT AND INSTALLATIONS

9.1 Aerodrome emergency planning

General

Introductory Note.— Aerodrome emergency planning is the process of preparing an aerodrome to cope with an emergency occurring at the aerodrome or in its vicinity. The objective of aerodrome emergency planning is to minimize the effects of an emergency, particularly in respect of saving lives and maintaining aircraft operations. The aerodrome emergency plan sets forth the procedures for coordinating the response of different aerodrome agencies (or services) and of those agencies in the surrounding community that could be of assistance in responding to the emergency. Guidance material to assist the appropriate authority in establishing aerodrome emergency planning is given in the Airport Services Manual (Doc 9137), Part 7.

9.1.1 An aerodrome emergency plan shall be established at an aerodrome, commensurate with the aircraft operations and other activities conducted at the aerodrome.

9.1.2 The aerodrome emergency plan shall provide for the coordination of the actions to be taken in an emergency occurring at an aerodrome or in its vicinity.

Note 1.— Examples of emergencies are: aircraft emergencies, sabotage including bomb threats, unlawfully seized aircraft, dangerous goods occurrences, building fires, natural disaster and public health emergencies.

Note 2.— Examples of public health emergencies are increased risk of travellers or cargo spreading a serious communicable disease internationally through air transport and severe outbreak of a communicable disease potentially affecting a large proportion of aerodrome staff.

9.1.3 The plan shall coordinate the response or participation of all existing agencies which, in the opinion of the appropriate authority, could be of assistance in responding to an emergency.

Note 1.— Examples of agencies are:

- *on the aerodrome: air traffic control units, rescue and firefighting services, aerodrome administration, medical and ambulance services, aircraft operators, security services, and police;*
- *off the aerodrome: fire departments, police, health authorities (including medical, ambulance, hospital and public health services), military, and harbour patrol or coast guard.*

Note 2.— Public health services include planning to minimize adverse effects to the community from health-related events and deal with population health issues rather than provision of health services to individuals.

9.1.4 **Recommendation.**— *The plan should provide for cooperation and coordination with the rescue coordination centre, as necessary.*

9.1.5 **Recommendation.**— *The aerodrome emergency plan document should include at least the following:*

- a) *types of emergencies planned for;*
- b) *agencies involved in the plan;*
- c) *responsibility and role of each agency, the emergency operations centre and the command post, for each type of emergency;*
- d) *information on names and telephone numbers of offices or people to be contacted in the case of a particular emergency; and*
- e) *a grid map of the aerodrome and its immediate vicinity.*

9.1.6 The plan shall observe human factors principles to ensure optimum response by all existing agencies participating in emergency operations.

Note 1.— *Guidance material on human factors principles can be found in the Human Factors Training Manual (Doc 9683).*

Note 2.— *General principles and procedures on the training of aerodrome personnel, including training programmes and competence checks, are specified in the PANS-Aerodromes (Doc 9981).*

Emergency operations centre and command post

9.1.7 **Recommendation.**— *A fixed emergency operations centre and a mobile command post should be available for use during an emergency.*

9.1.8 **Recommendation.**— *The emergency operations centre should be a part of the aerodrome facilities and should be responsible for the overall coordination and general direction of the response to an emergency.*

9.1.9 **Recommendation.**— *The command post should be a facility capable of being moved rapidly to the site of an emergency, when required, and should undertake the local coordination of those agencies responding to the emergency.*

9.1.10 **Recommendation.**— *A person should be assigned to assume control of the emergency operations centre and, when appropriate, another person the command post.*

Communication system

9.1.11 **Recommendation.**— *Adequate communication systems linking the command post and the emergency operations centre with each other and with the participating agencies should be provided in accordance with the plan and consistent with the particular requirements of the aerodrome.*

Aerodrome emergency exercise

9.1.12 The plan shall contain procedures for periodic testing of the adequacy of the plan and for reviewing the results in order to improve its effectiveness.

Note.— *The plan includes all participating agencies and associated equipment.*

9.1.13 The plan shall be tested by conducting:

- a) a full-scale aerodrome emergency exercise at intervals not exceeding two years and partial emergency exercises in the intervening year to ensure that any deficiencies found during the full-scale aerodrome emergency exercise have been corrected; or
- b) a series of modular tests commencing in the first year and concluding in a full-scale aerodrome emergency exercise at intervals not exceeding three years;

and reviewed thereafter, or after an actual emergency, so as to correct any deficiency found during such exercises or actual emergency.

Note 1.— The purpose of a full-scale exercise is to ensure the adequacy of the plan to cope with different types of emergencies. The purpose of a partial exercise is to ensure the adequacy of the response to individual participating agencies and components of the plan, such as the communications system. The purpose of modular tests is to enable concentrated effort on specific components of established emergency plans.

Note 2.— Guidance material on airport emergency planning is available in the Airport Services Manual (Doc 9137), Part 7.

Emergencies in difficult environments

9.1.14 The plan shall include the ready availability of, and coordination with, appropriate specialist rescue services to be able to respond to emergencies where an aerodrome is located close to water and/or swampy areas and where a significant portion of approach or departure operations takes place over these areas.

9.1.15 **Recommendation.**— *At those aerodromes located close to water and/or swampy areas, or difficult terrain, the aerodrome emergency plan should include the establishment, testing and assessment at regular intervals of a predetermined response for the specialist rescue services.*

9.1.16 **Recommendation.**— *An assessment of the approach and departure areas within 1 000 m of the runway threshold should be carried out to determine the options available for intervention.*

Note.— Guidance material on assessing approach and departure areas within 1 000 m of runway thresholds can be found in Chapter 13 of the Airport Services Manual (Doc 9137), Part 1.

9.2 Rescue and firefighting

General

Introductory Note.— The principal objective of a rescue and firefighting service is to save lives in the event of an aircraft accident or incident occurring at, or in the immediate vicinity of, an aerodrome. The rescue and firefighting service is provided to create and maintain survivable conditions, to provide egress routes for occupants and to initiate the rescue of those occupants unable to make their escape without direct aid. The rescue may require the use of equipment and personnel other than those assessed primarily for rescue and firefighting purposes.

The most important factors bearing on effective rescue in a survivable aircraft accident are: the training received, the effectiveness of the equipment and the speed with which personnel and equipment designated for rescue and firefighting purposes can be put into use.

Requirements to combat building and fuel farm fires, or to deal with foaming of runways, are not taken into account.