



# ADVISORY CIRCULAR

SLCAA-AC-AGA006-Rev.01

EFFECTIVE DATE: 31<sup>st</sup> JULY 2021

SIERRA LEONE CIVIL AVIATION AUTHORITY

---

## Aerodrome Emergency Planning

A handwritten signature in blue ink, appearing to read 'M Baio', is positioned above the name of the Director General.

Moses Tiffa Baio  
Director General  
Sierra Leone Civil Aviation Authority



**TABLE OF CONTENT**

**TABLE OF CONTENT .....1**

**1 GENERAL.....3**

1.1 PURPOSE..... 3

1.2 REFERENCE ..... 3

1.3 STATUS OF THIS AC..... 3

1.4 ABBREVIATION AND ACRONYMS..... 3

**2 INTRODUCTION.....5**

2.1 DEFINITION OF AERODROME EMERGENCY PLANNING..... 5

2.2 OBJECTIVES ..... 5

**3 ESTABLISHMENT OF AN AIRPORT EMERGENCY PLAN.....7**

**4 CONTENTS OF AN AERODROME EMERGENCY PLAN.....8**

4.1 TYPES OF EMERGENCIES..... 8

4.2 PROCEDURES FOR PROMPT RESPONSE TO EMERGENCIES ..... 9

4.3 COMMANDER AND COORDINATOR(S) FOR THE PLAN..... 9

4.4 GUIDANCE TO EACH PERSON WHO MUST CARRY OUT THE PLAN ..... 9

4.5 THE ROLES AND RESPONSIBILITIES OF EACH RESPONDING AGENCY ..... 9

4.6 EMERGENCY OPERATIONS CENTRE (EOC) AND COMMAND POST..... 9

4.7 DESCRIPTION OF EQUIPMENT TO BE MADE AVAILABLE..... 11

4.8 INFORMATION ON NAMES AND TELEPHONE NUMBERS OF OFFICES AND PERSONS TO BE CONTACTED IN THE CASE OF A PARTICULAR EMERGENCY ..... 11

4.9 GRID MAP OF THE AERODROME AND ITS IMMEDIATE VICINITY ..... 11

4.10 AERODROME OPERATOR REQUIREMENTS..... 12

4.11 HUMAN FACTORS IN EMERGENCY PLAN..... 12

**5 MAINTENANCE OF AN AERODROME EMERGENCY PLAN. ....13**

5.1 ADMINISTRATION OF THE EMERGENCY PLAN..... 13

5.2 GENERAL..... 14

5.3 REVIEW FOLLOWING AN ACCIDENT ..... 15

**APPENDIX 1: TYPES OF AERODROME EMERGENCIES .....16**

**APPENDIX 2: COMMUNICATIONS AND COORDINATION .....24**

**APPENDIX 3: MEDICAL CONSIDERATIONS.....34**

**APPENDIX 4: SIMULATED EMERGENCY EXERCISE .....42**

**APPENDIX 5: OTHER CONSIDERATIONS.....47**

**APPENDIX 6: GUIDELINES ON RESPONSE ACTIONS OF PARTICIPATING AGENCIES IN AN EMERGENCY .....50**

**APPENDIX 7: AGENCIES INVOLVED .....86**

## **1 GENERAL**

The Sierra Leone Civil Aviation Authority's Advisory Circulars contains information about standards, practices and procedures that the Authority has found to be an Acceptable Means of Compliance (AMC) with the associated Regulations.

An AMC is not intended to be the only means of compliance with a Regulation, and consideration should be given to other methods of compliance that may be presented to the Authority

Information considered directive in nature is described in this AC in terms such as "shall" and "must", indicating the actions are mandatory. Guidance information is described in terms such as "should" and "may" indicating the actions are desirable or permissive, but not mandatory

### **1.1 Purpose**

In accordance with the provisions in the SLCAR Part 14A, the aerodrome operator is required to establish an emergency plan commensurate with the aircraft operations and other activities conducted at the airport.

This AC serves as a guide on the responsibilities and required actions/roles of the various personnel/agencies involved in dealing with emergencies affecting the airport. This guidance is based on the requirement that survival of aircraft occupants and other related accident victims is the primary operational objective.

### **1.2 Reference**

- (a) SLCAR, Part 14A – Aerodrome Design and Operations
- (b) ICAO Doc 9137, Part 7 – Airport Emergency Planning

### **1.3 Status of this AC**

This is the second AC to be issued on this subject.

### **1.4 Abbreviation and Acronyms**

AEP	-	Aerodrome Emergency Plan
ACC	-	Area Control Centre
AIB	-	Aircraft Investigator
ATS	-	Air Traffic Services
CIMS	-	Coordinated Incident Management System
EAS	-	Emergency Alerting System
EOC	-	Emergency Operations Centre
EOL	-	Effective Operating Lengths
ERS	-	Emergency Response Service

*Aerodrome Emergency Planning*

ETA	-	Estimated Time of Arrival
FOD	-	Foreign Object Debris
ICAO	-	International Civil Aviation
ICP	-	Incident Command Point
IM	-	intra-muscular
IV	-	intra-venous
Km	-	kilometre
NOTAM	-	Notice to Airmen
OLS	-	Obstacle Limitation Surface
PTI	-	Positive Target Identification
RCC	-	Rescue Coordination Centre
RFFS	-	Rescue and Firefighting Services
RVR	-	Runway Visual Range
SLCAR	-	Sierra Leone Civil Aviation Regulation

## **2 INTRODUCTION**

The SLCAR Part 14, 9.1.1 requires that an Aerodrome Emergency Plan (AEP) shall be established at an aerodrome, commensurate with the aircraft operations and other activities conducted at the aerodrome.

The AEP should be regularly maintained and periodically tested.

Some aspects of this document may not be applicable to all aerodrome operators

### **2.1 Definition of Aerodrome Emergency Planning**

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.

The scope of the emergency plan will depend on the type/level of operations conducted at the aerodrome.

### **2.2 Objectives**

- (i) It is important to state in the AEP; what geographical area the document covers - particularly what is considered as “on airport”, “off airport” and “remote” emergencies and the status of the document with regards responding to emergencies in these areas.

The status of the document however shall not preclude the aerodrome agencies from responding to any occurrences where they consider valuable assistance can be provided towards meeting the objectives of the AEP.

- (ii) Emergencies can have a significant impact on the functionality of the aerodrome, both during and after an event. The objective of aerodrome emergency planning is to minimise the extent of personal injury and property damage resulting from an emergency. There are two key aspects to be considered in this regard.
  - (1) The first objective is minimising loss of life. The response to those directly affected by the emergency situation and the protection of those involved either directly (responding personnel) or indirectly (Terminal occupants etc.), is the key priority of any emergency plan.
  - (2) The second objective is to return the aerodrome to normal operations as soon as practical. Restoring property or systems to functionality status, or protecting them from the effects of an emergency situation, is essential to resuming normal operations after the emergency.
- (iii) Returning to operational status does not necessarily mean however that the aerodrome emergency response is complete. There are many other aspects relating to an aerodrome’s

emergency response that may carry on e.g. care of the meeters and greeters, care and debriefing of responders etc.

- (iv) To be operationally sound, a comprehensive airport emergency plan must give consideration to:
  - (1) preplanning BEFORE an emergency;
  - (2) operations DURING the emergency; and
  - (3) support and documentation AFTER the emergency.

### **3 ESTABLISHMENT OF AN AIRPORT EMERGENCY PLAN**

The purpose of an airport emergency plan is to ensure that there is:

- (i) orderly and efficient transition from normal to emergency operations;
- (ii) delegation of airport emergency authority;
- (iii) assignment of emergency responsibilities;
- (iv) authorization by key personnel for actions contained in the plan;
- (v) co-ordination of efforts to cope with the emergency; and
- (vi) safe continuation of aircraft operations or return to normal operations as soon as possible.

It is imperative that the airport operator arrange emergency mutual aid agreements which define responsibilities and/or liabilities of each contributing party within surrounding communities.

These agreements should include at least the following:

- (i) clarification of the political and jurisdictional responsibilities of the several agencies that may be involved in order to avoid problems when an emergency occurs;
- (ii) establishment of the command authority; i.e. a single on-scene commander (with designated alternates if necessary);
- (iii) designation of communication priorities at the accident site;
- (iv) organization of emergency transportation facilities under a predesignated co-ordinator(s);
- (v) pre-determination of the legal authorities and liabilities of all co-operating emergency personnel; and
- (vi) Pre-arrangements for use of portable and heavy rescue equipment from available sources.

Off-airport accidents in adjacent mountains, marshes or water could present unique and difficult access and logistical problems. It is therefore important that communities so located have adequate plans for rescue in such areas. This could require an analysis of the availability of such special service vehicles as fire boats, rescue boats, helicopters, hovercraft, swamp buggies, half-tracks, forest fire-fighting equipment, etc., and arrangement for their utilization.

Consideration should also be given to:

- (i) the availability of specialized rescue teams such as scuba divers, mountain squads, search dogs and bomb squads;
- (ii) the handling of radiological incidents or chemical spills; and equipment for the emergency transfer of fuel from the aircraft wreckage, from a water surface, or from pools formed in ground depressions, etc.



## **4 CONTENTS OF AN AERODROME EMERGENCY PLAN**

The SLCAR Part 14, details the information that needs to be included in the AEP. These include the following:

### **4.1 Types of Emergencies**

- (a) The AEP must provide for the coordination of agencies in responding to anticipated emergencies at the aerodrome or its vicinity. Emergencies can generally be categorised into two, depending upon how the plan is structured.
- (b) There are emergencies involving an aircraft, and those that do not. However, there are other forms of emergencies known as compound emergencies, examples of which are provided below. Details of the types of emergencies are provided in Appendix 1 of this AC.
  - (i) Emergencies involving aircraft. These include:
    - a) accident – aircraft on airport
    - b) accident – aircraft off-airport
      - i) land
      - ii) Water
    - c) incident – aircraft in flight
      - i) severe air turbulence
      - ii) decompression
      - iii) structural failure
    - d) incident – aircraft on ground
    - e) incident – sabotage including bomb threat
    - f) incident – unlawful seizure
  - (ii) Emergencies not involving aircraft. These include
    - a) Fire – structural
    - b) Sabotage including bomb threat
    - c) Natural disaster
    - d) Dangerous goods
    - e) Medical emergencies
  - (iii) Compound emergencies
    - a) Aircraft/structure
    - b) Aircraft/fuelling facilities
    - c) Aircraft/aircraft

#### **4.2 Procedures for prompt response to Emergencies**

For each type of emergency detailed, there should be procedures established for; contacting the responders, alerting them to the situation, determining the type of information they will require. This could include a flow chart of the alerting system and response levels.

#### **4.3 Commander and Coordinator(s) for the Plan**

- (a) Once an accident has occurred, the initial direction and control of the RFF operations, is the responsibility of the ARFFS officer in charge. RFF personnel will be the first to arrive at the accident site therefore for a certain period of time, this officer should be in command.

However, the RFFS officer will be so involved in the RFF operations that as soon as the on-scene commander arrives, the on-scene commander should assume command. The transition of authority and command responsibility needs to be established previously in the emergency plan and exercised accordingly.

- (b) Off-aerodrome accidents are under the direction and control of the agency agreed upon in the mutual aid emergency agreement prearranged with the surrounding community.
- (c) The plan should call for the designation of other coordinators to accomplish its functions.

#### **4.4 Guidance to each person who must carry out the Plan**

An AEP varies in terms of; the type of emergency, actions required and personnel involved. It is important that the AEP provides clear guidance to each person involved in terms of their involvement and actions. This should be specific to each participating agency and include stand down procedures for an emergency.

#### **4.5 The Roles and Responsibilities of each responding Agency**

- (a) Each agency involved in the AEP should have detailed roles, procedures and processes specified, that they control with regards to the AEP actions. Further details on the subject, is provided in Appendix 6 of this AC.
- (b) The main agencies should include the following, as applicable to the aerodrome:
  - (i) **On aerodrome** - Air Traffic Control unit, Rescue and Fire Fighting Services, aerodrome administration, medical services, aerodrome tenants, aircraft operators, security services, border control agencies, airport police.
  - (ii) **Off aerodrome** - Fire departments, police, medical ambulance services, hospital, military services, communication services, transport services (land, sea, air), harbour patrol, coast guard, civil defence, regional authorities, clergy, search and rescue centres.

#### **4.6 Emergency Operations Centre (EOC) and Command Post**

An EOC should be provided to deal with emergency situations at each airport. It shall be a part of the aerodrome facilities and shall be staffed by persons responsible for the overall coordination and general direction of the response to an emergency. Certain emergency situations will also require a mobile command post at the scene, normally under the direction

of the on-scene commander. The command post shall be a facility capable of being moved rapidly to the site of an emergency, when required, and shall undertake the local coordination of those agencies responding to the emergency.

#### **4.6.1 Emergency Operations Centre**

- a. The main features of this unit are:
  - (i) its fixed location;
  - (ii) it acts in support of the on-scene commander in the mobile command post for aircraft accidents/incidents;
  - (iii) it is the command, co-ordination and communication centre for unlawful seizure of aircraft and bomb threats; and
  - (iv) it should be operationally available 24 hours a day.
- b. The location of the EOC should provide a clear view of the movement area and isolated aircraft parking position, wherever possible.
- c. The mobile command post should be adequate to co-ordinate all command and communication functions. The EOC should have the necessary equipment and personnel to communicate with the appropriate agencies involved in the emergency, including the mobile command post, when it is deployed. Communication and electronic devices should be checked regularly to ensure serviceability.

#### **4.6.2 Mobile Command Post**

- a. The mobile command post is a point where the relevant co-operating agency heads assemble to receive and disseminate information and make decisions pertinent to the rescue operations. The main features of this unit are:
  - (i) it is a mobile facility capable of being rapidly deployed;
  - (ii) it serves as command, co-ordination and communication centre for aircraft accidents/incidents;
  - (iii) it is operational during aircraft accidents/incidents; and
  - (iv) it can be correctly located with respect to wind and terrain conditions.
- b. In the event of any accident/incident, a designated and recognizable mobile command post should be established as quickly as possible, preferably at the same time as the initiation of RFFS activities. A continuity of command must be maintained so that each agency reporting to the mobile command post can be adequately briefed on the situation before assuming control of its individual responsibilities.
- c. It should contain the necessary equipment and personnel to communicate with all agencies involved in the emergency, including the EOC. The communication and electronic devices should be checked regularly to ensure serviceability.
- d. In order to eliminate confusion and missed transmissions, since several different agencies are working together in the command post utilizing several radio frequencies and

telephones, it is essential that the volume of noise be reduced by utilizing headsets or sound absorbent partitions for each participant.

- e. Maps, charts and other relevant equipment and information should be immediately available at the mobile command post.
- f. The mobile command post should be easily recognizable by provision of an elevated distinguishing marker, such as a chequered flag, coloured traffic cone, balloon or rotating light.
- g. It may be necessary to establish a sub-command post. When this is required, one location should be designated as a “master” command post with adequate communications to the sub-command post.

#### **4.7 Description of Equipment to be made Available**

The AEP shall include any emergency equipment available at the aerodrome including its type and location. This shall include any medical supplies, portable medical equipment and equipment required for disabled aircraft removal.

*Note - See appendix 3 for guidance on medical considerations.*

#### **4.8 Information on Names and Telephone Numbers of Offices and Persons to be contacted in the case of a particular Emergency**

Emergency contacts details for all agencies and services involved must be included in the AEP and these must be kept up to date.

#### **4.9 Grid Map of the Aerodrome and its immediate vicinity**

- (a) Detailed grid map(s) of the airport and its vicinity (with date of revision) should be provided in the EOC. Similar small-sized maps should be provided in the ATC, ARFFS station, RFF vehicles and all other emergency response vehicles. Copies should also be distributed to the agencies involved in the AEP.
- (b) It is preferable that two (2) grid maps be provided; one map should depict the confines of airport emergency access roads, location of water supplies, rendezvous points, staging areas, etc. The other map should include surrounding communities and depict appropriate medical facilities, access roads, rendezvous points, etc. within a distance of approximately 8 km from the aerodrome reference point.
- (c) It is absolutely essential that where more than one grid map is used, the grids do not conflict; they must be immediately identifiable to all participating agencies. Use of different colour grids may preclude misinterpretation of grid maps.
- (d) The grid map which shows the available medical facilities should contain information on potential bed availability and medical specialties at the different hospitals. Each hospital should be individually numbered and treatment specialty indicated with distinct data, such as beds, personnel, etc.
- (e) It is essential that whenever the grid map is revised, an updated copy is provided to all participating agencies and the old maps destroyed.

- (f) Both grid maps are required to assist responding services in locating the incident scene. These grid maps shall be of sufficient scale and detail to be easily read and to avoid ambiguity. Grid map references shall be unique for each individual grid map to avoid confusion.

#### **4.10 Aerodrome Operator Requirements**

- (a) The SLCAR Part 14A requires the aerodrome operator to coordinate its AEP with all related agencies (law enforcement agencies, security providers, RFFS agencies, medical personnel and organisations, the principal tenants of the aerodrome, and all other persons with responsibilities in the plan). It also requires the aerodrome operator to ensure the participation of all relevant agencies and personnel in the development of the AEP.
- (b) While it is the responsibility of the aerodrome operator to develop and maintain an AEP, the actual establishment of coordinated response procedures and sub activities is best achieved through committees. An AEP Committee may form part of a larger emergency response forum shall be tasked with the formation of plans to provide timely and coordinated response to, and recovery from an emergency at the aerodrome, or in its environs.
- (c) The AEP Committee should, in addition to the aerodrome operator, typically comprise representatives of the State Police, Fire and Ambulance services, RFFS, airlines or aircraft operators, air traffic service provider, and other agencies with relevant knowledge or resources to assist e.g. the local emergency management office, local health unit, humanitarian relief agencies etc.

#### **4.11 Human Factors in Emergency Plan**

- (a) Basic human factor principles shall be included in the procedures and processes for emergency response, including how people interact with; tasks, other people, machines, information sources and the environment with consideration that humans have limitations and capabilities. More details can be found in the SLCAA-AC-AGA039-Rev00 - Human Factor.

## **5 MAINTENANCE OF AN AERODROME EMERGENCY PLAN.**

- (a) The SLCAR Part 14A requires the aerodrome operator to have established procedures to maintain the effectiveness of the emergency plan.
- (b) These procedures include:
  - (i) Ensuring that personnel having duties and emergency responsibilities under the AEP are familiar with their assignments and are properly trained.
  - (ii) Testing of the AEP by performing aerodrome emergency exercises
  - (iii) Reviewing the AEP after each of the exercises or after an actual emergency, to correct any deficiency found.
- (c) There are three methods of testing the aerodrome emergency plan:
  - (i) Full-scale emergency exercises;
  - (ii) Partial emergency exercises; and
  - (iii) Table top exercises
- (d) These tests shall be conducted on the following schedule:
  - (i) **Full-scale** - At least once every two years:
  - (ii) **Partial** - At least once yearly that a full-scale exercise is held or as required to maintain proficiency, and address deficiencies found during a full-scale emergency exercise;
  - (iii) **Table top** - At least half-yearly, except during that six month period when a full-scale exercise is held.

*Note - Detail on the types of emergency exercises and guidance on staging a simulated emergency exercise is provided in Appendix 4 of this document.*

### **5.1 Administration of the Emergency Plan**

#### **5.1.1 Structure of Documentation**

- (a) AEP's are typically sub-divided into sections and sub-sections, and follow one of two basic formats:
  - (i) The roles and responsibilities of each responding agency are arranged as self-contained sections within the overall plan, and within each agency's section there are sub-sections dealing with their response to each type of emergency.
  - (ii) The overall plan is divided into sections dealing with each type of emergency, and within each section there are sub-sections detailing the response of each agency.

## **5.1.2 Review of plan**

### **5.2 General**

- (a) Evaluating the plan - exercises provide aerodrome operators and exercise planners an excellent opportunity for evaluating the effectiveness and efficiency of the plan. To maximize the usefulness of evaluation, planners should carefully design the system of evaluation.
- (b) Planning - In accordance with the objectives of the exercise, planners should develop an evaluation system that includes feedback, identifies benefits, and obtains the services of evaluators well before the exercise takes place.
  - (i) **Feedback loop** - A project is planned, implemented, and then evaluated (giving feedback). The feedback leads to the development of modifications, where needed, after which the cycle begins anew.
  - (ii) **Benefits** - Planning an effective evaluation system for any capacity of an aerodrome emergency response exercise is important not only for detecting problems in the exercise itself, but more importantly, for finding areas of the aerodrome or community emergency response plans that may need refinement.
  - (iii) **Evaluators** - The exercise should be totally open to a select group of knowledgeable evaluators, identifiable by distinctive clothing. The evaluators should not be involved in the planning or conduct of the exercise. Normally, government agencies, other aerodromes, and private aviation organizations can provide experienced evaluators which can benefit both the aerodrome holding the exercise and themselves. Evaluators need to be identified well before the exercise and familiarized with the aerodrome plans, including evaluation and reporting guidelines.
- (c) Preparation - Evaluators experienced in aerodrome operations, emergency response, and emergency exercises require no training by drill planners. However, a preliminary meeting detailing the scope and objectives of the exercise enables the evaluators to do their jobs effectively and thus yield the greatest benefit to the aerodrome.
  - (i) **Preparing evaluators** - Evaluators should receive information packets and critique sheets well before the exercise takes place. Assigning evaluators to assess command, control, and communications and the emergency response functional areas ensures that the key elements of emergency response are observed in detail. Other evaluators should be assigned to critique the entire exercise. They should move about the site and observe all of the functional areas and response efforts. Outside evaluators often have preferences or certain areas of expertise, such as security or medical, which planners should determine before making evaluation assignments.
  - (ii) **Critique sheet** - A critique sheet is a considerable aid in the evaluation of an emergency exercise. It is most effective if it is divided into separate sections addressing each of the distinct functional areas with sufficient space for taking notes. Questions asked should be general since being too specific may consume evaluators' time with details and prevent them from seeing the drill from a larger perspective.
  - (iii) **Briefings** - Planners should brief evaluators on their functions and last-minute changes the day before the exercise. At that time, planners may give them final copies of exercise information and critique sheets and distribute distinctive vests, apparel, hats, badges, or other means of identification. Evaluators should also attend media and response unit briefings, at which they can raise questions about the plan, identify the

exercise participants, and familiarize themselves with the marking or clothing that identifies each emergency response function.

- (d) Feedback - three systems of feedback common in exercises are on-site or immediate feedback, critique conferences, and written reports. One or more of these systems should be used.
  - (i) On-site or immediate feedback - On-site feedback involves assembling representatives from all participating groups immediately after the exercise to get their comments while the exercise is fresh in their minds. Naturally enough, many details may escape as an evaluator tries to summarize several hours of intense activity in a five- minute oral report. Evaluators should overlook other details until later, when they compare notes with other response personnel. The great advantage of on-site feedback is that everyone's interest is at its peak; the most critical problems will likely be discovered immediately. To conduct an on-site feedback session, aerodrome operators and exercise planners should set up rules of order to ensure uninterrupted speaking opportunities. A stenographer or tape recorder should record the session for later review.
  - (ii) Feedback conference - the feedback conference should usually involve planners and managers of the various emergency response units involved in the exercise and the plan. Planners should schedule it no sooner than one week after the exercise. Managers will probably need at least a week to hold feedback sessions with their own personnel and gather valuable information to share at the conference. Local emergency coordinators should attend the feedback conference, both to benefit the airport in its use of community resources and to ensure that the community benefits from the aerodrome experience.
  - (iii) Written reports - evaluators experienced in exercises and critiques should write reports of their observations. Planners may also ask other personnel for written reports. Written reports are often more candid than comments made during the on-site feedback sessions, where participants might be sensitive to outsiders' comments. The aerodrome operator should make every effort to contact other aerodrome operators who have been involved in actual aircraft accidents and those who have conducted full-scale emergency exercises to acquire data and procedures to correct and upgrade their AEP.

### **5.3 Review Following an Accident**

As soon as practical following an accident, responding agencies should obtain oral or written reports from all of their participating personnel and complete a document covering the entire response operation. A table top meeting should then be held to consider these documents and, if required, make changes to the emergency plan considered necessary to improve the response capability for future emergencies.



## **APPENDIX 1: TYPES OF AERODROME EMERGENCIES**

The following is a list of emergencies that shall be considered for inclusion in the AEP. For clarity they have been grouped into three categories; aircraft emergencies, security emergencies and other emergencies.

### **1 Aircraft Malfunctions**

#### **Local Standby**

A local standby phase is declared when an aircraft approaching the aerodrome is known, or is suspected, to have developed some defect, but the trouble is not such as would normally prevent carrying out a safe landing. Declaration of the LOCAL STANDBY PHASE should bring all aerodrome-based emergency services to a state of readiness but in general, although off-aerodrome components are notified, they will remain at their posts.

Ensure appropriate and detailed stand down procedures are in place.

#### **Full Emergency**

- (a) A full emergency phase is declared when an aircraft approaching the aerodrome is, or is suspected to be, in such trouble that there is danger of an accident. Declaration of a **FULL EMERGENCY PHASE** should bring all facilities, both on the aerodrome and in the area or community, such as medical and ambulance services, police and fire services, to a rendezvous point on the aerodrome. It will also alert the hospital to prepare for a possible reception of injured people and for the road traffic control to be instituted to clear the way for emergency vehicles.
- (b) Ensure appropriate and detailed stand down procedures are in place.

### **2 Aircraft Accident**

- (a) An aircraft accident phase is declared when an aircraft accident, or crash, has occurred on or in the vicinity of the aerodrome. Declaration of the **AIRCRAFT ACCIDENT PHASE or CRASH** can occur at any location. The actual response to the accident from the aerodrome will differ depending upon the location.
- (b) The SLCAR Part 14A specifies two general locations to be considered in respect to emergency planning. They are *On Airport* and *Off Airport* accidents. Off airport accidents can, depending upon geographical features surrounding the aerodrome, be further categorised as *Off Airport – Land*, or alternatively *Off Airport – Water* accidents.
- (c) It is important to define in the AEP what geographical area each of these emergency phases cover, as well as what status the AEP has in governing the response. As an example, On-Airport may be defined as being within the perimeter fence of the aerodrome or may include the approach and departure areas as defined for the aerodrome.
- (d) The SLCAR Part 14A indicates the AEP shall consider an area within an 8km radius of the airport.

### **Points to Consider**

Examples of aspects which require due planning consideration include:

- a. That meeters and greeters, particularly relatives and the media, will congregate at the aerodrome either from where the aircraft departed or where it was due to arrive; therefore terminal management issues will need to be considered.
- b. Having adequate private areas for the relatives etc., and enabling them to be cared for over an unknown period of time.
- c. Flight information displays showing information concerning the flight.
- d. The media - how they are controlled and managed.
- e. Potential telecommunication overload from enquiries.
- f. Assisting the air operator in communications and logistics.
- g. Accommodating the passengers and crew from the aircraft, including separating the passengers from the crew involved in the incident.
- h. Possibility of issuing a NOTAM to restrict or close the aerodrome and getting airspace restrictions put in place by either Airways Corporation or the Authority.
- i. Transport for the crew and passengers from the scene to a location where they cannot see the incident site and ensuring that all persons are accounted for.
- j. Private area for the passengers after the incident and providing communication equipment for them i.e. phones, cell phones, and refreshments.
- k. Medical infrastructure including hospitals, ambulances and other hospital transfer methods e.g. helicopter, buses.

### **Incident on ground**

This emergency phase relates to aircraft occurrences that occur while the aircraft is on the ground. Examples of such circumstances include, aircraft fire while on the ground, often associated with overheated brakes; aircraft collision with vehicle or fixed obstacle.

### **Immobilised aircraft**

This emergency phase relates to aircraft that have become disabled on the movement area either as a result of an excursion from the paved area, blown tires, etc. This phase activates the implementation of the Aircraft Recovery Plan. The aircraft recovery plan can also be automatically implemented following an aircraft accident during the AEP recovery phase.

### **Aerodromes near water**

Where aerodromes are located close to large bodies of water, e.g. sea, special provision shall be made for rescue and fire fighting in the event of an incident or accident in the water. This may include the use of sea craft, helicopters, extra rescue equipment including flotation devices, and blankets for survivors to combat hypothermia. Refer to Appendix 6 of the ICAO Airport Services Manual Part 7 (Doc 9137-AN/898), Airport Emergency Planning for more information.

### **3 Security Emergencies**

Such procedures shall be consistent with the National Civil Aviation Security Programme, Aerodrome Security Programme or Air Operator Security Programme.

#### **3.1 Sabotage**

This emergency phase relates to instances of known or suspected sabotage against aircraft, or navigation facilities affecting the safety of aircraft. The response typically should be prioritised towards ensuring the safety of aircraft and crew members/passengers, checking for further evidence or instances of sabotage, going to a heightened level of awareness for further acts of sabotage, and investigation of the circumstances towards finding the source of the sabotage.

#### **3.2 Unlawful Seizure (Hijack)**

This emergency phase relates to instances where there is the physical taking over of an aircraft by person or persons by actual force or implied threat thereof for the furtherance of their own aims. Response procedures are likely to include specialist services and the lead agency change depending upon whether the event escalates or not. From an airport operator's perspective, the provision of a remote parking location is required where aircraft subject to such threat can be parked to minimise any further risk to other aircraft, property or people. Such a site shall be at least 100m from the nearest building or flight path and not interfere with normal aircraft movement. The area shall have lighting available during the hours of darkness or at least have portable lighting available within 30 minutes.

#### **3.3 Bomb Threat (Aircraft)**

This emergency phase relates to instances where a bomb threat has been made against, an aircraft, airline or passenger, whether it be specific or non-specific, verbal or in written format. Prior to initiating such an emergency phase however, it is common practice to utilise a threat assessment technique called positive target identification (PTI) to ascertain whether such a threat is a hoax or whether the emergency plan needs to be activated. This shall not preclude the lead agency, aviation security service or airline from requesting the activation of the emergency plan at any stage.

#### **3.4 Unattended Article**

An unattended article is a bag or other items, labelled or unlabelled, which has not been authorised to be located in any given area, that is considered to have the potential to cause harm or damage to people or property, and which by either its appearance or location is regarded with suspicion. This emergency phase is normally warranted after investigation of the article, and where the owner cannot be identified or located to collect the article within a reasonable but brief timeframe (approximately 5-10 minutes). Responses often include evacuation of a given area until such items can be considered safe.

#### **3.5 Suspicious Article**

(a) A suspicious article is a piece of baggage or parcel in the baggage handling system, which has been identified through use of security detection equipment as potentially containing explosives, and where the owner of the item cannot be located for further questioning or investigation of the contents.

- (b) This emergency phase is activated where a bag or parcel remains un-cleared following the final level of security screening at the aerodrome, and is used to initiate procedures to render the article safe. A similar emergency condition can apply when cargo has been screened and further investigative efforts fail to adequately identify the contents. This emergency phase only applies to aerodromes where explosive detection equipment is installed as part of the baggage handling system or cargo screening facilities.

### **3.6 Bomb Threat (Building)**

- (a) This emergency phase applies when a threat has been made, whether specific or non-specific, verbal or written, to the effect that a device has been placed in or near a building, which through its action will pose imminent danger to the occupants or indirectly to other persons.

### **3.7 Civil Unrest**

- (a) This emergency phase applies to those instances where civil unrest occurs at the aerodrome. Civil unrest is regarded as being where a group of people form a critical mass for the purposes of disrupting the functionality of the aerodrome through, their physical presence on site, or destruction of property.
- (b) For example, this could take the form of an unauthorised demonstration, or unruly strike action against an airport tenant.

## **4 Other Emergencies**

### **4.1 Natural Disasters**

- (a) Natural disasters such as, storms, volcanic eruption, or tsunami warning can be either grouped under one general heading for civil defence emergencies or aerodrome specific response plans identified for each situation or a combination of both.
- (b) Earthquakes can bring damage to infrastructure including terminal buildings, fuel farms, visual and navigation aids and paved areas such as runways. A check of these facilities shall be instigated following any known occurrence to assess whether any damage has occurred and for safe functionality. On airport agencies shall be alerted to the emergency phase so that personnel can conduct appropriate assessments of facilities and services to ensure that aircraft or passenger safety will not be compromised.
- (c) Storms can bring high winds and rain which can jeopardise the safety of workers and passengers in open areas, as well as aircraft and other equipment on the ground. Normally such occurrences require an escalation of mitigating risk responses as the storm approaches. This emergency phase shall be declared when wind speeds reach an agreed threshold and safe operations are jeopardised. Normally only on airport agencies require notification of this specific emergency phase unless injury to person(s) or significant damage to property occurs.

## **4.2 Structural or Ground Fire**

This emergency phase applies to both structural and other non-aircraft fires on the aerodrome.

## **4.3 Hazardous Substances**

- (a) This emergency phase applies to spillages of hazardous substances (dangerous goods) at the aerodrome. Packages containing dangerous goods can be identified by the distinctive diamond-shaped dangerous goods label. More often than not occurrences require special precautions to be taken by personnel.
- (b) Consideration shall also be given as to whether such an emergency phase will or will not include fuel spillages, which unfortunately are reasonably common. If so it shall be determined what level of spillage warrants activation of the emergency plan. Alternatively, fuel spills can be dealt with under a general phase of *Aerodrome Incident*, with an escalation of the response level depending upon the size of the spillage.

## **4.4 Medical Emergency**

- (a) Medical emergencies in the form of people suffering heart attacks, people collapsing, trips & falls, respiratory difficulties, severe air sickness etc. often occur at airports. These are normally responded to by on airport personnel pending arrival of local health authority paramedics or doctors if required. The emergency plan is not normally activated for these sorts of occurrences. Consideration however should be given to medical emergencies where there are multiple persons involved and which are unable to be attended to by on airport personnel.
- (b) Another form of medical emergency which requires special precautions to be taken, involves passengers showing symptoms of a communicable disease. Such symptoms might include diarrhoea, vomiting, fever or skin rash. Such passengers require special quarantine measures to be taken at the airport. Such quarantine measures may also be necessary for cases of suspected mass food poisoning, until at least it can be confirmed that this is the cause of patients feeling unwell.
- (c) Normally aircrew should advise ground-staff prior to their landing if they suspect passengers are suffering from a communicable disease. Local health authorities must be notified for advice and an emergency phase declared if passengers require to be quarantined. It shall be noted that in these instances suitable toilet facilities must be available in quarantined areas.
- (d) Response procedures for these later forms of medical emergency can be independently contained under a separate *Quarantine* or *Communicable diseases* emergency phase. Such procedures are a requirement for all aerodromes serving international operations.

## **4.5 Airport incident**

This emergency phase generally covers occurrences that occur at the airport which do not necessarily require off airport assistance. Incidents such as motor vehicle accidents, fuel spills and some singular medical emergencies are examples of airport incidents which can be notified to on airport agencies and responses escalated as needs arise.

## **5 Supporting Plans**

### **5.1 Terminal Evacuation Plan**

A terminal evacuation plan is often implemented as a result of specific declared emergencies, e.g. security incidents, structural fires, hazardous substance spillages, etc. A terminal evacuation plan can be part of the AEP or a separate self-contained document referenced by the AEP.

### **5.2 Welfare Plan**

An emergency response or recovery phase may require the assistance of specialist welfare agencies. They may be needed to:

- (i) Deal with meeters and greeters
- (ii) Care for survivors with non-urgent injuries
- (iii) Undertake stress debriefing and provide ongoing assistance to staff
- (iv) Deal with relatives and survivors who want to return to the site after the event.

The AEP Committee shall consider developing a Welfare Plan to support the AEP response. A welfare plan can be part of the AEP or a separate self-contained document referenced by the AEP.

### **5.3 Care of Meeters and Greeters**

- (a) During the emergency response phase, additional resources will be required to care for the meeters and greeters, and assist Police with obtaining personal information concerning passengers involved in an aircraft accident (for identification and reconciliation purposes).
- (b) Consider involving religious leaders and interpreters as there may be a large number of non-English speaking persons involved.

### **5.4 Care of survivors**

Assistance will be needed with the care of survivors with non-urgent injuries, including obtaining personal information for identification and reconciliation, and obtaining contact information for family and friends.

### **5.5 Care of responders and staff**

- (a) Welfare support is also necessary during the recovery phase of the emergency response. Responders and staff can be equally traumatised by the events of an aerodrome incident, particularly an aircraft accident.
- (b) All agencies involved shall consider obtaining professional assistance for critical incident stress debriefing and ongoing support. Victim support or industrial psychologists are usually able to assist in this regard.

### **5.6 Care of relatives and survivors returning to the site**

The welfare plan shall consider the likelihood of relatives or survivors wanting to visit the site of the accident. This includes providing personal support and facilitating the visits.

## **5.7 Aircraft Recovery Plan**

- (a) Aircraft can become immobilised on the manoeuvring area for many reasons including an accident, an excursion from the runway or taxiway, a mechanical failure through loss of hydraulic pressure or blown tires. An aircraft recovery plan is designed to ensure removal of the immobilised aircraft in a timely manner without further damage to the aircraft and enabling the area concerned to be returned to active service as soon as possible.
- (b) Ultimately it is the aircraft operator's responsibility to remove the aircraft; however, the efficiency of such a task can be improved if a separate plan is developed to coordinate all agencies involved in the aircraft's removal. The plan can form part of the AEP or a separate self-contained document referenced by the AEP.
- (c) Aircraft recovery plans shall like the AEP, outline the roles and responsibilities of the main agencies involved who will be in charge of coordinating the removal, and the communications system for activation of the plan.

Likely agencies may include

- (i) Aerodrome operator
- (ii) Aircraft operator
- (iii) Aircraft maintenance organisations
- (iv) Airport Rescue Fire Service
- (v) Aviation Fuel Company
- (vi) Security providers
- (vii) Specialist equipment or resource providers

Additionally, a list of resources available locally, or location of specialist removal equipment for the aircraft, shall be contained in the plan with up to date telephone numbers for contact personnel. The plan shall be reviewed periodically to ensure equipment is still available and/or appropriate for the type of aircraft the aerodrome is serving.

Examples of resource requirements may include

- (i) Specialist equipment designed for lifting or towing of an aircraft
- (ii) Facilities for refuelling the aircraft
- (iii) Cranes or winches for lifting and pulling
- (iv) Diggers for creating temporary pathways for aircraft wheels and recovery equipment
- (v) Aggregate, metal or wood merchants for providing material to stabilise pathways or create working platforms
- (vi) Trucks and trailers for transport of materials or aircraft
- (vii) Barges and salvage experts for aircraft recovery in water
- (viii) Lighting for removal during hours of darkness

Local sources of equipment and materials include:

- (i) aircraft operators on-site
- (ii) maintenance providers on site
- (iii) hire companies
- (iv) crane operators
- (v) heavy haulage operators
- (vi) salvage experts
- (vii) aggregate or timber merchants

The plan shall give an indicative timeframe in which the equipment can be made available on site to assist with management planning of the recovery process, once the plan is activated.

### **5.8 Media and Information Management Plan**

- (a) Aerodrome emergencies, particularly aircraft accidents, draw a great deal of public attention particularly from the media. In addition, meeters and greeters also require information concerning the emergency. These information requirements must be carefully managed and factual information provided in a controlled manner.
- (b) The media will normally approach anyone who might be able to provide an inside perspective on the emergency. Therefore, it is advisable that the AEP includes a supporting media plan for dealing with information requests, the protocol for releasing information and the assigned media liaison person. The plan can form part of the AEP or a separate self-contained document referenced by the AEP.
- (c) Ensure all enquiries are directed to the agreed media liaison point as listed in the AEP. It is important to provide brief, factual information to satisfy the immediate requirements of the media.
- (d) Depending upon the scale of the emergency, consideration shall be given to the establishment of a dedicated phone number for all enquiries. Such a system can help free up the telecommunications network for ongoing use during the emergency and manage the overall information requirements resulting from an incident.



## **APPENDIX 2: COMMUNICATIONS AND COORDINATION**

### **1 Communications**

- (a) Communications are the most critical aspect of AEP. The aerodrome operator is responsible for ensuring a prompt response to emergency incidents that are governed by the AEP. A key aspect to achieving this is the rapid alerting of all necessary responding agencies and individuals to the emergency phase (activating the AEP).
- (b) The AEP shall clearly define the activation sequence for calling out the agencies or individuals required to respond. Additionally, there shall be a sequence and process for cancelling the emergency phase and standing down agencies involved.
- (c) It is important to identify in the AEP who is the initiator of the emergency alerting system for each type of emergency. At larger aerodromes, this should often be the Air Traffic Control Tower.
- (d) For smaller aerodromes which may not have a 24 hour a day staff presence, the Fire Service, once notified, may initiate the AEP and emergency alerting sequence.
- (e) The Emergency Alerting System shall be tested often to ensure it is working and that telephone numbers are correct, and to highlight any errors or weakness in the alerting aspects of the AEP. Testing at irregular intervals allows the system to be tested with different operators and at differing times of the day.
- (f) Aerodrome Emergency Alerting can be achieved in a variety of ways. Below are the most common.

#### **1.1 Cascade System (Call Tree)**

- (a) With a cascade system (or call tree) one call is made from the alerting system initiator to a group of people alerting them to the emergency. The receiver reads back the information from the caller to ensure they have heard and understood the message correctly. The receivers of that call in turn telephone the people listed on the level below them to pass the message on as part of their response to the emergency. The call continues to cascade down the pyramid until all agencies/ individuals listed are notified.
- (b) The agencies or individuals on the call tree shall be arranged in order of their importance to the agreed response. Emergency services such as the Airport Rescue Fire Service, the Fire Service, the Security Service and the Ambulance Service are almost always at the top of the cascade system.
- (c) The agencies or individuals listed to respond is dependent on the type of emergency phase being declared, i.e. not all agencies are required for some emergency situations, and additional specialist groups may be required for certain emergencies.
- (d) The cascade system does have disadvantages. It can take a long time to transfer the necessary information to all the responding agencies and people, especially as the information requires to be read-back by the receiver to the caller to ensure that they have heard and understood the message correctly. There is a risk that during significant emergencies such as an aircraft accident at the aerodrome, that the telephone network may become overloaded with the message unable to be transferred.

- (e) The AEP Committee shall identify alternative methods of transferring information should the primary communication system fail or become unavailable for some reason, and include them in the AEP.

## **1.2 Leased Lines**

- (a) Aerodrome operators could also mitigate the risk of telecommunications network overload by leasing what is known as an allied line, a hot line or a dedicated line. These lines usually connect the air traffic control tower or aerodrome operator with the three main emergency services and are dedicated for sole use by these agencies, i.e. they are not used by the telecommunications provider to route public call traffic through. They continue to work even though the public switchboard may be overloaded or other situation where emergency calls might otherwise be placed in a queue.

## **1.3 Automated Emergency Alerting System**

- (a) An automated emergency alerting system (EAS) can use a variety of transmission medium e.g. dedicated lines, cell sites or data/radio transmission, to send a preformatted message to a number of agencies simultaneously.
- (b) The initiator of the message records or types the message into the EAS. Once sent the message is forwarded directly to the agencies connected to the system. The receiving agencies receive the message, depending upon the actual system, as a printout (by fax or printer), pager message or voice recording.
- (c) Voice recorded messages require some form of verbal acknowledgement that the message has been received but the more automated systems can display the message's receipt and acknowledgement on screen.

The main advantages of an automated EAS are:

- (i) It allows an emergency message to be sent to several agencies simultaneously, reducing the overall response times and freeing up an operator to do other tasks
- (ii) If it uses radio data transfer it will not contribute to telecommunications network problems or overloading
- (iii) Text versions provide a record of the message and allow for a more rapid response than when an oral message has to be played back
- (iv) The message can be received at a variety of locations e.g. office or vehicle.

## **1.4 EAS Message form**

- (a) The EAS message form shall be provided to agencies to record message details on (if the message is not passed in text format), and ensures that key information is provided to permit responding agencies to react appropriately.
- (b) While aspects of the message can differ depending upon the type of emergency, it is important that the message format is generally standardised to conform to the requirements of the centralised emergency services communications centres that will receive emergency calls from a number of different aerodrome locations.

- (c) Regardless of which organisation is the first point of contact it is necessary to identify the aerodrome from which the call is being made from before any further information is passed on
- (d) The structure of the message for aircraft occurrences shall include information in the following order:
  - (i) Prefix (Used for non-emergency use, i.e. exercise or communications check)
  - (ii) Phase of emergency (Either aircraft crash, full emergency or local standby)
  - (iii) Location or runway (the location of the accident or the runway to be used for landing)
  - (iv) Type of aircraft
  - (v) Estimated time of arrival
  - (vi) Nature of trouble
  - (vii) Persons on board
  - (viii) Fuel on board (if known)
  - (ix) Dangerous Goods (if known)
- (e) If all information is not readily obtainable or known, the most crucial aspects of the message should be passed. The structure of the message as shown above is based upon the criticality of each component of the message, the more important components being first in sequence.
- (f) When initially unknown information becomes available, the missing components of the message shall be relayed to the emergency services.

***Location***

- (g) For incidents that occur off the aerodrome or when the aerodrome is in or bounded by a rural area, provide responders with an emergency grid map reference to help them to determine the best route to the location avoiding geographical barriers that might impede a direct approach.
- (h) For aerodromes located in predominately urban locations, provide a general location in terms of a suburb or street name for responding emergency services.

***Identifying the aircraft***

- (i) When identifying aircraft type give a weight category of the aircraft if known. The Fire Service should dispatch an appropriate number of vehicles based upon the size of the aircraft.
- (j) Provide the airline name or call sign of the aircraft if it is known. It is not immediately crucial for the purposes of response, but provides valuable support information to responders.

***Other aerodrome incidents***

- (k) In any other aerodrome incidents, such as fire, threats to security, hazardous substances spillages and medical emergencies, the most relevant information is the:
  - (i) Exact location of the incident
  - (ii) Nature of trouble

### Sample Emergency Message Form

## EMERGENCY MESSAGE FORM

..... AIRPORT EMERGENCY ORGANIZATION

**PREFIX**

**For Non-Emergency Use Only**

**EXERCISE (SPOKEN THREE TIMES)**

**COMMUNICATION CHECK (SPOKEN THREE TIMES)**

**PHASE**

**CRASH CRASH CRASH**

**FULL EMERGENCY FULL EMERGENCY FULL EMERGENCY**

**LOCAL STANDBY LOCAL STANDBY LOCAL STANDBY**

(A) Location or RWY to be used: .....

(B) Type of aircraft: .....

(C) **Estimated time of arrival (ETA):** .....

(D) Nature of trouble: .....

(E) Persons on board (POB): .....

(F) Fuel on board if known: .....

(G) Dangerous goods on board if known: .....

<b>READ BACK</b>	<input type="checkbox"/>
------------------	--------------------------

Time of Receipt: ..... hours.

Dispatched to:

AGENCY

TIME

_____	_____
_____	_____
_____	_____

It may be necessary to provide AEP information, or specific procedure lists, on site at the aerodrome for responding agencies. Not all agencies involved may have the AEP detail in their vehicle or may be unfamiliar with their onsite responsibility. Consider having a location at the aerodrome or on the outside of the terminal possibly in a mailbox or cabinet where specific sections of the AEP are available for the first responder, these may simply be laminated sheets for quick reference.

***Considerations for small aerodromes***

Small or remote aerodromes (including airstrips) may not have staff available in an emergency to initiate an emergency response, so they rely on people who may not be familiar with the aerodrome and its operation. In these circumstances it is recommended that a sign be displayed in a prominent position (preferably with a phone), detailing who to telephone and providing details of the location (aerodrome name and physical location).

**Information to third party aerodromes**

- (a) Aerodrome operators shall give consideration to providing information about an aircraft accident, if it is an air transport operation, to the aerodrome operator from where the aircraft originated or to where the aircraft was destined. Normally this should be communicated by the airline operator however depending upon the size of their operation it is advisable for the aerodrome operator to communicate this information in a timely manner as well.
- (b) This should permit the third party aerodrome operator to manage activity at their location relating to the incident e.g. meeters and greeters, relatives, media etc.
- (c) Such notification shall form part of the aerodrome operators' standard procedures as part of the response to an aircraft accident.

**Coordinated Incident Management System (CIMS)**

- (a) To better coordinate collective efforts, the emergency response model known as the Coordinated Incident Management System (CIMS) should be employed. This model standardises the coordination of these agencies when they are involved in the same incident response.
- (b) The CIMS is the model for command, control and coordination of an emergency response. It provides the rules that define the system for managing incidents of any size and defines the relationship, responsibilities and management rules for organisations involved.
- (c) The CIMS is based on:
  - (i) common terminology
  - (ii) a modular organisation
  - (iii) integrated communications

- (iv) consolidated incident action plans (the AEP)
  - (v) a manageable span of control
  - (vi) designated incident facilities (incident command point (ICP), emergency operations centre (EOC) etc.)
  - (vii) comprehensive resource management
- (d) Depending on the scale of emergency, the CIMS is built around four major components:
- (i) Control – the management of an incident
  - (ii) Planning and Intelligence – the collection and analysis of incident information and planning of response activities
  - (iii) Operations – the direction of an agency’s resources in dealing with an incident
  - (iv) Logistics – the provision of facilities, services and materials required to deal with an incident.
- (e) Control of the incident is the responsibility of the Incident Controller. The Incident Controller must:
- (i) Establish command and control
  - (ii) Establish the incident command point
  - (iii) Protect life and property
  - (iv) Control people and equipment
  - (v) Maintain accountability for responder and public safety as well as task accomplishment
  - (vi) Establish and maintain effective liaison with outside organisations, including the EOC when it is activated.
- (f) It is important to distinguish between:
- (i) Incident Control, which relates to situations and operates horizontally across agencies, and;
  - (ii) Command lines, which operates vertically within an agency. At an incident there is only one Incident Controller but there should be as many lines of command as there are agencies involved.
- (g) As an incident grows, other facilities in addition to the ICP and EOC shall be identified and established:
- (i) Staging areas where resources are gathered before being despatched to an incident area or safe forward point
  - (ii) A Safe Forward Point, which is a safe location near the incident from which forward operations can be supported
  - (iii) An assembly area where resources are organised and prepared for deployment and that is located away from an incident at an established facility.

***The set-up of the EOC***

- (a) The Emergency Operations Centre (EOC) must be carefully designed and set up properly to allow it to fulfil the purpose it is intended for. It must be bear in mind that the EOC should be used as a crisis management room. Five or six persons will be talking with portable radios, telephones will ring and different persons will attempt to enter the EOC. Representatives attending the EOC will not arrive at the same time, each new comer will require an update of the situation. The situation should be updated regularly, as to the number of victims on site, at the temporary hospital, at various hospitals etc. Information will have to be communicated to each participant.
- (b) In order to minimize the impact of those activities, the following aspects shall be looked at:
  - (i) Availability - the EOC should be operationally available 24 hours a day.
  - (ii) Accessibility - the location of the EOC shall be known by each participant.
  - (iii) Access control - the access to the EOC shall be controlled. Only the senior representative of the various agencies shall be allowed access to the EOC. One representative per agency. The press shall be denied access to the EOC or to its immediate vicinity.
  - (iv) Each participant shall be isolated from the other participants by a sound absorbent partition wall.
  - (v) Each participating agency shall have a permanent locker available at the EOC. This allows the storage of different materials such as battery charger for portable radio, a copy of the emergency manual, headsets etc.
  - (vi) In order to keep the number of verbal exchanges to a minimum, it has been found useful to set up a board where basic as well as information to be updated are posted.
  - (vii) Internet connection shall be available.
  - (viii) Each participating agency shall have the possibility to use a telephone.
  - (ix) Battery chargers for mobile phones shall be available.
  - (x) Battery chargers for mobile radios shall be available.
  - (xi) Fax capability shall be available.
  - (xii) Secondary power source shall be available.
  - (xiii) Recording facilities shall also be available (recording of certain conversations and recording of information relating to the processing of the emergency data).



<b>ABC AIRPORT</b>					
<b>1) Airline:</b>		<b>2) AFT type:</b>		<b>3) Fuel on board:</b>	
<b>4) Flight No:</b>		<b>5) No. of Pax<sup>1</sup>:</b>		<b>6) DG<sup>2</sup> on board:</b>	
<b>7) Number of Passengers accounted for:</b>					
<b>7.1) Number of dead:</b>					
<b>7.2) Sent to the temporary hospital:</b>					
<b>7.3) Sent to hospitals:</b>					
<b>7.4) Sent to the Air Terminal Building:</b>					
<b>7.5) Others:</b>					
<b>8) Number of ambulances available:</b>					
<b>9) Number of doctors on site:</b>					

*Table 1 - Availability Board for EOC*

<sup>1</sup> Pax stands for passengers but in this case does include passengers and crew members.

<sup>2</sup> DG stands for Dangerous Goods.

**Incident command point (ICP)**

- (a) Aerodromes are required to have a command post for each type of emergency planned for. The incident command post (ICP) or mobile command post is required to facilitate the CIMS approach, aerodrome operators (regardless of whether they are international or domestic operations) shall identify an ICP for each type of emergency planned for in the AEP.
- (b) The incident management team receives and disseminates information and make decisions on the response activities from the ICP. The ICP may be in the form of a vehicle, caravan, trailer, tent or building.
- (c) The ICP should be provided with the following;
  - (i) Necessary equipment and personnel to communicate with all agencies involved in the emergency, including the EOC. The communication and electronic devices should be checked each month
  - (ii) headsets or sound absorbent partitions for each participant, in order to eliminate confusion and missed transmissions, since several different agencies are working together in the command post utilizing several radio frequencies and telephones
  - (iii) Maps, charts, and other relevant equipment and information should be immediately available at the mobile command post.
  - (iv) An elevated distinguishing marker, such as a chequered flag, coloured traffic cone, balloon or rotating light, for easy recognition
- (d) It may be necessary to establish a sub-command post. When this is required, one location should be designated as a “master” command post with adequate communications to the sub-command post.

## **APPENDIX 3: MEDICAL CONSIDERATIONS**

### **1 Medical Equipment**

- (a) The amount of stock or medical equipment held for aerodrome emergency purposes shall be commensurate with the largest passenger aircraft type regularly using the aerodrome, taking into consideration other available resources which might be transported in a timely manner to the aerodrome in an emergency. For small aerodromes with no rescue fire service, basic medical supplies shall be available in the terminal building. At domestic aerodromes with a rescue fire service there shall be a dedicated first aid room and the rescue fire officers shall be trained in first aid and have suitable medical equipment not only on the rescue fire vehicles, but also in the terminal building. At international aerodromes the level of medical supplies shall be commensurate with the volume and type of aircraft operating but there shall be at least medical supplies available in the terminal building, on the rescue fire vehicles, and in addition a well-equipped portable medical unit, possibly a trailer or small vehicle, for use at any incident scene.
- (b) A problem is deciding what equipment to keep as many medical use items have expiry dates. The Aerodrome Emergency Planning Committee shall consider retaining the services of a medical advisor or coordinator to help determine what is appropriate to be held at the aerodrome. The local ambulance coordinator must be able to assist.
- (c) Containerised medical supplies can also be more readily transported by a variety of means should an incident occur off airport or at a location that cannot be readily reached by road transportation.
- (d) Bear in mind additional items such as oxygen bottles and masks, blankets and stretchers as these are normally not carried in large quantities by the emergency services.

### **2 Triage and Medical Care**

#### **IMMEDIATE NEED FOR CARE OF INJURED IN AIRCRAFT ACCIDENTS**

- (a) In the aftermath of an aircraft accident, many lives may be lost and many injuries aggravated if immediate medical attention is not provided by trained rescue personnel. Survivors should be triaged, given available emergency medical aid as required, and then promptly evacuated to appropriate medical facilities.

#### **TRIAGE PRINCIPLES (ALL EMERGENCIES)**

- (b) “Triage” is the sorting and classification of casualties to determine the order of priority for treatment and transportation.
- (c) Casualties should be classified into four categories:
- (d) Priority I: Immediate care Priority II: Delayed care Priority III: Minor care Priority IV: Deceased
- (e) The first qualified, medically trained person to arrive at the site must immediately begin initial triage. This person(s) should continue performing triage until relieved by a more qualified person or the designated airport triage officer. Victims should be moved from the triage area to the appropriate care holding areas before definitive treatment is

rendered. Casualties should be stabilized at the care holding areas and then transported to an appropriate facility.

- (f) Every effort should be made to ensure that Priority I casualties are treated first and receive ambulance transportation priority when stabilized. This is the responsibility of the triage officer.
- (g) Triage is most efficiently accomplished in place. However, the conditions at an accident scene may demand the immediate movement of casualties before triage can be safely accomplished. In that case, the casualties should be moved the shortest distance possible, well away from firefighting operations, and upwind and uphill from the scene.
- (h) Triage of casualties should include the use of casualty identification tags to aid in the sorting of the injured and their transportation to a designated hospital. This technique is especially suited to multilingual situations.

#### STANDARDIZED CASUALTY IDENTIFICATION TAGS AND THEIR USE

- (i) Need for standardized tags - Casualty identification tags should be standardized through colour coding and symbols to make the tag as simple as possible. Tags help to expedite the treatment of mass casualties in a triage situation and thus permit more rapid evacuation of the injured to medical facilities.
- (j) Tag design - Standardized tags should be designed to require only minimal information to be entered thereon, be usable under adverse weather conditions, and be water resistant.

In this tag, numerals and symbols indicate the medical priority classification of casualties as follows:

- (a) Priority I or immediate care: RED tag;
- (b) Roman numeral I; rabbit symbol
- (c) Priority II or delayed care: YELLOW tag;
- (d) Roman numeral II; turtle symbol
- (e) Priority III or minor care: GREEN tag;
- (f) Roman numeral III; ambulance with X symbol
- (g) Priority IV or deceased: BLACK tag

Where tags are unavailable, casualties may be classified by using Roman numerals on adhesive tapes or by placing marks directly on the forehead or on other exposed skin areas to indicate priority and/or treatment needs. Where marking pens are unavailable, lipstick can be used. Felt tipped pens are not advisable as they may smear in rain.

#### CARE PRINCIPLES

Stabilization of the seriously injured should be accomplished at the accident site. The immediate transportation of the seriously injured before stabilization should be avoided.

In accidents occurring on or adjacent to the airport, RFF personnel are generally the first emergency personnel on the scene. These personnel must be aware that it is imperative

that seriously injured casualties be located and stabilized as quickly as possible. In cases where fire control or prevention does not require the efforts of all rescue and firefighting personnel, available persons should immediately commence casualty stabilization under the direction of the most qualified trauma-trained individual on the scene. First response rescue vehicles should carry initial supplies of casualty-care equipment, including artificial airways, compresses, bandages, oxygen and other related equipment used for the stabilization of smoke inhalation casualties and severe trauma. Sufficient oxygen should be available for use on rescue and firefighting personnel. However, oxygen should not be used in areas where fuel spills or fuel soaked clothing is present due to the explosion hazard.

Actions taken during the first few minutes of medical treatment should stabilize the casualties until more qualified medical care is available. When specialized trauma teams arrive, more sophisticated medical care (i.e. cardiopulmonary resuscitation, etc.) should be provided.

The triage procedure and subsequent medical care should be placed under the command of one authority, the designated medical co-ordinator, upon this officer's arrival. Prior to this, the command of triage should be assumed by the individual designated by the commanding rescue and firefighting chief and should continue until relieved by the pre-designated medical co-ordinator.

The medical co-ordinator has responsibility for all medical aspects of the incident and should report directly to the on-scene commander. The medical co-ordinator's primary function should be administrative, not as a participant of the medical team treating the injured.

As a means to easily identify and distinguish the medical co-ordinator, a white hard hat and highly visible white coat or vest should be worn, with "MEDICAL CO-ORDINATOR" displayed front and back in reflective red lettering.

#### Triage and Medical Care

Care of Priority I (Immediate care) casualties. This type of casualty includes:

- a. major haemorrhages;
- b. severe smoke inhalation;
- c. asphyxiating thoracic and cervico-maxillo-facial injuries;
- d. cranial traumata with coma and rapidly progressive shock;
- e. compound fractures;
- f. extensive burns (more than 30 per cent);
- g. crush injuries;
- h. any type of shock; and
- i. spinal cord injuries.

The following actions are recommended:

- a. first aid (clearing of the wind pipe, stopping of haemorrhages by means of haemostatic pads, and positioning
- b. the casualty in the recovery position;
- c. resuscitation;
- d. oxygen administration, except in areas of fuel or fuel soaked clothing; and
- e. placing the injured under shelter pending transportation.

Care of Priority II (Delayed care) casualties. This type of casualty includes:

- a. non-asphyxiating thoracic trauma;
- b. closed fractures of the extremities;
- c. limited burns (less than 30 per cent);
- d. cranial trauma without coma or shock; and
- e. injuries to soft parts.

Care of casualties sustaining injuries which do not need immediate emergency medical treatment to sustain life can be delayed until Priority I casualties have been stabilized. Transportation of Priority II casualties should be performed following minimum on-site care.

Care of Priority III (Minor care) casualties - this type of casualty includes minor injuries only. Certain accidents/incidents will occur where passengers have either minor or no injuries, or appear not to be injured. Because these casualties can interfere with other priorities and operations, it is important that they be transported from the accident/incident site to the designated holding area where they should be re-examined.

It is important that provisions be made for the care, comfort, and identification of Priority III casualties. This should be provided through airport operations, the aircraft operator (where involved), or international relief organization (Red Cross, etc.). Specific treatment areas should be predesignated for this purpose, such as an empty hangar, a designated area in a passenger terminal, a fire station, or other available sites of adequate size (hotel, school, etc.). Any such area selected should be equipped with cooling systems, electric light and power, water, telephones and toilet facilities. A number of such preselected sites should be available so that, when an accident occurs, the most advantageous site can be selected based on both travel distance and space needs (number of casualties involved). All aircraft operator personnel and airport tenants should know the location of such designated facilities.

#### CONTROL OF THE FLOW OF THE INJURED

- a. The injured should pass through four areas which should be carefully located and easily identified.
- b. Collection area - location where initial collection of the seriously injured from the debris is accomplished. The need for the establishment of this area will be dependent upon the type of accident and the circumstances surrounding the accident site. Custody of

casualties is normally transferred from the RFF personnel to medical services at this point. In most cases, however, this transfer should occur at the triage area.

**Triage area** - The triage area should be located at least 90 m upwind of the accident site to avoid possible exposure to fire and smoke. If necessary, more than one triage area may be established.

**Care area** - Initially, there should be a single care area. Subsequently, this area should be subdivided into three sub-areas according to the three categories of injured, i.e. Immediate care (Priority I), Delayed care (Priority II) and Minor care (Priority III). Care areas can be colour coded for identification purposes (Red - Immediate, Yellow - Delayed, and Green - Minor). The use of coloured traffic cones, flags, etc., may be used.

**Transportation area** - a transportation area for the recording, dispatching and evacuation of survivors should be located between the care area and the egress road. Only one transportation area is normally required. However, if there is more than one transportation area, it is essential to have communications between them.

Mobile facilities for the stabilization and treatment of Priorities I and II casualties are recommended. Ideally these facilities should be operational in less than thirty (30) minutes. Their design must therefore permit rapid conveyance to the site and rapid activation to receive casualties. These facilities should consist of conventional or resuscitation ambulances. A resuscitation ambulance is an ideal shelter for a Priority I casualty.

The casualty may be treated there and subsequently conveyed directly to a hospital; red tents to accommodate serious or extremely urgent cases. These facilities, with provisions for integrated cooling and lighting, can be transported to the scene together with all the necessary medical equipment; and yellow tents to accommodate Priority II casualties. Transportable mobile hospitals or ambulances can be used for stabilization treatment for all casualties.

In an emergency, casualty are transferred from the accident site to a triage area, then to a treatment area, transport area, then a hospital or another medical facility. This methodology is followed by the ambulance service and is consistent with CIMS.

Triage tags are used to indicate a person's injury and to prioritise their treatment following initial assessment. They are also used to identify and record a patient's movement through the system. The tags are used by the ambulance services for mass casualty situations when the ambulance incident commander decides to do so. All ambulance services hold stocks of these tags.

After triage, transportation to hospital or other medical facility may be delayed depending upon numbers involved and the prioritisation of injury. People with non-life threatening injuries (walking wounded) can be contained in a separate holding area pending transportation to hospital. During this time, they shall be subject to ongoing care and have their personal information collected to help with the overall reconciliation process.

## CARE OF AMBULATORY SURVIVORS

The airport operator, aircraft operator (where involved), or other predesignated agency selected for the purpose is responsible to:

- a) select the most suitable holding area for the particular emergency from those predesignated in the airport emergency plan;
- b) provide for the transportation of the uninjured from the accident site to the designated holding area;
- c) arrange for doctor(s), nurse(s) or teams qualified in first aid to examine and treat the supposedly uninjured, especially for nervous traumatism (shock) and/or smoke inhalation, where pertinent;
- d) furnish a full passenger and crew manifest for accountability purposes;
- e) interview the uninjured and record their names, addresses, phone numbers, and where they can be reached for the next 72 hours;
- f) notify relatives or next of kin where deemed necessary;
- g) co-ordinate efforts with the designated international relief agency (Red Cross, etc.); and
- h) prevent interference by unauthorized persons or those not officially connected with the operation in progress.

Prearrangement should be made for the immediate transportation of the “walking injured”/ambulatory from the accident site to the designated holding area. This plan should be implemented automatically following notification of the emergency. A nurse or a person trained in first aid should accompany these people to the holding area. Each and every passenger and crew member should be examined for nervous traumatism (shock) and smoke inhalation. Cold or inclement weather may require additional provisions for their protection and comfort.

Occupants departing an aircraft using evacuation slides may be barefoot or without proper wearing apparel. Where the aircraft accident occurred in water or a marshy area, these people may be wet and uncomfortable. These problems should be anticipated by having supplies of clothing, footwear, and blankets readily available. It may be necessary to establish a special holding area which can supply warmth and clothing to prevent hypothermia, and be used for examination purposes, before these persons are transported to the designated ambulatory holding area.

## CARE OF FATALITIES (BLACK TAG)

Evidence must be preserved when caring for the fatalities at an aircraft accident site. It is important to realize that an undisturbed site will produce the most reliable evidence for determining cause and/or future corrective action that may help prevent a similar accident.

The plan should include contingencies that address management of the fatalities at the scene of the emergency. The plan needs to designate the person(s) responsible for contacting and co-ordinating with the forensic doctor. ARFFS personnel should understand the basic need for and the techniques and procedures used in aircraft accident investigation. Whenever possible, the wreckage should remain undisturbed until the arrival of the SLAAIIB.



Areas immediately surrounding the location of the fatality should be completely secured. Areas in which a large number of fatalities or dismembered bodies are located should be left undisturbed until the arrival of the forensic doctor and the aircraft accident investigator or a designee.

An adequate supply of disposable plastic gloves and leather gloves should be available for stretcher bearers removing the remains of the fatalities. Although disposable plastic gloves are acceptable, they are easily cut or torn by aircraft wreckage and debris. Leather gloves do not rip or tear but do absorb body fluids and decrease the sense of touch. It is suggested that one plastic and one leather glove be worn by the individual stretcher bearer or two bearers can work as a team. All gloves should be burned following use in gathering body parts.

If it becomes necessary to move bodies or parts of the wreckage, photographs should be taken showing the relative position of bodies and parts within the wreckage and a sketch of their respective positions should be made prior to removal. In addition, tags should be affixed to each body or body part displaced and corresponding stakes or tags should be placed where the body parts were found in the wreckage. A journal should be kept of all tags issued. Special precautions should be taken to avoid disturbing anything in the cockpit area. Should any flight controls be required to be displaced, photographs, drawings, or notes should be taken before displacement.

The fatalities should be extricated and personal effects removed from the wreckage prior to the arrival of the forensic doctor or appropriate authority only to prevent their destruction by fire or for other similar compelling reasons. When bodies must be moved, previously mentioned precautions should be taken. Provisions should be made to obtain sufficient body bags to contain all bodies as well as personal effects.

Body identification and determination of cause of death is conducted with the concurrence of the authority designated for this duty. This operation is generally conducted with the co-operation of forensic teams and other specialists.

Accidents which result in a large number of fatalities will overload normal morgue facilities. In areas where delay or temperature may contribute to the deterioration of tissue, refrigerated storage should be available. This may be provided either by a permanently located cooler or refrigerated semitrailers. The area for post-mortem examination should be located near the refrigerated storage and be arranged to provide a high level of security. This should be a suitable working area with electricity and running water, large enough for initial body sorting.

The morgue should be isolated and in an area remote from places where relatives or the general public have access. After identification has been made of the fatality, efforts to contact next of kin should commence.

As soon as practical after the emergency, all participants in the fire fighting and rescue effort should be debriefed, and their observations recorded. Sketches, diagrams, photographs, movie films, and tape and video recordings made on the accident site as well as appropriate details on the tagging of bodies and body parts removed from their positions are invaluable tools for investigators.

The forensic officer in charge should wear a dark brown hard hat and vest or other apparel, with “FORENSIC CHIEF” displayed front and back in distinctive lettering.

### **Care of Survivors**

- (a) Ambulance services and local health authorities usually have dedicated plans for dealing with mass casualty situations that take into account the care of survivors at the accident site. However, the AEP committees shall give consideration as to what resources are available on site to assist with care of the survivors including the activation of a welfare plan.
- (b) For large numbers of casualties’ provision shall be made for the designation of a temporary holding facility where the walking wounded, or those with non-threatening injuries will be held pending transfer to appropriate medical facilities. Such a holding area must be secured from the public and provide as much shelter and warmth as possible. Shelter and warmth are particularly important so consider the use of an area of the Terminal building, a hangar or other building. If this is not possible, the use of vehicles in the field to provide some shelter or relief from the conditions may be considered pending the erection of a temporary facility or transportation off site.
- (c) Provision needs to be made where it is likely large numbers of people may be involved for the transportation of survivors at the site and also from the site. In accidents, all surviving casualties shall be transported to a hospital or other medical facility for further assessment, regardless of their condition.
- (d) Although normally an aircraft operator’s responsibility, crew shall if possible be separated from the rest of the passengers as known acts of violence against crew have occurred in overseas occurrences.

### **Dealing with Fatalities**

- (a) The AEP Committee shall consider the possibility that a temporary morgue may be required to be established on site by the medical authorities.
- (b) The bodies of the deceased shall not be moved from site until the appropriate authorities, usually the Coroner, has given approval. Depending on the circumstances, specialist teams trained in disaster victim identification may be required to investigate and record evidence on site prior to the removal of anybody or body part.
- (c) If local mortuary facilities may not be adequate to cope with a large number of deceased, the AEP committee shall designate a suitable site at or near the aerodrome in the AEP. This site shall be determined in conjunction with local medical authorities. If a suitable site is not available then refrigerated containers from local transport firms, cool stores or similar may need to be used.

## **APPENDIX 4: SIMULATED EMERGENCY EXERCISE**

It is essential that the AEP is kept up to date and tested regularly. This can be achieved by performing the following emergency exercises;

- (i) Tabletop Exercise
- (ii) Partial Emergency Exercise
- (iii) Full-Scale Emergency Exercise

### **Tabletop Exercises**

- (a) The tabletop exercise is a test of the integration and capability of emergency response resources without the expense and disruption of services incurred by a full-scale exercise. The exercise may be held as a co-ordination exercise prior to the full-scale exercise, or it may be held at intervening times in order to reconfirm procedures, policy, telephone numbers, radio frequencies, and changes in key personnel.
- (b) The tabletop exercise is the simplest type of drill to stage, requiring only a meeting room, a large scale map of the airport, and a senior representative of each participating unit in attendance. A probable accident location is selected on the map and each participant describes what actions their unit would take to respond. This exercise will quickly reveal operational problems, such as conflicting communications frequencies, lack of equipment, confusing terminology and areas of jurisdiction. These exercises should be held semi-annually, but not coincidental with other exercises.

### **Partial Emergency Exercises**

Partial emergency exercises may be required for some of the participating units in order to train new personnel, evaluate new equipment or techniques, or to comply with mandatory recurrent training requirements. These drills are economical because of their limited scope and can be repeated as often as required in order to maintain a high standard of proficiency. They may involve only one unit, such as RFFS or medical, or a combination of several units, as desired. These exercises should be held at least once each year that a full-scale exercise is not held to ensure that any deficiencies found during the full-scale airport emergency exercise have been corrected.

### **Full-Scale Exercises**

- (a) The AEP should be given full-scale emergency exercises to test all facilities and associated agencies at intervals not exceeding two years. The exercise should be followed by a full debriefing, critique and analysis. Representatives of all organizations which participate in the exercise should also actively participate in the critique.
- (b) The staging of a biennial simulated full-scale emergency exercise is essential to maintain the preparedness and adequacy of the AEP. The special emergency exercises every other year is designed to test adjustments made to AEP deficiencies found in the full-scale exercise, and make any further amendments. The special exercises can be scaled down practical exercises or a simulated exercise.

### **Objectives of the Exercise**

The purpose of an aerodrome emergency exercise is to test the adequacy of

- (i) response of all personnel involved
- (ii) emergency plans and procedures; and
- (iii) emergency equipment and communication

### **Preparing for the emergency exercise**

- (a) Prepare for an emergency exercise by using the knowledge and expertise of the emergency services that regularly conduct such exercises.
- (b) Appoint an overall exercise commander to manage the running of the exercise and to determine when it is completed. For larger exercises it is often necessary to have a team implement the exercise with their own chain of command and communication requirements. The team usually comprises the exercise umpires and safety officers who are located in different areas to monitor the overall response.

### **Scoping the emergency exercise**

- (a) Before the exercise, the AEP Committee must identify the components of the AEP to be tested and set measurable objectives. This will also help determine the best form for the exercise. The committee shall limit the scope of the components to be explored in the exercise to ensure the learning environment remains positive and to gain the most benefit. An overly complex exercise is likely to result in participants becoming frustrated and confused.
- (b) Use partial exercises to target a specific agency or simulate a specific component of the response. These can be a table top exercise, a walk-through exercise, or a physical simulation.
- (c) A table top exercise is conducted in a room using either a layout of the airport or a whiteboard to help participants talk through the response procedures to a given scenario. It is used to test the integration and capability of emergency response resources without the expense and disruption of services incurred by a full-scale exercise. This method is often used to assist with familiarisation of staff, often as a precursor to a partial or full-scale emergency exercise.
- (d) A walk-through exercise is a level up from the table top exercise. This type of exercise is conducted in the field and is typified by its slower pace and ability for the sequence of events to be stopped at any point during the exercise to assess and analyse particular actions, by individuals or participating agencies.
- (e) A full-scale exercise is conducted in the field and simulates a complete response to a given emergency scenario. Given the scale of such an exercise some airports have conducted full scale exercises in two distinct phases over two consecutive days, a response phase and a recovery phase. This has assisted with critical review of the AEP.

### **Programming and timing the emergency exercise**

- (a) Consideration shall be given to programming a range of exercises with objectives covering various emergency phases. It is also useful to consider the timing of exercises, for example

responding to an emergency during daylight hours can become significantly more difficult if the same exercise scenario is conducted during the hours of darkness. This also applies to staffing resources, which are often at reduced levels outside peak hours.

- (b) It may be necessary to consider the typical flight hours for aircraft operations, e.g. early morning, early evening or night, so that the exercise tests the resources available at those times. This allows the exercise to be more realistic to when an accident may occur and will identify any logistical problems at this time e.g. low staffing for emergency services, road traffic problems, and shift changes.

### **Roles and Responsibilities of Agencies in the case of a Full-Scale Emergency Exercise**

The agencies involved in the airport emergency plan shall be alerted to “full emergency” status when it is known that an aircraft approaching the airport is, or is suspected to be, in such trouble that there is a possibility of an accident.

#### **Action by Air Traffic Services**

- (a) Notify the airport rescue and firefighting service to stand by at the predetermined ready positions applicable to the planned runway and provide as many of the following details as possible:
  - (i) type of aircraft;
  - (ii) fuel on board;
  - (iii) number of occupants, including special occupants - handicapped, immobilized, blind, deaf;
  - (iv) nature of trouble;
  - (v) planned runway;
  - (vi) estimated time of landing;
  - (vii) aircraft operator, if appropriate; and
  - (viii) any dangerous goods on board, including quantity and location, if known

Initiate notification of the mutual aid fire department(s) and other appropriate organizations in accordance with the procedure prescribed in the airport emergency plan, providing, if necessary, the rendezvous point and airport entrance to be used.

#### **Action by Other Agencies**

- (a) The specific responsibilities and roles of the various agencies itemized in Appendix 6 of this document corresponding to an aircraft accident on the airport can be paralleled for “full emergency” as required by local operating requirements.
  - (i) aircraft operator, if appropriate; and
  - (ii) any dangerous goods on board, including quantity and location, if known
- (b) Initiate notification of the mutual aid fire department(s) and other appropriate organizations in accordance with the procedure prescribed in the airport emergency plan, providing, if necessary, the rendezvous point and airport entrance to be used.

### **Managing participants for maximum benefit**

Further consideration is required to ensure optimum response by all agencies throughout the exercise. Emergency situations can extend to many hours or even days. People may be unable to perform to their optimum for extended periods of time, so it is desirable that responders be given adequate rest breaks and where necessary rosters established to fill key positions to ensure continuity of action. Agencies involved in the exercise shall be able to demonstrate that they have the ability to continue for extended periods of time should the need arise.

### **Other considerations**

When the AEP Committee is setting objectives, and developing an emergency scenario in which to test the plan with a level of realism, consider:

- (i) the aerodrome's continuing ability to function
- (ii) the health and safety of participants, both volunteers and staff
- (iii) community relations, particularly pre exercise communications
- (iv) insurance coverage
- (v) the use of fictitious names for the scenario, passengers and airline
- (vi) establishing observer areas and observer critique sheets for feedback after the exercise
- (vii) contingencies for dealing with real emergencies that might arise during the exercise

### **Debriefing after Exercises**

- (a) Following the exercise, An oral debriefing session must be held to obtain feedback from not only the responding agencies but also the volunteers who playact the passengers or meeters and greeters. The volunteers often provide valuable insight into how they perceived either their rescue or how they were managed or counselled.
- (b) Nominated observers shall complete their critique sheet with feedback about whether the objectives of the exercise were met, what worked well and what could be improved upon.
- (c) Each agency must be encouraged to debrief its staff and prepare a report for the Aerodrome Emergency Planning Committee. Once the committee receives these reports it should hold a full debriefing session to discuss and review the reports and recommend any changes to the AEP.

### **Actual Emergencies**

- (a) All actual emergencies occurring at the aerodrome must be the subject of a debriefing session. It is often preferable to hold these with the actual personnel who responded, immediately after the emergency phase has been stood down. It also depends upon the complexity and severity of the emergency, and it might be more beneficial to hold a formal aerodrome emergency debriefing session following individual agency debriefing sessions. An aerodrome debriefing scheduled for a later date will also provide the opportunity for all members of the AEP committee to attend.
- (b) The SLCAR Part 14A requires aerodrome operators to review the AEP following actual emergencies at the aerodrome.

**Research**

- (a) Further opportunity to review the AEP is through research of initiatives taken at other aerodromes which, if implemented locally, could improve the effectiveness of the response plans. Networking with other aerodrome operators and gaining the opportunity to attend respective aerodrome emergency exercises or debriefing sessions can be valuable.
- (b) Web based articles on emergency management or aircraft accidents abroad afford great opportunity to gain from other people's experiences, which can be used to determine whether similar strengths or deficiencies exist in your own AEP.
- (c) The AEP itself shall be reviewed annually to ensure the contact details and distribution list is current.

## **APPENDIX 5: OTHER CONSIDERATIONS**

### **Handling the Meeters and Greeters**

- (a) Responding to an aircraft accident includes dealing with relatives, friends or business colleagues who are at the aerodrome to meet the arriving passengers or farewell those on departing flights. These people are known generally as “meeters and greeters”. Although mentioned previously the handling of meeters and greeters is an important component of any emergency and must be carefully planned for.
- (b) The meeters and greeters may be traumatised by an accident and therefore need to be managed appropriately. Additionally, they may be able to provide valuable identification information about passengers involved in the accident. This information is usually obtained from direct questioning and the completion of a form.
- (c) The aerodrome operator and aircraft operator have a collective responsibility to designate a secure location within the Terminal building (meeting room, conference facilities, and guest lounge) or elsewhere where meeters and greeters can be taken for questioning and counselling. While the aerodrome operator can provide these facilities, it shall be included in the AEP which agency should take responsibility for the segregation of the bone-fide meeters and greeters from the general public. This agency should then manage these people in conjunction with and other specialist personnel or agencies such as Victim Support, Salvation Army, and Red Cross etc.
- (d) Consideration shall be given to making medical support available to these persons as well as refreshments and communication equipment if necessary.
- (e) The location shall have direct access to separate rooms where private discussions can be held with counsellors. The location shall be secured from the public and media interests, and preferably shielded from views of the accident scene. The provision of the correct timely information to these people is vital; therefore, items such as radios and televisions must not be available in the room.
- (f) The AEP committee shall also give consideration to smaller aircraft operators who have few, if any, permanent staff available to carry out AEP functions. The aerodrome operator or other designated party may need to facilitate actions on the aircraft operator’s behalf.

### **Managing the Terminal**

- (a) Aerodrome operators need to consider managing terminal activities as part of the emergency planning. This is relevant when the accident has occurred at or near the aerodrome or at another aerodrome or remote location, where there may be an impact upon terminal activities. Televisions must be switched off and relevant information displayed on flight information displays or provided over a public address system which should be worded carefully and discretely.
- (b) Consider how to restrict access to airside, airline offices and information centres; these are all potential places for the public and media to head to in the event of an emergency.
- (c) What crowd control measures could be implemented and where additional resources should come from to cordon off or guard areas e.g. private security companies, airport security providers.



- (d) Food outlets may need to be contacted to remain open and public transport at the aerodrome made available to transport resources.

**Accident site - Preserving Evidence**

- (a) After an aircraft accident, an investigation into the cause of the accident will need to be undertaken before the removal of any aircraft wreckage, contents or other object involved in the accident. Therefore, it is vital that all evidence is preserved on-site for the investigative authorities and the accident site is disturbed as little as possible during the emergency response phase.
- (b) The SLAAIIB has power to authorise the removal of wreckage. The aircraft operator is responsible for removing the aircraft in accordance with any aircraft recovery plan in the AEP or else in consultation with the aerodrome operator.
- (c) The Police may act on-behalf of the coroner should there be any fatalities. Bodies or body parts may be subject to disaster victim identification process and must not be moved without Police authorisation.

**Returning to Normal Operations – Recovery Phase**

- (a) One objective of an AEP is to minimize the disruption to aircraft operations that might occur as a result of an aerodrome emergency. Most aircraft accidents that occur on the aerodrome are likely to close the aerodrome temporarily.
- (b) The AEP shall include a recovery phase incorporating procedures to bring the aerodrome back to full operational status safely, efficiently and orderly.
- (c) Depending on the circumstances of the emergency, recovery may occur in a staged manner with restricted aircraft operations before a complete recovery with unrestricted operations.
- (d) A return to restricted aircraft operations means re-commencing aircraft operations that use aerodrome manoeuvring areas not affected by the emergency or recovery operations. This activity should be undertaken with extreme care so as not to endanger any emergency personnel or hinder recovery operations.
- (e) The aerodrome operator will need to consider the following before returning the aerodrome to normal operations:
  - (i) Assess damage to determine whether facilities are operational, safe, and functional. These facilities include navigation aid facilities, movement areas used by aircraft, aerodrome lighting and approach aids, fuel facilities and other facilities used for the processing of aircraft, baggage/cargo and passengers.
  - (ii) Pay particular attention to foreign object debris (FOD) on the movement areas. Make sure grassed runway and taxiway surfaces are free of significant depressions or surface gouging that may cause damage to other aircraft. Surface areas next to the runway or taxiway that might require rehabilitation, can be repaired at a later stage during a period of quiet operations, subject to the level of threat posed to other aircraft.
  - (iii) Close off and mark areas that are unsafe due to defect or obstructions. This includes areas with ongoing aircraft recovery operations or that are transport routes for vehicles involved in the recovery process.

- (iv) Consider whether recovery equipment or an immobilised aircraft infringes the obstacle limitation surfaces (OLS), will affect radio navigation aids, or obstruct visual aids necessary to approaching aircraft. If there have been infringements of the OLS, calculate and instigate reduced effective operating lengths (EOL) to ensure appropriate clearances are maintained.
- (v) Re-assess the Rescue Fire capability prior to commencement of operations and issue a NOTAM if required.
- (vi) Cancel any NOTAMs regarding the closure of the aerodrome due to the emergency before continuing operations. Issue a new NOTAM about areas closed to aircraft traffic, any new or amended runway EOLs, or if aircraft traffic is otherwise restricted due to the emergency.

## **APPENDIX 6: GUIDELINES ON RESPONSE ACTIONS OF PARTICIPATING AGENCIES IN AN EMERGENCY**

This appendix provides a general guideline on the actions to be taken by on and off-airport emergency response organizations in the event of an emergency. The information to be provided and included in an Airport Emergency Plan will vary depending on local peculiarities. The general format of the Instructions and the classification of emergency to be used, are applicable to all aerodromes.

### **LOCAL STANDBY PROCEDURE**

The agencies involved in the airport emergency plan shall be alerted to “local standby” status when an aircraft approaching the airport is known or is suspected to have developed some defect but the trouble is not such as would normally involve any serious difficulty in effecting a safe landing.

#### *Action by ATS*

Notify the ARFFS to stand by as requested by the pilot, or stand by as operators SOPs require at the predetermined ready positions applicable to the runway to be used. Provide as many of the following details as possible:

- a) type of aircraft;
- b) fuel on board;
- c) number of occupants, including special occupants - handicapped, immobilized, blind, deaf;
- d) nature of trouble;
- e) planned runway;
- f) estimated time of landing;
- g) aircraft operator, if appropriate; and
- h) any dangerous goods on board, including quantity and location, if known.

#### **Action by the ATC Officer**

Call the ARFFS and provide the following information:

- (i) Local standby at (specify position)
- (ii) Runway in use
- (iii) Type of aircraft
- (iv) Registration No.
- (v) ETA hours.
- (vi) Persons aboard (if known)
- (vii) Defect or difficulty which has caused the emergency

### **Action by the ARFFS**

A full attendance should be turned out and stationed at the pre-determined standby points for the runway in use. Any subsequent action is the responsibility of the Officer-in-Charge of the ARFFS and the appliances should not return to the fire station until he is satisfied that they are no longer required. The ATC officer should only declare the incident closed after agreement with the Aerodrome RFFS Officer.

### **AIRCRAFT ACCIDENT ON THE AIRPORT**

The AEP should be implemented upon an aircraft accident occurring on the airport. For this type of emergency, responding agencies are expected to take action as described below;

#### **Action by (ATS)**

- (i) Initiate emergency response by using the crash alarm communication system.
- (ii) Notify the RFFS and provide information on the location of the accident, grid map reference and all other essential details, including time of the accident and type of aircraft. Subsequent notification may expand this information by providing details on the number of occupants, fuel on board, aircraft operator and any dangerous goods on board, including quantity and location, if known.
- (iii) Close the affected runway and minimise vehicle traffic on that runway to prevent disturbance of accident investigation evidence.
- (iv) initiate communications with other designated response units (eg. the airport operator, police, military, medical services etc.) in accordance with the procedure in the aerodrome emergency plan (AEP). Provide contacts with grid map references, rendezvous points and/or staging area and airport entrance to be used.
- (v) Strictly control vehicle and aircraft ground traffic in order to facilitate movement of emergency response vehicles.
- (vi) If surface conditions may have had some impact on the situation, request a runway surface condition report from the EOC.
- (vii) Note the time and the name of the person approving removal of the wreckage
- (viii) Ensure that the runway is inspected before it is used again.
- (ix) Take personal notes if, in their opinion, they may be called as witnesses (accident report).
- (x) Issues the following Notice to Airmen (NOTAM) immediately:  
*“Aerodrome RFFS protection unavailable until (time) or until further notice. All equipment committed to aircraft accident”*
- (xi) Verify by written checklist that the required actions are completed, indicating notification time(s) and name of person completing the action.

**Action by Technical Service (NAVAIDS)**

- (i) Performs equipment status check.
- (ii) If weather conditions indicate that RVR may have had a direct influence on the accident, enter the time on the RVR record sheet and initial it. One hour after recording the time, remove the roll and lock it away (subsequent RVR recorder recordings for a period of seven days shall also be locked away).
- (iii) Store the recorder tapes in a safe place.
- (iv) Store in a safe place (under lock and key) all documents pertaining to the accident.

**Action by Airport Rescue Fire Fighting Service**

- (i) A request to respond to an aircraft accident on the airport should be issued by ATS. However if a call is received from any other person, an accident is observed, or there is reason to consider that an accident is imminent, the ARFFS should take action in the same manner as if the ATS had originated the request. The ATS should then be informed of the nature of the request/call and of the response initiated.
- (ii) The ARFFS shall:
  - a. Proceed via fastest access routes to the site indicated by ATS
  - b. Advise mutual aid fire department(s) while en-route of the following:
    - Rendezvous point
    - Staging area
    - Human resources and equipment required for support, if know; and
    - any other pertinent information
  - c. immediately establish a well-defined command post. This is a temporary post until the airport operator's mobile command post is available and operative.
  - d. The Chief ARFF chief establishes contact with the EOC as soon as action is initiated and directs firefighting activities at the accident site. He/she is the responsible officer in charge until the emergency has been stabilized.
  - e. Depending upon available resources, co-operate with team members to ensure the evacuation of passengers.
  - f. While maintaining constant communications with those in charge of the agencies on the crash site, directs firefighting activities.
  - g. Ensure that all intervention vehicles are parked at a safe distance from the accident site
  - h. Ensure, in coordination with the EOC, that a passenger triage centre is set up and identified away from the accident site.
  - i. Ensure an ambulance assembly point near the triage is identified.
  - j. Assist the medical team in administering first aid, as required.
  - k. Assists the police in preventing the site to be disturbed.
  - l. Recall fire fighters report to the fire hall and ask the EOC for transportation to the accident site.
  - m. Ensure that there is no risk of fire before leaving the site.

### **Action by Aerodrome Manager or Representative**

The airport operator should immediately proceed to the accident site and, when required set up an easily identifiable mobile command post. The mobile command post should be adequately staffed by senior representatives capable of making decisions involving:

- a) airport operations;
- b) security operations;
- c) medical operations;
- d) aircraft operations; and
- e) aircraft recovery operations.

The airport operator should review the action checklist to verify that:

- a) the EOC has been activated;
- b) mutual aid police procedures have been initiated and secondary notification calls have been made; designate rendezvous points and staging areas for the inner and outer perimeters. Assign security personnel at the staging area and/or rendezvous points to escort vehicles so as to ensure the orderly flow of emergency vehicles, particularly ambulances, to and from the accident site;
- c) mutual aid fire departments have been notified and escort has been provided for their access to the accident site and staging areas designated;
- d) medical and ambulance services have been alerted and their arrivals at the designated rendezvous point or staging area have been verified;
- e) the affected aircraft operator has been notified and information obtained concerning any dangerous goods on board the aircraft (e.g. explosives, compressed or liquified gases, flammable liquids or solids, oxidizers, poisonous substances, infectious substances, radioactive materials or corrosives), and this information has been passed on to appropriate participants;
- f) liaison has been established with ATS concerning the closure of airport areas, designation of emergency response corridors, issuing of voice advisories and NOTAM advising of reduced airport rescue and firefighting protection;
- g) the SLAAIIB have been notified;
- h) the meteorological department has been notified to make a special weather observation;
- i) arrangements have been made for the immediate survey and photography of the affected runway to identify the location of crash debris;
- j) arrangements have been made to secure the crash debris pending release by the investigating agencies;
- k) airspace reservation co-ordination offices (air traffic flow control office), if any, have been advised of reduced airport capabilities; and
- l) if fatalities are involved, the Medical Examiner has been notified and temporary morgue facilities designated.
- m) assign staging areas for escort vehicles and ambulances to ensure rapid dispatch.
- n) as required, obtain the service of a photographer.
- o) Ensure that the emergency trailer is towed to the command station, if necessary.
- p) As required, mobilize outside equipment (helicopters, boats, etc.)
- q) Ensure that a temporary morgue is set up (to specify the location).
- r) Ensure that a room is made available for passengers' relatives, PTB (or elsewhere, to specify location).

- s) Ensure that a room is made available for journalists (to specify the location)
- t) As required, ensure that (to specify a location) is ready to receive survivors not requiring hospitalization.
- u) Ensure that the following agencies are notified as required:
  - (i) Police
  - (ii) Civil Defence
  - (iii) CoronerCall clergy, if required:
  - (i) Muslim
  - (ii) Christian etc.
- v) When operations are completed, have the runways inspected as required.
- w) Upon agreement with EOC members and the firefighters responsible, declare the emergency over.
- x) Ensure that all agencies are notified when the emergency is over.
- y) Upon clearance by the SLAAIIB, approve the way in which the aircraft is to be disposed off.

The airport operator should also arrange the availability of the following services as required:

- a) portable emergency shelter for use by other than medical services;
- b) lavatories;
- c) drinking water;
- d) ropes, barriers, etc.;
- e) food service;
- f) mobile or portable lighting;
- g) portable heating system;
- h) cones, stakes, and signs;
- i) machinery, heavy equipment, extraction tools;
- j) hydraulic extraction tools and shoring materials; and
- k) communications equipment, such as megaphones, portable telephones, etc.

The airport operator should provide the initial briefing for the airport public information officer and should then co-ordinate with the public information officer of the aircraft operator involved, when appropriate before any press releases and statements issued to the press.

Upon concurrence of the chief fire officer, police/security chief and the medical co-ordinator, the airport operator's on-scene commander should notify all participating mutual aid organizations upon termination of the airport emergency.

#### **Action by Airport Maintenance**

- (i) On-duty staff report to the Assembly Point immediately.
- (ii) Outside normal work hours, the field supervisor ensures that his staffs are recalled as soon as the alert is issued.
- (iii) The field supervisor dispatches auxiliary manpower and equipment during the emergency.
- (iv) As required, staff perform the following functions:
  - a. Escort outside vehicles;

- b. Transport fire fighter's equipment;
- c. Tow the emergency trailer, if necessary;
- d. Make all equipment available upon request by the EOC;
- e. Provide technical assistance (roads, lighting, etc.);
- f. Any other task requested by the EOC.

### **Action by Air Carrier Involved**

The senior aircraft operator representative should report to the mobile command post to coordinate the aircraft operator activities with the person in charge. In the event the aircraft operator is not an airport tenant, the airport operator should designate the most capable operator on the airport to handle emergencies involving transient aircraft until such time as the aircraft operator involved can arrive at the scene.

The senior representative of the aircraft operator should provide information regarding passenger load, flight crew complement and the existence of any dangerous goods together with their loading position. Dangerous goods include explosives, compressed or liquefied gases (which may be flammable or toxic), flammable liquids or solids, oxidizers, poisonous substances, infectious substances, radioactive materials and corrosives. Information concerning dangerous goods should be relayed, as soon as possible, to the chief fire officer and the medical coordinator.

The senior aircraft operator representative shall make arrangements for transportation of uninjured persons from the accident site to the designated uninjured holding area. Transportation of the "walking injured" from the scene should be permitted only after consultation with the medical coordinator.

The aircraft operator staff shall proceed to the designated uninjured holding area. The senior aircraft operator representative at the uninjured holding area should appoint qualified receptionists, registrars, and welfare coordinators from the staff. The aircraft operator representative who is in command of the uninjured holding area should oversee those operations by making arrangements for additional medical services (if required), commissary items, clothing, telephone facilities, etc.

The receptionists should meet the transporting vehicles as they arrive from the scene of the accident and direct the passengers to the registrars' tables where they should be processed. The receptionists should know where toilet facilities are located. Migration from the holding area should be prevented until each person transported to the holding area is identified and processed according to the airport emergency plan.

The registrars should record the passenger's name on the manifest and determine desired reservation requirements, i.e. hotel accommodations, air transportation or other modes of transportation, etc. Registrars should list any persons to be notified of the passenger's physical and/or mental condition and potential plans. The registrar should then place an identification tag or sticker on the passenger. The registrars should direct the passengers to the welfare coordinators when registration has been completed.



Welfare coordinators and mental health specialists trained in stress management should:

- a) give support and comfort to relatives and friends of passengers and crew members on board the aircraft;
- b) register relatives and friends waiting at the airport for information about persons on board; and
- c) provide care, comfort, and assistance to the “walking injured”, uninjured survivors and responding personnel (if required).

A senior aircraft operator official should be responsible for the initial notification of relatives and friends. News releases by aircraft operators should be prepared in co-ordination with the airport public information officer and liaison officers from other agencies involved in the accident.

The aircraft operator is responsible for the removal of the wrecked or disabled aircraft, but only after receiving authorization from the SLAAIIB.

### **Action by Police**

The first security/police officer to arrive, in co-ordination with the on-scene commander, should assume security responsibility, immediately establish free traffic lanes on ingress and egress roads for emergency vehicles, and request reinforcements as needed. This officer shall remain in command of security until relieved by the law enforcement authority who has jurisdiction over the area.

Security personnel and police will be needed to handle traffic in the vicinity of the accident site, to admit authorized emergency personnel, to keep unauthorized persons from the accident site, and to assume custody of personal effects removed from the aircraft.

Normal traffic should be routed away from or around the accident site.

The emergency site shall be cordoned off as soon as possible to exclude intruders, the press, sightseers, onlookers etc. Appropriate markings and barriers shall be displaced to advise all persons of possible hazards which may cause them serious injury should they encroach the area.

Communications between all security check points and the command post and/or emergency operations centre should be implemented as soon as possible.

Special security provisions may be necessary to protect the flight data cockpit voice recorder. Additional security should be effected to protect any mail involved, secure any dangerous goods which may be present, and to protect personnel from exposure to radioactive materials.

### **Action by Medical Team**

It shall be the responsibility of the medical co-ordinator to supervise the medical services and to:

- a) verify the notification of mutual aid medical and ambulance services and their subsequent arrival at the rendezvous point or staging area;
- b) organize the necessary actions for triage, treatment of the casualties, and their eventual evacuation by appropriate means of transportation;

- c) control the flow of casualties and ensure, together with the transportation officer, the dispatch of the casualties to the appropriate hospitals by all available means of transportation;
- d) maintain an accurate list of the casualties including their names and their final disposition;
- e) co-ordinate the transportation of the uninjured to the designated holding area with the aircraft operator concerned;
- f) provide medical evaluation of ambulatory and uninjured survivors;
- g) arrange for the replenishment of medical supplies, if necessary; and
- h) organize, with the police, reception facilities for the dead.

The person receiving the message shall inform the director of medical services or, in his absence, the duty physician, who alone may decide whether to issue an immediate recall of hospital medical staff by pyramidal telephone.

- (i) Medical evacuation kits are prepared and transported with the first physicians responding to the call.
- (ii) Hospital rooms, instruments and equipment are prepared for:

**On-site use:**

Transport to staff at the airport (temporary hospital to be identified) on the order of the physician in charge.

- (i) As required, calls auxiliary ambulance drivers.
- (ii) From the EOC, the medical team leader should determine:
  - a. What staff shall report to the command station;
  - b. what staff shall prepare the temporary hospital located in the area of the accident
- (iii) Upon arrival at the command station, report to the RFFS officer and get from the emergency trailer the following items:
  - a. white identification armbands
  - b. stretchers;
  - c. back-packs with bandages;
  - d. triage tags (METTAGs);
  - e. flashlights, as required.
- (iv) The medical team leader at the accident site monitors triage and co-ordinates his team's activities (all occupants of the aircraft involved, whether dead, injured or uninjured, must wear a triage tag for identification purposes).
- (v) Medical assistants administer first aid and supervise the transportation of injured persons to the ambulance assembly point.
- (vi) Stretcher-bearers should be designated by the RFFS officer.
- (vii) In the temporary hospital, the physician in charge reassesses the distribution of staff at:
  - a) the command station (accident site);
  - b) the temporary hospital (to specify location).

- c) the triage centre (accident site).
- (viii) All passengers should be transported from the accident site to the temporary hospital for further examination:
  - a) Injured persons to the temporary hospital (place to be specify);
  - b) Uninjured persons to (location to be specified).
  - c) The dead to the temporary morgue (location to be specified).

**Action by hospitals**

Appoint a hospital coordinator responsible for the following:

- a) immediately provide and transport doctors and medical teams skilled in trauma care to the accident site upon notification of the emergency;
- b) provide medical care to the casualties when they arrive at the treatment area; and
- c) ensure that adequate doctors and nurses, operating rooms, intensive care units, surgical teams, blood and blood volume expanders are available for emergency situations, including aircraft accidents.

**Action by City Fire Service**

- (i) The Fire Chief or his representative report to the EOC.
- (ii) Available fire trucks report to the assembly point and wait for instructions.

**Triage Tags - METTAGS**

- a) Stabilize the most seriously injured victims.
- b) Record the time.
- c) If the victim is conscious and coherent, record his name. If the victim is conscious and coherent, record his address;
- d) Record your name.
- e) List injuries on the reverse side of the tag.
- f) As required, list intravenous (IV) and intramuscular (IM).
- g) Tear card along appropriate line to indicate victim's priority.
- h) Tie the tag to the victim's foot.
- i) You may tie the removable numbers on the tags to the victim's personal effects.

I (RED)	Critical, immediate attention
II (YELLOW)	Serious, but may be attended to after I (RED)
III (GREEN)	Immediate transportation, attention not required
0 (BLACK)	Dead, transport to morgue after identifying the place where the body was found with an orange flag bearing the same number as the victim's tag.

**Action by Patient Service Drivers**

- (i) Report to the assembly point.
- (ii) Obtain an escort vehicle and report to the command station.
- (iii) Park at the command station and await appropriate instructions.

- (iv) All patient service vehicles must be escorted when driven on the aircraft movement area, unless the EOC issues instructions to the contrary.

**Action by Government Authorities**

The following government authorities may be required to take appropriate action as indicated in their emergency plan:

- (i) government accident investigation personnel;
- (ii) health and welfare;
- (iii) post office;
- (iv) customs;
- (v) immigration;
- (vi) agriculture;
- (vii) public works; and
- (viii) environmental agencies

**Action by the Public Information Officer**

- (a) All press personnel should be directed to a designated press staging area for press personnel authorized to cover an airport emergency. At this area the following should be provided:
  - (i) briefing;
  - (ii) communications; and
  - (iii) transportation service to and from the accident site, when permissible
- (b) Only members of the press, free-lance reporters and photographers wearing a valid press card should be admitted to the briefing area, to the designated press staging area, or transported to the scene of the accident.
- (c) In general, responsibility for news releases concerning an aircraft emergency should be that of:
  - (i) a public information officer designated by the airport authority; and
  - (ii) the representative of the aircraft operator involved
- (d) Under no circumstances should the press or any other personnel not involved in life saving or firefighting operations be permitted inside security lines until all rescue operations have been completed. Establishment of security lines should consider the interests of media coverage as much as rescue operations permit.

**AIRCRAFT ACCIDENT OFF THE AIRPORT**

The airport emergency plan, as well as the mutual aid emergency agreement, shall be implemented immediately upon an aircraft accident occurring off the airport. For this type of emergency, responding agencies are expected to take action as described below.

### **Initial notification**

Initial notification of an off-airport accident normally should be made by a witness to the local police, fire department, or Alarm and Dispatch Centre, if available. The Alarm and Dispatch Centre is the centralized notification system for any emergency situation that alerts appropriate responding agencies, depending on the nature of the emergency.

### **Action by air traffic services**

- (a) Initiate emergency response by using the alarm communications system.
- (b) Notify the emergency services having jurisdiction over the area provide information on the location of the accident, giving grid map reference and all other essential details. These details should include the time of accident and the type of aircraft involved. Subsequent notification may expand this information by giving details on the number of occupants, fuel on board, aircraft operator, if appropriate, and any dangerous goods on board, including quantity and location, if known.
- (c) Initiate notification of the airport RFFS, police and security services, airport operator, and medical services in accordance with the procedures in the AEP, giving the grid map reference.
- (d) If required, issue the following NOTAM as soon as possible:
- (e) Confirm that the actions above were completed, by written checklist, indicating notification time(s) and name of person completing action.

### **Action by ARFFS**

- (a) Notification of an aircraft accident off the airport should normally be received from the ATS, local police or local fire departments.
- (b) Airport RFFS shall:
  - (i) proceed via the most suitable access routes to the off-airport accident site in co-ordination with the local police responsible for ingress and egress roads;
  - (ii) coordinate with mutual aid fire department(s); and
  - (iii) while en-route, exchange information with the fire department having jurisdiction over the area concerning:
    - (i) rendezvous point and/or staging area;
    - (ii) human resources and equipment responding; and
    - (iii) any other pertinent information.
- (c) The senior airport fire officer should report to the senior fire officer of the fire department having jurisdiction over the area and should request instructions.
- (d) Prior agreement should be reached between the ARFFS, the local fire department in command, and mutual aid fire departments as to which is best equipped to fight fires involving aircraft and/or structures. Additionally, there should be an agreement as to which agency should act in command when an accident involves both an aircraft and an airport structure.

**Action by police and security services**

- (a) The first security/police officer to arrive should immediately assume security responsibility, establish free traffic lanes on ingress and egress roads for emergency vehicles, and request reinforcements as needed. He shall remain in command of security until relieved by the appropriate law enforcement authority who has jurisdiction over the area.
- (b) Traffic flow and site security are the primary responsibility of police and security personnel. They should notify the appropriate communications centre of the location of the accident and available means of access and egress.
- (c) After consultation with the on-scene commander, they should initiate traffic control measures in order to aid responding emergency vehicles.
- (d) Security personnel and police will be needed to handle traffic in the vicinity of the accident site and to prevent disturbance of material scattered over the accident site.
- (e) The emergency site shall be cordoned off as soon as possible to exclude intruders, press, sightseers, onlookers and souvenir hunters. Appropriate markings should be displayed prominently, advising all persons of possible hazards that may cause serious injury should they encroach on the area. In order to prevent ignition of fuel vapours, flares should not be used within a distance of approximately 100 m of the accident site.
- (f) Communications between all security check points and the command post and/or EOC should be implemented as soon as possible. Notification of other agencies should be carried out as soon as possible.
- (g) Identifying arm bands, site passes, or I.D. tags should be issued by the controlling authority and monitored by security and police officers.
- (h) Special security provisions are necessary to protect the flight data and cockpit voice recorders, to protect mail, to secure any dangerous goods which may be present, and to protect personnel from exposure to radioactive materials, if necessary.

**Action by airport operator**

Agreements for emergency mutual aid with the surrounding community enable the airport authority to take the following actions:

- (i) respond to the accident site; activate the airport EOC and the mobile command post (if required);
- (ii) extend as much emergency aid as requested by the jurisdiction agency in command of the off-airport accident/incident;
- (iii) notify the aircraft operator involved; notify other agencies and
- (iv) provide medical equipment and personnel.

**Action by medical services**

- (a) Civil defence and local authorities normally should be responsible for organizing the medical response. However, the medical response from the on-airport medical service should also be applicable to mass casualty accidents occurring off the airport.

- (b) According to the mutual aid emergency agreement with the surrounding community, the airport operator may provide, if requested and if available, a part of its medical equipment, supplies (i.e. first aid equipment, stretchers, body bags, mobile shelters, etc.) and assistance of first-aid personnel at the accident site.

**Action by hospitals**

- (a) Ensure that adequate doctors, nurses, and operating room, intensive care, and surgical teams are available for emergency situations, including aircraft accidents.
- (b) Provide medical care to the injured when they arrive.

**Action by aircraft operators**

- (a) The senior representative of the aircraft operator or a designee should report to the command post to co-ordinate the aircraft operator activities with the person in charge.
- (b) The senior representative of the aircraft operator should provide information regarding passenger load, flight crew complement and the existence of any dangerous goods together with their loading position. Dangerous goods include explosives, compressed or liquefied gases (which may be flammable or toxic), flammable liquids or solids, oxidizers, poisonous substances, infectious substances, radioactive material or corrosives. Information concerning dangerous goods should be relayed, as soon as possible, to the chief fire officer and the medical co-ordinator.
- (c) The senior aircraft operator representative shall make arrangements for transportation of uninjured persons from the accident site to the designated uninjured holding area. Transportation of the “walking injured” from the scene should be permitted only after consulting with the medical co-ordinator.
- (d) The aircraft operator staff shall proceed to the designated uninjured holding area. The senior aircraft operator representative at the uninjured holding area should appoint qualified receptionists, registrars and welfare co-ordinators from staff.
- (e) The aircraft operator representative who is in command of the uninjured holding area should oversee those operations by making arrangements for additional medical services (if required), commissary items, clothing, telephone facilities, etc.
- (f) The receptionists should meet the transportation vehicles as they arrive from the scene of the accident and direct the passengers to the registrars' tables where they should be processed. The receptionists should know where support facilities are located, i.e. toilet facilities, telephones, clothing, drinking water, etc.
- (g) The registrars should record the passenger's name on the manifest and determine desired reservation requirements, i.e. hotel accommodations, air transportation or other modes of transportation, etc., and any persons to be notified of the passenger's physical and/or mental condition and potential plans. The registrar should use an identification tag or sticker (available from the emergency kit) to place on the passenger. The registrars should direct the passengers to the welfare co-ordinators when registration has been completed.
- (h) The aircraft operator should provide notification of the aircraft accident to:
  - (i) The Authority and SLAAIIB;

- (ii) health and welfare agencies;
  - (iii) customs, where applicable;
  - (iv) immigration, where applicable;
  - (v) post office; and
  - (vi) environmental agencies.
- (i) A senior aircraft operator representative should be responsible for the initial notification of relatives and friends.
  - (j) News releases by aircraft operators should be prepared in co-ordination with the airport public information officer and liaison officers from other agencies involved in the accident.
  - (k) The aircraft operator is responsible for the removal of the wrecked or disabled aircraft, but only after receiving authorization from the aircraft accident investigation authority. For further information, see the SLCAA-AC-AGA041 Rev00 - Removal of Disabled Aircraft.

**Action by government authorities**

The following government authorities, after being notified, may be required to take appropriate action as indicated in the emergency plan:

- (i) SLAAIIB investigation personnel;
- (ii) health and welfare;
- (iii) post office;
- (iv) customs, immigration and agriculture; and
- (v) Environmental agencies.



**Action by the public information officer**

- (a) The responsibility for news releases concerning an off-airport emergency should be that of:
  - (i) the representative of the aircraft operator;
  - (ii) a public information officer designated by the particular government authority in command; and
  - (iii) a public information representative designated by the airport authority.
- (b) Only members of the press, free-lance reporters, and photographers wearing a valid press card should be admitted to the briefing area, permitted to the designated press staging area, or transported to the scene of the emergency.
- (c) In general, responsibility for news releases concerning an aircraft emergency should be that of:
  - (i) a public information officer designated by the airport authority; and
  - (ii) the representative of the aircraft operator involved.
- (d) Under no circumstances should the media or any other personnel not involved in the firefighting, rescue or emergency medical care be permitted inside security lines until all rescue operations have been completed and the area is declared safe for entry by the on-scene commander/chief fire officer.

**FULL EMERGENCY**

**General**

The agencies involved in the AEP shall be alerted to “full emergency” status when it is known that an aircraft approaching the airport is, or is suspected to be, in such trouble that there is a possibility of an accident.

**Action by air traffic services**

Notify the ARFFS to stand by at the predetermined ready positions applicable to the planned runway and provide as many of the following details as possible:

- a) type of aircraft;
- b) fuel on board;
- c) number of occupants, including special occupants - handicapped, immobilized, blind, deaf;
- d) nature of trouble;
- e) planned runway;
- f) estimated time of landing;

- g) aircraft operator, if appropriate; and
- h) any dangerous goods on board, including quantity and location, if known.

Initiate notification of the mutual aid fire department(s) and other appropriate organizations in accordance with the procedure prescribed in the AEP, providing, if necessary, the rendezvous point and airport entrance to be used.

**Action by other agencies**

The specific responsibilities and roles of the various agencies corresponding to an aircraft accident on the airport can be paralleled for “full emergency” or as required by local operating requirements.

**HIJACKING**

For the safety of passengers and crew, it is very important that everyone involved remain calm and closely follow the instructions of officials at the EOC. The entire situation must be kept as secret as possible so as not to attract curiosity-seekers who may obstruct access roads. Priority is given to the aircraft. The SLCAA and other outside authorities, are immediately notified. Initial deployment of airport services and outside agencies is carried out as quickly as possible.

**Action by Air Traffic Services**

- (a) Provide the airport manager with the following information:
  - (i) Type of emergency
  - (ii) Type of aircraft
  - (iii) Number of people
  - (iv) Amount of fuel
- (b) Give priority of movement to the aircraft involved and , if possible, recommend to the pilot to take his aircraft to an isolated area to which access shall be prohibited
- (c) Notify the RFFS of the type of emergency:
- (d) Initiate the emergency plan.

**Action by Airport Manager or Representative**

- (i) Reports to the EOC immediately.
- (ii) Obtains information from the hijacking information form (ATS).
- (iii) Ensures that initial calls have been made in accordance with the procedures in the airport emergency plan.
- (iv) As required, authorizes the recall of additional staff.
- (v) Ensures that airport airside access is secure (control access gates).
- (vi) Ensures that RFFS services have been notified.
- (vii) Ensure that the necessary steps are taken to prevent any vehicles from approaching within 90 meters (300 feet) of the aircraft involved.
- (viii) Takes steps to complete the report in accordance with the appropriate directives.

- (ix) Completes the hijacking information form (Section 3.11).
- (x) Issues a NOTAM if required.
- (xi) Confirms probable arrangements with the ATS for keeping the aircraft on the ground:

**Continuing the flight**

- (a) In co-operation with the other EOC members, co-ordinates the responsibilities of each authority and establishes contact with the operations centre, Civil Aviation Security
- (b) Ensures that a room is made available to reporters, (to identify a place). In co-operation with federal and provincial authorities and the air carrier, co-ordinates information to be released to the media.
- (c) Ensures that the following agencies have been notified, as required:
  - (i) Police
  - (ii) Civil Defence
  - (iii) Customs
- (d) Ensures the organization of ground services for the departure of the hijacked aircraft (fuel, EPU, etc.).
- (e) Upon agreement with other EOC members, declares the emergency over.
- (f) Ensures that all services and agencies involved are notified when the emergency is over.
- (g) Holds an information meeting with all authorities involved to determine the pertinent details of the incident.
- (h) Drafts a detailed report and submits it to the relevant authorities:

**Action by Airport Maintenance**

The field supervisor reports to the Assembly Point and obtains instructions from the EOC.

**Action by Air Carrier Involved**

- (a) The Station Manager reports to the EOC immediately.
- (b) Implement airline procedures.
- (c) Immediately prepare any ground facilities that may be required.
- (d) Provide the EOC with a list of passengers and cargo.
- (e) Provide transportation for passenger to the passenger holding area (buses etc.).
- (f) Organize baggage and freight transportation to the inspection area, if required.
- (g) Identify baggage owners.
- (h) Notify the EOC of the time when the aircraft is expected to resume normal activity.

**Action by Police**

- (a) The senior officer on duty reports to the EOC immediately.

- (b) Because hijacking is an offense under the Criminal Code, the Police shall take appropriate actions once the aircraft is no longer considered in flight.
- (c) The senior officer negotiates with the hijacker where possible, on EOC transceiver frequency
- (d) Determine the assignment stations and police equipment required to bring the situation under control.
- (e) Monitor the situation and restrict access to the airport in coordination with the Airport Manager.
- (f) As required, obtain assistance from special Police or army or specialized squads.
- (g) The senior Police officer shall co-operate closely with the other EOC members.

***Note - do not use vehicle sirens or flashing lights near the aircraft involved.***

**Action by Aerodrome Rescue and Fire Fighting Service**

Stand by at the (location to be identified).

***Note - do not use vehicle sirens or flashing lights near the aircraft involved.***

**Action by Medical Team**

Remains on standby at the hospital, ready to act upon a specific request from the EOC

**Action by Patient Service**

- (a) Remain on standby at the hospital, ready to act upon a specific request from the EOC.
- (b) If an explosion occurs, implement the procedures described in Section 2.10 of this appendix at the request of the EOC.

**Action by Public Affairs**

Public Affairs manage all media activities linked to the operation.

- (i) Ensure the presence of a representative at the media reception point
- (ii) Establish an information office for the media (*location to be specified*)
- (iii) Coordinate media and communications activities (internal and external) with the agencies involved
- (iv) Communicate to the Passenger Terminal Building operations, all messages to be broadcast on the Public Address System

**HIJACKING INFORMATION FORM**

**1 INFORMATION CONCERNING AIRCRAFT**

- (i) Name of aircraft operator or owner
- (ii) Type of aircraft
- (iii) Aircraft designator
- (iv) Flight designator
- (v) Departure point

- (vi) Scheduled destination
- (vii) Time of hijacking
- (viii) Position at time of incident
- (ix) Number of passengers and crew
- (x) Names of pilot-in-command and crew
- (xi) Fuel load and tank capacity
- (xii) Have there been any injuries or deaths?
- (xiii) Any special information concerning peace officers, public figures or others on board the aircraft
- (xiv) Any additional information concerning other incidents or significant events during flight

## **2 INFORMATION CONCERNING HIJACKERS**

- (i) Number of hijackers.
- (ii) Description.
- (iii) Number and type of weapon (s) or bomb (s).
- (iv) Has anyone checked whether the hijacker actually has weapons or explosives?
- (v) How?
- (vi) Method used to conceal weapons or explosives.
- (vii) Location of hijackers in the aircraft.
- (viii) Hijackers' demands and intended destination.
- (ix) Membership in organizations.
- (x) Language (s) spoken.
- (xi) Do the hijackers show signs of fatigue, nervousness or fear?
- (xii) Have the hijackers used drugs or alcohol?
- (xiii) Have the hijackers used any violence at all against passengers?
- (xiv) Has any information been received concerning hijackers' families and relations or their professional or medical backgrounds?

## **3 BOMB THREAT**

### **Objective**

To ensure that the services and agencies responsible take adequate measures to ensure maximum passenger, aircraft and airport facility security.

- (i) Isolate the aircraft involved.
- (ii) Evacuate passengers quickly and safely.
- (iii) Search baggage, freight and the aircraft.

- (iv) Safely dispose of explosive devices.
- (v) Resume normal operations as soon as possible.

**Bomb Threat Information Form**

To be completed during the call or immediately after.

<b>Date:</b>	<b>Time:</b>	<b>Time caller hung up:</b>
Caller's exact words:		

<b><u>ASK THE CALLER:</u></b>	
When will the bomb explode?	
Where is the bomb currently located?	
What type of explosive is it?	
What does it look like?	
Why was the bomb planted?	

Check or circle the appropriate box (es).

Description of caller				
Male <sup>3</sup>	Female	Young	Old	Middle Aged
<b>Speaks:</b>	Slowly	Speaks quickly	Speaks normally	With an accent
<b>Seems :</b>	Nervous	Normal	Serious	

<b>Background noise:</b>	Conversation	Laughter	Music	Bar
	Traffic	Airplane	Other noise	
Is the voice familiar?				
If yes, whose voice is it?				

<b>Person receiving the call:</b>	
Name:	
Address:	
Telephone number	1) Office: <span style="margin-left: 100px;">2) Home</span>

**Action by ATS**

- (a) If the threat was received by the ATS. Complete the Bomb Threat Information above
- (b) Give priority of action to the aircraft involved.
- (c) Provide emergency services with the following information:
  - (i) Type of emergency
  - (ii) Type of aircraft
  - (iii) Number of people on board
  - (iv) Amount of fuel
  - (v) Where explosive device is located (if known)
- (d) Notify the ARFFS and give them the nature of the emergency.
- (e) Notify intervention units in accordance with the procedures in the airport emergency plan.
- (f) Notify the airport manager or his representative by telephone or mobile radio on the following:
  - (i) Emergency code
  - (ii) Type of aircraft
  - (iii) Number of people on board
- (g) Direct the pilot or have the aircraft towed to the isolation area and prohibit access within 150 meters (500 feet ) of the aircraft
- (h) Transmit to the EOC any vital information passing between the pilot and the ATS.

- (i) Strictly control vehicle and aircraft ground traffic in order to restrict access to the isolation area to personnel authorized by the EOC.
- (j) Notify the supervisor of the Area Control Centre (ACC) and the Manager, Air Traffic Services.

**Action by Aerodrome Rescue and Fire Fighting**

- (a) Respond to the alert immediately and establishes contact with the EOC.
- (b) Take up position at least 150 meters (500 feet) from the aircraft until the air carrier or the Police declares it out of danger.
- (c) If an explosion occurs, implement the aircraft fire fighting procedures described in this appendix

**Action by Airport Manager or Representative**

- (a) Reports to the EOC immediately.
- (b) Obtains the information recorded on the Bomb Threat Information Form (Section 4.2) by the person who took the call.
- (c) Upon agreement with the air carrier and the Police, determine whether the threat is serious.
- (d) Ensure that initial calls have been made in accordance with the emergency plan.
- (e) As required, authorize the recall of additional staff.
- (f) Ensure that ARFFS services have been notified
- (g) Ensure that airport airside access is secure.
- (h) Identify an aircraft isolation area, if one does not already exist or is not accessible.
- (i) Ensure that a Police bomb disposal expert has been notified.
- (j) Ensure that escort vehicles are available.
- (k) Issues a NOTAM if necessary (runway closure etc.).
- (l) Establishes a baggage search point in consultation with other EOC members.
- (m) Ensure that passengers are initially evacuated at least 150 meters (500 feet) from the aircraft.
- (n) Ensure that the air carrier provides transportation (vehicles, trucks, etc.) to the passenger holding area (terminal sterile zone) and that passengers do not mix with the crowd.
- (o) Ensure that the air carrier has baggage and freight unloaded at the search point.
- (p) Ensure that the air carrier conducts a baggage and freight search in accordance with current procedures.
- (q) Ensure that Postal Service is notified for mail bag searches, if required.
- (r) Ensure that the following agencies are notified, as required:
  - (i) Police
  - (ii) Civil Defence



(iii) Customs

- (s) Ensure that a room is made available for reporters
- (t) In co-operation with the provincial and federal authorities concerned and the air carrier, coordinate information for release to the media.
- (u) Upon agreement with other EOC members, declare the emergency over.
- (v) Ensure that all services and agencies involved are notified when the emergency is over.
- (w) Hold an information meeting with all authorities involved to determine the pertinent details of the incident.
- (x) If an explosion involving the aircraft occurs during the emergency, implement the procedures described in this appendix

**Action by Airport Maintenance**

The duty grounds maintenance officer in charge reports to the Assembly point and obtains instructions from the EOC.

**Action by Air Carrier Involved**

- (a) The Station Manager reports to the EOC immediately.
- (b) Implement airline procedures.
- (c) Provide aircraft occupants with transportation (vehicles, trucks, etc.) to the passenger holding area (Sterile zone of terminal) and ensure that passengers do not mix with the crowd.
- (d) Inform passengers of the reason for the delay.
- (e) Organize transportation of baggage and freight to the search point.
- (f) With the assistance of the Police, identify baggage owners and search unclaimed baggage.
- (g) Check freight consignment notes.
- (h) Search the aircraft.
- (i) Ensure that any suspicious objects are brought to the attention of the Police.
- (j) Suspect object not claimed should be transported to the training field and placed in a container provided for this.
- (k) Inform the EOC of the time airport activities are expected to return to normal.

**Action by Police**

- (a) The senior officer on duty reports to the EOC immediately.
- (b) Determine assignment stations of the staff and equipment required to respond to the situation.
- (c) As required, enlists the assistance of special Police or other squads.
- (d) Control traffic and restrict access to the airport.
- (e) The senior Police officer shall co-operate closely with the other EOC members.

- (f) If an explosion occurs, implements the procedures described in Section 2.7 of this appendix as well.

**Action by Medical Team**

- (a) Remains on standby at the hospital, ready to act upon a specific request from the EOC.
- (b) If an explosion occurs, implements the procedures described in section 2.8 of this appendix at the request of the EOC.

**Action by Patient Services**

- (a) Remains on standby at the hospital, ready to act upon a specific request from the EOC.
- (b) If an explosion occurs, implements the procedures described in Section 2.10 of this appendix at the request of the EOC.

**Action by Public Affairs**

Public Affairs manage all media activities linked to the operation.

- (i) Ensure the presence of a representative at the media reception point
- (ii) Establish an information office for the media (*location to be specified*)
- (iii) Coordinate media and communications activities (internal and external) with the agencies involved
- (iv) Communicate to the Air Terminal Building operation all messages to be broadcast on the Public Address System

**4 HAZARDOUS SPILLS OR LEAKS**

**Objective**

To ensure that all possible precautionary measures are taken to minimize or prevent loss of life, bodily harm and material damage caused by an irregular occurrence involving hazardous substances, such as radioactive substances, corrosive liquids, compressed gas, fuel, etc.

- (i) Control or minimize risks of fire;
- (ii) Control access to the danger area;
- (iii) As required, evacuate the danger area and attend to the injured;
- (iv) With the assistance of specialists, neutralize the contamination;
- (v) If possible, maintain flight operations;
- (vi) Resume normal airport activities as soon as possible.

**General Precautions – Radioactive Substances**

If radioactive substances spread as a result of an accident, immediate measures must be taken to safeguard health and save lives of those in the area. The rescue team may avoid virtually all contact with radioactive substances by taking the following precautions:

- (i) Enter the contaminated area for rescue purposes only;
- (ii) Fight fire from windward;

- (iii) Wear full protective clothing and use portable breathing apparatus;
- (iv) Prohibit access to the accident site, keep the public as far away as possible and forbid anyone to pick up anything whatsoever;
- (v) Isolate people who may have been exposed to radioactive substances until they have been examined;
- (vi) Remove victims from the accident site to a temporary location, handling them as little as possible. Take all necessary life-saving measures and safely administer first aid and treatment until a team of radiologists or other physicians familiar with radiation arrive;
- (vii) Do not eat, drink or smoke in the danger area; food and drinking water which may have been in contact with the hazardous substances during the accident are to be particularly avoided;
- (viii) Avoid taking too many measures before physicians and radiation specialists arrive;
- (ix) Do not have victims taken to the hospital before ensuring that they have not been contaminated.

**Action by ATS**

- (a) Notify maintenance services of any fuel spill.
- (b) Notify the manager or his representative.
- (c) If required notify designated intervention units in accordance with the procedures in the emergency plan.
- (d) In accordance with instructions from the maintenance services, have the aircraft piloted or towed away from the danger area.
- (e) Strictly control vehicle in order to restrict access to the danger area to emergency vehicles.

**Action by Aerodrome Rescue and Fire Fighting**

- (a) Respond immediately to the alert by reporting to the danger area with the fire truck.
- (b) Except for minor fuel spills (less than 1000 litres), the ARFFS officer establishes contact with the EOC.
- (c) Assist in the operations and activities of intervention units at the danger area.
- (d) If necessary, rescue victims.
- (e) ARFF staffs, wearing full protective clothing and portable breathing apparatus, take measures to prevent, bring under control or extinguish any fire.
- (f) With the assistance of the Police, ensure that non-essential staffs are evacuated and that all potential fire sources are removed from the area.
- (g) If dangerous good is detected, take appropriate measures to isolate those exposed to it
- (h) Evacuate all staff that is downwind.
- (i) As required, ensure that triage centre and a patient service driver assembly point are established.

- (j) When the emergency is over, ensure that all risk of fire has been eliminated before leaving the site.

**Action by Airport Manager or Representative**

- (a) Reports to the EOC immediately.
- (b) Call the command station for a summary of the situation.
- (c) Have the aircraft piloted or towed away from the danger area.
- (d) Ensure that initial calls have been made in accordance with the emergency plan.
- (e) As required, authorizes the recall of additional staff.
- (f) As required, takes measures to evacuate buildings located in the danger area and downwind.
- (g) As required, obtain information from the air carrier on the type and quantity of hazardous substances involved.
- (h) As required, contact Environmental Protection Service specialists,
- (i) As required, ensure that the Investigation Division has been notified.
- (j) As required, take steps to complete the report.
- (k) As required, issue the appropriate NOTAM (runway closure, etc.).
- (l) If necessary, relocate the assembly point.
- (m) As required, ensure that maintenance staffs are on duty at the Assembly Point.
- (n) As required, ensure that escort vehicles are available.
- (o) As required, ensure that the emergency trailer and a sufficient number of ambulances are brought to the command station.
- (p) As required, mobilize outside equipment.
- (q) Ensure that the following agencies have been notified, if necessary:
  - (i) Police
  - (ii) Civil Defence
  - (iii) Coroner
  - (iv) Customs
- (r) If the incident occurred on the side near the aircraft movement area, have runways inspected when operations are completed.
- (s) Upon agreement with other EOC members, declare the emergency over.
- (t) Ensure that all agencies are notified when the emergency is over.
- (u) If the accident involved an aircraft, approve the means of disposal after receiving authorization from the Accident Investigation Bureau.

**Action by Police**

- (a) The senior officer on duty reports to the EOC immediately.
- (b) As required, control traffic and restrict access to the airport.
- (c) Maintain order and prevent curiosity-seekers from entering the danger area.
- (d) As required, notify Civil Defence.
- (e) As required, notify the coroner.

**Action by Airport Maintenance**

Depending on the notification procedure, the duty maintenance officer or the supervisor reports to the Assembly Point and obtains instructions from the EOC.

**Action by Air Carrier or Tenant**

- (a) The senior official in charge reports to the EOC.
- (b) Supply any information likely to be of use to intervention units.
- (c) If an air accident involving hazardous substances has occurred, implement the procedures described in Section 2.6 of this appendix.

**Action by Medical Team**

- (a) Report to the Assembly Point and obtain instructions from the EOC.
- (b) Take the necessary precautions for treating victims who may have been exposed to radiation.

**Action by Public affairs**

Public Affairs manage all media activities linked to the operation.

- (a) Ensure the presence of a representative at the media reception point
- (b) Establish an information office for the media (location to be specified)
- (c) Coordinate media and communications activities (internal and external) with the agencies involved
- (d) Communicate to the Air Terminal Building operation all messages to be broadcast on the Public Address System

**5 AIRCRAFT CRASHES IN WATER**

**Objective**

When it is considered that the crash site is reasonably accessible and a useful service can be rendered, to ensure that the necessary airport and outside agency resources are mobilized and used as effectively as possible to minimize injuries, loss of life and material damage caused by the crash.

- (i) Provide prompt, orderly intervention at the crash site;
- (ii) Evacuate and give medical attention to injured persons;
- (iii) Bring the fire under control or minimize the risk of fire;

- (iv) Control access to the crash site;
- (v) Ensure that the site is undisturbed for investigative purposes;
- (vi) Remove aircraft wreckage and debris.

**Action by Air Traffic Services**

- (i) If the ATS is notified of an accident, note:
  - (i) Designator
  - (ii) Type
  - (iii) Date
  - (iv) Time of accident
  - (v) Location
  - (vi) Number of dead
  - (vii) Number of injured
  - (viii) Any other relevant information
  - (ix) Person reporting the accident

Name \_\_\_\_\_  
Address \_\_\_\_\_  
Phone \_\_\_\_\_

- (ii) Notify the RCC (Rescue Coordination Centre)
- (iii) Notify the ARFFS officer in charge of the following:
  - (1) Location of the crash (intervention map co-ordinates)
  - (2) Type of aircraft involved.
  - (3) Number of people on board
  - (4) Amount of fuel
  - (5) Any other relevant information
- (iv) Notify the Airport Manager
- (v) Notify the intervention units in accordance with the emergency procedure.

**Action by Aerodrome Rescue and Fire Fighting Service**

- (i) The duty officer in charge assesses the distance and accessibility of the crash site, density of air traffic, etc.; he then informs the other intervention units of actions to be taken.
- (ii) If the aircraft cannot be located, obtain the portable ELT receiver from the ATS.
- (iii) At the crash site, the Emergency Response Service (ERS) officer in charge establishes contact with the EOC via the command station and backs up the fire department and the Police in directing the activity of the intervention units at the accident site.
- (iv) Ensure that a triage centre is set up. Help attend to the injured and administer first aid.

- (v) Ensure that access to the site is controlled by the Police, to prevent the site from being disturbed.
- (vi) Recall fire fighters and report to the municipal fire hall and ask the EOC for transportation to the accident site.

**Action by Airport Manager or Representative**

- (i) Immediately contact the ARFFS officer in charge by portable radio or telephone to assess the situation with him. Depending on the circumstances, then authorizes deployment of the airport resources outside the airport.
- (ii) Report to the EOC without delay.
- (iii) As required, authorize the recall of additional staff.
- (iv) Ensure that a member of the airport staff reports to the airport assembly point to direct any agencies reporting there in error.
- (v) Ensure that the Accident Investigation Bureau has been notified (ATS) and contact the duty investigator.
- (vi) Ensure that the duty maintenance supervisor is on duty at the Assembly point.
- (vii) As required, ensure that an airport vehicle is driven to the command station with the necessary equipment.
- (viii) Ensure that an adequate number of ambulances have been mobilized.
- (ix) Ensure that the emergency trailer is towed to the site, if necessary.
- (x) Ensure that an adequate number of boats have been mobilized.
- (xi) Ensure that space has been set aside for a morgue, to be used if necessary.
- (xii) Ensure that the following agencies are notified, as required:
  - (1) Police
  - (2) Civil Defence
  - (3) Coroner
  - (4) Customs
  - (5) Photographer
- (xiii) Call clergy, if required:
  - (1) Muslim
  - (2) Christian
  - (3) Etc.
- (xiv) Ensure that all agencies are notified when the emergency is over.
- (xv) Ensure that the aircraft and debris are protected until the Authority Investigator has completed his investigation.

**Action by Airport Maintenance**

- (i) The field supervisor reports to the Assembly Point immediately.
- (ii) Outside normal work hours, he recalls staff in accordance with instructions from the airport manager or his representative.
- (iii) The field supervisor dispatches auxiliary manpower and equipment during the emergency.
- (iv) As required, staff perform the following functions upon request by the EOC:
- (v) Tow the emergency trailer;
- (vi) Make all equipment available upon request by the EOC;
- (vii) Any other task requested by the EOC.

**Action by Air Carrier Involved**

- (i) The station chief reports to the EOC immediately.
- (ii) With the assistance of the EOC, enlists additional assistance, where appropriate, such as helicopter transport aircraft, boats, buses, etc.
- (iii) As required, ensure that off-duty staffs are recalled.
- (iv) Staff assigned to lend assistance at the accident site report to the assembly point and await instructions from the EOC.
- (v) Provides any information likely to be of use to intervention units (number and names of passengers, type of cargo, etc.).
- (vi) Ensures that transportation is available for uninjured passengers (buses).
- (vii) Provides space (*hotels or other spaces to be identified*) for uninjured passengers.
- (viii) Where appropriate, meets and attends to next-of-kin.
- (ix) As required, notifies Customs.
- (x) Handles media inquiries.
- (xi) Makes the necessary arrangements to remove the aircraft or debris in accordance with instructions from the airport manager or his representative.

**Action by Police**

- (i) The Police officer in charge reports to the EOC immediately.
- (ii) The Senior Police officer or his delegate at the crash site directs the activity of all intervention units.
- (iii) Ensures that the medical team sets up a triage centre.
- (iv) A constable equipped with a walkie-talkie controls access to the crash site and prevents curiosity-seekers from entering.
- (v) As required, notifies Civil Defence.
- (vi) As required, notifies the coroner.
- (vii) Helps attend to the injured and administer first aid.



(viii) Protects evidence and investigates in co-operation with AIB investigators.

### ***DIPOSAL OF WRECKAGE***

It is forbidden for anyone to handle or move wreckage or debris from the damaged aircraft, except to rescue occupants. Authorization to handle or dispose of wreckage must be obtained from the airplane accident investigator.

### **Action by Medical Team**

- (i) Implements internal hospital emergency procedures.
- (ii) If the crash site is accessible by road, reports to the site with the ambulances immediately.
- (iii) Upon arrival at the command station, reports to the police officer in charge (if unavailable, see the ARFFS officer).
- (iv) Obtains identification armbands at the command station.
- (v) The team leader at the accident site supervises triage and co-ordinates his team's activity (all occupants of the aircraft involved, whether dead, injured or uninjured, must wear a "METTAG" for identification purposes.
- (vi) The location of each dead body shall be marked with an orange flag identified with the same number of the "METTAG" of the victim.
- (vii) Medical assistants administer first aid and help transport the injured to the ambulance assembly point.
- (viii) Passengers not requiring hospitalization are gathered together and transported to a waiting station.
- (ix) Records whether occupants of the aircraft are evacuated to hospital or to the survivor waiting station.
- (x) If the crash site is not accessible by road, the team travels to the site by a means of transportation designated by the EOC.

### **Action by Ambulance Drivers**

- (i) If the crash site is reasonably accessible by road, report to the site immediately.
- (ii) Upon arrival at the command station, report to the police officer in charge, (if unavailable, see the ARFFS officer).
- (iii) Obtain identification armbands, (from the emergency trailer).
- (iv) Transport the injured from the crash site to hospital.

*Note - if the crash site is not accessible, the EOC shall determine the location of an assembly point, if appropriate.*

### **Action by Public Affairs public**

Public Affairs manage all media activities linked to the operation.

- (i) Ensure the presence of a representative at the media reception point
- (ii) Establish an information office for the media (*location to be specified*)

- (iii) Coordinate media and communications activities (internal and external) with the agencies involved
- (iv) Communicate to the Air Terminal Building operation all messages to be broadcast on the Public Address System

**Action by Technical Services (Nav aids & Telecommunications)**

- (a) Perform equipment status check.
- (b) If the accident occurred near the airport and weather conditions indicate that RVR may have had a direct influence on the accident, enter the time on the RVR record sheet and initial it. One hour after recording the time, remove the roll and lock it away (subsequent RVR recorder recordings for a period of seven days shall also be locked away).
- (c) Store the recorder tapes in a safe place.
- (d) Store in a safe place (under lock and key) all documents pertaining to the accident.

**6 MEDICAL EMERGENCIES**

**Objective**

To ensure that the services and agencies with responsibilities during such situation work as a team in the interest of passengers and crew, in situation site below;

- (i) Poisoning
- (ii) Sickness
- (iii) Contagious sickness
- (iv) Quarantine

**Action by ATS**

If the ATS is notified of a medical emergency;

**NOTE:**

- (i) Arrival time
- (ii) Number of people sick:
- (iii) Nature of sickness:

By using the emergency phone (Hospital) advise the doctor on duty the nature of the emergency.

**Action by Airport Manager or Representative**

- (i) Reports to the EOC without delay, if necessary;
- (ii) Ensure that the Air Carrier involved is advised;
- (iii) Ensure that transportation is available for passengers;
- (iv) Ensures that Hospital has been advised.

**Action by Air Carrier Involved**

Implement airline procedures.

**Action by Medical Team**

Implement the hospital emergency procedures.

**Action by Ambulance Service**

Report to the Assembly Point and wait for instructions or proceed directly to the aircraft.

**Action by Public Affairs**

Public Affairs manage all media activities linked to the operation.

- (i) Ensure the presence of a representative at the media reception point
- (ii) Establish an information office for the media (*location to be specified*)
- (iii) Coordinate media and communications activities (internal and external) with the agencies involved
- (iv) Communicate to the Air Terminal Building operation all messages to be broadcast on the Public Address System

**NON-AIRCRAFT ACCIDENT RELATED AIRPORT EMERGENCIES**

General

Procedures and techniques developed for responding to non-aircraft accident related airport emergencies should be similar to the techniques in handling aircraft accident emergencies. It should be recognized that medical and fire emergencies can arise at any location where large numbers of persons work or congregate. This problem can be severe at airports because of the exposure associated with commonplace activities, such as arriving and departing passengers and sightseers, and the use of public service facilities (i.e. automobile movement and parking areas, restaurants, bars, baggage handling and storage areas, etc.). Additionally, airports can be selected by malcontents as locations to demonstrate their anger against any group or activity.

The diverse character of persons travelling by air suggests the need for the airport operator to arrange to have available emergency medical services to treat conditions such as cardiac arrest, abdominal pains, burns, cuts, abrasions, and other medical problems. Such conditions may require immediate care facilities and detailed mutual aid plans with outside agencies.

**UNLAWFUL ACTS AGAINST CIVIL AVIATION**

General

Detailed information on procedures for dealing with unlawful interference is given in the National Aviation Security Programme. An aircraft which is subjected to a threat of sabotage or unlawful seizure should be parked at an isolated aircraft parking position until the act of unlawful interference is terminated. Such an area should be located at least 100 m away from other aircraft parking positions, buildings or public areas as specified in the SLCAR Part 14A. In such cases it may be necessary to evacuate passengers without the aid of loading ramps provided at the passenger terminal. Motorized loading ramps may be available which could be driven to the site; otherwise built-in aircraft stairs or the aircraft slides may be used.

## **OCCURRENCES INVOLVING DANGEROUS GOODS**

### General

Detailed information on procedures for dealing with Occurrences Involving Dangerous Goods is given in the ICAO Emergency Response Guidance for Aircraft Incidents involving Dangerous Goods (Doc 9481).

Many types of dangerous goods can be shipped by air. These include explosives, compressed or liquefied gases (which may be flammable or toxic), flammable liquids or solids, oxidizers, poisonous substances, infectious substances, radioactive material or corrosives. Packages containing dangerous goods may be found in airport cargo buildings, on aircraft loading ramps, in aircraft cargo compartments, etc.

Rescue and firefighting personnel need to be aware of the potential hazards of any dangerous goods and be prepared to deal with related emergencies. Accidents involving aircraft carrying dangerous goods present special rescue and fire control problems, although the existence of such cargoes may not be immediately known. Aircraft operators should report without delay the presence, or possible presence, of dangerous goods on board aircraft involved in an accident. Packages containing dangerous goods can be identified by the distinctive diamond-shaped dangerous goods labels. Rescue and firefighting personnel should familiarize themselves with the various labels.

If a package containing radioactive materials ruptures and spillage occurs, the vehicles or persons that come near or cross through the area may become contaminated. If radioactive material is disturbed, winds or a thermal column from an aircraft fire could carry and spread the radioactive material over a great distance, endangering a wide area. Provision for decontamination of responding personnel and equipment should be included in emergency planning procedures. If packages containing radioactive material are damaged, the assistance of radiological experts should be required without delay. The most appropriate organization able to provide such assistance should be determined.

Where broken containers are found which could cause injury to or affect the health of exposed aircraft occupants or rescue personnel (particularly from radioactive, aetiological, or toxic materials), special precautions should be taken. Personnel trained to deal with the special problems involved shall be utilized. If damaged packages of dangerous goods are found, especially if they are radioactive, infectious or poisonous materials, precaution should be taken to safeguard the health of exposed aircraft occupants and rescue personnel. Fire fighters and other rescue workers should be trained to deal with the special problems that could arise.

In the event radioactive materials are suspected, the following general procedures should be followed;

- a) the nearest nuclear energy facility, hospital with a radiological unit, military base or civil defence organization should be required to dispatch immediately a radiological team to the accident site;
- b) persons coming in contact with radioactive material should be segregated until examined by radiological team physicians;

- c) suspected material should be identified but not handled until it has been monitored and released by authorized personnel. Clothing and tools used at the accident scene should be segregated until released by a radiological emergency team;
- d) food or drinking water suspected of contamination should not be used;
- e) only properly attired rescue and firefighting personnel should remain on the scene; all other persons should be kept as far from the scene as possible; and
- f) all hospitals shall be notified immediately that radioactive materials are involved so they can establish radioactive decontamination areas in the hospital.

Any casualty or person exposed to dangerous materials should be removed from the scene of the occurrence and transported to the appropriate medical facilities for suitable treatment as soon as possible.

## NATURAL DISASTER

### General

The natural disasters to which airports may be subjected include storms, floods, earthquakes, and seismic sea waves. The vulnerability of an airport to any of these will, in good measure, be affected by geography, since the more dangerous occurrences are often defined by certain areas or belts. While nothing can be done to avert them, there are actions that can be taken to minimize damage and expedite restoration of aircraft operations.

Development of weather patterns, prediction and tracking of movement of storms, and notification to the public of potential danger should normally be carried out by a meteorological service in the area.

The airport emergency plan should provide for initial protective measures, emergency supplies pertinent to local disaster exposure, personnel shelter, and post-storm clean up and restoration. Aircraft operations will usually be impossible for several hours before and after the storm.

As soon as severe storm warnings are received, all owners of aircraft based or located at the airport should be notified. Warnings should be issued to all aircraft pilots en-route to the airport. Aircraft owners and pilots should be responsible for their aircraft. If possible, all aircraft on the ground should be evacuated to airports outside the storm area. Aircraft in flight should be advised to divert to an alternate destination. Aircraft on the ground that cannot be dispersed should be put under cover or tied down so as to face into the approaching winds.

Power interruptions are common during a natural disaster, either by damage to generating plants or by destruction of transmission lines. Airports located in severe storm areas should take measures to ensure minimum interruption to power supply, either by providing standby engine generators or dual sources of commercial power.

Specific personnel assignments for building protection to collect or secure all loose objects that may be blown about by the winds should be made in the airport emergency plan. It may be necessary to fill and place sandbags if there is any possibility of flooding.

Natural disasters require large quantities of specific equipment for use in earthquakes, floods, tsunamis, etc. A survey of the quantity and type of emergency supplies available from each individual agency should be made to provide a consolidated list of supplies available for the region.

## EMERGENCIES AT AIRPORTS BORDERING WATER AREAS

Airports may be located adjacent to large bodies of water which requires additional emergency services. Aircraft may sink rapidly making the danger of drowning or hypothermia a major problem for the occupants. Some aircraft are not equipped with life vests, rafts or inflatable slides. Flotation devices sufficient to carry the number of occupants of the largest aircraft regularly using the airport should be carried on amphibious rescue vehicles capable of rapid deployment.

## **APPENDIX 7: AGENCIES INVOLVED**

### **1. General**

- (a) The first step in a viable emergency plan is to have the cooperation and participation of all the concerned aerodrome/community authorities. Agencies to be considered are:
- (i) Air traffic services
  - (ii) Rescue and fire fighting services (fire departments) \*.
  - (iii) Police and/or security services.
  - (iv) Aerodrome authority.
  - (v) Medical services.
  - (vi) Hospitals.
  - (vii) Aircraft operators.
  - (viii) Government authorities
  - (ix) Communication services.
  - (x) Aerodrome tenants.
  - (xi) Transportation authorities (land, sea and air);
  - (xii) Rescue co-ordination centre.
  - (xiii) Civil defences.
  - (xiv) Mutual aid agencies.
  - (xv) Military;
  - (xvi) Harbour patrol or coast guard.
  - (xvii) Clergy.
  - (xviii) Public information office;
  - (xix) Customs;
  - (xx) Mental health agencies;
  - (xxi) Public utilities;

- (xxii) Postal authorities;
- (xxiii) Veterinary services;
- (xxiv) Coroner;
- (xxv) Volunteer organizations; and
- (xxvi) International relief agencies (Red Cross, etc.).

## **2. Air Traffic Services**

When the emergency involves an aircraft, the airport control tower (or airport flight information service) is required to contact the rescue and firefighting service and to provide information on the type of emergency and other essential details, such as the type of aircraft, fuel on board and location of the accident, if known. Additionally, the aerodrome emergency plan may specify that air traffic services should initiate the calling of the local fire departments and appropriate organizations in accordance with the procedures laid down in the plan. The initial call should provide the grid map reference, rendezvous point and, where necessary, the airport entrances to be used. Alternatively, this function may be assigned by the plan either in whole or in part to another organization or unit. Care must be taken, when preplanning initial notification of the accident, to clearly specify the responsibility assignments and to avoid duplication in the calling requirements. Subsequent calls may expand the information given to include the number of aircraft occupants, any dangerous goods on board, and the name of the aircraft operator, if appropriate. If the airport must be closed because of the emergency at hand, air traffic services are expected to take action as necessary with respect to aircraft desiring to land or depart.

## **3. Rescue and Fire Fighting Services (Fire Departments)**

- (a) The prime responsibility of aerodrome rescue and fire fighting personnel is to save lives. Property endangered by aircraft incidents and accidents occurring on or near the aerodrome should be preserved as far as practicable. To achieve this objective, fire should be suppressed and any resignation prevented. There are aircraft accidents, however, where fire may not occur, or where the fire may be rapidly extinguished. In every case, the procedures should provide for the most rapid evacuation possible of survivors of the accident.
- (b) Unless seriously injured casualties are stabilized rapidly, they may become fatalities. Airport rescue and fire fighting personnel should receive training to satisfy locally acceptable, emergency medical standards. They may be the only rescue personnel on the scene during the critical period immediately following an accident and possibly for an extended period. On-aerodrome availability of other responding personnel with qualified medical expertise may reduce this need.
- (c) Only fire fighting and rescue personnel wearing approved protective fire fighting clothing and equipment should be allowed in close proximity to an aircraft accident site. Such



clothing should be worn within a distance of approximately 100 m from any point on the aircraft or any fuel spillage.

- (d) As a means to easily identify and distinguish the fire officer in command, a suitable red hard hat and highly visible red apparel such as a vest or coat should be worn, with “CHIEF FIRE OFFICER” in reflective lettering displayed front and back.

#### **4. Police and/or Security Services**

- (a) In an aerodrome emergency, it is expected that the police or security officer first to arrive at the scene should secure the site and request reinforcement, if needed. The officer's responsibilities should continue until relieved by the designated law enforcement agency that has jurisdictional authority over the area. The plan should include arrangements for the rapid and effective reinforcement of the security cordon by local police, military or other units under governmental control, wherever required.
- (b) Congestion-free ingress and egress roads need to be established immediately for emergency vehicles. The security services, police force, or other appropriate local authorities are expected to ensure that only persons with specific tasks be allowed at the scene of the accident. They should route the normal traffic away from or around the accident site.
- (c) The plan should provide for the control of crowds that always collect at an accident site and also for the preservation of the entire area, undisturbed whenever practical, for investigation purposes.
- (d) A mutual aid programme should be instituted between all potentially involved security agencies; e.g. airport, city, local and government security forces, mail inspectors, and, where appropriate, military police and customs officials.
- (e) A method to easily identify responding emergency personnel should be implemented at security check points to ensure that they have immediate access to the accident site. “Emergency Access” identification can be pre- issued by the airport authority to emergency personnel for use during an emergency.
- (f) In many cases it may not be possible or practicable for vehicles of mutual aid fire departments, ambulances, etc., to proceed directly to the accident/incident site. It is essential that the emergency plan include procedures for meeting at a designated rendezvous point or points. A rendezvous point can also be used as a staging area where responding units can be held until needed at the accident site. This can help to eliminate traffic jams and confusion. Personnel controlling the rendezvous point also should consider the suitability of vehicles for adverse terrain conditions at the accident site and to prevent obstruction of the access route by disabled vehicles. Staging these vehicles can prevent traffic jams and confusion at the accident scene.

- (g) As a means to easily identify and distinguish the security/police officer in command, a blue, industrial hard hat and highly visible blue apparel such as a vest or coat should be worn, with “POLICE CHIEF” in reflective lettering displayed front and back

## **5. Aerodrome Authority**

- (a) The aerodrome authority should be responsible for establishing, promulgating and implementing the plan and designating the person in command of the over-all operation at the command post. The plan may require the aerodrome authority to ensure that the information, such as names and telephone numbers of offices or people involved in an aerodrome emergency, is kept up to date and distributed to all concerned. Coordination of all agencies responding to an emergency is expected to be carried out by the aerodrome authority. The aerodrome authority should also arrange necessary meetings of the aerodrome emergency plan coordinating committee, composed of key personnel from participating agencies, to critique the plan after it has been tested or implemented. The aerodrome authority should be responsible for closing the aerodrome, or part of it, if circumstances so require. Aircraft operations should be resumed only when circumstances permit aircraft to operate safely without interfering with rescue activities and the airport movement area has been secured.
- (b) As a means to easily identify and distinguish the aerodrome operations officer in charge, an international-orange hard hat and highly visible orange apparel such as a vest or coat should be worn, with “AERODROME ADMINISTRATION” in reflective lettering displayed back and front.

## **6. Medical Services**

- (a) The purpose of medical services is to provide triage, first aid and medical care in order to:
  - (i) save as many lives as possible by locating and stabilizing the most seriously injured, whose lives may be in danger without immediate treatment;
  - (ii) provide comfort to the less seriously injured and to administer first aid; and
  - (iii) transport casualties to the proper medical facility.
- (b) It is essential that provision of medical services such as triage, stabilization, first aid, medical care, and the transporting of the injured to hospital(s) be carried out in the most expeditious manner possible. To this end, well organized medical resources (personnel, equipment and medical supplies) should be available at the accident site in the shortest time possible. The medical aspects of the emergency plan should be integrated with local community emergency plans as agreed upon in the mutual aid emergency agreement
- (c) A medical coordinator should be assigned to assume control of the emergency medical operations at the accident site. If aerodrome medical services exist, the medical coordinator

may be designated from the aerodrome medical staff. In some cases, it may be necessary to appoint an interim medical coordinator, to be relieved when the designated medical coordinator arrives on site. The interim medical coordinator can be designated from the airport rescue and fire fighting personnel.

- (d) Medical and ambulance services may be an integral part of the airport services, particularly whenever an ambulance service is a part of the aerodrome rescue and fire fighting service. Whenever medical and ambulance services are not available at the aerodrome, prearrangements with local, private, public or military medical and ambulance services should be made. The plan has to ensure the dispatch of a satisfactory assignment of personnel, equipment and medical supplies. To ensure a rapid response, the plan can include arrangements for land, sea and airborne transportation of medical services to the scene, and subsequent transportation of persons requiring immediate medical care. Prearrangements are necessary for the availability of doctors and other medical personnel for all aerodrome emergencies. The plan should list a sufficient number of doctors to offset any absences at the time an emergency occurs.
- (e) The plan should designate a medical transportation officer whose responsibilities would include:
  - (i) alerting hospitals and medical personnel of the emergency;
  - (ii) directing transportation of casualties to appropriate hospitals suitable for treatment of the particular injury;
  - (iii) accounting for casualties by recording the route of transportation, destination hospital, and casualty's name and extent of injuries
  - (iv) advising hospitals when casualties are en route; and
  - (v) maintaining contact with hospitals, medical transportation, the senior medical officer, on-scene command post, and the command post.
- (f) Information on medical services at airport is contained in Appendix 3.

## **7. Hospitals**

- (a) Participating hospitals should have contingency emergency plans to provide for mobilization if necessary of medical teams to the accident site in the shortest possible time. Availability of qualified personnel and adequate facilities at the hospitals to deal with aerodrome emergency situations is vital. In this respect, it is mandatory to establish in advance an accurate list of surrounding hospitals. They should be classified according to their effective receiving capacity and specialized features, such as neurosurgical ability or burn treatment. In most circumstances it is unwise to deplete the most proximate hospital to the accident site of essential medical and nursing personnel.

- (b) The distance from the aerodrome and the ability to receive helicopters should be considered. Reliable two-way communication shall be provided between the hospitals, ambulances and helicopters. The alert of an aircraft accident should be made to single medical facilities which then alert all other facilities according to a local medical communications network.

## **8. Aircraft Operations**

- (a) It is important that arrangements be made in the plan to disseminate full details of aircraft related information, such as number of persons aboard, fuel quantity and existence of any dangerous goods, if available. Aircraft operators are expected to be responsible for providing this information. This information is vital to the on-scene commander and will influence the tactics and strategies used to deal with the emergency. Operators also are responsible for making arrangements for any uninjured persons who may require continuing their journey, or need accommodations or other assistance. Additionally, aircraft operators may be responsible for contacting deceased passengers' next of kin. The police and/or international relief agencies (Red Cross, etc.) may normally assist in the accomplishment of this task. Information concerning services provided by aircraft operators following an aircraft accident is contained in Appendix 6.
- (b) The aerodrome emergency plan should designate an aircraft operator to respond to an emergency involving a chartered, private, military or other non-tenant aircraft operator.
- (c) The proper disposition of all cargo, mail and baggage aboard an aircraft involved in an accident is the responsibility of the aircraft operator. Permission to remove these items from the aircraft may be granted by the on-scene commander only after the emergency has been abated and the requirements of the accident investigators have been met.

## **9. Government Authorities**

In order to avoid conflict and confusion between participants, the aerodrome emergency plan should clearly define the obligations, controls and limitations placed on the aerodrome authority by government agencies. Post-accident investigation, unlawful seizure of aircraft, bomb threats and bombings, customs and postal matters, may all fall into jurisdictions other

## **10. Aerodrome Tenants**

Aerodrome tenants and their employees should be considered a prime source of readily available equipment and human resources. With their intimate knowledge of the aerodrome, aerodrome tenants and their employees can have a vital role in the emergency plan especially if their background includes medical training, transportation or food preparation. It is important that these persons be deployed under supervision and assigned specific functions to void duplication of efforts and disruption of other emergency operations. For their own personal safety, the use of these people should be restricted until the emergency is under control. Employees with first aid knowledge should be known and identified by means of a suitable vest during an emergency.

## **11. Transportation Authorities (Land, Sea, Air)**

- (a) In an emergency, vehicles are needed to carry out rescue operations, to transport personnel and to haul supplies and debris. Responsibility for the control of vehicles to be used during an emergency should be assigned to a designated transportation officer. All of the transportation equipment available at the aerodrome, such as buses, trucks, maintenance vehicles and automobiles, should be inventoried and assignments should be included in the emergency plan. Arrangements in advance also might be made to obtain additional vehicles from bus

companies, leasing companies or garages. Also, by prior agreement, the use of vehicles owned by airport employees might be included in the emergency plan.

- (b) In aerodrome emergencies, provision shall be made for an easily identifiable guide vehicle, equipped with two-way radio communication, to lead groups of vehicles from the rendezvous point(s) or staging area to the accident site. This should be accomplished without interference with aircraft operations.
- (c) Suitable rescue equipment and services shall be available for use whenever the accident site and/or access routes require transportation through water or swampy areas 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.
- (d) As a means to easily identify and distinguish the transportation officer in charge, a lime-green hard hat and lime-green vest or other apparel should be worn, with “TRANSPORTATION OFFICER” in reflective lettering displayed back and front.

## **12. Rescue Coordination Centre**

Rescue coordination centres may play a significant role when aircraft accidents occur in the vicinity of an aerodrome but the accident site is not known, or rescue facilities additional to those available at or near the aerodrome are required to be brought into action. Rescue coordination centres shall have means of immediate communication with all rescue units within their areas of responsibility, including units providing aircraft, helicopters and special rescue teams. Where appropriate, coastal radio stations capable of alerting and communicating with surface vessels must be used. Assistance from some of these units can be essential in responding to an accident in the vicinity of the aerodrome. It is therefore suggested that the potential role of the rescue co-ordination centre be specifically highlighted in a separate paragraph in the aerodrome emergency plan document.

## **13. Civil Defence**

The aerodrome emergency plan should be integrated with the local community civil defence emergency plan and with local search and rescue teams. Consideration should be given to the role the aerodrome may have as a result of coordination with civil defence officials and in support of any civil defence emergency plan requirements.

## **14. Mutual Aid Agreements**

- (a) Aerodrome emergencies may be of such magnitude that local rescue and fire fighting, security, law enforcement and medical services are inadequate to handle the situation. It is therefore strongly recommended that written mutual aid programmes be initiated to ensure the prompt response of adequate rescue and fire fighting, security, law enforcement and medical services elsewhere. Such mutual aid agreements are normally coordinated by the airport authority as well as the agencies involved, and implemented by the airport authority.
- (b) All mutual aid agreements shall be reviewed or revised annually. Telephone and personnel contacts shall be reviewed and updated monthly.

## **15. Military**

Where a military installation is located on or in the vicinity of an aerodrome, a mutual aid agreement shall be initiated to integrate these personnel within the command, communication and coordination functions of the emergency plan.

## **16. Harbour Patrol and Coast Guard**

Harbour patrol and coast guard are services which are vital to aerodrome in proximity to large water environments. Coordination of such services should be included in the aerodrome emergency plan where applicable. These services usually interface with rescue coordination centres and mutual aid police units. To obtain the immediate response of such services, maintenance of an adequate communication network is an essential ingredient of the plan.

#### **17. Clergy**

Arrangements should be made to contact the clergy to provide comfort to casualties and relatives and to perform religious services where and when appropriate.

#### **18. Public Information Officer**

- (a) A public information officer should be designated. This officer should coordinate and release factual information to the news media and also should coordinate public information statements between all parties involved.
- (b) It is recommended that the television and radio news media be requested to withhold the release of accident information for at least fifteen minutes (or longer, if possible). This delay will allow sufficient time to establish adequate security around the accident site and to establish road blocks on routes providing ingress and egress to the accident site by participating emergency medical agencies and other services.
- (c) The public information officer is responsible for escorting the news media to the accident/incident location

#### **19. Mental Health Agencies**

The emergency plan should include local mental health agencies. Therapeutic treatment, as well as follow-up procedures for dealing with the possible long-term effects of the emergency, should be available for survivors, relatives, eyewitnesses, and emergency scene personnel