Referenced to Nigeria Regulations

Advisory Circular

NCAA-AC-ARD007-1

NIGERIAN CIVIL AVIATION AUTHORITY (NCAA)

ISSUE NO 2 **28TH SEPTEMBER, 2018**

AERODROME EMERGENCY PLAN

1.0 GENERAL

Nigerian Civil Aviation Authority Advisory Circulars from Aerodrome Standards Department contain 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 will be given to other methods of compliance that may be presented to the Authority.

2.0 PURPOSE

This Advisory Circular provides methods, acceptable to the Authority, for showing compliance with the Aerodrome Emergency Plan requirements of Nig. CARs Part 12 as well as explanatory and interpretative material to assist in showing compliance.

3.0 REFERENCE

The Advisory Circular relates specifically to Nig. CARs Part 12.6.15 and ASM 13.2.1.

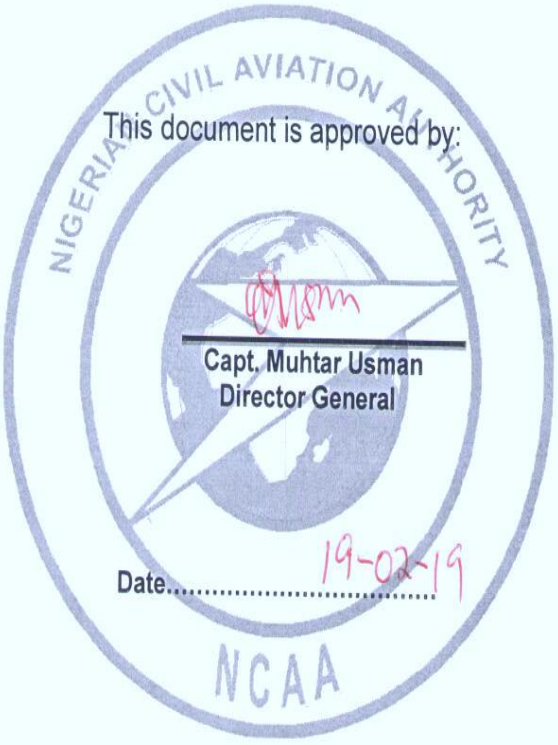
4.0 STATUS OF THIS AC

This is the second issue and first amendment of the AC and it supersedes the previous edition on this subject.

APPROVAL PAGE

AERODROME EMERGENCY PLAN

ADVISORY CIRCULAR-NCAA-AC-ARD007-1



AMENDMENT PROCEDURES

The Director, Aerodrome and Airspace Standards is responsible for the development, issuance and control of amendments to this document. The Document Controller is responsible for distribution of amended copies of the AC to Departmental staff and technical library and in making it available on NCAA website: ncaa.gov.ng for public use.

Each page will show the document number, issue/amendment number, issue date and page number at the base of the page.

All amendments must be recorded in the Record of Amendments.

Any observation made or contribution to the content of this document by the user should be directed to the following address for consideration and adoption:

Nigerian Civil Aviation Authority
Aviation House
PMB 21029,21038
Ikeja, Lagos

RECORD OF AMENDMENTS

Issue No/Amendment No	Page(s) Affected	Date Entered	Entered By	Signature
2/1	All	28th September 2018		

LIST OF EFFECTIVE PAGES

Chapter	Page	Date of issue	Chapter	Page	Date of issue
Approval page	2	28th September, 2018	Chapter 3	30	28th September, 2018
Amendment procedure	3	28th September, 2018	APPENDIX 1	31	28th September, 2018
Record of amendment	4	28th September, 2018	APPENDIX 1	32	28th September, 2018
List of effective pages	5	28th September, 2018	APPENDIX 1	33	28th September, 2018
Table of content	7	28th September, 2018	APPENDIX 1	34	28th September, 2018
CHAPTER 1	13	28th September, 2018	APPENDIX 1	35	28th September, 2018
CHAPTER 1	13	28th September, 2018	APPENDIX 1	36	28th September, 2018
CHAPTER 2	14	28th September, 2018	APPENDIX 1	37	28th September, 2018
CHAPTER 2	15	28th September, 2018	APPENDIX 1	38	28th September, 2018
CHAPTER 2	16	28th September, 2018	APPENDIX 2	39	28th September, 2018
CHAPTER 2	17	28th September, 2018	APPENDIX 2	40	28th September, 2018
CHAPTER 2	18	28th September, 2018	APPENDIX 2	41	28th September, 2018
CHAPTER 2	19	28th September, 2018	APPENDIX 2	42	28th September, 2018
CHAPTER 2	20	28th September, 2018	APPENDIX 2	43	28th September, 2018
CHAPTER 2	21	28th September, 2018	APPENDIX 2	44	28th September, 2018
CHAPTER 2	22	28th September, 2018	APPENDIX 2	45	28th September, 2018
CHAPTER 2	23	28th September, 2018	APPENDIX 2	46	28th September, 2018
CHAPTER 2	24	28th September, 2018	APPENDIX 2	47	28th September, 2018
CHAPTER 2	25	28th September, 2018	APPENDIX 2	48	28th September, 2018
CHAPTER 3	26	28th September, 2018	APPENDIX 2	49	28th September, 2018

CHAPTER 3	27	28th September, 2018	APPENDIX 2	50	28th September, 2018
CHAPTER 3	28	28th September, 2018	APPENDIX 2	51	28th September, 2018
CHAPTER 3	29	28th September, 2018	APPENDIX 3	52	28th September, 2018
APPENDIX 3	53	28th September, 2018	APPENDIX 6	80	28th September, 2018
APPENDIX 3	54	28th September, 2018	APPENDIX 6	81	28th September, 2018
APPENDIX 4	55	28th September, 2018	APPENDIX 6	82	28th September, 2018
APPENDIX 4	56	28th September, 2018	APPENDIX 6	83	28th September, 2018
APPENDIX 5	57	28th September, 2018	APPENDIX 6	84	28th September, 2018
APPENDIX 5	58	28th September, 2018	APPENDIX 6	85	28th September, 2018
APPENDIX 6	59	28th September, 2018	APPENDIX 6	86	28th September, 2018
APPENDIX 6	60	28th September, 2018	APPENDIX 6	87	28th September, 2018
APPENDIX 6	61	28th September, 2018	APPENDIX 6	88	28th September, 2018
APPENDIX 6	62	28th September, 2018	APPENDIX 6	89	28th September, 2018
APPENDIX 6	63	28th September, 2018	APPENDIX 6	90	28th September, 2018
APPENDIX 6	64	28th September, 2018	APPENDIX 6	91	28th September, 2018
APPENDIX 6	65	28th September, 2018	APPENDIX 6	92	28th September, 2018
APPENDIX 6	66	28th September, 2018	APPENDIX 6	93	28th September, 2018
APPENDIX 6	67	28th September, 2018			
APPENDIX 6	68	28th September, 2018			
APPENDIX 6	69	28th September, 2018			
APPENDIX 6	70	28th September, 2018			
APPENDIX 6	71	28th September, 2018			
APPENDIX 6	72	28th September, 2018			
APPENDIX 6	73	28th September, 2018			
APPENDIX 6	74	28th September, 2018			
APPENDIX 6	75	28th September, 2018			
APPENDIX 6	76	28th September, 2018			

APPENDIX 6	77	28th September, 2018			
APPENDIX 6	78	28th September, 2018			
APPENDIX 6	79	28th September, 2018			

NIGERIAN CIVIL AVIATION AUTHORITY
NCAA

NIGERIAN CIVIL AVIATION AUTHORITY
NCAA

1.0 Introduction

a. Aerodromes operated under Nigeria Civil Aviation Regulations Part 12 are required to put in place an aerodrome emergency plan (AEP) with ongoing maintenance of the emergency plan including periodic testing.

b. The need for aerodrome emergency planning is based on the requirements of International Civil Aviation Organisation Annex 14 and Aerodrome Standards Manual (ASM). Both publications give a good overview of aerodrome emergency planning stating:

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.

c. This Advisory Circular (AC) provides guidance material to assist aerodrome operators in compliance with the Aerodrome Emergency Requirements of Nigerian Civil Aviation Regulations Part 12. It represents a compilation of methods to assist, and issues for further consideration by, the aerodrome operator and the Aerodrome Emergency Planning Committee in establishing a suitable aerodrome emergency plan. The objective is to address aerodrome emergency planning issues which are relevant to the Nigeria aviation environment and the varied levels of aerodromes.

d. The scope of emergency plans will depend on the type of operation conducted at the aerodrome. Some aspects of this document may not be applicable to all aerodrome operators. AEPs should be developed to be commensurate with the level of operation of the aerodrome.

e. Reference should also be made with ICAO Doc 9137-AN/898 Airport Services Manual Part 7, Airport Emergency Planning, relevant Nigeria emergency planning systems, and current industry practice.

1.1 Objective

a. Aerodrome emergency planning is the process of preparing an aerodrome to cope with an emergency occurring at or near the aerodrome, or an accident at a location away from the aerodrome.

b. It is important to state in the AEP what geographical area the document covers, particularly what is considered on airport, off airport and remote, and what status the document has covering emergencies in these areas. The status of the document however should 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.

c. Emergencies can have a significant impact upon 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.

d. 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.

e. 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.

f. Returning to operational status does not necessarily mean, however, that the aerodrome emergency response is complete. There are many other aspects relating to aerodrome emergencies that may carry on e.g. care of the meeters and greeters, care and debriefing of responders etc. The gradual stand-down of agencies is common depending upon their role in responding to the declared emergency phase.

2.0 Aerodrome Emergency Plan – Requirement

Part 12 of the Nigeria Civil Aviation Regulations on Aerodrome Emergency requires each applicant for an aerodrome operating certificate to develop and maintain an aerodrome emergency plan.

2.1 Contents of an Aerodrome Emergency Plan

The regulation details the items that need to be included in the aerodrome emergency plan. These include the following:

2.2 Types of Emergencies

a. The AEP must provide for the coordination of agencies in responding to anticipated emergencies at the aerodrome or in the aerodrome vicinity. Emergencies can be generally categorized into two different groupings depending upon how the plan is structured. There are emergencies that involve aircraft and those that do not. Security related emergencies can be grouped individually if desired.

b. Aerodrome operators should also make provision for emergency response outside of the standard operating hours. This is particularly so when the AEP initiator is not on duty at the aerodrome e.g. Air Traffic Control or Rescue Fire. This could include a sign on the terminal building detailing how people should contact emergency services and what information to give e.g. aerodrome name and location.

Appendix 1 provides guidance on types of emergencies.

2.3 Procedures for prompt response to Emergencies

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

2.4 Guidance to each person who must carry out the Plan

Aerodrome emergencies vary in terms of type, 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.

2.5 The Role and the Responsibility of each Agency

a. Each agency involved in the AEP should have detailed procedures and processes that they control in regard to AEP actions. The roles of agencies should be clearly defined providing certainty of emergency response.

b. The main agencies include the following as applicable to the aerodrome:

(1) 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.

(2) Off aerodrome – Fire departments, police, medical ambulance services, hospital, military services, harbor patrol, coast guard, civil defense, regional authorities, search and rescue centers.

2.6 Human Factors in Emergency Plan

a. Basic human factor principles should be included in procedures and processes for emergency response, including how people interact with tasks, other people, machines, information sources and the environment with the consideration that humans have limitations and capabilities. There are many publications on Human Factors in aviation. ICAO Annex 14 refers to the ICAO Human Factors Training Manual.

b. Examples of human factor considerations include:

- Developing checklists for agencies and operators (this then steers a person down a prescribed path or behavior);
- Clear labelling and signage for the Emergency Operations Centre (EOC) or control post components to reduce confusion (want to reduce thinking and opportunities for incorrect decisions). Clear identification signs to aid the location of Rendezvous point ;
- Nominating a person who is responsible for the AEP (create ownership so it remains updated) ;
- The layout of the AEP is important (this is critical to providing an effective and efficient plan);
- Use of standby mobile trailer to allow immediate conveyance of all necessary items such as blankets, stretchers, body bags, hand gloves to the accident site and to forestall any critical time lag that would otherwise arise from transfer of the items from storage space to a vehicle during an emergency.

c. Within the EOC, the following features could critically impact on human limitations and capabilities:

- Provision of availability board in the EOC to reduce the number of verbal exchanges;
- Creation of individual lockers for every member of the EOC for storage of vital items such as walkie-talkie and chargers
- Effective access control to prevent distractions and unwanted individuals within the EOC
- Partitioning of the walls of the EOC

- The use of headsets by members of the EOC

d. The AEP should have specific procedures and specialist agencies involved when the aerodrome is located near large bodies of water, swamps or where the approach\departure areas are over water. This could include use of the coast guard, divers, boats\hovercraft and the local harbormaster. These specialist rescue services should be involved in testing of the emergency procedures on a regular basis.

2.6.1 Four Basic Conceptual Categories in Human Factors

a) Software: Plans, Procedures, Documentation etc.

b) Hardware: Machine, Equipment, etc.

c) Environment: Internal (e.g. workplace), External (e.g. surroundings) etc.

d) Liveware: The Human Factor

SHELL Model is the heart of human factors which involves the interface between:

a) People and machines-"Liveware vs Hardware"

b) People and procedures-Liveware vs Software"

c) People and colleagues- Liveware vs Liveware"

d) People and workplace-Liveware vs Environment"

S

H L L

E

S=Software (procedures, symbology, etc.)

H=Hardware (machine);

E=Environment

L=Liveware (human);

Figure 1.1-The SHELL model as modified by Hawkins

2.6.2 Human Factors Issues in ARFF Services

1. A competent and professional ARFF service must rely on a comprehensive and relevant set of training modules, coupled with an internal audit framework to regularly check the effectiveness and efficacy of these programmes. However, in the process of promulgating the training framework, one must not be overly fixated with the `hard' skills component of the training outcomes. Thought must be given to the `soft' human factor components during the promulgation and execution of the training programmes. Similarly, any assessment of the operational effectiveness of ARFF personnel must take into account human factor principles such as team coordination.

2. Human factors principles are not only confined to the development of ARFF training programmes. Consideration must also be given to the formulation of drawer plans such as the aerodrome emergency plan and the unit tactical plans of the ARFF service.

2.6.3 Classification of Human Factors

a) Operational effectiveness and standards; and

b) Safety and well-being of ARFF personnel

2.6.3a: Operational Effectiveness and Standards

1. As the success of any ARFF operations rely very much on teamwork, the importance of building mutual trust and team coordination amongst staff during training cannot be overstressed (Liveware vs. Liveware). Training must therefore be designed to guide ARFF personnel towards achieving these objectives.

2. In order for ARFF training to be as realistic as possible, live fire training is crucial in helping ARFF personnel acclimatize to a heat and smoke filled environment (Liveware vs. Environment), so that in the event of an actual emergency, ARFF personnel will be able to execute their tasks more confidently and effectively. Where possible, simulators replicating different facades of ARFF operations (e.g. vehicle driving and operations; command and control etc.) should be made available for ARFF personnel to be trained in a controlled, safe and realistic environment.

3. ARFF operations require firefighting personnel to be proficient in the operation of fire vehicles and other rescue equipment (Liveware vs. Hardware). This is crucial as it would enable the ARFF service to control any aircraft fires swiftly and effectively, in order to facilitate the evacuation and rescue of survivors. The airport fire vehicle is therefore an extremely vital asset that must be designed to take into account the human instinct and intuition of the vehicle operator. Therefore, ARFF services must place sufficient emphasis on the design ergonomics of fire vehicles during the pre-fabrication stage in order to optimize human

performance during training and operations.

4. The design of fire stations is another important factor that could affect the human performance of ARFF personnel when responding to aircraft accidents or incidents (Liveware vs. Environment). This is especially relevant for large aerodromes which provide a high category of runway fire protection. Fire stations in such aerodromes are typically larger, thus requiring ARFF personnel to travel a longer distance before reaching their fire vehicles. Such considerations must therefore be taken into account during the design phase of a fire station so that the ARFF service is able to meet the stipulated response time in the event of an aircraft emergency.

5. Communication is possibly the most important human factor in ARFF operations.

   Operational readiness and safety standards will be compromised without effective communication amongst ARFF personnel, air traffic control and pilots. Therefore, the type of communications equipment and the transmission of messages must allow critical information to be conveyed, assimilated, processed and executed (Liveware vs. Hardware and Liveware vs. Liveware). Therefore, ARFF training programmes must incorporate components to ensure the accurate and timely transmission of information to avoid miscommunication which could result in serious consequences.

6. It is obvious that any ARFF service will need to be kept up-to-date with the constant development and innovation of more sophisticated rescue equipment and fire vehicles (Liveware vs. Hardware). It is equally important for ARFF personnel to be well acquainted with the different configurations of various aircraft types operating at the particular aerodrome. Boosting the knowledge of ARFF personnel in these areas would indirectly enhance human performance during a response to any aircraft emergency.

7. The ARFF industry is a highly specialized one which compels the management and leadership team of ARFF services to promulgate a system of self-audit. Such systems must not only include the ratings and revalidation of individual standards. More importantly, as we recognize the importance of teamwork and team coordination in ARFF operations, ARFF services should place heavy emphasis on the collective performance of an ARFF outfit during such an audit (Liveware vs. Liveware). The audit can then reveal observations and findings about the effects of human behaviour on pre-stipulated procedures. Similarly, such audits can also highlight human reaction to any unforeseen circumstances in the form of injects during a unit proficiency test. Results from the audits can then be used to modify, tweak and improve training programmes in order to enhance human performance during ARFF operations.

2.6.3b: Safety and Well-Being of ARFF Personnel

1. In the aftermath of an aircraft accident, it is often necessary to provide CARE (Caring Action in Response to Emergency) treatment for the survivors. However, aerodrome operators and ARFF services must also not neglect the mental and psychological well- being of emergency responders such as ARFF personnel who may suffer from post-traumatic stress disorders. It will therefore be essential to provide CARE treatment for ARFF personnel after a major crisis (Liveware vs. Liveware) both from a welfare perspective and also from a business continuity standpoint. Such treatment and counseling can be provided by other ARFF or airport personnel who had undergone the proper training or more likely to be provided by external medical institutions. Arrangements for the latter should then be formalised in the form of mutual aid agreements or can be incorporated into the aerodrome emergency plan (Liveware vs. Software).

2. The job nature of ARFF personnel poses numerous potential hazards (Liveware vs. Environment).

   The risk of inhalation of carbon or smoke particles when extinguishing a fire, either during an incident or during training, is very high. Therefore, ARFF services must provide all fire fighters with the appropriate personal protective equipment (PPE) such as self-containing breathing apparatus (SCBA), helmets, boots, protective clothing etc. In relation to day-to-day operations, the uniform worn by ARFF personnel should also be of a suitable material depending on the local climate and conditions.

3. To ensure that ARFF personnel are able to perform their roles effectively thought needs to be put into designing an appropriate physical fitness programme to condition them for the physical rigors of the job (Liveware vs. Environment). In the process of designing any physical fitness programmes, due considerations must be given to individual human limitations. ARFF management must also accept that not all personnel can perform at the same level of physical fitness standard. The key is to establish the minimum physical fitness requirements of a fire fighter and design a programme that can best replicate these demands.

4. Noise is an important human factor (Liveware vs. Environment) that is omnipresent in an airport environment and cannot be ignored. Most fire stations are located within close proximity of the runway and aircraft movement areas, thus exposing ARFF personnel to constant loud noises. Besides posing as disruptive interferences during the transmission of messages, long term and regular exposure to noise can have serious implications on one's health (e.g. temporary, partial or permanent hearing loss). To address this issue, ARFF services should issue and mandate the use of suitable hearing protection devices. In addition, personnel who are subjected to constant exposure to noise should be sent for regular noise induced deafness (NID) hearing tests.

5. Fatigue is one important factor that directly affects human performance and is greatly influenced by the shift system of ARFF services (Liveware vs. Software). Besides the need to conform to local Labour rules and regulations of individual States, there must be considerations to ensure that ARFF personnel can have sufficient rest despite the need to be on 24-hour operational readiness at most airports.

6. A leader is an individual whose ideas and actions influence the thought and behavior of others (Liveware vs. Liveware). Through the use of motivation and persuasion, and an understanding of the goals and desires of the team, the leader becomes an agent of change and influence. Skilled leadership may be needed to understand and handle various operational, training and administrative situations. For instance, personality clashes within a team complicate the task of a leader and can affect both safety and efficiency.

2.6.4: Principles Apply in human factors

a) Aeronautical design

b) Certification

c) Training

d) Operations and maintenance

2.6.5: Three methods of testing the aerodrome emergency plan

a) Full scale exercise

b) Partial exercise

c) Tabletop exercise

These tests shall be conducted on the following schedule:

1. Full scale: At least once every two (2) years.

2. Partial : At least once each year that a full exercise is not held or as Required to maintain proficiency.

3. Tabletop: At least once every six months, except during that six month period when a full scale exercise is held.

2.6.6 Precaution

Precautions must be taken, where necessary, taking into account human factors concepts to mitigate Weather-induced physical and other problems such as hypothermia and dehydration. Such considerations apply to emergency personnel as well as to victims of the accident.

2.6.7: Human factors checklist

To determine the relevant areas warranting Human Factors assessment/Investigation/analysis, the importance of each factor by indicating the appropriate value mentioned below will be given beside each item.

0=Not contributory

1=possibly contributory

2=probably contributory

3=Evidence of hazard

1. Name of the employee:

2. Designation:

3. Working position

4. Name of organization:

5. Name(s) of the Inspector:

6. Date & time of assessment:

BEHAVIOURAL FACTORS

A. Personal problems (family, professional, financial etc) ----------

B. Overconfidence, excessive motivation ----------

C. Lack of confidence ----------

D. Apprehension / panic ----------

E. Error in judgement ----------

F. Delay ----------

G. Complacency, lack of motivation ----------

H. Interpersonal tension ----------

I. Drug abuse ----------

J. Alcohol / hangover ----------

K. Personality, moods, character ----------

L. Memory mindset ----------

M. Habit patterns ----------

N. Perceptions or illusions ----------

MEDICAL FACTORS

A. Physical attributes conditioning & general health ----------

B. Sensory acuity (vision, hearing, smell, etc.) ----------

C. Fatigue ----------

D. Sleep deprivation ----------

E. Nutritional factors ----------

F. Drug / alcohol ingestion ----------

G. Stress ----------

H. Hypoxia ----------

I. Other acute illness (es) ----------

J. Pre-existing disease(s)

OPERATIONAL FACTORS

A. Lack of currency / proficiency ----------

B. Command & control in ARFF Vehicles ----------

C. Command &control, supervision ----------

D. Ability to carry out instructions ----------

E. Working environment (noise, fatigue, visibility, etc.) ----------

F. Selection and training ----------

G. ARFF Crew capability ----------

H. Inadequate knowledge of procedures ----------

I. Limited experience ----------

J. Workload saturation ----------

K. Situational awareness ----------

EQUIPMENT DESIGN FACTORS

A. Design/location of instruments, controls ----------

B. Lighting ----------

C. Workspace incompatibility ----------

D. Visual restrictions due to structure ----------

E. Aerodrome design and layout ----------

F. Effects of automation ----------

G. Confusion of controls, switches, etc ----------

ENVIRONMENTAL FACTORS

A. Weather ----------

B. Visibility ----------

C. Noise ----------

D. Hot/Cold ----------

E. Windblast ----------

F. Smoke, fumes ----------

G. Oxygen contamination ----------

H. Carbon monoxide (CO) poisoning or other toxic chemicals ----------

I. Radiation ----------

J. Electrical shock ----------

INFORMATION TRANSFER FACTORS

A. Adequacy of written materials ----------

B. Misinterpretation of oral communication ----------

C. Language barrier ----------

D. Noise Interference ----------

E. Disrupted oral communication ----------

F. Crew /ATS communication ----------

G. Airport signals, markings and lighting ----------

H. Ground signals ----------

2.7 Emergency Operations Centre and Command Post

All aerodromes operated under Part 12 of the Nigeria Civil Aviation Regulations must have a fixed emergency operations centre (EOC) and a command post available for use during an emergency. The emergency operations centre should be a part of the aerodrome facilities and should be staffed by persons responsible for the overall coordination and general direction of the response to an emergency. The command post should be a facility capable of being moved rapidly to the site of an emergency, when required, and should undertake the local coordination of those agencies responding to the emergency. A person should be assigned to assume control of the emergency operations centre and, when appropriate, a person to assume control of the command post.

Appendix 2 includes guidance on the requirements of an emergency operations centre and a command post.

2.8 Description of available equipment including Medical Equipment and the location of the Equipment

The AEP should include any emergency equipment available at the aerodrome including the type and location. This should include any medical supplies, portable medical equipment and equipment to assist in the removal or moving of a disabled or crashed aircraft at an international aerodrome.

A resource table containing details of equipment to be provided by off and on the airport agencies during emergency should be included in the AEP.

Appendix 3 provides guidance on medical equipment.

2.9 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 services involved must be included in the AEP and these must be kept up to date.

2.10 Grid Map of the Aerodrome and its immediate vicinity

A grid map of the aerodrome and a grid map of the surrounding area are required to assist responding services in locating the incident scene. These grid maps should be of sufficient scale and detail to be easy to read and avoid ambiguity. These are required to assist in directing emergency services to the exact location of the emergency. The grid map references should be unique for each individual grid map to avoid confusion.

2.11 Aerodrome Operator Requirements

a. Part 12 of the Nigeria Civil Aviation Regulations requires the aerodrome operator to coordinate its AEP with the related agencies. This includes law enforcement agencies, security providers, rescue and firefighting agencies, medical personnel and organisations, the principal tenants of the aerodrome, and all other persons who have responsibilities in the plan.

b. Interaction between agencies and services is important. If an EOC is used, ensure that each agency is represented to facilitate communication and decision making. The regulation also requires the aerodrome operator to ensure the participation of agencies and personnel in development of the AEP.

c. While it is the responsibility of the aerodrome operator under Part 12 Regulation to develop and maintain an aerodrome emergency plan, the actual establishment of coordinated response procedures and sub activities is best achieved through committee. An Aerodrome Emergency Planning Committee may form part of a larger emergency response forum established by the Local Authority or emergency services. Regardless, the Aerodrome Emergency Planning Committee should be tasked with the formation of plans to provide a timely and coordinated response to, and recovery from, an emergency at the airport or aerodrome, or in its environs.

d. The Aerodrome Emergency Planning Committee would, in addition to the aerodrome operator, typically comprise representatives of Police, Fire and Ambulance, Rescue Fire Service, airlines or aircraft operators, air traffic service provider, and other relevant agencies with relevant knowledge or resources to assist e.g. the local emergency management office, local health authority, humanitarian relief agencies etc.

3.0 Aerodrome Emergency Plan – Maintenance

a. Part 12 of the Nigeria Civil Aviation Regulations requires the aerodrome operator to have procedures in regard to maintaining the effectiveness of the emergency plan.

b. These procedures include:

1. Ensuring that personnel having duties and emergency responsibilities under the AEP are familiar with their assignments and are properly trained.

2. Testing of the AEP by staging a full-scale aerodrome emergency exercise at least every two years.

3. Testing of the AEP by holding a special emergency exercise at least once in the alternate year to the full scale emergency exercise to ensure that any deficiencies found during the full-scale aerodrome emergency exercise have been addressed.

4. Reviewing the AEP after each of the exercises or after an actual emergency, to correct any deficiency found.

Guidance on staging a simulated Emergency Exercise is provided in Appendix 4.

3.1 Administration of the Emergency Plan

3.1.1 Structure of documentation

a. The AEP should be structured to reflect the type of aerodrome operations and be specific to local community requirements. Because of the diverse range of aerodrome operations there is no standard AEP format. However they should address the requirements of Part 12 at a level applicable to the type of aerodrome operation.

b. AEP's typically are subdivided into sections and sub-sections, and follow one of two basic formats:

1. 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.

2. 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.

3.1.2 Management of AEP document

a. There are a number of issues that commonly arise with the management and distribution of AEPs.

b. The most common issue with an AEP is the number of pages that must be produced and kept up to date. As well as the cost of producing these documents, the administrative effort and cost of amending the AEP as changes arise can become a burden.

c. One way to overcome this problem is to reduce the number of complete

AEPs in circulation. Agencies often only require the sections of the document that are relevant to them. In response to this, some airports have started to distribute the AEP document in sectionalised or customised packages relevant to the organisation. This reduces the total number of pages that are required to be distributed by the airport operator.

d. Some overseas airports have addressed the same issue by producing the AEP on CD-ROM. Agencies issued the CD then print the relevant sections to suit their requirements. Others make it available on the internet via a secure, password protected, Airport Authority web site and rely upon the agency to compile their own document into an Airport Authority supplied AEP folder.

d. Another issue that arises is keeping the documents up to date. Telephone numbers, contact personnel, organisational position titles, are all items that can change with regularity. Ensure that at least annually all contact details are checked and confirmed.

3.1.3 Review of plan

A critical component of aerodrome emergency planning is the review of response plans. AEP review can occur as a result of annual programmed task, after an emergency exercise, debriefing of an actual emergency or research of initiatives taken elsewhere which if implemented locally will improve the effectiveness of the plan.

Appendix 1: Types of Aerodrome Emergencies

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

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 will 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 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 will 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.

Ensure appropriate and detailed stand down procedures are in place.

Aircraft Accident

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.

ICAO 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 categorized as *Off Airport – Land*, or alternatively *Off Airport – Water* accidents.

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, some aerodromes define On Airport as being within the perimeter fence of the aerodrome. Another has gone further to include the approach and departure areas which they have defined as a strip 300m in width, commencing

from the end of the runway and extending away from the airport for 1000m.

Similarly, definitions of Off Airport can differ. ICAO indicates the AEP should consider an area within an 8km radius of the airport. It may not be appropriate for the AEP to be the governing document in terms of the overall emergency response within this area however e.g. if contained within an urban built up area, Civil defense mechanisms, or a Police Directive may take precedence.

This also applies for accidents that occur in remote locations. Although not covered by ICAO, it is now becoming a component of many AEPs. While the AEP will not be the governing document in terms of coordination of responding agencies to the accident site, and aerodrome resources may or may not attend such an incident, there may be aspects of the emergency plan that require activation at the aerodrome. The actual response is reduced in scope and aircraft accidents at locations remote from the aerodrome should be considered as a separate emergency phase.

Points to consider

Examples of aspects which require due planning consideration include:

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.

Having adequate private areas for the relatives etc, and enabling them to be cared for over an unknown period of time.

Flight information displays showing information concerning the flight.

The media - how they are controlled and managed.

Potential telecommunication overload from enquiries.

Assisting the air operator in communications and logistics.

Accommodating the passengers and crew from the aircraft, including separating the passengers from the crew involved in the incident.

Possibility of issuing a NOTAM to restrict or close the aerodrome and getting airspace restrictions put in place by either Airways Corporation or the CAA.

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.

Private area for the passengers after the incident and providing communication equipment for them i.e. phones, cell phones, and refreshments.

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.

Immobilized 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 should 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.

Security emergencies

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

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 will be prioritized 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.

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 should be at least 100m from the nearest building or flight path and not interfere with normal aircraft movement. The area should have lighting available during the hours of darkness or

at least have portable lighting available within 30 minutes.

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 nonspecific, verbal or in written format. Prior to initiating such an emergency phase however, it is common practice to utilize 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 should not preclude the lead agency, aviation security service or airline from requesting the activation of the emergency plan at any stage.

Unattended article

An unattended article is a bag or other item, labelled or unlabeled, 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 (approx. 5-10 minutes). Responses often include evacuation of a given area until such items can be considered safe.

Suspicious article

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.

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 safe the article. 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 airport/aerodromes where explosive detection equipment is installed as part of the baggage handling system or cargo screening facilities.

Bomb threat (building)

This emergency phase applies when a threat has been made, whether specific or nonspecific, 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.

Some aerodrome operators have adapted the PTI threat assessment technique used for aircraft, so as to reflect whether a threat against a building is regarded as

specific or nonspecific, to assist in taking appropriate action and minimise the potential for unnecessary significant disruption to normal functionality.

Civil Unrest

This emergency phase applies to those instances where civil unrest occurs at the airport/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.

For example this could take the form of an unauthorized demonstration, or unruly strike action against an airport tenant. An example of such a situation has occurred overseas where vehicles blockaded the airport to stop the travelling public from reaching or leaving the Terminal building. Other instances have occurred during Cape Verde aviation history by groups demonstrating against apartheid and consequently a visiting rugby team, whereby the demonstrators entered the maneuvering area and disrupted flight operations.

Other emergencies

Natural disasters

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.

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 should be instigated following any known occurrence to assess whether any damage has occurred and for safe functionality. On airport agencies should 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.

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 should 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.

Structural or Ground Fire

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

Hazardous Substances

This emergency phase applies to spillages of hazardous substances (dangerous

goods) at the airport/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

Consideration should 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 should 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.

Medical Emergency

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 needs to be given to medical emergencies where there are multiple persons involved and which are unable to be attended to by on airport personnel.

Another form of medical emergency which requires special precautions to be taken, involves passengers showing symptoms of a communicable disease. Such symptoms might include diarrhea, 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.

Normally aircrew will advise ground-staff prior to their landing if they suspect passengers are suffering from a communicable disease. Local health authorities should be notified for advice and an emergency phase declared if passengers require to be quarantined. It should be noted that in these instances suitable toilet facilities should be available in quarantined areas.

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.

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.

Supporting plans

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.

Welfare Plan

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

Deal with meeters and greeters

Care for survivors with non-urgent injuries

Undertake stress debriefing and provide ongoing assistance to staff

Deal with relatives and survivors who want to return to the site after the event.

The Aerodrome Emergency Planning Committee should 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.

Staff from organisations such as Victim Support, the Salvation Army and the Red Cross is trained to assist with such welfare support.

Care of meeters and greeters

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).

Consider involving religious leaders and interpreters as there may be a large number of foreigners involved.

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.

Care of responders and staff

Welfare support is also necessary during the recovery phase of the emergency response. Responders and staff can be equally traumatized by the events of an aerodrome incident, particularly an aircraft accident.

All agencies involved should 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.

Care of relatives and survivors returning to the site

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

Aircraft Recovery Plan

Aircraft can become immobilized on the maneuvering 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.

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.

Aircraft recovery plans should 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

- Aerodrome operator
- Aircraft operator
- Aircraft maintenance organisations
- Airport Rescue Fire Service or Nigeria Fire Service
- Aviation Fuel Company
- Security providers
- Specialist equipment or resource providers

Additionally, a list of resources available locally, or location of specialist removal equipment for the aircraft, should be contained in the plan with up to date telephone numbers for contact personnel. The plan should 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

- Specialist equipment designed for lifting or towing of an aircraft
- Facilities for refueling the aircraft
- Cranes or winches for lifting and pulling
- Diggers for creating temporary pathways for aircraft wheels and recovery equipment
- Aggregate, metal or wood merchants for providing material to stabilize pathways or create working platforms.
- Trucks and trailers for transport of materials or aircraft.
- Barges and salvage experts for aircraft recovery in water.
- Lighting for removal during hours of darkness.

Local sources of equipment and materials include:

- aircraft operators on-site
- maintenance providers on site
- hire companies
- crane operators
- heavy haulage operators
- salvage experts
- aggregate or timber merchants

The plan should 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.

Media and Information Management Plan

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.

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 include 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.

Accepted practice in Nigeria is for the Airport Operator and the affected airline operator to hold media briefings throughout the period of the emergency.

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.

Depending upon the scale of the emergency, consideration should 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.

NIGERIAN CIVIL AVIATION AUTHORITY NCAA

Appendix 2: Communications and Coordination

Communications

Communications are the most critical aspect of aerodrome emergency planning. 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).

The AEP should clearly define the activation sequence for calling out the agencies or individuals required to respond. Additionally there should be a sequence and process for cancelling the emergency phase and standing down agencies involved.

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 is often the Air Traffic Control Tower.

For smaller aerodromes which do not have a 24 hour a day staff presence, the Fire Service, once notified, may initiate the AEP and emergency alerting sequence.

The Emergency Alerting System should 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.

Aerodrome Emergency Alerting can be achieved in a variety of ways. The following are the most common.

Communication Systems

Cascade System (Call Tree)

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.

The agencies or individuals on the call tree should 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.

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.

Under Part 12, the names and telephone numbers for the offices and people named in the AEP must be up-to-date and correct.

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.

The Aerodrome Emergency Planning Committee should identify alternative methods of transferring information should the primary communication system fail or become unavailable for some reason, and include them in the AEP.

Leased Lines

Some aerodrome operators have mitigated 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.

The biggest disadvantage with leased lines is the cost to the operator.

Automated Emergency Alerting System

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.

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.

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

- 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
- If it uses radio data transfer it will not contribute to telecommunications network problems or overloading
- 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
- The message can be received at a variety of locations e.g. office or vehicle.

The main disadvantage of such a system is that it can be moderately expensive to establish.

EAS Message form

The EAS message form should 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.

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.

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.

The structure of the message for aircraft occurrences should include information in the following order:

- Prefix (Used for non-emergency use, i.e. exercise or communications check)
- Phase of emergency (Either aircraft crash, full emergency or local standby)
- Location or runway (the location of the accident or the runway to be used for landing)
- Type of aircraft
- Estimated time of arrival
- Nature of trouble
- Persons on board
- Fuel on board (if known)

- Dangerous Goods (if known)

Prefix and Phase of emergency are normally shown as a tick box option. A sample form is provided on the next page.

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.

When initially unknown information becomes available, the missing components of the message should be relayed to the emergency services.

Location

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.

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

When identifying aircraft type give a weight category of the aircraft if known. The Fire Service will dispatch an appropriate number of vehicles based upon the size of the aircraft. Although the Fire Service have categorised aircraft into heavy, light or military, this information is not critical as it can be determined in other ways.

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

In any other aerodrome incidents, such as fire, threats to security, hazardous substances spillages and medical emergencies, the most relevant information is the:

- Exact location of the incident
- 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
	CRASH LOCAL CRASH LOCAL STANDBAY STANDBAY LOCAL STANDBAY

(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: ……

READ BACK

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. This may include lead agencies such Security Service, Local Fire Service or the ambulance service where the nearest available unit will respond. 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

Aerodrome operators should 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 will 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.

This will permit the third party aerodrome operator to manage activity at their location relating to the incident e.g. meeters and greeters, relatives, media etc.

An example of where notification would have assisted a third party aerodrome operator involved an aircraft accident that occurred shortly after departure from another airport. The response to the incident received immense media coverage with images of the accident broadcast over the televisions which were witnessed by relatives waiting at the third party airport for the aircraft to arrive. Staff of the airline concerned had not been made aware that the aircraft had crashed and the aerodrome operator, at the arrival aerodrome, was also not aware of the accident and could have been better prepared had they been forewarned.

Such notification should form part of the aerodrome operators' standard procedures as part of the response to an aircraft accident.

Coordination

An AEP is to ensure the effective coordination of agencies and individuals responding to an aerodrome emergency. For each emergency phase specific agencies and individuals will provide a critical component of the overall response to that emergency.

Chapters 3 and 4 of the ICAO *Airport Services Manual* Part 7 (Doc 9137 -AN/898), Airport Emergency Planning, outline the agencies that could be considered and their general role for each emergency phase. The agencies and individuals along with their general roles should be established and documented in the AEP.

The established practices of the Airport Fire Service, the ambulance service or the Police/Security Service (the lead agencies) will usually guide the immediate emergency response. In certain circumstances other agencies will be the lead agency e.g. communicable diseases coordinated by the local district health

provider.

The AEP should contain procedures similar to (or the same as) the procedures used by the emergency services in the community generally.

Coordinated Incident Management System (CIMS)

To better coordinate their collective efforts, emergency response model known as the Coordinated Incident Management System (CIMS) is widely used. This model standardises the coordination of these agencies when they are involved in the same incident response.

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.

The CIMS is based on:

- common terminology
- a modular organisation
- integrated communications
- consolidated incident action plans (the AEP)
- a manageable span of control
- Designated incident facilities (incident command point (ICP), emergency operations Centre (EOC) etc.)
- comprehensive resource management

Depending on the scale of emergency, the CIMS is built around four major components:

- Control – the management of an incident
- Planning and Intelligence – the collection and analysis of incident information and planning of response activities
- Operations – the direction of an agency's resources in dealing with an incident
- Logistics – the provision of facilities, services and materials required to deal with an incident.

Control of the incident is the responsibility of the Incident Controller. The Incident Controller must:

- Establish command and control
- Establish the incident command point
- Protect life and property
- Control people and equipment
- Maintain accountability for responder and public safety as well as task accomplishment
- Establish and maintain effective liaison with outside organisations, including the EOC when it is activated.

It is important to distinguish between:

- Incident Control, which relates to situations and operates horizontally across agencies, and ;
- Command lines, which operates vertically within an agency. At an incident there is only one Incident Controller but there will be as many lines of command as there are agencies involved.

As an incident grows, other facilities in addition to the ICP and EOC should be identified and established:

- Staging areas where resources are gathered before being despatched to an incident area or safe forward point
- A Safe Forward Point, which is a safe location near the incident from which forward operations can be supported
- An assembly area where resources are organised and prepared for deployment and that is located away from an incident at an established facility.

Emergency Operations Centre (EOC)

Aerodromes regulated under Part 12 of the Nigeria Civil Aviation Regulations are required to have EOC.

The EOC is a fixed location on the aerodrome and supports the Incident Controller. It is usually activated for larger scale emergencies although it is common for such a facility to be readied following notification of a significant emergency by the aerodrome operator.

It provides the location for the overall response coordinator to an emergency. The function of the overall response coordinator is usually fulfilled by the Airport

Operator, and may be conducted off site. The AEP should identify the agency that will fulfil the role of lead agency for each emergency response planned for.

When the response coordinator is off site, the EOC becomes a focal point for aerodrome information and resource management to the response coordinator.

The EOC should have established communications, administration and service facilities.

The set-up of the EOC

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 will 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 will 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.

In order to minimize the impact of those activities, the following aspects should be looked at:

- Accessibility: The location of the EOC shall be known by each participant.
- 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.
- Each participant should be isolated from the other participants by a sound absorbent partition wall.
- Each participating agency should 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.
- 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. An example of this board can be found on the next page.
- Internet connection should be available.
- Each participating agency should have the possibility to use a telephone.
- Battery chargers for mobile phones should be available.

- Battery chargers for mobile radios should be available.
- Fax capability should be available.
- Secondary power source should be available.
- Recording facilities should also be available (recording of certain conversations and recording of information relating to the processing of the emergency data).

ABC AIRPORT[1]					
1)Airline:		**2)AFT type:**		**3)Fuel on board:**	
4)Flight No:		**5)No. of PAX[2] :**		**6) DG[3] on Board:**	
7) Number of passengers accounted for:					
7.1) Number of dead:					
7.2) Sent to the temporary hospital:					
7.3) sent to hospitals:					
7.4) Sent to the Air Terminal Building:					
7.5) Others:					
8) Number of ambulances available					
9) Number of doctors on site:					

Table 1: Availability Board for EOC

Incident command point (ICP)

[1]Information provided at item 1 to 6 is considered as fix, as it will not vary during the course of the emergency, while the other information will be updated regularly during the course of the emergency.

[2]Pax stands for passengers but in this case does include passengers and crew members.

[3]DG stands for Dangerous Goods.

Aerodromes regulated under Part 12 of the Nigeria Civil Aviation Regulations are required to have command post for each type of emergency planned for. ICAO documents refer to the ICP as the mobile command post and it may also be called the incident command post.

To facilitate the CIMS approach, aerodrome operators (regardless of whether they are international or domestic operations) should identify an ICP for each type of emergency planned for in the AEP.

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.

The ICP should be clearly identified and preferably sheltered from the weather. It should be positioned away from the general noise and confusion associated with the incident, and ideally outside of the present and potential hazard zone. Access to the ICP should be controlled and it should be located away from public traffic. The AEP should include where or how the ICP is to be identified.

Appendix 3: Medical Considerations

Medical Equipment

The amount of stock or medical equipment held for aerodrome emergency purposes should 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 should be available in the terminal building. At domestic aerodromes with a rescue fire service there should be a dedicated first aid room and the rescue fire officers should 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 should be commensurate with the volume and type of aircraft operating but there should 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.

A problem is deciding what equipment to keep as many medical use items have expiry dates. The Aerodrome Emergency Planning Committee should 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 should be able to assist.

Some aerodromes have established, in conjunction with the local ambulance service, a rota table stock system to ensure that items held at the aerodrome do not exceed their use by dates. Groupings of like items are contained in sealed containers and rotated with ambulance supplies accordingly. Stock taking is simplified when this system is implemented.

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.

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.

Triage and medical care

Chapters 9, 10 and 13 of the ICAO *Airport Services Manual* Part 7 (Doc 9137-AN/898), Airport Emergency Planning, comprehensively discuss the management of the medical aspects of an aerodrome emergency involving mass casualties.

In an emergency casualties are transferred from the accident site to a triage area, then to a treatment area, then a 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 should be subject to ongoing care and have their personal information collected to help with the overall reconciliation process.

The AEP's supporting "welfare plan" brings together a separate team to assist with this process.

Care of survivors

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 Aerodrome Emergency Planning committees should give consideration as to what resources are available on site to assist with care of the survivors including the activation of a welfare plan.

For large numbers of casualties provision should 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 should 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.

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. This may include securing public transport resources, especially buses.

In accidents, all surviving casualties should be transported to a hospital or other medical facility for further assessment, regardless of their condition.

Although normally an aircraft operator's responsibility, crew should if possible be separated from the rest of the passengers as known acts of violence against crew have occurred in overseas occurrence.

Dealing with fatalities

The Aerodrome Emergency Planning Committee should consider the possibility that a temporary morgue may be required to be established on site by the medical

authorities.

The bodies of deceased should 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.

If local mortuary facilities may not be adequate to cope with a large number of deceased, the Aerodrome Emergency Planning Committee should designate a suitable site at or near the aerodrome in the AEP. This site should 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.

NIGERIAN CIVIL AVIATION AUTHORITY NCAA

Appendix 4: Simulated Emergency Exercise

It is essential that the AEP is kept up to date and tested regularly. The staging of a biennial simulated full scale emergency exercise is essential to maintain the preparedness and adequacy of the AEP. The special emergency exercise 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.

Although Part 12 requires one exercise per year, aerodrome operators should look at having exercises at other times. This could include table top exercises for a particular situation, e.g. SARS, exercises after a major change in the aerodrome, e.g. new terminal building, or specific exercises for agencies, e.g. Fire Service or Ambulance for ongoing familiarisation. Smaller and regular exercises may be very beneficial especially when agencies have volunteer staff or operate staff on rosters thus enabling more people to be trained in the AEP.

Exercises

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

- response of all personnel involved
- emergency plans and procedures; and
- emergency equipment and communication.

Preparing for the emergency exercise

Prepare for an emergency exercise by using the knowledge and expertise of the emergency services that regularly conduct such exercises.

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

Before the exercise, the Aerodrome Emergency Planning Committee should 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 should 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.

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.

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.

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.

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

Consideration should 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.

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.

Managing participants for maximum benefit

A further consideration is to ensure optimum response by all agencies throughout the exercise. Emergency situations can extend to many hours or even days. People are 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 should be able to demonstrate that they have the ability to continue for extended periods of time should the need arise.

Other Considerations

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

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

Debriefing

After Exercises

Following the exercise, a brief oral debriefing session should 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.

Nominated observers should complete their critique sheet with feedback about whether the objectives of the exercise were met, what worked well and what could be improved upon.

Each agency should 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

All actual emergencies occurring at the aerodrome should 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 Aerodrome Emergency Planning Committee to attend.

Part 12 Regulations require 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.

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.

The AEP itself should be reviewed annually to ensure the contact details and distribution list is current.

Appendix 5: Other Considerations

Handling the meeters and greeters

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 known 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.

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.

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 should be included in the AEP which agency will take responsibility for the segregation of the bone-fide meeters and greeters from the general public. This agency will then manage these people in conjunction with and other specialist personnel or agencies such as Victim Support, Salvation Army, and Red Cross etc.

Consideration should be given to making medical support available to these persons as well as refreshments and communication equipment if necessary.

The location should have direct access to separate rooms where private discussions can be held with counsellors. The location should 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 should not be available in the room.

The Aerodrome Emergency Planning Committee should 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

Aerodrome operators need to consider managing terminal activities as part of 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 should be switched off and information displayed on flight information displays or provided over a public address system should be worded carefully and discretely.

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.

What crowd control measures could be implemented and where additional resources will come from to cordon off or guard areas e.g. private security companies, airport security providers.

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

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.

The Accident Investigation Bureau is statutorily responsible to investigate an aircraft accident in Nigeria.

The AIB has power to authorize 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.

The Police acts 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

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.

The AEP should include a recovery phase incorporating procedures to bring the aerodrome back to full operational status safely, efficiently and orderly.

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.

A return to restricted aircraft operations means re-commencing aircraft operations that use aerodrome maneuvering areas not affected by the emergency or recovery

operations. This activity is undertaken with extreme care so as not to endanger any emergency personnel or hinder recovery operations.

The aerodrome operator will need to consider the following before returning the aerodrome to normal operations:

- 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.
- 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.
- 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.
- Consider whether recovery equipment or an immobilised aircraft infringe 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.
- Reassess the Rescue Fire capability prior to commencement of operations and issue a NOTAM if required.
- 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

The 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. Further reference should be made to ICAO Airport Services Manual, Part 1, and Doc. 9137 – AN/898 Part 7: Airport Emergency Planning (Second Edition – 1991)

'Local Standby' Procedure

Action by the Air Traffic Control Officer

- Call the Aerodrome Rescue and Fire Fighting Service and provide the following information

  Local standby at (specify position)

  Runway in use

  Type of aircraft

  Registration No.

  ETA hours.

  Persons aboard (if known)

  Defect or difficulty which has caused the emergency

Action by the Aerodrome Rescue and Fire Fighting Service

A full attendance will 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 Aerodrome Rescue and Fire Fighting Service and the appliances will not return to the fire station until he has satisfied himself that they are no longer required. The Air Traffic Control Officer will only declare the incident closed after agreement with the Aerodrome RFFS Officer.

Aircraft Crashes on the Airport

Action by Air Traffic Services (ATS)

- Operate alarm system.
- Call ARFF vehicle to go to the accident site, and provide it with the following information:

  Location

  Type of aircraft involved

  Number of people on board amount of fuel

  Dangerous goods and their location in the aircraft any other relevant information

- Call other designated intervention units in accordance with the procedure given in the airport emergency plan and provide them with the information on aircraft type:
- Strictly control vehicle and aircraft ground traffic in order to facilitate movement of vehicles involved in the emergency.
- If surface conditions may have had some impact on the situation, request a runway surface condition report from the EOC.
- Note the time and the name of the person approving removal of the wreckage
- Ensure that the runway is inspected before it is used again.
- Take personal notes if, in their opinion, they may be called as witnesses (accident report).
- The traffic zone shall be closed by a NOTAM until notice is given by the Airport Manager or his representative.

Action by Technical Service (NAVAIDS)

- Performs equipment status check.
- 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).

- Store the recorder tapes in a safe place.
- Store in a safe place (under lock and key) all documents pertaining to the accident.

Action by Airport Rescue Fire Fighting Service

- Respond to the alert immediately by reporting to the accident site with the vehicle.
- The ARFF chief establishes contact with the EOC as soon as action is initiated and directs firefighting activities at the accident site.
- Depending upon available resources, co-operate with team members to ensure the evacuation of passengers.
- While maintaining constant communications with those in charge of the agencies on the crash site, directs firefighting activities.
- Ensure that all intervention vehicles are parked at a safe distance from the accident site
- Ensure, in coordination with the EOC, that a passenger triage centre is set up and identified away from the accident site.
- Ensure an ambulance assembly point near the triage is identified.
- Assist the medical team in administering first aid, as required.
- Assists the police in preventing the site to be disturbed.
- Recall firefighters report to the fire hall and ask the EOC for transportation to the accident site.
- Ensure that there is no risk of fire before leaving the site.

Action by Airport Manager or Representative

- Report to the EOC without delay.
- Call the command station for an assessment of the situation (ARFFS on site).
- As required, authorize the recall of additional staff.
- Ensure that the Investigation Division/CAA has been notified (ATS) and contact the duty investigator via *(to include contact info)*.
- Take steps to complete the report in accordance with the appropriate

directives.

- Ensure that the appropriate NOTAM are issued (runway closure, etc.).
- Ensure that an adequate number of ambulances have been mobilized.
- Ensure that initial calls in accordance with the emergency plan have been made.
- Where appropriate, relocate the assembly point.
- Ensure that the duty maintenance officer in charge is on duty at the Assembly Point.
- Ensure that escort vehicles are available.
- As required, obtain the service of a photographer.
- Ensure that the emergency trailer is towed to the command station, if necessary.
- As required, mobilize outside equipment (helicopters, boats, etc.)
- Ensure that a temporary morgue is set up *(to specify the location).*
- Ensure that a room is made available for passengers' relatives, ATB *(or elsewhere, to specify location)*.
- Ensure that a room is made available for journalists *(to specify the location)*
- As required, ensure that *(to specify a location)* is ready to receive survivors not requiring hospitalization.
- Ensure that the following agencies are notified as required:
    - Police
    - Civil Defence
    - Coroner
- Call clergy, if required:
    - Muslim
    - Christian
    - Etc.
- When operations are completed, have the runways inspected if necessary.

- Upon agreement with EOC members and the firefighters responsible, declare the emergency over.
- Ensure that all agencies are notified when the emergency is over.

Upon clearance by the Civil Aviation Investigation Office, approve the way in which the aircraft is to be disposed of.

Action by Airport Maintenance

- On-duty staff report to the Assembly Point immediately.
- Outside normal work hours, the field supervisor ensures that his staffs are recalled as soon as the alert is issued.
- The field supervisor dispatches auxiliary manpower and equipment during the emergency.
- As required, staff perform the following functions:

  Escort outside vehicles;

  Transport firefighters equipment;

  Tow the emergency trailer, if necessary;

  Make all equipment available upon request by the EOC;

  Provide technical assistance (roads, lighting, etc.);

  Any other task requested by the EOC.

Action by Air Carrier Involved

- The Station Manager reports to the EOC immediately
- Applies the airline's emergency procedures.
- Ensures that off-duty staffs are recalled, as required.
- Staff assigned to lend assistance at the accident site report to the assembly point and await instructions from the EOC.
- Provide any information likely to be of use to intervention units (number and names of passengers, type of cargo, etc.,).
- Ensure that transportation is available for uninjured passengers between the accident site and the *(name of site, hotel etc.).*
- Provides a waiting room (ATB*, or elsewhere*) for close relatives.

- Make sure that the next of kin have been notified (to be coordinated with police).
- As required, notifies Customs.
- Handles media inquiries.
- Makes arrangements to remove the aircraft or debris in accordance with instructions from the airport manager or his representative.

Action by Police

- The Police officer in charge reports to the EOC immediately.
- A patrol vehicle goes to the assembly point and control traffic and restricts access to the airport, as required.
- Maintain order in the terminal building and prevent curiosity-seekers from entering the accident site.
- Help attend to the injured and administer first aid.
- As required, obtain assistance from *(other organization such as Civil Defence).*
- As required, notify the coroner.
- Identify the injured and deceased persons and notify the next of kin (to be coordinated with the airline).
- Protect debris and evidence and co-operate in the investigation.

Action by Medical Team

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.

- Medical evacuation kits are prepared and transported with the first physicians responding to the call.
- 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.
- N.B. Some medical equipment is already available at the airport *(to specify the place if available).*

- As required, calls auxiliary ambulance drivers.
- From the EOC, the medical team leader will determine:

  What staff shall report to the command station;

  What staff shall prepare the temporary hospital located in *(specify the location)*.

- Upon arrival at the command station, report to the ARFFS officer and get from the emergency trailer the following items:

  White identification armbands;
  stretchers;
  Back-packs with bandages;
  triage tags (METTAGs);
  flashlights, as required.

- 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).
- Medical assistants administer first aid and supervise the transportation of injured persons to the ambulance assembly point.
- Stretcher-bearers will be designated by the ARFFS officer.
- In the temporary hospital, the physician in charge reassesses the distribution of staff at:

  the command station (accident site);
  the temporary hospital *(to specify location).* the triage centre (accident site).

- All passengers will be transported from the accident site to the temporary hospital for further examination:
- Injured persons to the temporary hospital *(place to be specify)*;
- Uninjured persons to *(location to be specified)*.
- The dead to the temporary morgue *(location to be specified).*

Action by City Fire Service

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

Triage Tags – METTAGS

- Stabilize the most seriously injured victims.
- Record the time.
- If the victim is conscious and coherent, record his name. If the victim is conscious and coherent, record his address;
- Record your name.
- List injuries on the reverse side of the tag.
- As required, list intravenous (IV) and intramuscular (IM).
- Tear card along appropriate line to indicate victim's priority.
- Tie the tag to the victim's foot.
- 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.

- It is understood that initial triage of injured persons at the accident site should be performed by the physician on site, but this may vary according to the scope of the disaster.

Action by Patient Service Drivers

- Report to the assembly point.
- Obtain an escort vehicle and report to the command station.
- Park at the command station and await appropriate instructions.
- All patient service vehicles must be escorted when driven on the aircraft movement area, unless the EOC issues instructions to the contrary.

Hijacking

Objective

To ensure that the services and agencies with responsibilities during such situations work as a team in the interests of passengers, crew and the aircraft. There are currently no established procedures governing aircraft hijacking. It should be borne in mind that those in charge must act as circumstances warrant. 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 Emergency Operations Centre (EOC). The entire situation should be kept as secret as possible so as not to attract curiosity-seekers who may obstruct access roads. Priority is given to the aircraft. Outside authorities, and the operations centre of the Director, Aviation Security, are notified. Initial deployment of airport services and outside agencies is carried out as quickly as possible.

Action by Air Traffic Services

- Provide the airport manager with the following information:

  Type of
  emergency Type
  of aircraft Number
  of people Amount
  of fuel

- 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
- Notify the ARFFS of the type of emergency:
- emergency plan.

Action by Airport Manager or Representative

- Reports to the EOC immediately.
- Obtains information from the hijacking information form (ATS).
- Ensures that initial calls have been made in accordance with the procedures in the airport emergency plan.
- As required, authorizes the recall of additional staff.
- Ensures that airport airside access is secure (control access gates).
- Ensures that ARFFS services have been notified.

- Ensure that the necessary steps are taken to prevent any vehicles from approaching within 90 meters (300 feet) of the aircraft involved.
- Takes steps to complete the report in accordance with the appropriate directives.
- Completes the hijacking information form (Section 3.11).
- Issues a NOTAM if required.
- Confirms probable arrangements with the ATS for keeping the aircraft on the ground:

  Continuing the flight.
- 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
- 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.
- Ensures that the following agencies have been notified, as required:

  Police

  Civil Defence

  Customs
- Ensures the organization of ground services for the departure of the hijacked aircraft (fuel, EPU, etc.).
- Upon agreement with other EOC members, declares the emergency over.
- Ensures that all services and agencies involved are notified when the emergency is over.
- Holds an information meeting with all authorities involved to determine the pertinent details of the incident.

  Drafts a detailed report and submits it to the following authorities:

1) (???????);

2) *(???????);*

3) *(???????);*

4) *(???????).*

Action by Airport Maintenance

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

Action by Air Carrier Involved

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

Action by Police

- The senior officer on duty reports to the EOC immediately.
- Because hijacking is an offense under the Criminal Code, the Police shall take appropriate action once the aircraft is no longer considered in flight.
- The senior officer negotiates with the hijacker where possible, on EOC transceiver frequency *(????)*.

- Determine the assignment stations and police equipment required to bring the situation under control.
- Monitor the situation and restrict access to the airport in coordination with the Airport Manager.
- As required, obtain assistance from special Police or army or specialized squads.
- The senior Police officer shall co-operate closely with the other EOC members.

IMPORTANT

EXCEPT IN EXTREME CIRCUMSTANCES, ONLY THE SENIOR POLICE OFFICER ASSIGNED TO THE EOC MAY GIVE THE ORDER TO OPEN FIRE ON THE HIJACKER(S), AFTER CONSULTING THE EOC TEAM AND THE PILOT-IN-COMMAND OF THE AIRCRAFT INVOLVED (IF AT ALL POSSIBLE).

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)*.

DO NOT USE VEHICLE SIRENS OR FLASHING LIGHT DURING A HIJACKING

Action by Medical Team

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

Action by Patient Service

- Remain on standby at the hospital, ready to act upon a specific request from the EOC.

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.

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

HIJACKING INFORMATION FORM

INFORMATION CONCERNING AIRCRAFT

Name of aircraft operator or owner

Type of aircraft

Aircraft designator Flight

Designator Departure point

Scheduled destination

Time of hijacking

Position at time of incident
Number of passengers and crew

Names of pilot-in-command and crew

Fuel load and tank capacity

Have there been any injuries or deaths?

Any special information concerning peace officers, public figures or others on board the aircraft

Any additional information concerning other incidents or significant events during flight

INFORMATION CONCERNING HIJACKERS

Number of hijackers.

Description.

Number and type of weapon (s) or bomb (s).

Has anyone checked whether the hijacker actually has weapons or explosives? How? Method used to conceal weapons or explosives.

Location of hijackers in the aircraft.

Hijackers' demands and intended destination.

Membership in organizations.

Language (s) spoken.

Do the hijackers show signs of fatigue, nervousness or fear? Have the hijackers used drugs or alcohol?

Have the hijackers used any violence at all against passengers?

Has any information been received concerning hijackers' families and relations or their professional or medical backgrounds?

Bomb Threat

Objective

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

- Isolate the aircraft involved.
- Evacuate passengers quickly and safely.
- Search baggage, freight and the aircraft.

- Safely dispose of explosive devices.
- Resume normal operations as soon as possible.

BOMB THREAT INFORMATION FORM

To be completed during the call or immediately after.

Date:	**Time:**	**Time caller hung up:**
Caller's exact words:		

ASK THE CALLER:	
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?	

[1]Check or circle the appropriate box (es).

Description of caller				
Male	Female	Young	Old	Middle Aged
Speaks:	Slowly	Quickly	Speaks with an accent	
Seems:	Nervous	Normal	Normally serious	
Background Noise:	Conversation	Laughter	Music	Bar
	Traffic	Airplane	Other noise	
Is the Voice familiar?				
If yes, Whose voice is it?				

Person receiving the call:

Name:	
Address:	
Telephone number:	
1)Office:	2)Home:

Action by ATS

- If the threat was received by the ATS. Complete the Bomb Threat Information above
- Give priority of action to the aircraft involved.
- Provide emergency services with the following information:

  Type of emergency Type of aircraft

Number of people on board Amount of fuel

Where explosive device is located (if known)

- Notify the ARFFS and give them the nature of the emergency.
- Notify intervention units in accordance with the procedures in the airport emergency plan.
- Notify the airport manager or his representative by telephone or mobile radio on the following:

  Emergency code Type of aircraft

  Number of people on board

  - Direct the pilot or have the aircraft towed to the isolation area and prohibit access within 150 meters (500 feet) of the aircraft
  - Transmit to the EOC any vital information passing between the pilot and the ATS.
  - Strictly control vehicle and aircraft ground traffic in order to restrict access to the isolation area to personnel authorized by the EOC.
  - Notify the supervisor of the Area Control Centre (ACC) and the Manager, Air Traffic Services.

Action by Aerodrome Rescue and Fire Fighting

- Respond to the alert immediately and establishes contact with the EOC.
- Take up position at least 150 meters (500 feet) from the aircraft until the air carrier or the Police declares it out of danger.

If an explosion occurs, implement the aircraft fire fighting procedures described in section 2.8 of this appendix

Action by Airport Manager or Representative

- Reports to the EOC immediately.
- Obtains the information recorded on the Bomb Threat Information Form (Section 4.2) by the person who took the call.
- Upon agreement with the air carrier and the Police, determine whether the

threat is serious.

- Ensure that initial calls have been made in accordance with the emergency plan.
- As required, authorize the recall of additional staff.
- Ensure that ARFFS services have been notified
- Ensure that airport airside access is secure.
- Identify an aircraft isolation area, if one does not already exist or is not accessible.
- Ensure that a Police bomb disposal expert has been notified.
- Ensure that escort vehicles are available.
- Issues a NOTAM if necessary (runway closure etc.).
- Establishes a baggage search point in consultation with other EOC members.
- Ensure that passengers are initially evacuated at least 150 meters (500 feet) from the aircraft.
- 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.
- Ensure that the air carrier has baggage and freight unloaded at the search point.
- Ensure that the air carrier conducts a baggage and freight search in accordance with current procedures.
- Ensure that Postal Service is notified for mail bag searches, if required.
- Ensure that the following agencies are notified, as required:

  Police

  Civil Defence

  Customs

- Ensure that a room is made available for reporters
- In co-operation with the provincial and federal authorities concerned and the air carrier, co-ordinate information for release to the media.
- Upon agreement with other EOC members, declare the emergency over.
- Ensure that all services and agencies involved are notified when the emergency is over.
- Hold an information meeting with all authorities involved to determine the pertinent details of the incident.
- If an explosion involving the aircraft occurs during the emergency, implement the procedures described in section 2.4 of 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

- The Station Manager reports to the EOC immediately.
- Implement airline procedures.
- 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.
- Inform passengers of the reason for the delay.
- Organize transportation of baggage and freight to the search point.
- With the assistance of the Police, identify baggage owners and search unclaimed baggage.
- Check freight consignment notes.
- Search the aircraft.

- Ensure that any suspicious objects are brought to the attention of the Police.
- Suspect object not claimed will be transported to the training field and placed in a container provided for this.
- Inform the EOC of the time airport activities are expected to return to normal.

Action by Police

- The senior officer on duty reports to the EOC immediately.
- Determine assignment stations of the staff and equipment required to respond to the situation.
- As required, enlists the assistance of special Police or other squads.
- Control traffic and restrict access to the airport.
- The senior Police officer shall co-operate closely with the other EOC members.
- If an explosion occurs, implements the procedures described in Section 2.7 of this appendix as well.

Action by Medical Team

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

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

- Ensure the presence of a representative at the media reception point
- Establish an information office for the media *(location to be specified)*
- Coordinate media and communications activities (internal and external) with the agencies involved

Communicate to the Air Terminal Building operation all messages to be broadcast on the Public Address System.

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.

- Control or minimize risks of fire;
- Control access to the danger area;
- As required, evacuate the danger area and attend to the injured;
- With the assistance of specialists, neutralize the contamination;
- If possible, maintain flight operations;
- 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:

- Enter the contaminated area for rescue purposes only;
- Fight fire from windward;
- Wear full protective clothing and use portable breathing apparatus;

- Prohibit access to the accident site, keep the public as far away as possible and forbid anyone to pick up anything whatsoever;
- Isolate people who may have been exposed to radioactive substances until they have been examined;

5.3 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;

5.4 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;

- Avoid taking too many measures before physicians and radiation specialists arrive;
- Do not have victims taken to the hospital before ensuring that they have not been contaminated.

Action by ATS

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

Action by Aerodrome Rescue and Fire Fighting

- Respond immediately to the alert by reporting to the danger area with the fire

truck.

- Except for minor fuel spills (less than 1000 litres), the ARFFS officer establishes contact with the EOC.
- Assist in the operations and activities of intervention units at the danger area.
- If necessary, rescue victims.
- ARFF staffs, wearing full protective clothing and portable breathing apparatus, take measures to prevent, bring under control or extinguish any fire.
- With the assistance of the Police, ensure that non-essential staffs are evacuated and that all potential fire sources are removed from the area.
- If dangerous good is detected, take appropriate measures to isolate those exposed to it
- Evacuate all staff that is downwind.
- As required, ensure that triage centre and a patient service driver assembly point are established.
- When the emergency is over, ensure that all risk of fire has been eliminated before leaving the site.

Action by Airport Manager or Representative

- Reports to the EOC immediately.
- Call the command station for a summary of the situation.
- Have the aircraft piloted or towed away from the danger area.

- Ensure that initial calls have been made in accordance with the emergency plan.
- As required, authorizes the recall of additional staff.
- As required, takes measures to evacuate buildings located in the danger area and downwind.
- As required, obtain information from the air carrier on the type and quantity of hazardous substances involved.
- As required, contact the (*information and emergency centre)*, at tel.: *(???????)*.
- As required, contact Environmental Protection Service specialists, tel.:

  (???????)
- As required, ensure that the Investigation Division has been notified.
- As required, take steps to complete the report.
- As required, issue the appropriate NOTAM (runway closure, etc.).
- If necessary, relocate the assembly point.
- As required, ensure that maintenance staffs are on duty at the Assembly Point.
- As required, ensure that escort vehicles are available.
- As required, ensure that the emergency trailer and a sufficient number of ambulances are brought to the command station.
- As required, mobilize outside equipment.
- Ensure that the following agencies have been notified, if necessary:

  Police

  Civil

  Defence

  Coroner

  Customs
- If the incident occurred on the side near the aircraft movement area, have runways inspected when operations are completed.

- Upon agreement with other EOC members, declare the emergency over.
- Ensure that all agencies are notified when the emergency is over.
- If the accident involved an aircraft, approve the means of disposal after receiving authorization from the Accident Investigation Bureau.

Action by Police

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

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

Action by Medical Team

- Report to the Assembly Point and obtain instructions from the EOC.
- 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.

- Ensure the presence of a representative at the media reception point

- Establish an information office for the media *(location to be specified)*

- Coordinate media and communications activities (internal and external) with the agencies involved

- Communicate to the Air Terminal Building operation all messages to be broadcast on the Public Address System.

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.

- Provide prompt, orderly intervention at the crash site;
- Evacuate and give medical attention to injured persons;
- Bring the fire under control or minimize the risk of fire;
- Control access to the crash site;
- Ensure that the site is undisturbed for investigative purposes;
- Remove aircraft wreckage and debris.

Action by Air Traffic Services

- If the ATS is notified of an accident, note:

  Designator
  Type

  Date

  Time of accident

  Location

Number of dead

Number of injured

Any other relevant information

Person reporting the accident

Name _____

Address _____

Phone _____

- Notify the RCC (Rescue Coordination Centre) Telephone: *(???????)*
- Notify the ARFFS officer in charge of the following:

  Location of the crash (intervention map co-ordinates).

  Type of aircraft involved.

  Number of people on board.

  Amount of fuel.

  Any other relevant information
- Notify the Airport Manager at *(telephone number)* (office and (home).
- Notify the intervention units in accordance with the emergency procedure.

Action by Aerodrome Rescue and Fire Fighting Service

- 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.
- If the aircraft cannot be located, obtain the portable ELT receiver from the ATS.
- 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.
- Ensure that a triage centre is set up. Help attend to the injured and administer first aid.

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

Action by Airport Manager or Representative

- 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.
- Report to the EOC without delay.
- As required, authorize the recall of additional staff.
- Ensure that a member of the airport staff reports to the airport assembly point to direct any agencies reporting there in error.
- Ensure that the Accident Investigation Bureau has been notified (ATS) and contact the duty investigator.
- Take steps to complete the report in accordance with the appropriate procedures.

  As required, ensure that the *(appropriate installations to be listed)* is ready to receive survivors not requiring hospitalization.
- Ensure that the duty maintenance supervisor is on duty at the Assembly point.
- As required, ensure that an airport vehicle is driven to the command station with the necessary equipment.
- Ensure that an adequate number of ambulances have been mobilized.
- Ensure that the emergency trailer is towed to the site, if necessary.
- Ensure that an adequate number of boats have been mobilized.
- Ensure that space has been set aside for a morgue, to be used if necessary.
- Ensure that the following agencies are notified, as required: Police

  Civil Defence
  Coroner
  Customs
  Photographer

Call clergy, if required:
Muslim
Christian
Etc

- Ensure that all agencies are notified when the emergency is over.
- Ensure that the aircraft and debris are protected until the Civil Aviation Investigator has completed his investigation.

Action by Airport Maintenance

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

Action by Air Carrier Involved

- The station chief reports to the EOC immediately.
- With the assistance of the EOC, enlists additional assistance, where appropriate, such as helicopter transport aircraft, boats, buses, etc.
- As required, ensure that off-duty staffs are recalled.
- Staff assigned to lend assistance at the accident site report to the assembly point and await instructions from the EOC.
- Provides any information likely to be of use to intervention units (number and names of passengers, type of cargo, etc.).
- Ensures that transportation is available for uninjured passengers (buses).

- Provides space *(hotels or other spaces to be identified)* for uninjured passengers.
- Where appropriate, meets and attends to next-of-kin.
- As required, notifies Customs.
- Handles media inquiries.
- Makes the necessary arrangements to remove the aircraft or debris in accordance with instructions from the airport manager or is representative.

Action by Police

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

- Implements internal hospital emergency procedures.
- If the crash site is accessible by road, reports to the site with the ambulances immediately.
- Upon arrival at the command station, reports to the police officer in charge (if unavailable, see the ARFFS officer).
- Obtains identification armbands at the command station.

- 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.
- The location of each dead body shall be marked with an orange flag identified with the same number of the "METTAG" of the victim.
- Medical assistants administer first aid and help transport the injured to the ambulance assembly point.
- Passengers not requiring hospitalization are gathered together and transported to a waiting station.
- Records whether occupants of the aircraft are evacuated to hospital or to the survivor waiting station.
- If the crash site is not accessible by road, the team travels to the site by a means of transportation designated by the EOC.

THE MEDICAL TEAM WILL BE ASSISTED BY AIR CARRIER STAFF IN TRANSPORTATION VICTIMS TO EVACUATION VEHICLES.

Action by Ambulance Drivers

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

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.

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

be broadcast on the Public Address System

Action by Technical Services (Navaids & Telecommunications)

Perform equipment status check.

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).

- Store the recorder tapes in a safe place.
- Store in a safe place (under lock and key) all documents pertaining to the accident.

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;

- Poisoning
- Sickness
- Contagious sickness
- Quarantine

Action by ATS

If the ATS is notified of a medical emergency;

NOTE:

Arrival time:

Number of people sick:

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

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

TO ADD PROCEDURES FOR EBOLA, SRAS, BIRD FLU ETC.

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.

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