Republic of the Philippines
DEPARTMENT OF TRANSPORTATION and COMMUNICATIONS
Civil Aviation Authority, Philippines
Office of the Director General

CAAP - DOTC

Advisory Circular

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Initiated By:

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Thru the:

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Aerodrome Certification - Aerodrome Emergency Plan
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General

Civil Aviation Authority Advisory Circulars contain information about standards, practices, and procedures that the Director-General has found to be an Acceptable Means of Compliance (AMC) with the associated rule.

An AMC is not intended to be the only means of compliance with a rule, and consideration will be given to other methods of compliance that may be presented to the Director. When new standards, practices, or procedures are found to be acceptable they will be added to the appropriate Advisory Circular.

An Advisory Circular may also include guidance material (GM) to facilitate compliance with the rule requirements. Guidance material must not be regarded as an acceptable means of compliance.

Purpose

This Advisory Circular provides guidance material on aerodrome emergency planning to assist aerodrome operators to meet the requirements of AO 139. This AC provides guidance to the airport operator in the development and implementation of an Airport Emergency Plan (AEP). The AEP addresses essential emergency related and deliberate actions planned to ensure the safety of and emergency services for the airport populace and the community in which the airport is located.

Application

This AC provides guidance in meeting the requirements outlined in AO 139.230, *Aerodrome Emergency Plan*. An airport operator may elect to follow an alternative method, provided it is also found by the Civil Aviation Authority of the Philippines (CAAP) to be an acceptable means of complying with AO 139.230, Certification of Airports. For certificated airports, the use of the guidelines and standards in this Advisory Circular is mandatory. In the event of a conflict, AO 139.230 takes precedence over all other documents identified in the AC. The standards contained in this AC should be used for the development of new AEPs and are to be implemented at all AO 139 certificated airports no later than ***December 31, 2011.***

For all other airports the CAAP recommends the use of the guidelines and standards contained herein for the development of Airport Emergency Plans. Although this AC is not mandatory for non-certificated airports, the AEP for such airports must follow the guidelines prescribed by AO 139 and the Manual of Standards (MOS) for Aerodromes.

Related Rules

This Advisory Circular relates specifically to the requirements of rule 139.230, Aerodrome emergency plan, rule 139.235 Aerodrome Emergency Committee, and rule 139.240, Testing of Aerodrome Emergency Plan.

Acknowledgement

The AANSOO of the Civil Aviation Authority of the Philippines acknowledges the valuable information from the ICAO and CAA NZ guidance materials from which this advisory circular is adopted.

Change Notice

This is the initial issue.

Copies of this AC

The Regulatory Standards Divison of AANSOO makes ACs available to the public through the Internet. These ACs may be found through the CAAP home page (www.caap.gov.ph). A printed copy of this and other ACs can also be ordered from the Aerodrome and Air Navigation Safety Oversight Office (AANSOO), Civil Aviation Authority of the Philippines, MIA Road, Pasay City 1301, Telefax: (632)8799-118 / 357.

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Introduction

Aerodromes holding a AO 139 Aerodrome Operating Certificate are required under Civil Aviation Regulations AO 139 to put in place an aerodrome emergency plan (AEP) with ongoing maintenance of the emergency plan including periodic testing.

The need for aerodrome emergency planning is based on the International Civil Aviation Organization Annex 14 standards and recommended practices. ICAO Annex 14 gives 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.

This Advisory Circular (AC) provides guidance material to assist aerodrome operators in compliance with the requirements of Civil Aviation Rules 139.230 Aerodrome emergency plan, and 139.240 Aerodrome emergency plan testing - maintenance. 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 Philippine aviation environment and the varied levels of aerodromes.

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.

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

Objective

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.

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.

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 minimize the extent of personal injury and property damage resulting from an emergency. There are two key aspects to be considered in this regard.

The first objective is minimizing 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.

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.

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.

Rule 139.230 Aerodrome Emergency Plan

(1) The aerodrome operator for a certified aerodrome must prepare an Aerodrome Emergency Plan.

(2) The plan must include:

(a) activities commensurate with the aircraft operations and other activities conducted at the aerodrome;

(b) procedures for coordinating the responses of all actions to be taken in the event of an emergency occurring on or in the vicinity of the aerodrome;

(c) if the aerodrome is located in a difficult environment to the extent that it is close to water or swampy areas and a significant portion of approach or departure operations takes place over these areas, coordination with readily available appropriate specialist rescue services; and

(d) human factor principles to ensure optimum response by all agencies participating in the emergency situations.

Rule 139.235 Aerodrome Emergency Committee

(1) The operator of a certified aerodrome may establish an Aerodrome Emergency Committee.

(2) If established, the committee must:

(a) include, wherever practicable, a representative from any fire, police, medical, military or other emergency service that, having regard to the location of the aerodrome, would be likely to be asked to assist if there were an emergency at the aerodrome; and

(b) review the emergency plan at least once a year and make any changes to the plan to ensure that it operates properly; and

(3) As soon as practicable after an emergency exercise has been carried out at the aerodrome, or if an emergency has occurred at the aerodrome as soon as practicable after the emergency, the operator of the aerodrome must arrange for the committee to:

(a) review the effectiveness of the responses to the exercise or the emergency; and

(b) assess the adequacy of the emergency plan to deal with emergencies at the aerodrome; and

(c) take such corrective action as is necessary to ensure that the plan operates properly.

(4) The review, assessment and corrective actions if any must be carried out in consultation with the emergency service organizations referred to in the emergency plan.

(5) The operator must ensure that:

(a) records of each review of the emergency plan carried out under this regulation are kept; and

(b) each record is retained for at least three (3) years after the review to which the record relates was carried out.

Rule 139.240 Testing of Aerodrome Emergency Plan

(1) Subject to this regulation, the operator of a certified aerodrome must conduct a full-scale emergency exercise at least once every two (2) years to test:

(a) the coordination of the emergency service organizations referred to in the Aerodrome's Emergency Plan; and

(b) the adequacy of the procedures and facilities provided for in the plan.

(2) In addition to the full-scale emergency exercise, the operator of a certified aerodrome must conduct a partial emergency exercise in the intervening year to ensure any deficiencies identified during the full-scale exercise, or otherwise, have been remedied

(3) If a real emergency occurs at the aerodrome within six (6) months before a full-scale emergency exercise is due, the operator may ask (ATO) CAAP to extend the period within which the next full scale emergency exercise must be conducted.

(4) (ATO) CAAP must grant the request if it is satisfied that:

(a) all emergency service organizations referred to in the plan responded to the real emergency; and

(b) the real emergency adequately tested the plan.

(5) In granting the request, (ATO) CAAP may extend the period until the end of 2 years after the real emergency occurred.

Administration of the Emergency Plan

Structure of documentation

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 AO 139 at a level applicable to the type of aerodrome operation.

AEPs 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.

Management of AEP document

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

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.

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 sectionalized or customized packages relevant to the organization. This reduces the total number of pages that are required to be distributed by the airport operator.

Some overseas airports have addressed the same issue by producing the AEP on CD-Rom. Agencies issue 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.

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

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.

Section 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.

Information for pilots on aerodrome emergencies is detailed in the AIP including the following emergency phases and how to activate them to ATC.

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.

Another consideration given to aircraft accidents is the development of specific procedures for dealing with Military Aircraft. The PAF are able to assist aerodrome operators in developing response procedures for such occurrences.

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 the CAAP (ATS).

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, cellphones, 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.

Immobilised aircraft

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

Aerodromes near water

Where aerodromes are located close to large bodies of water, e.g. lakes or the 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, hovercraft or 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 Civil Aviation Security Program, *Airport Security Plan or Air Operator Security Plan.*

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 minimize 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 non specific, 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 unlabelled, which has not been authorized 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 non specific, verbal or written, to the effect that a device has been placed in or near a building, which through its action will pose imminent danger to the occupants or indirectly to other persons.

Some aerodrome operators may adapt the PTI (positive target identification) threat assessment technique used for aircraft, so as to reflect whether a threat against a building is regarded as specific or non specific, to assist in taking appropriate action and minimize 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 emergencies

Natural disasters

Natural disasters such as, earthquake, storms, volcanic eruption, or tsunami warning can be either grouped under one general heading for civil defense emergencies or aerodrome specific response plans identified for each situation or a combination of both.

Consideration should be given to the fact that occurrences such as earthquakes and significant storms (with high winds) occur with reasonable frequency in the Philippines. These emergency phases should be declared only where there is a resulting threat to human life or safety of the aircraft.

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 jeopardize 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 jeopardized. 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 Materials (HAZMAT)

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 materials 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 organizations such as the Philippine National Red Cross are 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 the 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 non-English speaking persons 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 manoeuvring area for many reasons including an accident, an excursion from the runway or taxiway, a mechanical failure through loss of hydraulic pressure or blown tires. An aircraft recovery plan is designed to ensure removal of the immobilized 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 organizations
- Airport Rescue Fire Service or the LGU/Community 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 de-fuelling 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 is for the lead agency (normally the CAAP), and the agency directly affected (e.g. airline or aerodrome 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 0800 phone number for all enquiries. Many airlines will have the facility in place for aircraft incidents but the Airport Authority may also activate such a facility if required. 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.

Section 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, Crash Fire Rescue Service (ARFF), Aerodrome Operator or their agent. For security emergencies it may be the Philippine National Police or the Aviation Security Service.

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

Leased Lines/Hotlines/Dedicated 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.

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 Airport Police/Security 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 AO 139 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.

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.

Emergency Alerting System (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 standardized to conform to the requirements of the centralized emergency services communications centres that will receive emergency calls from a number of different aerodrome locations.

Regardless of which organization 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 categorized 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)
☐	COMMUNICATIONS CHECK (Spoken three times)

PHASE

☐	CRASH CRASH CRASH
☐	FULL EMERGENCY FULL EMERGENCY FULL EMERGENCY
☐	LOCAL STANDBY LOCAL STANDBY LOCAL STANDBY

(A) LOCATION OR rwy to be used: _____

(B) Type of aircraft : _____

(C) Estimated Time of Arrival (ETA) : _____

(D) Nature of trouble : _____

(E) Persons on board (POB) : _____

(F) Fuel on board, if known : _____

(G) Dangerous good 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 the Fire Service, Airport Police/security 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 television 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 Police, Fire Service or the ambulance 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, most emergency response agencies have adopted an emergency response model known as the Coordinated Incident Management System (CIMS). This model standardizes 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 organizations involved.

The CIMS is based on:

- common terminology
- a modular organization
- 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 organizations, 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 dispatched 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 organized and prepared for deployment and that is located away from an incident at an established facility.

Emergency Operations Centre (EOC)

Doc 9137-AN/898 Part 7 – Airport Services Manual, Airport Emergency Planning, requires airports to have an emergency operations center.

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 Police as lead agency (although not in all instances), and may be conducted off site. The AEP should identify the agency that will fulfill 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.

Incident command post (ICP)

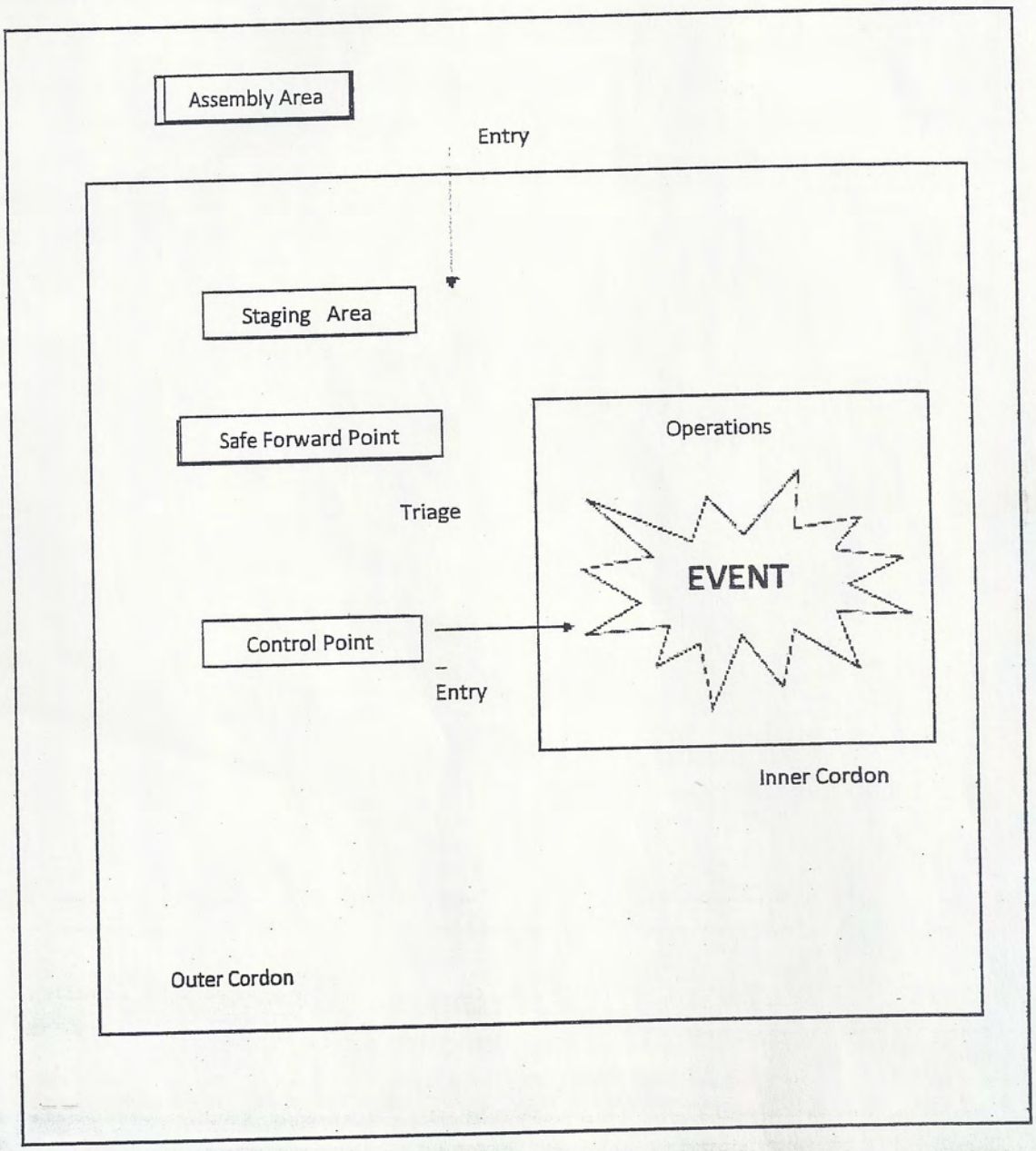
The Airport Services Manual Part 7 requires aerodromes to have a command post for each type of emergency planned for. ICAO documents refer to the ICP as the mobile command point and it may also be called the incident command post.

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.

Generic CIMS Schematic



Section 3 Medical Considerations

Medical Equipment

Airport Emergency Planning requires that the AEP have a description of available equipment including medical equipment and the location of such equipment. The amount of stock or medical equipment held 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 rotatable 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.

Containerized 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 prioritize 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 prioritization 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 occurrences.

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 Police and the medical authorities.

The bodies of deceased should not be moved from site until the appropriate authorities, usually the Coroner or Police, have given approval. Depending on the circumstances, specialist teams trained in disaster victim identification may be required to investigate and record evidence onsite prior to the removal of any body 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.

Section 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 AO 139 requires one full-scale exercise per two years, 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 familiarization. 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 partial emergency 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 familiarization of staff, often as a precursor to a partial or full scale emergency exercise.

A partial emergency 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 analyze 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 them 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, or 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.

Rule 139.235 requires aerodrome certificate holders to review the AEP following emergencies, actual and simulated, 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.

Section 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 traumatized 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, 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 the Police and other specialist personnel or agencies such as the 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.

An example of this has occurred when staff of a small airline were left to manage relatives arriving at the airport following media reports that the airlines aircraft had crashed in a remote location. The two airline check-in staff were unable to manage the huge demands this accident had placed upon them at the time, particularly when relatives and media started to

arrive. Police and the aerodrome operator's staff were able to provide assistance in managing the relatives and media coverage until the airline's management arrived.

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.

Civil Aviation Regulations Part 13, Subpart - Preservation of Aircraft, its Contents and Records, outlines the requirements for preserving evidence at aircraft accident sites. It is important that aerodrome operators understand the requirements in this rule and have procedures to comply with these requirements.

The investigative authority that has the statutory power to investigate an aircraft accident in the Philippines is the CAAP Aircraft Accident Investigation Board (AAIB).

In instances involving threats such as terrorism, unlawful interference or bomb threats, the PNP is the agency in-charge of investigations.

Each authority, the AAIB investigator or the Police, involved in the investigation must 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 PNP 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 authorization.

For light aircraft accidents with no fatalities or serious injuries the removal of wreckage and return to normal operations can be expedited if aerodrome operators initiate the investigation process before the AAIB - Civil Aviation Authority (CAA) inspectors arrive. This requires the aerodrome operator to have a prior agreement with the CAAP to undertake initial investigative actions on the Authorities behalf.

Such agreement will be subject to the aerodrome operator:

- ✈ Making sure its staff have undertaken basic accident investigation training; and
- ✈ Having procedures for the collection of evidence such as site photography, location marking of impact marks, site sketches, descriptive notes and other such actions as the CAAP requires.

This does not negate the aerodrome and aircraft operators' obligation to get authorization for the removal of wreckage. However it will expedite the initial investigative actions that would otherwise be conducted upon the arrival of an investigator or Police photographer.

For further information refer to the booklet *How to deal with an aircraft accident scene.* This booklet should be available from the AAIB.

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 immobilized 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.