

# Airport Disaster Preparedness and Resilience

ACI World Program

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# AGENDA

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Airport  
Emergency Plan

02

Climate Change

03

Disaster  
Resilience

04

ACI Strategy

# ACI: Global to Local Reach

The only organization working at every level of the airport industry

## ACI's Mission

To advance the collective interests, and act as the voice of the world's airports and the communities they serve and promote professional excellence in airport management and operations.

As of January 2023, ACI serves 712 members, operating 1925 airports in 171 countries. These airports represent 96% of global passenger traffic.



# Airport Emergency Plan

## Managing known challenges

Airports have well established plans to deal with aircraft accidents and operational disruptions.

They have sufficient and regularly updated SARPS and guidance material on this topic.

They have been practicing using multiple scenarios for decades.

Resources for continuous improvement are available.

**But the management of a major natural disaster requires other types of response mechanism...**



# Climate change

Emergency on the horizon

A graphic of a speedometer with a blue face and a red needle pointing towards the right. The needle is positioned between the 'SPEED' and 'CHANGE' markers. The background of the speedometer is a gradient from blue to purple.

**THE —  
SURGING —  
SPEED —  
OF —  
CHANGE —**



# Disaster Management

Not the same as an aircraft accident

- Being able to cope with multiple support governments and humanitarian agencies sending aid to an airport with limited capabilities is a challenge.
- Airports in distressed cities/countries may quickly become an essential hub for receiving international aid and humanitarian support.
- It requires a multi-agency coordinated approach.
- Airports must prepare for worst-case scenarios and **to take a leadership role**, maximizing the use of available and limited resources.



# ICAO Provisions

## Disaster Management

### ICAO provisions on disaster response

- There are provisions on Annex 14, Chapter 10, Aerodrome emergency plan. C
- “Note 1.— Examples of emergency situations including bomb threats, sabotage, hijacking, dangerous goods occurrence, **public health emergencies**”.
- Airport Services Manual, Doc. 9137, Part 1, Chapter 10, Information on natural disaster

## 4.8 NATURAL DISASTER

### 4.8.1 General

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

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

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

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

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

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

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



# Work Plan

Preparedness and response to public health emergencies

Assistance to air crash victims and their families

Unauthorized UAS disruption to aerodromes

Disaster preparedness and response

## Annex 14

Preparedness and response to public health emergencies

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## PANS AD

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## Doc 9137, Part 7

Identify Other ICAO Relevant Docs

High Level

PANS Level

Best Practice Level

# Disaster Management

Airport Level



## Who's in charge?

# Disaster Management and Climate Change Resilience

ACI's objective

Ensure airports are **resilient**  
and **prepared** for major  
disruptive events



# Disaster Management and Climate Change Resilience

Strategic initiatives



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Establish aviation ecosystem collaboration

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Provide cross-industry training and guidance material

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Provide tactical support to the aviation community during major events

# Establish aviation ecosystem collaboration

## Focus area 1



Requirements for support can vary per region and per individual situations.

There are a multitude of players working to improve the preparedness and response to disruptive events.

There is currently no unified platform able to provide support to all airports affected by major natural events.

Many airports do not know where to go to get support on the topic of disaster preparedness and resilience.

### Objective

- ACI to provide a platform to **facilitate collaboration** between airports and key aviation and humanitarian stakeholders.

# Provide adequate cross-industry training and guidance material

Focus area 2



Requirements for support can vary per region and per individual situations.

There are a multitude of players working to improve the preparedness and response to disruptive events.

There is currently no unified platform able to provide support to all airports affected by major natural events.

Many airports do not know where to go to get support on the topic of disaster preparedness and resilience.

## Objective

- ACI to provide a platform to **facilitate collaboration** between airports and key aviation and humanitarian stakeholders.

# Tactical Support to the aviation community during major events

Focus area 3

As major disruptive events differ from each other, depending on the type of event, expert advice during such an event can be critical.

Not all airports have access to a network of peers that can virtually assist and provide advice at no cost.



## Objectives

- Develop expert groups per event type (volcanos, hurricanes, earthquakes, floods, etc.) with focal contact points.
- Establish ad-hoc task force to support members following events.
- Annual event to share best practices and raise awareness.

**Thank you!**