

## Purpose

The **Airport Weather Advanced REadiness (AWARE) Toolkit** is a stakeholder-driven tool to help airports (1) improve their readiness for significant weather events and (2) track the physical and financial impacts of such events to aid in recovery and future planning.

### Use the AWARE Toolkit to:

- Learn about exposure to 17 significant weather event types at each airport location.
- Assess airport readiness for significant weather events across 6 distinct functional areas.
- Learn how to improve readiness for significant weather events.
- Access “Best Practices in Action” based on 15 airport case studies across North America.



## Airport Cooperative Research Program



## Airport Weather Advanced REadiness (AWARE) Toolkit

This brochure was produced as part of ACRP Project 02-49 by ICF International. For more information, go to the TRB website to access *ACRP Report 160: Addressing Significant Weather Impacts on Airports—Quick Start Guide and Toolkit* and other materials related to ACRP Project 02-49.



# Airport Weather Advanced REadiness (AWARE)

## AWARE Toolkit Details

### Toolkit Contents

- **Best Practices** from case studies, ACRP reports, literature, and emergency management guidance documents.
- **Functional Areas:**
  - Administration & Finance
  - Airfield Operations
  - Ground Transportation & Parking
  - Planning & Environment
  - Safety & Security
  - Terminal Operations
- **Small Airports Module** accommodates airports with limited staff covering multiple functions.
- **Impacts Tracking Module** helps track physical and financial impacts that will aid with recovery and future planning.

### Key Features

- Adheres to **National Incident Management System (NIMS)** Guidance.
- Recognizes unique roles of each functional area, while promoting **coordination** among all stakeholders.

## Screenshot: Airfield Operations Weather Readiness Module

AWARE Toolkit: Airfield Operations Module

PDF/Print Home Step 1 Step 2 Step 3 Step 4 End

Readiness Self-Assessment: Is your airport taking these steps?

Best Practice Checklist and Implementations Steps: Overarching

Show All Sub-Steps + See Case Studies

Hide

Planning

- ☐ Prior to, and during, an identified weather event, communicate with airlines to understand broader weather conditions surrounding the airport
- ☐ Hold pre-season meetings and exercises to coordinate response
- ☐ Communicate with airlines to understand how they will respond to an event in order to determine the number of runways that need to be maintained
- ☐ Maintain contact information for individuals responsible for implementing specific activities under emergency plans
- ☐ Develop formal or informal partnerships with nearby local governments or airports to share resources during events that significantly strain airport capacity to maintain operations
- ☐ Review existing IROPS plans, looking at past responses to IROPS events, in order to review and improve plans
- ☐ Establish rotating block shifts of 10-12 hours for groups of maintenance and operations personnel in preparation of events
- ☐ Form an extreme weather committee to ID which departments, airlines, gov't agencies, reliever airports, fixed-based operators, military, and emergency responders should be involved in planning
- ☐ Establish procedures to scale back operations to maintain priority functions
- ☐ Track the seasonal accuracy of weather forecasting services to develop a level of confidence in certain forecasts

Type

### Best Practice Categories

- Communications
- Equipment
- Funding
- Infrastructure
- Personnel
- Procedures

## Screenshot: Exposure Information Module

Airport Weather Advanced REadiness (AWARE) Toolkit

Exposure Module Extreme Events Overview

Click to PDF Back to Select Location Next

This page provides a snapshot of extreme weather in the county that corresponds to the selected location.

In the first panel to the right, events are ordered by frequency of occurrence in the county. The second displays events that have not occurred in the county but may have occurred in adjacent counties. Events recommended for further study - which are *rare but plausible* - are listed in the box to the right.

Click on the flood icon to learn more about precipitation event impacts.

Click on the FEMA icon for a list of weather events that have had disaster declarations in the selected county.

Location ID

ZIP code 01982  
County Essex  
State Massachusetts  
FAA Region ANE

ANE New England Region

How Often Have Events Happened in Your County?

Heavy Winds  
Snow Event  
Flooding  
Hail  
Lightning  
Heavy Precipitation  
Heat Events  
Blizzard  
Tropical Storm  
Ice Event

County  
National Average  
Recommended

How Often Have Other Events Happened in Adjacent Counties?

Extreme Cold  
Tornado  
Tornado EF3-EF5  
Hurricane

Adjacent Counties  
National Average  
Recommended

To view these events in more detail, please click "Next" to proceed to the Detailed Analysis. For descriptions of weather events click on "Methodology and Data Sources" below.

Events Recommended to Review

- Blizzard
- Tropical Storm
- Ice Event
- Extreme Cold
- Tornado
- Tornado EF3-EF5
- Hurricane

Event Definitions, Methodology and Data Sources

Events not occurring in either selected county or adjacent