

Severe Weather

ANNEX 2- KNOX COUNTY EMERGENCY OPERATIONS PLAN

5/1/2022



For all Agencies, Participant Organizations and Staff serving Knox County

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Primary Agency: Knox County Emergency Management Agency

Support Agencies: Knox County 9-1-1
Knox County Amateur Radio Emergency Services
National Weather Service, Cleveland Office

I. Introduction

A. Purpose

The purpose of the Severe Weather Emergency Annex is to provide for an effective and coordinated response in the event of a severe weather emergency occurring within Knox County. This annex supplements the Knox County Emergency Operations Plan (EOP) by providing an effective and coordinated response to potential or actual severe weather emergencies. This annex will guide the response to the potential threat and subsequent damage from severe weather including flooding, thunderstorms, high winds, tornados, winter storms, earthquakes, and extreme heat.

B. Scope

This annex applies to all participating departments and agencies of the jurisdictions contained within the geographic boundaries of Knox County.

C. Policy

It is the policy of Knox County to develop plans and procedures that incorporate the concepts of the National Incident Management System (NIMS), the Incident Command System (ICS) and the National Preparedness Goal.

D. Core Capabilities

This annex addresses the following Core Capabilities as defined in the National Preparedness Goal:

- Public Information and Warning
- Operational Coordination

II. Organization

The Knox County Emergency Management (KCEMA) will be responsible for monitoring weather conditions on a daily basis for potential or actual threats to the county. KCEMA will

coordinate closely with the National Weather Service (NWS) Office in Cleveland, Ohio. NWS Descriptions and Criteria for Warnings, Watches, Advisories, Statements, Forecasts are listed in Tab A.

When necessary KCEMA will activate the Knox County Emergency Operations Center (EOC) as outlined in the county EOP's EOC Annex. The EOC will provide support to incident commanders conducting severe weather emergency operations and during EOC supported planned events.

In addition, severe weather warnings will be initiated as outlined in the Public Information and Warning Annex of the county EOP and as outlined in the Knox County 9-1-1 Standard Operating Guideline (SOG) for severe weather and warnings. The SOG is located in Tab B.

III. Situation and Assumptions

- The diverse nature of severe weather poses a challenge to maintaining adequate monitoring of potential threats.
- The fast moving nature of severe weather, such as thunderstorms, flash floods, ice storms, and tornados require constant monitoring of conditions in order to provide an adequate response.
- Severe weather can cause other conditions, such as power outages or transportation slowdowns that may last well beyond the actual weather event.
- The potential for loss of life is sometimes overlooked, especially for conditions such as flooding and lightning.
- The destructive nature of severe storms makes the total damage threshold difficult to estimate.
- All jurisdictions are expected to individually monitor weather conditions and provide local updates to KCEMA or the EOC when activated.

IV. Concept of Operations

A. Monitoring

KCEMA will monitor weather conditions daily, coordinate with the NWS to identify potential situations, and provide adequate warning for Knox County.

KCEMA will coordinate with applicable jurisdictions to identify potential areas of concern during severe weather conditions that may require special attention, or may require mitigation or preparedness actions. At times it may be necessary or desired to activate NWS trained Storm Spotters and/or Amateur Radio Emergency Services (ARES). Storm Spotters can be activated by calling those listed in the Storm Spotter Roster or via the Hazardous Weather Outlook (HWO) product that is issued by the NWS.

When the EOC is activated, weather information will be included in all Situation Reports. Tab C of this plan provides a Severe Weather Emergency Actions Checklist for severe weather emergencies.

B. Damage Assessment and Reporting

All local jurisdictions will be responsible for providing applicable situation and damage reporting during severe weather conditions to KCEMA or to the EOC when activated. Damage assessment activities are outlined in the Damage Assessment Annex of the county EOP.

KCEMA will be responsible for providing storm damage reports to the NWS. The NWS may be requested to assist in conducting storm damage assessments.

V. Training and Exercises

KCEMA will coordinate with the NWS to provide annual Storm Spotter training. KCEMA will be responsible for providing a training location and information promoting the training through local and social media. NWS will be responsible for providing the instruction.

KCEMA will incorporate severe weather emergencies at least once annually into county exercises.

VI. AUTHENTICATION

President
Knox County Commissioners

Date

Director
Knox County 9-1-1

Date

Director
Knox County Emergency Management Agency

Date

VII. TABS

Tab A - National Weather Service Criteria

Warnings

A weather warning means that a dangerous weather event is imminent. Immediate action must be taken to protect life and property

WARNING	CRITERIA
TORNADO WARNING	There is a tornado indicated by radar or sighted by spotters
SEVERE THUNDERSTORM WARNING	Winds of at least 58 mph and/or hail at least 1" in diameter. May also include a tornado.
FLASH FLOOD WARNING	Heavy rainfall is expected to cause a rapid onset of damaging flooding conditions (In general, these conditions are expected when rainfall rates exceed 2" per hour).
AREAL FLOOD WARNING	Flooding is expected to occur across the area, but develops less rapidly than flash flood. Still severe enough to cause risk to life and property (In general, these conditions are expected when rainfall rates are less than 2" per hour).
ICE STORM WARNING	Ice accumulation (only) of 1/4" or more is less than 12 hours.
WINTER STORM WARNING	Snow accumulations are expected to be greater than or equal to 6" over 12 hours, or 8" in 24 hours. Also issued for ice accumulation of 1/4" or more in 12-24 hours.
WIND CHILL WARNING	Wind chill reaching or exceeding values of -25F or colder for more than a few hours. Winds also have to be above 6 mph.

Watches

A weather watch means there is the potential or conditions exist for a dangerous weather event.

WATCH	CRITERIA
TORNADO WATCH	Conditions are favorable for tornadic development
SEVERE THUNDERSTORM WATCH	Conditions are favorable for the development of thunderstorm winds of at least 58 mph and/or hail 1 inch in diameter
FLASH FLOOD WATCH	Potential for short duration, intense flooding resulting from torrential rain, dam breaks or ice jams
AREAL FLOOD WATCH	Potential for longer, more gradual flooding usually beginning after 6 hours of excessive rainfall
WINTER STORM WATCH	potential for a blizzard, heavy snowfall, ice storm and/or high winds

Advisories

Advisories highlight special weather conditions that are less serious than a warning. They are for events that may cause significant inconvenience and could lead to situations that may threaten life and/or property if caution is not exercised.

Statements

Provides the public with information concerning ongoing weather hazards, including strong storms that may become severe.

Forecasts

Short Term Forecast - A short-term forecast describes the weather in the local area and includes a short-range forecast (usually not more than six hours). This product will be updated more frequently when it is used during active weather. A short-term forecast is sometimes referred to as a "NOW-cast."

NOTE: All of the above (Warnings, Watches, Advisories, Statements, Forecasts) are broadcast continuously on NOAA Weather Radio.

Tab B - Knox County 9-1-1 SOG for Severe Weather and Warnings

Integrated Public Alert and Warning System

The Integrated Public Alert and Warning System (IPAWS) is designed to integrate and modernize the nation's existing population warning systems into one modern network and incorporate newer forms of communication such as cellular telephone and text message, satellite and cable television, electronic billboards and the internet. IPAWS is funded and managed by FEMA.

Knox County EMA has entered into an agreement with FEMA to access IPAWS through a third party vendor. The third party vendor utilizes their existing systems (WENS) to send alerts to all IPAWS messaging outlets.

IPAWS alerts shall only be initiated by the EMA Director and those authorized by the EMA Director. Those authorized have completed specialized training, signed the IPAWS Open Rules of Behavior, and are typically the EMA Deputy Director, 9-1-1 Operations Director and shift supervisors.

Outdoor Warning Sirens

Outdoor warning sirens are to be activated by the Knox County 9-1-1 Center. All non-probationary employees have the authority to activate warning sirens.

If unable to activate the sirens from the 9-1-1 Center, it is possible to activate the sirens remotely from other locations. If this occurs, contact the EMA Director or designee to activate the sirens.

Tornado Warning

Upon receiving a tornado warning from a warning issued by the National Weather Service of Cleveland, Ohio (NWS) via LEADS, the 9-1-1 center will complete the following:

1. Activate the countywide outdoor warning sirens on the Knox County primary fire frequency of 154.325.
 - a. When possible sirens will only be sounded in the specific warning area
 - b. If the specific warning area cannot be easily identified, then all sirens may be activated.
 - c. The sequence will be 3 minutes of sound, 10 minutes of silence. This sequence should be repeated until the tornado warning has expired or has been canceled by NWS.
2. If a trained weather spotter reports observing a tornado:
 - a. Contact the Cleveland Office of the National Weather Service at (216) 416-2911 (**unlisted-not for public dissemination**) to coordinate issuing a warning. If the NWS agrees a warning should be issued follow the activation procedure above.
3. Notify the EMA Director of the warning.

Tornado Warning Siren Signals

ALERT: CONTINUOUS TONE – 3-minute duration,
Repeated every 10 minutes

ALL CLEAR:NO TONE – Warning signal is not repeated at the end of 7 minutes

TEST: CONTINUOUS TONE – One-minute duration
Test will be conducted every 1st and 3rd Friday each month at 12:00 noon.
Sirens will not be tested if there is a current weather watch or warning issued.

Storm Spotters

At times it may be necessary or desired to activate Storm Spotters. Storm Spotters are citizens or first responders who have received specialized training from the NWS. Storm Spotters may be activated by contacting the EMA Director or designee.

Reporting Storm Damage

All storm damage reported to the 9-1-1 Center will be logged and provided to the EMA Director or designee. The EMA Director or designee will make a determination if storm damage is significant enough to report to the NWS. In the event EMA cannot be contacted, all 9-1-1 staff have the authority to notify the NWS of storm damage at (216) 416-2911 (***unlisted-not for public dissemination***) or stormcle@noaa.gov. Storm damage reports should include photos and videos if available.

Tab C - Severe Weather Emergency Actions Checklist

Started	Complete	Actions
Normal Operations		
<input type="checkbox"/>	<input type="checkbox"/>	Develop, maintain, and update Standard Operating Procedures
<input type="checkbox"/>	<input type="checkbox"/>	Track and monitor potential storm conditions.
Monitor Status		
<input type="checkbox"/>	<input type="checkbox"/>	Continue to track and monitor storm conditions.
<input type="checkbox"/>	<input type="checkbox"/>	Perform appropriate initial alert notifications.
<input type="checkbox"/>	<input type="checkbox"/>	Review resource support procedures.
<input type="checkbox"/>	<input type="checkbox"/>	Review status of emergency resources.
<input type="checkbox"/>	<input type="checkbox"/>	Begin daily situation reports.
<input type="checkbox"/>	<input type="checkbox"/>	Test all emergency systems, equipment, and supplies.
<input type="checkbox"/>	<input type="checkbox"/>	Track all emergency expenses.
Emergency Activation		
<input type="checkbox"/>	<input type="checkbox"/>	Perform all notification procedures.
<input type="checkbox"/>	<input type="checkbox"/>	Initiate EOC activation.
<input type="checkbox"/>	<input type="checkbox"/>	Continue to track and monitor storm progress.
<input type="checkbox"/>	<input type="checkbox"/>	Continue daily situation reports.
<input type="checkbox"/>	<input type="checkbox"/>	Perform EOC staff and department head briefings.
<input type="checkbox"/>	<input type="checkbox"/>	Complete preparatory resource support actions.
<input type="checkbox"/>	<input type="checkbox"/>	Complete all system and equipment preparation.
<input type="checkbox"/>	<input type="checkbox"/>	Perform emergency public information advisories.
<input type="checkbox"/>	<input type="checkbox"/>	Continue to track all emergency expenses.
Emergency Response		
<input type="checkbox"/>	<input type="checkbox"/>	Continue to track and monitor storm progress.
<input type="checkbox"/>	<input type="checkbox"/>	Continue daily situation reports.
<input type="checkbox"/>	<input type="checkbox"/>	Continue EOC staff and department head briefings.
<input type="checkbox"/>	<input type="checkbox"/>	Complete EOC activation procedures.
<input type="checkbox"/>	<input type="checkbox"/>	Continue to track emergency expenses.
Recovery		
<input type="checkbox"/>	<input type="checkbox"/>	Perform rapid assessment, initial damage assessment, and needs assessment
<input type="checkbox"/>	<input type="checkbox"/>	Coordinate needs requirements with Ohio EMA.
<input type="checkbox"/>	<input type="checkbox"/>	Continue storm assessment procedures.
<input type="checkbox"/>	<input type="checkbox"/>	Perform minimum daily situation reports.
<input type="checkbox"/>	<input type="checkbox"/>	Continue EOC staff and department head briefings.
<input type="checkbox"/>	<input type="checkbox"/>	Determine recovery priorities.
<input type="checkbox"/>	<input type="checkbox"/>	Continue emergency public information updates and advisories.