

Cowley County Emergency Auxiliary (CCEA)  
A Division of Cowley County Emergency Management

Operating Guidelines and Program Information



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**Introduction**

So you want to be a volunteer storm spotter with the Cowley County Emergency Auxiliary?

Are you the type of person who watches the news each night waiting for the forecast to see when the next big storm will arrive? Does the report of a rotating wall cloud send you to the front porch instead of the basement?

If so, this is the agency for you.

We all have an urge to see what the weather is doing, but not all are ready to dedicate long hours to being a storm spotter. The Cowley County Emergency Auxiliary are extremely dedicated and committed individuals who not only love the weather, but care deeply about the safety and welfare of the citizens of Cowley County.

This guide will explain what is expected from you as a volunteer for the Emergency Auxiliary and what you can expect from Emergency Management.



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## **Mission Statement**

The Cowley County Emergency Auxiliary is an organization that consists of trained, dependable volunteers who assist, to the best of their ability, in protecting and preserving the life, limb and property of the citizens of Cowley County, Kansas, during times of natural and man-made disasters.

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**Volunteer Job Description**

**Purpose:** To assist Cowley County Emergency Management during severe weather by means of ground relay of weather information for the Emergency Operations Center (EOC). This will be accomplished by combining visual weather conditions with the EOC radar operations. The result of these efforts will be a greater level of awareness and warning to the residents of Cowley County and a decrease in the potential number of injuries and deaths.

Emergency Auxiliary members perform other duties including, but not limited to: barricade duty, road blocks, damage assessment, event stand-by, parade assignments, weather presentations, traffic control, search and rescue missions and EOC operations.

**Key Responsibilities:**

1. Available with short notice to either move to a designated location to transmit weather conditions to the EOC or to remain in a stationary setting to transmit weather conditions.
2. Clear, concise verbal communication abilities.
3. Provide support to the EOC, if requested.
4. Other duties as assigned. These duties can be at a request of an agency other than Cowley County Emergency Management.

**Joining:**

Any interested person should submit an application to Cowley County Emergency Management. After a background check, the application will be sent to the CCEA's Membership Committee for review. The membership committee will interview the potential applicant and submit their recommendation to the CCEA to be voted upon at a regular meeting.

**Qualifications/Responsibilities:**

1. Attendance at an Emergency Management and/or National Weather Service-sponsored weather spotting training class once per year.
2. Attendance at a National Weather Service Advanced Spotter class when offered.
3. Valid driver's license and proof of vehicle insurance (must provide both to Emergency Management upon acceptance and must be kept current).
4. Maintain current address/telephone number with Emergency Management.

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5. Volunteer a minimum of 20 hours per calendar year. Examples of acceptable volunteer work: storm spotting, EOC work, events, FEMA online training courses, training sessions and regular meetings.

**Development Opportunities:**

The potential exists within the CCEA to become an officer, a committee member or activity coordinator. In addition, the experience gained from this position will enhance the qualifications of any candidate who may wish to pursue a position within the emergency response field.

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## What Is A Storm Spotter?

The key to a successful warning system are weather spotters who make the difference between anticipating and reacting to hazardous weather.

A spotter observes and reports all types of hazardous weather such as:

- Tornadoes – provide real-time ground truth verification and tracking information
- Large hail – provide size, coverage, location and damage reports
- Wind – provide wind speed and damage reports
- Flooding – provide critical information on flooding to include the rivers, small creeks, streams and road coverage
- Rain – provide heavy rain reports

## Types of Weather Spotters

Cowley County Emergency Auxiliary only has one classification of spotters – MOBILE. The National Weather Service utilizes Community Based Spotters.

These spotters use portable communications and equipment to travel, observe and report weather conditions. Spotters can be assigned to a stationary location at any given time, but maintain the ability to be mobile.

## What to Report to the EOC

During severe weather, activities happen very quickly. That is why it is vital that all conversations with the EOC either by radio or telephone be accurate, brief, and to the point.

### Report the following to the EOC:

- Tornado, funnel or wall cloud
- Hail ¾" or larger (penny, nickel, quarter, etc.)
- Winds greater than 55 mph
- Rain greater than 1" per hour
- Water over any roadway or roads that are impassable due to high water

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When making a report, spotters should include the following information:

- Who you are (using your assigned radio number)
- Where you are and where the event is occurring (use distances from cities, state or local highway). Avoid using local terminology that may be unfamiliar to others (Bolack Corner, Horseshoe Hill, etc.) since the report is not only for the EOC, but also other spotters and citizens. The report will then be relayed to the NWS and they will also be unfamiliar with local landmarks.
- What you have seen or are currently seeing
- Movement of the event. When estimating movement, observe the entire storm for estimate of motion, not just one small portion

Tips for Determining Wind Speed:

MPH

25-31	Large branches in motion, whistling wires
32-38	Whole trees in motion
39-54	Twigs break off trees
55-72	Damage to chimney or TV antenna, shallow rooted trees become uprooted, limbs the size of your wrist break off trees
73-112	Surfaces peel off roofs, windows break, light trailer homes pushed or overturned
113-157	Roofs torn off, trees uprooted
158+	Severe damage, cars lifted

Tips for Determining Hail Size:

Pea	-	1/4"	Golfball	-	1 3/4"
Penny	-	3/4"	Tennis ball	-	2 1/2"
Quarter	-	1"	Baseball	-	2 3/4"
Half Dollar	-	1 1/4"	Grapefruit	-	4"

**What NOT To Report To The EOC!!!**

- Rain (light or moderate)
- Lightning (unless it has caused injuries or damage)
- Light wind

(EXCEPTION: If the dispatcher checks with you and asks for a report, then report what you are observing)

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## How Will I Know When and Where To Go?

The potential for severe weather can be found on the National Weather Service website as a "Hazardous Weather Outlook". The site can be found at <http://www.crh.noaa.gov/ict/hwo/hwo.php>. It is recommended that all spotters check that site after the 7:00am update and then periodically throughout the day. This site will indicate if spotter activation is a possibility.

If the NWS deems a specific weather situation to be potentially hazardous, Emergency Management may send out a message requesting spotter availability. All spotters are asked to contact the EOC with their availability. This serves two purposes: (1) to give spotters a "heads up" that their services may be needed and (2) to give the EOC an idea of how many spotters will be available.

There are, however, times when the weather breaks very quickly. There are many instances when our county has gone directly into a "warning" situation even though no "watch" has been issued. If this occurs, spotters will be paged and asked for immediate availability. Dispatching of available spotters will happen at that time.

CCEA members are not only storms spotters. Members may be called upon by Emergency Management to assist other agencies at their request. This can happen at any time, day or night.

It is recommended that all spotters be prepared in the following manner:

- (1) Make sure vehicle has adequate fuel
- (2) Have flashlight(s) ready
- (3) Have appropriate forms (214 and Damage Assessment)
- (4) If applicable, handheld radio is charged
- (5) Have appropriate clothing (boots, hat, raincoat, etc.)
- (6) Have cell phone charged

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## **Activation of the EOC**

The EOC will be activated (24 hours a day/7 days a week) as soon as Emergency Management or volunteer duty officer determines a potential threat exists and spotters may need to be activated. A volunteer duty officer is defined as a CCEA volunteer appointed by Emergency Management who has the training and capability to activate and operate the EOC until full-time staff arrives. Available CCEA spotters who go in service are required to check in with the EOC by telephone (620-221-0470) or by radio on the EOC frequency. Unless instructed by the EOC, do not come to the EOC! Await instructions by EOC personnel. If you are directed to report to the EOC, check in with the senior staff member.

## **EOC**

The EOC is comprised of several rooms with the Communications Room being the primary room during emergency situations. During emergency situations, the Communications Room becomes very hectic; therefore, access to the Communications Room is limited to EOC personnel and assigned volunteers only. All other personnel must remain in the meeting room until assigned a duty in the Communications Room or in the field.

## **Placement of Spotters**

Severe weather that is approaching the county is monitored by the EOC. If, in the opinion of EOC personnel, a system is likely to present a threat to our county, trained weather spotters will be sent to watch the system as it approaches.

The availability of spotters may determine how many spotters are sent in any given direction. Cowley County is fortunate enough to have law enforcement and fire agencies in all rural communities that track storms as well.

Spotters are placed in locations in accordance to the location of the pending storm. Spotters are required to report their locations at all times. If a spotter is sent to a specific location, that spotter will stay at that location until dispatched elsewhere. The exceptions are as follows: (1) the trained spotter feels they are in danger in the current dispatched location or (2) the trained spotter feels they have a better view at an alternate location within the same general vicinity.

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In either case, the spotter will notify the EOC dispatcher of their intentions and the reasoning while they are moving. ALWAYS MAKE SURE YOUR DISPATCHER KNOWS YOUR LOCATION.

If a spotter is unavailable to go in service due to work or family obligations; reports from work, home or other locations are still encouraged.

## Media

Cowley County Emergency Management is committed to providing accurate and timely information to the public which is critical in the time of emergency or crisis. CCEA members are not permitted to talk to the media before, during or after an emergency. It is possible that volunteers will be contacted by the media, either by phone in the EOC or in person while in the field. Volunteers are to refer all media inquiries to the designated Public Information Officer in the EOC or to the Incident Commander if in the field. The PIO in the EOC is the Emergency Management staff or duly appointed designee.

## Training

All new members will take the Severe Weather Spotter Test immediately after joining. Upon completion of all training requirements, trainees will be required to take the same test to check core competencies. This test must be passed with a minimum score of 80%. If the test is not successfully passed, the trainee will focus on the areas of need until it can be successfully passed.

Training requirements:

- (1) Minimum of two (2) operational periods in the EOC.
- (2) Minimum of five (5) storms with a trained spotter.
- (3) Minimum of two (2) events (planned or unplanned).
- (4) During this training period, the training officer will evaluate the trainee in numerous areas for competence.
- (5) Completion of NIMS IS-700 and ICS-100 courses and certificates turned into Emergency Management.
- (6) The training will not be completed until all requirements are met, the training officer(s), the trainee and Emergency Management have signed off on the completion.

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### Members in Training

Any new CCEA members who have not completed formal training are subject to the following rules:

- (1) Trainees will not respond to a storm alone
- (2) Trainees will call the EOC to see if their services are requested. If put into service, all trainees will report to the EOC (unless other arrangements can be made to meet a training officer in the field)
- (3) Trainees will be assigned to a training officer, based on spotter availability, by EOC personnel
- (4) Trainees will not go into the field without first reporting to the EOC and receiving an assignment
- (5) If a trainee is working an event, they will check in like all members and be assigned to a training officer by the senior member in charge

### Member Identification (ID Badges)

All CCEA members will be provided with two (2) photo identification badges that are issued by Emergency Management. ALL members are required to have at least one badge with them when representing the CCEA. One is required, but two are preferred as one may be taken by an Incident Commander if deployed to a scene.

At a minimum, CCEA members should carry the badges in their vehicles with the ability to attach it to their person with a clip or lanyard. ID badges should be visible when interacting with the public.

### Use of Technology

The advancement of technology has made it so where anyone can have radar at any given time in any given location. The use of your own radar sources (phone, computer, etc.) while spotting is acceptable. However, these devices are only to be used while your vehicle is stationary. If you are paired up in one vehicle, the passenger may use such devices while the vehicle is in motion. Do not rely solely on your device for radar. The primary source is still the EOC. The multiple radar sources and your visual observations of the storm should all be taken into account while spotting.

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## Completion of Duties

When the threat has subsided or a volunteer member has completed their assigned duty, all members will fill out an ICS 214 Unit Log. This log details the times, locations and activities of the volunteer. The unit logs are to be turned into the Emergency Management office. The logs can be found at the EOC, sent to the spotter electronically, or found on the website at [www.cowleycounty.org](http://www.cowleycounty.org).

## Confidentiality

During emergencies and disasters, and in the field of Emergency Management, confidentiality is required and a breach of confidentiality will not be tolerated. Any volunteer with the Cowley County Emergency Auxiliary that divulges confidential information to any party outside of emergency personnel will be subject to suspension and possible termination.

Confidential information shall include, but is not limited to the following:

- Any information heard over a radio while in "scramble" mode
- Any information received in the EOC or discussed in the EOC which has not been approved for public release by the Emergency Management Director, or designee
- Any information obtained from photos taken as part of damage assessments

Any photos taken by CCEA members, as part of a damage assessment, are not to be sent to any media outlet. These photos are only to be taken and shared with Emergency Management. Photos of storm cells, tornadoes, hail, flooding, etc. are an exception. Those are your photos and can be submitted to the media only after approval from Emergency Management. Remember, taking photos is not your primary purpose. CCEA members are not to take photos of any individuals while doing damage assessments

## The "DO NOTS" For Weather Spotters

DO NOT - Exceed the normal speed limits or drive recklessly when responding either to the EOC or to a location for weather spotting.

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- DO NOT - If you are parked watching a storm, put yourself or others in harm's way by parking in such a way that would make you a traffic hazard. Make sure you are well off the road.
- DO NOT - Stand outside your vehicle when there is lightning in the area (See Safety First section).
- DO NOT - Ever, ever, try to talk yourself out of a traffic situation with Law Enforcement by stating you are with the National Weather Service or on a "mission from Emergency Management". This is one of the quickest ways to lose your volunteer status we know of.
- DO NOT - Respond to any incident overheard on a radio or scanner unless specifically dispatched or requested.
- DO NOT - Leave for the EOC or a field mission without proper identification. Each spotter is given two ID badges. If you attempt to enter an area without identification, and you are turned away, respect the officer and leave without incident.

## Use of Personal Vehicles

All volunteer members use their personal vehicles for spotting and responding to activities.

The following applies to all members:

- Cowley County does not provide car insurance for any CCEA member. However, each member must provide proof of car insurance to Emergency Management yearly and copy of their driver's license (if it has changed).
- Storm spotters may utilize flashing amber lights in their vehicles for use only while parked. This will enhance their visibility to other traffic during the times they are pulled over watching a storm.
- Red and/or blue flashing lights are for emergency vehicles only and may not be used by CCEA volunteers. NO SIRENS!

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## **Safety First!**

Safety should be first and foremost on the mind of a weather spotter. Remember that we value your safety more than we do your observations.

When spotting, it is preferable to travel in pairs; if at all possible. This allows the driver to remain focused on driving while the passenger handles communications. When stopped, two pairs of eyes are available for spotting.

### Thunderstorms

Keep aware of the local environment at all times. When in the vicinity of a thunderstorm, keep a 2-mile "buffer zone" between you and the storm. Check the sky overhead and behind every so often to ensure no unexpected event such as a tornado is developing.

### Lightning

Lightning is the biggest weather hazard facing the spotter. When in the field and when possible, remain in your vehicle to minimize the chance of being struck by lightning. If you must leave your vehicle, crouch as low as possible to make yourself a less favorable target.

### Hail

A vehicle will usually offer adequate protection from moderate-sized hailstones. Hail larger than golf ball size may damage windshields, so avoid large hail shafts if at all possible.

### Flash Floods

When spotting in a flash flood situation, follow these common sense tips. Remember that flash flooding is the most dangerous at night when the effects of flash flooding are difficult to see. Avoid low water crossings and don't drive into areas where the water covers the road. If you are caught in a flash flood, abandon your vehicle quickly and get to higher grounds.

### Tornado

Drive away from a tornado IF you are in open country, IF the location and motion of the tornado are known, and IF you are familiar with the local roads.

Spotting at night is obviously more difficult than spotting during the day. There are only a few allies to help you when night spotting. If possible use the light from lightning flashes to illuminate the important parts of the storm. If you are in

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large hail, the most dangerous part of the storm is near you and will probably move overhead within a few minutes. If you hear a loud roaring sound, then a tornado may be very close to your location. Use this tip with caution. Not all tornadoes have a loud roar, and some non-tornadic winds may also possess a loud roar.

Finally, if you think there is a tornado not far from your location (i.e. within spotting range), search along the horizon for bright flashes of light as the tornado destroys power lines and transformers.

## Glossary of Weather Terms

### Flood Terms:

Bankfull – The maximum height of the river before it overflows its banks.

Flash Flood – A flood that occurs suddenly during or shortly following heavy rains or from a sudden release of water as in a dam break. Small streams and creeks usually react the fastest to heavy rains and rise several feet in hours or even minutes.

Flood Crest – The highest level a river reaches during a flood event.

River Flood – A flood on a large river takes a tremendous amount of rain and usually develops over a period of 1-2 days. Rain water first runs into small streams that flow into the larger tributaries and eventually end up in the main stem of the river.

Urban Flood – Rapid runoff and poor drainage can lead to flooded roadways and underpasses and even become deadly.

### Thunderstorm Terms:

Anvil – The spreading out (by strong winds) of the upper portion of the thunderstorm. It usually has a fibrous or smooth appearance. With long-lasting thunderstorms, the anvil may spread over 100 miles or more downwind.

Convection – The transfer of heat or other atmospheric properties by mass motion within the atmosphere directed in an upward motion.

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Cumulus Cloud – A cauliflower-shaped cloud with a flat base and sharp edges.

Downburst – A sudden rush of cool air toward the ground that can impact with speeds more than 70 mph and produce damage similar to that of a tornado. It usually occurs near the leading edge of the storm or may occur in heavy rain.

Downdraft – A column of cool air that sinks toward the ground. It is most often accompanied by rain.

Flanking Line – A line of cumulus clouds connected and extending outward from the most active portion of a parent cumulonimbus, usually found on the southwest quadrant side of a storm. The cloud line usually has a rough stair-step appearance with the taller clouds adjacent to the parent clouds. It is most frequently associated with strong or severe thunderstorms.

Funnel Cloud – A funnel-shaped cloud extending from beneath the base of a towering cumulus or thunderstorm. It is associated with a rotating column of air that has not touched the ground, yet.

Gust Front – The leading edge of the thunderstorm's downdraft of air as it spreads out away from the storm. It is usually felt as a change to gusty cool winds and often precedes the thunderstorm's rain by several minutes.

Hail – Precipitation in the form of balls or clumps of ice.

Hook Echo – A radar pattern sometimes observed in the southwest quadrant of a tornadic thunderstorm.

Macroburst – A larger downburst affecting an area greater than 2 miles in diameter.

Mammatus – Clouds that appear to be hanging, rounded protuberances or pouches on the underside of a larger cloud. With thunderstorms, they are seen under the anvil.

Microburst – A small downburst affecting an area less than 2 miles in diameter.

Precipitation Shaft – A visible column of rain or hail falling from the base of a cloud.

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Rain-free base – The dark underside of a cloud (it's base) that has no visible precipitation falling from it. This marks the updraft of the thunderstorm.

Roll Cloud – On rare occasions, a shelf cloud may turn into a roll cloud. The cloud takes on the shape of a horizontal tube that appears to be rolling. It is detached from the thunderstorm on its leading edge.

Scud Clouds – Low cloud fragments often seen in association with and behind thunderstorm gust front or in association with the updraft. These clouds are ragged and wind torn and not usually attached to the thunderstorm.

Severe Thunderstorm – A thunderstorm producing damaging winds or winds greater than 58 mph and/or hail 1" or greater in diameter.

Shelf Cloud – A low-level, wedge shaped cloud attached to the thunderstorm. It forms above the gust front as warm air ahead of the storm.

Squall Line – A solid line or band of active thunderstorms.

Thunderstorm (Cumulonimbus) – The weather event of rain and lightning. The storm may extend 5-10 miles high into the atmosphere and 5-25 miles across. Heavy rains and gusty winds often accompany the storms.

Tornado – A violently rotating column of air *in contact with the ground*.

Towering Cumulus – A cumulus cloud that continues to grow so that its height is taller than or equal to its width.

Updraft – Warm, moist rising air.

Wall Cloud – The cloud appears as an abrupt lowering from the relatively flat rain-free base. It is attached to a thunderstorm and may be rotating. This is the portion of the thunderstorm from which the tornado usually descends.

## **Winter Weather Terms:**

Blizzard – Strong winds (sustained at greater than 35 mph) and heavy or blowing snow combine to produce very poor visibility and dangerous conditions.

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Blowing Snow – Wind-driven snow that causes reduced visibility and sometimes significant drifting.

Drifting Snow – Winds are strong enough to blow falling snow or loose snow on the ground into mounds causing uneven snow depths.

Freeze – Used when temperatures at or near the surface (ground) are expected to be 32 degrees Fahrenheit or below.

Freezing Drizzle – Drizzle that falls onto a surface with a temperature below freezing, causing it to freeze to the surface forming a thin coating of ice.

Freezing Rain – Rain that falls onto a surface with a temperature below freezing, causing it to freeze to the surface, forming a coating of ice or glaze.

Frost – The formation of ice crystals that develop under conditions similar to dew, except that the minimum temperature has dropped to at least 32 degrees Fahrenheit.

Frost Bite – Frozen body tissue.

Heavy Snow – Snow accumulating to at least 4 inches in 12 hours or 6 inches in 24 hours.

Hypothermia – When the body temperature drops below 95 degrees Fahrenheit.

Ice Storm – Significant and possibly damaging accumulations of ice associated with freezing rain situations.

Sleet – Ice pellets or granules of frozen rain. Sleet usually bounces when it hits a surface and does not stick, but can accumulate on roadways causing a hazard.

Snow – A steady fall of snow for several hours or more.

Snow Flurries – Light snow falling for short durations.

Snow Showers – Snow falling at varying intensities for brief time periods.

Wind Chill (Wind Chill Factor) – Combines the rate of heat loss caused by wind and lowering temperatures.