

City of HARVARD

McHENRY COUNTY, ILLINOIS

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For Immediate Release

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City of Harvard Tornadic Early Warning System

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Tornado/Weather Early Warning Systems are repurposed systems that date back to the Civil Defense Era. They were installed throughout the USA after WWII and in response to fear of bombings during the Cold War. The systems were repurposed during the 1960's and through the 1970's to provide early warning notice for impending natural disasters such as tornados and in some communities they were even used to summon volunteer fire fighters to man the engines when a fire occurred.

2nd WARD
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The City of Harvard's Early Warning System dates back to approximately the 1950's. In 2015, the system was upgraded to utilize radio signals for activation. The upgrade significantly reduced ongoing operating costs to City taxpayers, provided increased operation reliability, and permitted remote activation from NERCOM, the City's dispatch center located in McHenry, IL.

The Harvard Police Department in conjunction with our system vendor have completed an exhaustive investigation of presumed equipment malfunctions which occurred on 4 separate occasions; 2/6/19, 2/7/19, 3/15/19, and 3/18/19. These malfunctions have encumbered our Police dispatch with dozens of phone calls on both emergency and non-emergency lines inquiring why the sirens were activated and created distractions from actual emergencies.

The result of the investigation has determined that the system did NOT malfunction, but rather the system has been compromised by unknown person(s) who have hacked into the system and created unauthorized activations. This is not an incident isolated to the City of Harvard, but rather is becoming prevalent across our Country. Unfortunately, in the current system configuration, there is no way to prevent continued unauthorized activations without a significant investment of taxpayer money.

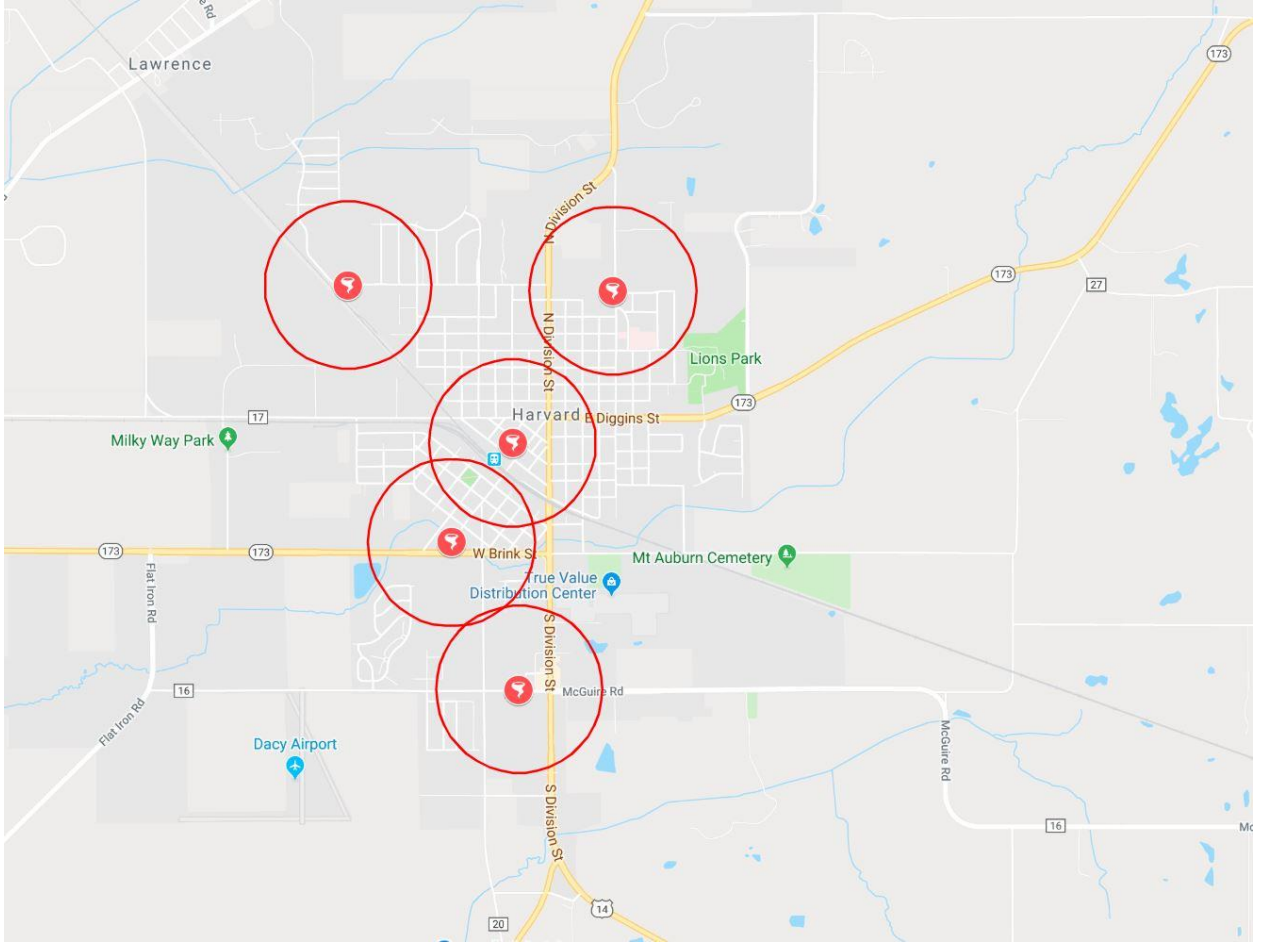


The investigation has also brought significant scrutiny to the archaic system as a whole as it has some significant drawbacks. The sirens can typically be heard 1-2 miles on average when operated in the right weather conditions. Consequently, when activated at 4am on a clear night with little to no wind, the sound travels quite far, and will likely wake you from slumber if you are in close proximity to the siren. This provides a false sense of security that is not reality. This is because during a severe weather event, there are high winds and precipitation which raises the ambient noise level and can greatly reduce the effective range of the sirens to just a ¼ mile. When plotting the reduced range on a map, it is quite clear that there is not effective coverage for our City during a severe weather event when using this system. The limitations of the system don't stop there. When an alarm is sounded, its purpose is to warn people who are physically outside to immediately seek shelter due to localized tornadic activity. They are not intended to be heard indoors. The sirens do not provide additional details such as the location, direction, or severity of the event. It only acknowledges that an event is happening somewhere nearby. Residents must still obtain those details elsewhere.

The upgrade costs to move to an encrypted activation signal are still being determined but are expected to be significant. Additionally, if the City were to upgrade the system, the system should be expanded to reach those areas which have been added to our City since the system was created and currently would not hear the signal during severe weather. The costs are predicted to be well in excess of \$100K.

Given the age, complexity, and significant shortfalls of this archaic system, it is not prudent to continue to invest in a system that was created before the advent of modern communication. When these systems were relied upon, 24 hour weather and news channels did not exist. NOAA (NATIONAL Oceanic and Atmospheric Administration) weather radios can now be purchased for as little as \$20-\$30 which provide audible warning tones and detailed information about severe weather from inside your home. The vast majority of people now carry smart phones which are capable of receiving texts and alerts from weather applications that provide more accurate and detailed descriptions of severe weather events including radar mapping right in the palm of your hand.

Given the shortfalls of the EWS and the advent of modern communication, the City will not invest in upgrading and will seek to decommission this obsolete system. We encourage residents to seek verified smart phone applications which provide NOAA (National Oceanic and Atmospheric Administration <https://www.noaa.gov/weather>), and/or NWS (National Weather Service <https://www.weather.gov/>), notifications and purchase NOAA weather radios to remain informed about impending severe weather conditions.



Map of the City of Harvard's EWS System Siren locations and effective range.