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**Date: April 3, 2017**  
**RE: Tornado Storm Warning Dissemination Memo**

Tornado Warning 005 for Boone/Kenton/Campbell Counties was issued at 6:58 AM EST on 3/1/2017.

- Boone/Kenton/Campbell County dispatch offices received the warning via their Kentucky State Police-fed NCIC system at 06:58:49, but the warning came in as a 'routine' message (not 'highlighted'/alerted).
- Both National Weather Service (NWS) Wilmington and Homeland Security & Emergency Management Director Steve Hensley reached out to NWS Louisville, who had worked more directly with Kentucky State Police (KSP) on their setup of Kentucky county warning dissemination several years ago. Joe Sullivan of NWS Louisville visited KSP on Friday, March 10 and reported back the following:
  - KSP had programmed their dissemination system to key off text headers within NWS Warnings to filter out the 'highlighted' NWS messages.
  - NWS advertised a nationwide change from ALL CAPITAL text to mixed/sentence case, which took effect in 2 stages: December for Tornado/Severe Thunderstorm/Flash Flood and other 'short fused' warnings, and February for Winter storm Warning, High Wind Warning and others.

**The nationwide change to mixed case resulted in the KSP system to not highlight any of their previously-configured NWS warnings, since they were triggered by case-sensitive words.**

- This affected ALL counties in Kentucky - meaning warnings were still received by county dispatch centers, but KSP alerts/colored text were no longer being applied, as the scripts which triggered the colored text banners in a dispatch center were not working, since they were set to look for keywords in all capital letters.
- Joe Sullivan (NWS Louisville) worked with KSP personnel that Friday to ensure the KSP dissemination from the NCIC would now look for sentence-case/mixed-case text. Meaning, the highlighted banners dispatchers are used to seeing should now be working.
- Informal questioning revealed the Tornado Warning was received in a timely manner by Sprint, but not Verizon customers, via Wireless Emergency Alerts. It is unsure whether other carries also had issues with the alerts.

## **INVESTIGATIVE FINDINGS:**

Kenton County Emergency Communications Center (KCECC) did receive the Tornado Warning at 06:58 AM, however due to the changes referenced above the message did not contain the “**Highlighted Banner or the Alert Tone**” thus the message was not immediately recognized as a priority message and the Storm Sirens were not



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activated. The dispatch center was extremely busy during this time period, answering approximately 400 phone calls, in addition to increased radio traffic.

KCECC has redundancy mechanisms in place, however there were failures within those as well. Examples of those failures include:

- One of the two Weather Alert Radios within the center was unplugged and stored away; the Radio that was in service didn't receive the alert.
- The televisions placed within the communications center were not on the correct channels to receive the Tornado Warnings being broadcasted by the local television networks.
- Some of the dispatchers within the center did receive the warnings on their cellular weather phones, however not all of them. This caused confusion relating to the legitimacy of the alert received, as they didn't all receive it. The cellular network issue was addressed earlier in this memo.

**CORRECTIVE /PREVENTATIVE ACTIONS TAKEN:**

1. NCIC Alert Messages between the NWS and KSP have been repaired and will once again contain the "Alert tone and colored banners".
2. Kenton County Fiscal Court has approved the contract and will be implementing the CODE- RED mass notification system. This will be another mechanism for residents to receive emergency alerts in a timely fashion.
3. Two additional weather alert radios have been installed within the communications center, along with instructions from KCECC Director Tommy Thompson that they will remain within the center and operational.
4. The televisions within the center are now ordered to be placed either on the weather channel or local news channel at all times.
5. Dispatchers have and will continue to receive training on the Storm Siren activation processes. On a random basis, the KCECC director will select a dispatcher and request they walk him through the process in a simulated exercise.
6. Dispatchers have also been instructed that a message received on their cellular phones, or from a credible source including a storm spotter, any first responder, or a citizen calling reporting serious damage, will be justification for activation of the Storm warning sirens.