



STATE OF WISCONSIN
DEPARTMENT OF MILITARY AFFAIRS
DIVISION OF EMERGENCY MANAGEMENT

Greg Engle
Acting Administrator

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MEMORANDUM FOR THE RECORD

Date: March 8, 2022

To: All County and Tribal Emergency Managers

From: Paul Hughes, State Communications and Warning Officer

Subject: Integrated Public Alert and Warning System (IPAWS) guidance and Wireless Emergency Alert overshoot

In recent months Wireless Emergency Alerts issued by Wisconsin agencies have been a source of concern based on the amount of “overshoot” This Memo clarifies some of the reasons for WEA overshoot. There are further fact sheets available at the IPAWS program website below. This memo offers some common questions and the answers as we have learned from our IPAWS program staff. The questions below are addressed (as well as others) in the IPAWS Tip sheets referenced below.

Primary Question: Why do I continue to have overshoot when we were supposed to have containment to no more than 1/10th of a mile overshoot?

Answer: On December 19, 2019, cellular carriers began supporting enhanced geo-targeting designed to deliver alerts to 100% of WEA-capable mobile phones inside the targeted area and delivery to not more than 1/10th of a mile outside the targeted area. This precise targeting requires adding software to new smartphones that allow the handset to determine whether the user is within the described alerting area before displaying the alert. FEMA estimates that currently only 34% of smartphones have been upgraded to this new software, so alerts will continue to be received outside the targeted area on 2/3rd of phones in use today until those users replace their handsets to upgraded models with the new software in them. Therefore, **alerting “overshoot” is not the fault of the alert originator**. The enhanced WEA system is operating as intended, but it will take time for new cellphones to penetrate the market for this overshoot problem to be eliminated. Until that time, alert originators may want to seek answers to the questions below in the referenced FEMA Tip Sheets to help mitigate any possible alerting overshoot.

1. When can I feel confident that my message will not overshoot my target area?

Until phones are updated to current models, the overshoot problem will persist.

2. How small of an area can I draw my polygon, how tight should that shape be?

FEMA tips recommend a polygon no smaller than 2 city blocks in urban areas and larger for rural areas. (See Tip 39)

3. How can I talk to a cellular carrier(s) about an alert that had some overshoot?

See Tip 34

These tip sheets below answer many of the above questions.

Tip #25: https://www.fema.gov/sites/default/files/2020-08/ipaws-tips_april-2020.pdf

Gives a good explanation of why phones outside the polygon display the alert.

Tip #34: https://www.fema.gov/sites/default/files/documents/fema_ipaws-tip_february-2021.pdf

Tip #39: https://www.fema.gov/sites/default/files/documents/fema_ipaws-tip-39_102021.pdf

Along with explanation of overshoot, these tips give resources for any alerting authority who wants to contact their local carriers about why a particular alert either was or wasn't received by phones.

If you would like to discuss these or any other IPAWS issues or concerns, please contact me and I'll be glad to talk.

Sincerely,

Paul Hughes