Service Change Notice 22-109
National Weather Service Headquarters Silver Spring MD
1100 AM EST Tue Nov 15 2022

To:      Subscribers:
- NOAA Weather Wire Service
- Emergency Managers Weather Information Network
- NOAAPort
- NOAA Weather Radio Listeners
Other NWS Partners, Users and Employees

From:    Douglas C. Young
Chief, Digital and Graphical Information Support Branch

Subject: National Expansion of Partial County Alerting via NOAA Weather Radio and the Emergency Alert System, with Dissemination Enhancements, for the First Set of Counties is Planned for 2023

Beginning in 2023, the NWS will nationally expand Partial County Alerting (PCA) via NOAA Weather Radio All Hazards (NWR) and the Emergency Alert System (EAS), with dissemination enhancements, for select counties. For this Service Change Notice (SCN), use of the word “county” includes parishes, independent cities, boroughs, census areas and other county equivalents designated by the Bureau of the Census. The specific WFOs and counties implementing PCA in 2023, with dissemination enhancements, will be announced in an upcoming SCN. Thereafter, any additional Weather Forecast Offices (WFOs) and counties implementing PCA will be announced in subsequent SCNs. A standardized, twice-yearly cadence for PCA implementations will begin in 2024. The purpose of today’s SCN is to inform the Weather/Water/Climate Enterprise, alert originators, emergency managers, broadcasters and NWR listeners of the national PCA initiative.

A comprehensive description for the implementation of PCA for select counties on a national basis, with dissemination enhancements, is online at: https://www.weather.gov/pca

NWS generally disseminates weather warnings via NWR and EAS for an entire county. Current exceptions to whole-county alerting are detailed below, where PCA was implemented in the early 2000s and most recently for Clark County, Nevada on June 1, 2021. These five offices use PCA for NWR and EAS operations only. They do not currently employ the upcoming dissemination enhancements.

<table>
<thead>
<tr>
<th>WFO</th>
<th>Counties</th>
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<tbody>
<tr>
<td>Duluth</td>
<td>Aitkin, Cass, Itasca, St. Louis, MN</td>
</tr>
<tr>
<td>Glasgow</td>
<td>Daniels, Dawson, Garfield, McConne, Richland, Valley, MT</td>
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Since 2007, many short-fused NWS warnings disseminated via NWR and EAS were refined to an areal extent using forecaster-defined polygons. At the same time, NWS and the broadcaster community did not actively leverage the capability to disseminate these warnings via NWR and EAS for fixed, areal sections of counties, referred to as county partitions by the NWS and as subdivisions by the Federal Communications Commission (FCC). Both NWR and EAS systems’ designs allow a county to be divided into fixed alerting partitions.

One goal of PCA is to reduce the geographical overalerting of warnings via NWR and EAS dissemination by more closely associating NWS polygon-defined warnings with these fixed county partitions. PCA can improve warning dissemination for geographically-large counties and counties with unique shapes (e.g., latitudinally- or longitudinally-elongated) or configurations (e.g., islands).

Once established in operations, the boundaries of the county partitions are fixed. NWR users with Specific Area Message Encoding (SAME)-equipped receivers may choose the partition(s) of a county for which they will receive automated alerts. Similarly, PCA provides broadcasters with the flexibility to choose those county partition(s) for which they will convey NWS warnings through the EAS.

A PCA Fact Sheet is online at: [https://www.weather.gov/media/pca/PCA-factsheet-2022.pdf](https://www.weather.gov/media/pca/PCA-factsheet-2022.pdf)

Note that if NWR users and broadcasters choose to not transition to PCA, then they will continue to receive all of the county warnings.

For the broadcaster community: Current 47 Code of Regulations (CFR) Part 11 Rules (Section 11.31, EAS Protocol) allow for the dissemination of messages to the EAS using county subdivisions, when defined and agreed to by local officials. Broadcasters should check with their State and Local EAS Plans and respective broadcaster associations to determine how warnings will be disseminated via EAS. Broadcasters should confer with their equipment manufacturer on possible configuration changes needed for EAS encoder/decoder equipment.

For the NWR user community: Most NWR receivers with SAME capability provide the ability to use county partitions. A description of SAME location codes where the first digit is non-zero is provided at: [https://www.weather.gov/nwr/sameenz](https://www.weather.gov/nwr/sameenz)

A list of SAME location codes by counties and partial counties is provided at: [https://www.weather.gov/nwr/counties](https://www.weather.gov/nwr/counties)

The NWS’s gradual implementation of PCA, with dissemination enhancements, for select counties on a national basis will be accompanied by the following dissemination improvements.
1) A Partition Tag Line will be added to World Meteorological Organization (WMO) text warning products.

2) Common Alerting Protocol version 1.2 (CAP v1.2) messages will contain each six digit PCA SAME code in the <area> block with a <geocode> valueName of “SAME.”

3) If applicable for a given County Warning Area, Non-Weather Emergency Messages (NWEMs) created by local alerting authorities and sent to the Federal Emergency Management Agency’s Integrated Public Alert and Warning System (IPAWS) may be disseminated via NWR using PCA.

4) Consistent service delivery for NWR will be provided by implementing PCA on each NWR transmitter broadcasting warnings via SAME to a partitioned county.

A Service Description Document on PCA is provided at: https://nws.weather.gov/products/PDD/SDD_OplPartialCountyAlertingForNWRandEAS_2022.pdf

Please send any comments or questions on the national NWS PCA initiative to:

Tim Schott
Meteorologist, NWS Dissemination Services
NWS Headquarters
Silver Spring, MD
301-427-9336
timothy.schott@noaa.gov

National Service Change Notices are online at:

https://www.weather.gov/notification

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