Sage Alerting Systems
National Periodic Test (NPT) and Emergency Action Notification (EAN) events
Applies to United States ENDECs only

Contents

1   Summary

This document describes steps you should take to ensure that your station will perform properly for any live Emergency Action Notification (EAN) or National Periodic Test (NPT).

The Sage ENDEC model 1822 (grey) has reached end of life, and is no longer compliant with the part 11 of the FCC rules. This document applies only to the Sage Digital ENDEC model 3644 (blue).

You must be on at least version 89-30.

Note: The ENDEC release number is made up of a major and a minor release number. Release 89-6 is version 89, minor release 6. Likewise, version 89-15 is release 89, minor release 15. Therefore, for example, 89-30 would be a newer release than 89-6.

Do not install this release on ENDECs in Canada.

If you are not running at least version 89-30, see the "Installing 89-30" section. If you don't know how to check, see the "Check your version" section. If you are running special version 90 or 91, see "Special Releases".

2   Check your version

Use the version button on the ENDEC's home page and check this line:

Board rev x/nn.mm

nn must be 89, mm must be 30 or greater., for example 5/89.30. You can ignore x, which will be either 4 or 5.

3   Installing 89-30

Complete information on installing version 89-30 can be found at
https://s3.amazonaws.com/sagealertingsystems/release/89-30_release_notes.pdf

4   What is an EAN?

The EAN is an Emergency Action Notification, and is the code that will be sent by the President in the event of a national emergency. This is the primary reason for the existence of the EAS system. The EAN differs from all other alerts in that it has no time limit. All other alerts are limited to two minutes of audio, the EAN is not. The EAN should also be carried immediately – you need to start sending it even while the alert is still being received. The default settings will make sure that this happens.

5   What is an NPT?

The NPT is a National Periodic test, and is used as a test version of an EAN. It is meant to be handled in the same was that an EAN would be, except that the audio will have a two-minute time limit. The NPT should also be carried immediately – you need to start sending it even while the alert is still being received. The default settings will make sure that this happens.

6   FCC EAS Handbook

The FCC has released a revised EAS Operating Handbook in 2017, https://www.fcc.gov/file/12715/download. The FCC says "The Handbook's new format was designed by industry and alerting stakeholder members of the Commission's Communications Security, Reliability, and Interoperability Council (CSRIC)". Sage was part of the committee that worked on the recommendations for the new handbook. One of the recommendations of that committee was that each EAS device manufacturer provide additional information that will assist you in utilizing the FCC Handbook.

Sage has provided that information in a document intended to assist its users with the fill in the blanks portion of the FCC Handbook, https://www.sagealertingsystems.com/docs/Sage2017Handbook%20rev%20a.pdf. Even though you have already provided a good set of instructions to your operators, we urge you to read the "Recovery Procedures" section of our document.

7   Sending Automatically

The EAN and NPT are intended to be sent immediately (while it is still arriving), and automatically. If you are automated and unattended, you must make sure that the EAN can get on the air, on its own. You should have your audio routed through the ENDEC's main input/output (either analog or digital), or through downstream switches that are controlled by the ENDEC'S GPO "push to talk" mechanism.

Some stations choose to route the ENDEC through their console, requiring an operator to manually put the ENDEC on the air. In this case, it is very important that closing end of message (EOM) signal (braap braap braap) is also sent on the air. This is especially important if your station is monitored by other stations, such as if you are an LP1 or LP2. If your operators hear the end of the spoken portion of the alert, or notice several seconds of dead air, they MUST NOT simply switch the ENDEC out of the loop. This will keep downstream stations from hearing the end of message, and they will keep relaying your signal, even after your station has returned to normal programming. A mistake at your station will cause problems for other stations. Do not make this mistake.

If, for some reason, you are sure that the EAN or NPT has terminated incorrectly upstream from you, you must get your ENDEC to send the EOM tones. This is easy, just use the "abort" soft key from the front panel. Then read the screen, and push yes twice more. The ENDEC will send the EOM tones. This is the preferred way to end an abnormal EAN or NPT event.

DO NOT simply turn off, or reboot your ENDEC. This will not send the EOM message, again causing problems for downstream stations.

If you do power off or reboot your ENDEC, or if something else keeps the EOM tones from going on the air, you can clear the downstream stations by sending a required weekly test. The EOM from the weekly test will also clear any downstream stations that are still waiting for an EOM. They will terminate the EAN relay, and send the EOM tones to their downstream listeners.

To review, your station must send the EOM tones on the air to clear your downstream listeners. If an EOM didn't go to air, for whatever reason, send an RWT, and make sure it does go to air.

8 Auto Filter for EAN and NPT

Version 89-30 implements an "auto filter" feature that will attempt to ensure that you put EAN and NPT messages on the air. First, the feature affects only incoming alerts (from EAS or CAP) that have the EAN or NPT event codes. As of July 30, 2016, the FCC now requires that an NPT be relayed immediately, just as with the EAN.

To avoid the necessity of going through your filters and adding the all US code, and adding your local codes, we have added a feature that will automatically keep you in compliance with the new rules. The same new feature also works with the EAN code.

The short version is that, if none of your existing filters match an EAN or NPT with an action of Automatic Relay, then the ENDEC will compare the alert to two internal filters, one for NPT and one for EAN. Both filters require Primary Entry Point as the originator, and will use the 000000 code for national alerts and Local Area for regional alerts.

No matter how your ENDEC is currently configured, it will send national EANs and NPTs.

To give you confirmation that your ENDEC and its filter set (including the automatic filters) will relay the national EAN and NPT alerts, we've added a verify button on the tools page. Click it and the ENDEC will run an EAN and NPT with the PEP originator and 000000 location code through the filters. It will show the filter names that will match, and an indication that your settings are, or are not, compliant. This simulated alert is not logged or aired.

Note that your existing EAN filter probably has either no location listed, or has "all locations"; both forms will match any incoming location in the alert for EAN codes. This was the original workaround for the lack of an all of US location code. Now that there is such a code, "all locations" is no longer desired.

Therefore, when trying to match a filter against an EAN, the ENDEC will ignore the "all locations" or empty location setting, and will substitute 000000 and local area. This will make sure you don't carry a regional EAN that is not in your local area.

9 Special Releases

There were two non-standard releases issued in the past, version 90, and version 91. Neither of those versions meets the new 2016 FCC requirements. The special features of those versions are now included in the standard release. If you have version 90, your group engineering staff has been contacted. The intent is to upload version 89-30 over version 90, to get you on the same numbering scheme. The same applies to the small number of users running version 91.