



# Weather Radios

## What is a weather radio?

A weather radio is an important part of your Winter Weather Alert System for your business. These radios are specifically designed and manufactured to receive weather forecasts and alerts on dedicated frequencies from the National Weather Service (NWS).

Readily available from consumer electronic stores and online retailers, these radios can be programmed to receive weather alerts for your company's specific geographic area. Not all typical AM/FM radios are capable of receiving NWS weather forecasts and alerts, so selecting the correct type of radio is important.



## Who are NWS and NOAA and how do they operate?

The National Weather Service (NWS) is part of the National Oceanic and Atmospheric Administration (NOAA), which is an operating unit of the U.S. Department of Commerce. The staff at the NWS constantly monitors satellite imagery and prepares weather service forecasts, watches, warnings, alerts and other hazard information 24 hours a day, 7 days a week. This information is broadcast on one of seven NOAA Weather Radio All-Hazards transmitters. This system consists of a network of 1,000 radio transmitters covering all 50 states.

When imminent severe weather or other hazard conditions are detected from any of its 122 weather forecast offices, the NWS will transmit the appropriate hazard alert through this network of radio transmitters. Weather radios within homes, businesses and elsewhere receive these broadcasts from the closest transmitter for their area.

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## References and technical information

- **Consumer information** — where to buy weather radios  
<http://www.nws.noaa.gov/nwr/info/nwrrcvr.html>
- **NOAA Weather Radio**  
<http://www.nws.noaa.gov/nwr/>
- **Programming SAME Codes:**  
<http://www.nws.noaa.gov/nwr/info/usingsame.html#program>
- **National Weather Radio (NWR) Alarms**  
<http://www.nws.noaa.gov/nwr/info/nwrwarn.html>
- **Emergency Alert System, EAS:**  
[http://www.nws.noaa.gov/nwr/info/eas\\_description.html](http://www.nws.noaa.gov/nwr/info/eas_description.html)
- **Winter Weather & Safety Awareness:**  
<http://www.nws.noaa.gov/os/winter/index.shtml>
- **Winter Weather Preparedness Guide:**  
[http://www.nws.noaa.gov/os/winter/resources/Winter\\_Storms2008.pdf](http://www.nws.noaa.gov/os/winter/resources/Winter_Storms2008.pdf)



## What are the types of NOAA radio receivers?

Standalone NOAA radio receivers may also come with AM/FM bands, but their primary purpose is to receive weather radio broadcasts.

Multi-band or function radio receivers contain a number of features which include a weather radio band to provide alerts and weather information. The weather radio band can be found in NOAA AM/FM radios, car radios, shortwave receivers, CB radios, VHF marine radios, scanners, GMRS/FR 2-way radios and TV/Radio combinations.

The type of weather radio receiver chosen by a company depends on the particular needs of their organization. Whichever type is chosen, there are key features to look for when selecting a radio for the business.

## Choosing a weather radio

Standard AM/FM band radios typically found in a home or business provide live weather forecasts and advisory information when manually tuned to a local broadcasting station. But these radios may not include Specific Area Message Encoding (SAME) technology or comply with public alert standards. These radios are generally not programmable to specific areas and will not turn on automatically to receive weather alerts.

Some of the key features to look for when selecting a weather radio include those with the Public Alert logo and comply with the Public Alert Standard (CEA-2009), developed jointly by the National Weather Service and the Consumer Electronics Association based on NOAA Weather Radio (NWR) SAME technology. The SAME technology feature allows users to program an area-specific code into the radio that will sound an alert when severe weather and other emergencies arise in a specific area.

The Emergency Alert System (EAS) broadcasts weather and other hazard alerts through weather radios in cases where there is imminent life and property threatening hazards. Radios meeting the Public Alert Standard are capable of receiving a tone alarm from the NWS, which is a 1050 Hz tone before most warning messages. The tone alarm will activate all receivers equipped to receive it, even if the audio is turned off.

Other useful features to consider are battery backup in the event of power interruption. Some portable models have back up power from solar cells or can be hand cranked. These models are useful during power interruptions, as some models can recharge cell phones as well, although it should be kept in mind that they may not possess SAME technology.

The reference section in the left column provides links to additional weather radio and alert information. The first reference, "Consumer Information — where to buy weather radios," has a link to the NOAA website and a table listing weather radio models that are certified with the Public Alert symbol.

