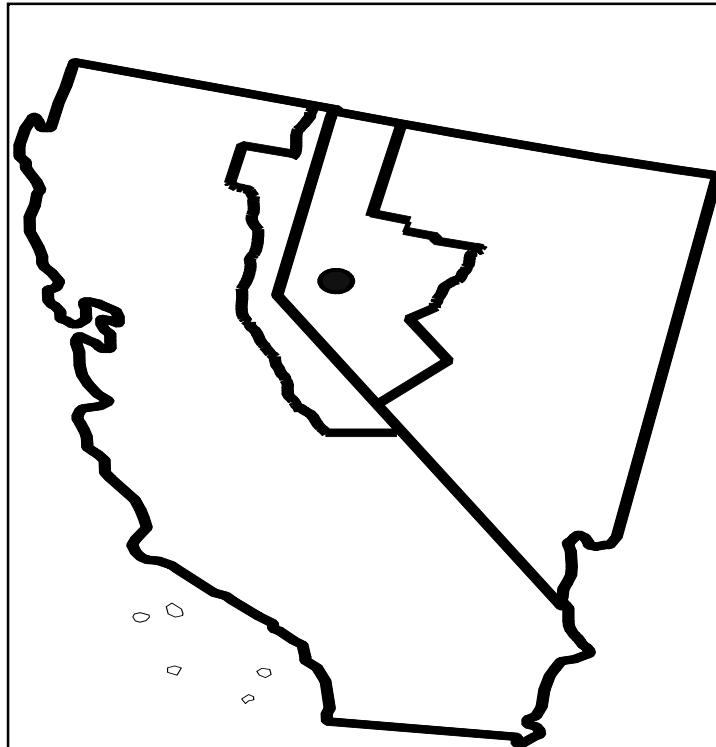




# Skywarn™ Storm Spotter Guide



*...For Western Nevada and Eastern California...*



**National Weather Service Reno, Nevada**



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# ***INTRODUCTION***

Pleasant weather usually dominates western Nevada and eastern California, but occasionally we are susceptible to severe weather. Summer thunderstorms can produce flash flooding, damaging winds, hail and even tornadoes. Winter storms can bring high winds, heavy snow and river flooding.

To effectively warn for the protection of life and property, the National Weather Service must have a thorough understanding of current weather conditions throughout the area. Although weather satellites, Doppler weather radar and computer systems use the latest technology to provide a wealth of information to forecasters, no tool has yet been developed that can replace a human observation of the weather in a local area at a specific time.

You can help! By alerting us to significant weather events, you become the "eyes and ears" for the National Weather Service in your area and help us determine when and where we need to issue warnings. Your participation in the SKYWARN™ spotter program is entirely voluntary. You are under no obligation and cannot be compensated. However, your vigilance is valuable and greatly appreciated! It helps others and could save lives.

This Spotter Guide is for spotters in western Nevada and eastern California. You may want to highlight those items that apply best to where you live. This is your guide; annotate it, take it apart, or reorganize it any way that is helpful to you.

Once again, thanks very much for your help. Please let me know if you have any questions about the spotter program or if I can be of assistance to you or your organization. We provide spotter training to groups of spotters upon request. Please let me know if your group or organization would be interested in this training.

Sincerely,

Rhett Milne  
Warning Coordination Meteorologist  
National Weather Service, Reno, Nevada

## ***Note to Amateur Radio Operators***

Are you an amateur radio operator? If so, you are one of the most valuable spotters in the SKYWARN™ Spotter Program! If you hear of severe weather or flood events from other amateur radio operators, please relay those reports to the NWS! Via amateur radio, you have access to information from others that the NWS would normally never hear about!

During periods of extended severe weather or flooding, a voice and packet radio base station will be activated at the Reno NWS office. The voice station uses the call sign WX7RNO. During these events, the NWS, through coordination with the Northern Nevada Amateur Radio Society (NNARS), will ask amateur radio volunteers to come into the office and collect spotter information via radio equipment and telephone.

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Notes:

# WHO TO CALL

The following counties comprise the County Warning Area (CWA) of the Reno National Weather Service Office (please see map on page 6)

## IN WESTERN NEVADA

Carson City  
Churchill  
Douglas  
Lyon  
Mineral  
Pershing  
Storey  
Washoe

## IN EASTERN CALIFORNIA

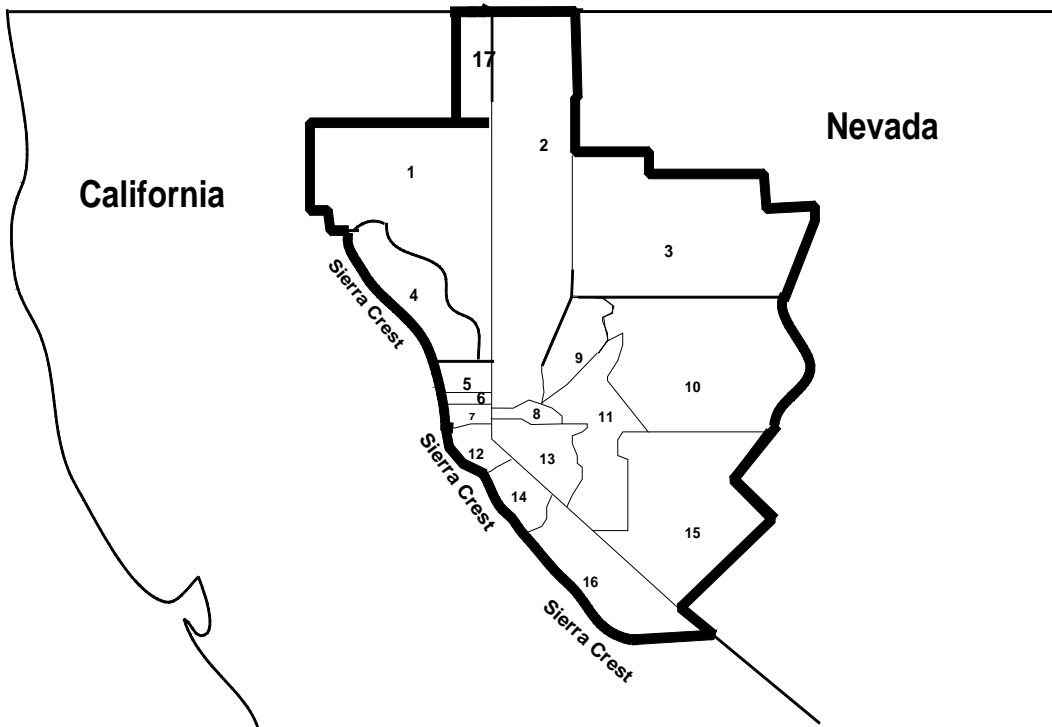
Alpine (*east of the Sierra Crest*)  
El Dorado (*east of the Sierra Crest*)  
Mono  
Nevada (*east of the Sierra Crest*)  
Placer (*east of the Sierra Crest*)  
Sierra (*east of the Sierra Crest*)  
Lassen (*except that portion in Lassen Park*)  
Plumas (*east of Lee Summit on Highway 70*)  
Modoc (*Surprise valley*)

This means that the Reno office is tasked with issuing all weather and flood related warnings and forecasts for these counties. Your severe weather reports are invaluable in helping us issue the best forecast and warnings possible. *Your spotter reports help protect life and property in your community.*

Remember that the toll-free number is for spotter reports and data collection only. *If for any reason you cannot contact us directly by phone, give your report to your county sheriff or police department and ask them to forward it to the National Weather Service in Reno.*

The toll-free number listed is for spotter use only and is unlisted. Please do not pass this number on to anyone, as someone else may tie up the line when a spotter is attempting to call in with a crucial report.

# NWS Reno County Warning Area (CWA)



The Reno NWS office has warning and forecast responsibility for the following counties in western Nevada and eastern California (this includes flood warnings for the Susan, Truckee, Carson, Walker and Humboldt Rivers):

- |   |                        |
|---|------------------------|
| 1) Lassen                                   | 2) Washoe              |
| 3) Pershing                                 | 4) eastern Plumas*     |
| 5) Eastern Sierra*                          | 6) eastern Placer*     |
| 7) Eastern Nevada*                          | 8) Carson City         |
| 9) Storey                                   | 10) Churchill          |
| 11) Lyon                                    | 12) eastern El Dorado* |
| 13) Douglas                                 | 14) eastern Alpine*    |
| 15) Mineral                                 | 16) Mono               |
| 17) Surprise Valley in eastern Modoc County |                        |

\* denotes east of the Sierra crest

# WHAT TO REPORT



## TORNADO / FUNNEL CLOUD / WATERSPOUTS

Report any sighting of a tornado or funnel cloud.

**A tornado or funnel cloud only occurs with a thunderstorm.** It is estimated that only 1% of thunderstorms produce tornadoes. Remember, it's a tornado only if it touches the ground. Otherwise it is a funnel cloud. The funnel may not appear continuous due to a lack of visible moisture or debris in the middle portion. Try to determine whether or not the funnel is picking up debris from the ground. Finally, and very importantly, ***is it rotating?***

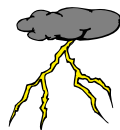
Waterspouts are weak tornadoes that form over large bodies of water. In our region, most waterspouts have historically been observed over Lake Tahoe. Waterspouts can easily capsize or destroy a boat!

*Note time, location and direction of movement.*

Tornadic thunderstorms usually exhibit other severe weather such as large hail and heavy rain. These unusually strong thunderstorms often last longer and are larger than typical storms. They may show some rotation. These thunderstorms are quite dangerous. Although we would like you to report this type of storm, remember that your safety comes first!

Remember that "dust devils" usually occur in hot sunny weather in valley areas. If a dust devil causes winds strong enough to cause minor damage, please let us know.

## THUNDERSTORMS



Report thunderstorm downburst winds whenever you estimate them to be 50 mph or greater (see page 10). You may at times hear the terms: downdrafts, downbursts or microbursts. For clarity in reporting such phenomena we will refer to them as downbursts.

Strong straight-line winds associated with severe thunderstorms are nearly always generated by outflow winds (downbursts) which occur near the base of the storm.

Some thunderstorms will be accompanied by little or no downburst winds.

Our "dry" summer thunderstorms are quite frequently accompanied by downbursts. Sometimes these storms will produce very little rain. However most storms will have some lightning. This is why Nevada and eastern California are so susceptible to wildfires. Often you will see rain falling from the base of the cloud but evaporating before it reaches the ground. This is called "virga". Rain or virga will tend to cool the air as it falls through it. This will contribute to a downward acceleration of the air beneath the cloud and can add to the force of the downburst. You can usually tell if a storm is producing downbursts by the presence of blowing sand or dust near the storm.

Virga can appear beneath rather benign looking clouds and still cause strong downdrafts which are hazardous to aircraft and can produce problems for high profile vehicles.

Only a few thunderstorms will be accompanied by downburst winds that are strong enough to classify the storm as severe. However, since these winds are potentially hazardous, you should report them to the National Weather Service whenever you feel they are of an unusual intensity for your area or are creating an unusual amount of blowing dust or blowing sand.

Report any hail. Also report each occurrence of hail 3/4 inch or greater (severe). For an easy reference remember, a penny is 3/4 inch in diameter and a dime is about 5/8 inch in diameter (see page 11). Remember that thunderstorms that can produce very large hail are also often the type that can produce tornadoes.

Report damage that has occurred as the result of thunderstorm winds or hail.

Report unusually frequent lightning.

### HEAVY RAINFALL-FLOODING-FLASH FLOODING



Report periods of heavy rain:

0.25 inches or more in 1 hour or less (short duration cloudbursts).

0.50 inches or more within 6 hours.

1.00 inches or more within 12 hours.

2.00 inches or more within 24 hours.



Report slow moving or stationary thunderstorms (not necessarily at your location) that are producing, or appear to be producing, heavy rain. If you can't see through the rain shaft of a thunderstorm, it is likely producing heavy rain. This type of thunderstorm is most significant when it is located over mountainous terrain. The dry slopes of mountains of western Nevada are of course much more prone to flash flooding than the forested slopes of the Sierra and mountains of northeast California.

Report incidents of flash flooding (note location, watercourse name, highway mile post, nearby mountain that appears to be the source, etc.):

- Water rushing down normally dry washes.
- Sudden rises in creeks or rivers.
- Washouts.
- Water rushing over roadways. *Estimate* depth of water, don't drive in!

Report incidents of river flooding (note location, river name, bridge name, nearby highway, etc.). This includes whenever the river:

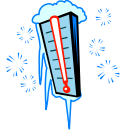
- is abnormally high.
- overflows its banks.
- appears to have crested (is no longer rising).
- appears to be subsiding.
- returns to its natural banks.

For both river and flash flooding report the size and type of debris (if any) and any damage to roads, buildings, farmland, etc.

Remember...

...if flood waters cover a roadway...

*Turn Around, Don't Drown!*



## WINTER STORMS

Report occurrences of heavy snow:

Whenever snow is accumulating at a rate of 2 inches or more per hour.

Whenever there is significant accumulation of snow over a period of time:

*For the Sierra Nevada and mountains of eastern Plumas and eastern Lassen Counties*

- Up to 7000 feet: 8 inches or more in 12 hours or 12 inches or more in 24 hours.
- Above 7000 feet: 12 inches or more in 12 hours or 18 inches or more in 24 hours.

*All Other Areas*

- Valley areas: 4 inches or more in 12 hours or 6 inches or more in 24 hours.
- Mountains below 7000 feet: 6 inches or more in 12 hours or 10 inches or more in 24 hours.
- Mountains 7000 feet and above: 8 inches or more in 12 hours or 12 inches or more in 24 hours.

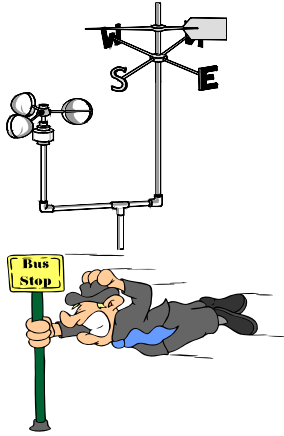
Report whenever an inch or more of snow accumulates and there is no snow or just flurries in the forecast.

Report when the actual snow level differs from the forecast by 1000 feet or more (either higher or lower).

Report whenever the visibility drops to near zero in falling and/or blowing snow (whiteout conditions or blizzard conditions).

Report damaging winds or sustained winds 40 mph or greater or gusts 50 mph or greater (see page 10).

Report any damage caused by high winds, heavy snow, freezing temperatures, or any other winter weather phenomenon.



### Fog

Report dense fog that reduces the visibility to 1/4 mile or less (less than 400 yards). Note whether or not clouds or clear sky can be seen above the fog.

Report fog anytime it is accompanied by freezing drizzle.

### Freezing Rain

Report any occurrence of freezing rain.

Report when freezing rain begins or ends. Freezing rain is liquid rain that freezes on contact with a surface producing a glaze of ice.

### Other

Report any other weather phenomena that poses a threat to life or property or is very unusual for your area.

# **ESTIMATING PRECIPITATION INTENSITY**

## SNOW

- Light            Visibility greater than ½ mile.  
(or accumulating ½ inch or less per hour)
- Moderate        Visibility between 1/4 and ½ mile.  
(or accumulating more than ½ inch but less  
than 2 inches per hour -- typically about  
1 inch per hour)
- Heavy Visibility 1/4 mile or less.  
(or accumulating 2 inches or more per hour)

\* \* \*

## RAIN

- Light            Scattered drops that do not completely wet an  
exposed surface to a condition where individual  
drops are easily seen; slight spray is observed  
over pavements; puddles form slowly; sound on  
roof ranges from slow pattering to gentle swishing;  
steady small streams may flow in gutters and  
downspouts. (up to .10 inch per hour)
- Moderate        Individual drops are not clearly seen; spray is  
observable just above pavements and other hard  
surfaces; puddles form rapidly; downspouts on  
buildings seen 1/4 to ½ full; sound on roof  
ranges from swishing to gentle roar.  
(.11 inch to .30 inch per hour)
- Heavy Rain appears to fall in sheets and individual drops  
cannot be discerned; heavy spray to height of  
several inches is observed over hard surfaces;  
downspouts run more than ½ full; visibility is  
greatly reduced; sound on roof resembles roll of  
drums or distant roar. (more than .30 inch per hour)

## ***The Beaufort Wind Scale***

<b><u>Beaufort Number</u></b>	<b><u>MPH</u></b>	<b><u>Knots</u></b>	<b><u>Description</u></b>	<b><u>Specifications</u></b>
0	<1	<1	Calm	Calm; Smoke rises vertically
1	1-3	1-3	Light Air	Directions of wind shown by smoke drift
2	4-7	4-6	Light Breeze	Wind felt on face; leaves rustle; wind vanes moved by wind
3	8-12	7-10	Gentle Breeze	Leaves and small twigs in constant motion; wind extends light flag
4	13-18	11-16	Moderate	Raises dust, loose paper; small branches moved
5	19-24	17-21	Fresh	Small trees in leaf begin to sway; crested wavelets form on lakes
6	25-31	22-27	Strong	Large branches in motion; whistling heard in telephone and power lines; umbrellas used with difficulty
7	32-38	28-33	Near Gale	Whole trees in motion; inconvenience felt if walking against the wind
8	39-46	34-40	Gale	Breaks twigs off trees; impedes progress
9	47-54	41-47	Strong Gale	Slight structural damage occurs (roof shingles, etc)
10	55-63	48-55	Storm	Trees uprooted; considerable damage occurs
11	64-72	56-63	Violent Storm	Widespread Damage
12	73-82	64-71	Hurricane	Widespread Damage

## ***Handy Dandy Hail Size Estimator***

<b><u>Object</u></b>	<b><u>Hail Size (inches)</u></b>
pea	1/4
small marble	1/2
dime	3/4
penny	3/4
nickle	7/8
big marble	1
quarter	1
1/2 dollar	1 1/4
ping pong ball	1 1/2
golf ball	1 3/4
tennis ball	2 1/2
baseball	2 3/4
softball	3 1/2

## ***AFTER THE STORM***

The information that you supply to the National Weather Service goes beyond the need for timely weather reports that are used for determining the need for warnings. The Weather Service warning program does not end when a warning is issued. We need reports for verification purposes. This helps us improve our warning program by showing us areas where we might be over-warning or under-warning. The result is better service to the public.

This is not just a local program. Information that you provide also goes into the monthly Weather Service publication, *Storm Data*, which details all the severe weather events in the nation in a single monthly document. Severe weather events shown in *Storm Data* are used extensively by the National Weather Service, FEMA, your city, county and state governments, research meteorologists and insurance, utility, construction and engineering industries.

Your reports are also included in Nevada's severe weather climatology. This gives us a better idea where severe weather events are more likely to occur.

We appreciate as much information as you can provide about a severe weather or flood event. For example: one evening a severe thunderstorm produces high winds in your area and you report this to the National Weather Service. The next day you happen to be talking to a friend who tells you that the wind uprooted some large trees and blew out some windows. This is the kind of information that we are interested in. Another example: you measure two inches of new snow over a period of a few hours. No big deal. But later you hear reports of six inches at a nearby town or ranch. We would like to know about it.

Any reports of significant weather or storm damage are important to us, even after the fact.

# ***WATCH/WARNING/ADVISORY ISSUANCE CRITERIA***

The NWS office in Reno uses certain criteria to issue weather and flood watches, warnings and advisories. These criteria are shown below and demonstrate how important spotter reports are to NWS operations.

Hazardous Weather Outlook - Although this is a “routine” product issued by 6 a.m. daily, the Hazardous Weather Outlook will also highlight any expected hazardous weather in the next seven days anywhere in the Reno CWA.

Winter Storm Outlook - Issued when there is a good chance that a major winter storm will affect the area in the 3 to 5 day period. Usually issued only when there is a need for heightened public and user agency awareness well in advance of a possible storm, such as prior to a national holiday.

Winter Storm Watch - Issued when heavy snow is *possible* within about the next 24-48 hours. The probability of occurrence of the storm is less than for a Winter Storm Warning. The potential snow accumulation (if the storm develops) is the same as for a Winter Storm Warning.

Winter Storm Warning - Issued when heavy snow is *expected* within the next 12 hours or is falling and expected to continue. The definition of heavy snow varies considerably with location (See "What to Report" for the various heavy snow criteria).

Blizzard Warning - Sustained winds are expected to be 35 MPH or more for at least 3 hours with considerable falling or drifting snow frequently reducing the visibility to less than 1/4 mile.

High Wind Watch - Issued when winds meeting criteria below are possible in the next 12-24 hours.

High Wind Warning - Below 7000 feet: sustained winds of 40 MPH or more or gusts to 58 MPH or more are expected within the next 12 hours. Above 7000 feet: sustained winds of 50 mph or greater and/or gusts of 75 mph or more.

Advisories - Issued for a variety of weather events that are significant to the public, but do not normally pose a serious enough threat to life and property to justify a watch or warning. They are most often issued for the following events in Nevada:

Snow Advisory: Snowfall normally expected to be at least half of the Watch/Warning criteria but not greater than the Watch/Warning criteria.



Dense Fog Advisory: Dense fog expected to reduce the visibility to near or below 1/4 mile.

Wind Advisory: For extreme southern Nevada: sustained wind speeds greater than 25 mph lasting for 3 hours or more and/or gusts to 40 mph and expected to continue. For the rest of Nevada and eastern California for elevations below 7000 feet: sustained winds greater than 30 mph and/or gusts to 45 mph lasting for 3 hours or longer. Wind Advisories are usually not issued for elevations above 7000 feet.

Freeze Advisory: Issued when unseasonably low temperatures are likely to produce damage to vegetation.

Wind Chill Advisory: Issued when a combination of winds and low temperatures are expected to produce a wind chill temperature of less than -30 to -35 degrees.

Blowing Dust Advisory: Issued when blowing dust is reducing visibilities to 1/4 mile or less.

Urban and/or Small Stream Advisory: minor flooding is occurring or expected in urban areas, low lying areas, and/or near small creeks and streams which could cause inconvenience but is not expected to be life threatening.

Flash Flood Potential - A graphic product available on the Internet that provides the potential for flash flooding across the forecast area for the next 2 days.

Flood Watch - Issued when conditions in a given area are such that **flash flooding OR mainstem river flooding** is possible in the next 12 to 36 hours.

Flood/Flash Flood Warning - Issued for specific locations when flooding or flash flooding is imminent or in progress. A flash flood is a flood that follows within a few hours of heavy rainfall, a dam or levee failure, or water released from an ice jam. Flooding differs from a flash flood warning in that the flood usually has a longer lead time and is expected to have a much longer duration, such as along a major waterway.

Severe Thunderstorm and Tornado Watches - Issued when meteorological conditions make it likely that severe thunderstorms or tornadoes will occur within the next 5 to 10 hours in a specified geographical area. Severe thunderstorm and/or tornado watches are issued by the Storm Prediction Center in Norman, Oklahoma. All other watches are issued locally by forecasters in the Reno forecast office.

Severe Thunderstorm Warning - Issued when thunderstorms with winds gusting to 58 MPH or more or hail 3/4 inch in diameter or larger are likely or are already occurring in a given area within the next hour.

Tornado Warning - Issued when a tornado is indicated by Doppler weather radar and/or has been reported by a reliable observer, or when conditions make the formation of a tornado likely within the next hour. If a funnel cloud is spotted, a tornado warning may be issued or the situation may be handled by issuing a special weather statement.

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Notes:

## ***SOURCES OF WEATHER INFORMATION***

Internet: The Internet has become a primary means of dissemination of weather information from the National Weather Service. The main NWS web portal is **weather.gov**. By clicking on an area of interest from the interactive welcome map at **weather.gov**, you are taken directly to the web page of the NWS forecast office serving that area. For the Reno CWA, this web page is: **<http://www.wrh.noaa.gov/rev>**. A wealth of information is available at **weather.gov**, ranging from the latest forecasts to weather education to activities for children. Check it out!

For business, emergency management and dispatch office customers, or anyone with a high speed web connection, the Interactive Weather Information Network, or IWIN, is available. This web page automatically refreshes itself every few minutes to ensure the latest warning information is available: **<http://iwin.nws.noaa.gov>**.

Emergency message e-mail service, including weather warning information, is available at no cost from The Emergency Email & Wireless Network®: **[www.emergencyemail.org](http://www.emergencyemail.org)**.

NOAA Weather Radio: The National Oceanic and Atmospheric Administration (NOAA) Weather Radio is the "Voice of the National Weather Service." It provides continuous broadcasts of the latest weather information directly from National Weather Service offices. Recorded weather messages are repeated every four to six minutes and are routinely revised every one to three hours, or more frequently if needed. Most stations operate 24 hours daily.

During severe weather the National Weather Service will interrupt the routine weather broadcasts and substitute special warning messages. These messages will typically activate specially designed receivers and the Emergency Alert System (EAS), used by commercial broadcasters, to warn the public of the impending hazard.

NOAA Weather Radio broadcasts can be heard up to 50 miles away from the antenna site, sometimes more. The effective range depends on many factors, particularly the height of the broadcasting antenna, terrain, quality of the receiver, and type of receiving antenna used.

NOAA Weather Radio broadcasts are made on one of seven high-band FM frequencies ranging from 162.40 to 162.55 megahertz (MHZ). Multi-band radios, scanners and simple "weather radios" can all receive NOAA Weather Radio broadcasts. The following NOAA Weather Radio stations can be heard in western Nevada and eastern California:

<u>NWR Station</u>	<u>Frequency</u>	<u>Broadcast Area</u>
Reno (Slide Mtn.)	162.55 MHZ	In California: Lake Tahoe Basin, Truckee area. In Nevada: Douglas County, Carson City, Storey County, southern Washoe County, northern Lyon County.
Hawthorne (Corey Pk)	162.475 MHZ	In Nevada: Mineral County, southern Lyon County
Pyramid Lake	162.450 MHZ	In California: southern Lassen County, eastern Plumas County, eastern Sierra County. In Nevada: southern and central Washoe County, northern Churchill County, southern Pershing County.
Conway Summit	162.525 MHZ	In California: Mono County and northern Inyo County.

The Slide Mountain Broadcast can also be heard by calling (775) 673-8130.

Complete information about NOAA Weather Radio can be found on the Internet at <http://weather.gov/nwr>.

Commercial Radio and Television:

Most local radio and television stations will relay National Weather Service forecasts and warnings, particularly during news programs and/or when the Emergency Alert System (EAS) is activated. More information on EAS is available at

[www.nws.noaa.gov/om/NWS\\_EAS.htm](http://www.nws.noaa.gov/om/NWS_EAS.htm).

The Weather Channel available via cable or satellite television also provides continuous weather information.

## **FORECAST AND WARNING PRODUCT SCHEDULE**

<u>Product</u>	<u>Approximate Issuance Times</u>	<u>Remarks</u>
Hazardous Weather Outlook	By 6 a.m. daily and updated as needed.	Briefly highlights any expected weather in the region for the next 7 days.
Flash Flood Potential	By 6 a.m. daily and updated as needed.	Available on the Internet.
Zone Forecasts <i>1-7 day forecast for localized areas in this region</i>	3:30 AM/3:30 PM and updated as required.	Watches, warnings and advisories are highlighted above the body of the forecast.
State Tabular Forecast	3:30 AM, 3:30 PM	A seven day forecast issued for specific locations in eastern California and western Nevada.
Special and Severe Weather Statements	Issued Whenever Needed	Details significant or hazardous weather.
Outlooks, Watches, Warnings and Advisories	Issued Whenever Needed	Please see criteria of issuance for these events. -Tornado -Severe Thunderstorm -Flash Flood and Flood -Winter Storm
River Flood Statements	Issued Whenever Needed	Issued for mainstem rivers: Susan, Truckee, Carson, Walker, Owens, Humboldt
Short-Term Forecasts	Issued every 2-4 hours during potentially hazardous weather.	Provide short-term weather information on non-life threatening weather conditions.
Digital Forecasts	Issued by 3:30 a.m. and 3:30 p.m. daily and updated as needed.	Interactive graphic forecasts available on the Internet.

# Wrn NV/ Ern Calif. Zones

Zone Names and Generic Codes:

NVZ001 - Mineral and Southern Lyon Counties

CAZ073 - Mono County

NVZ002-CAZ072 - Greater Lake Tahoe Area

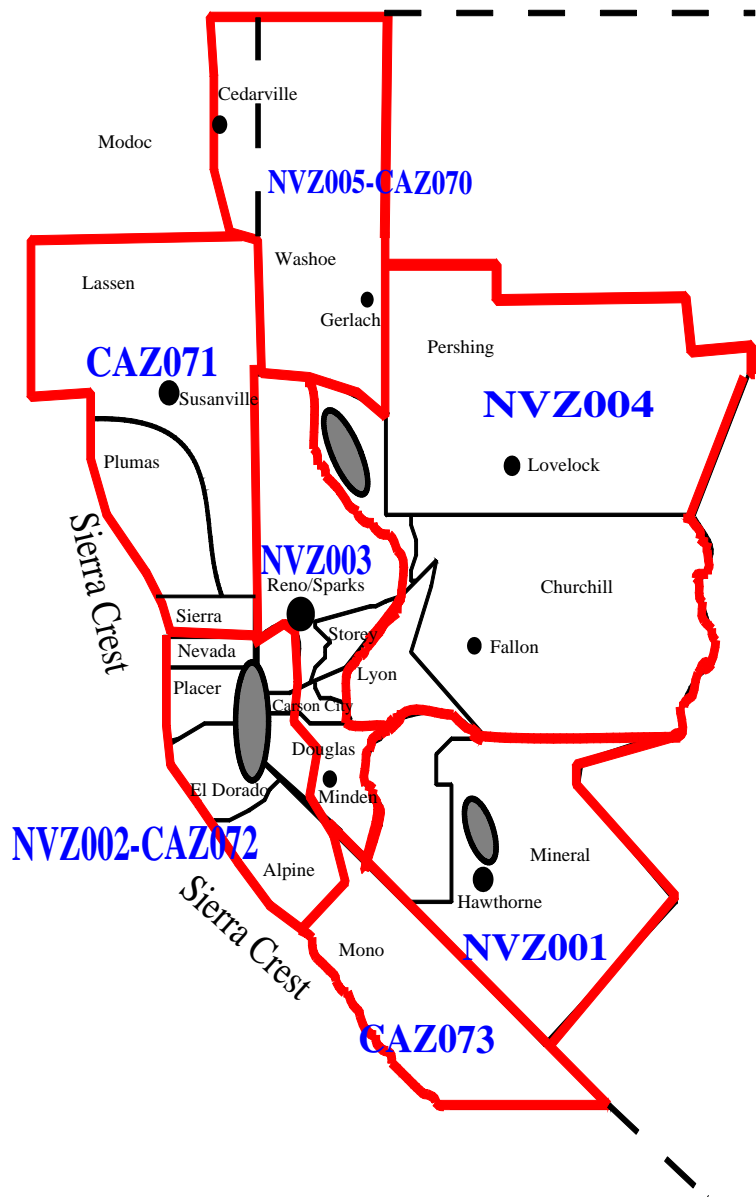
NVZ003 - Greater Reno-Carson City-Minden Area

CAZ071 - Lassen...Eastern Plumas...and Eastern Sierra Counties

NVZ004 - Western Nevada Basin and Range

NVZ005-CAZ070- Northern Washoe County and Surprise Valley California

Note that zones may be combined to fit current and forecast weather.



Zone forecast areas are regions of similar topography and climate that also define an area that the public is familiar with. For example, “The Greater Reno-Carson City-Minden” zone is drier than the Sierra just to west, but wetter and windier than the “Western Nevada Basin and Range” zone just to the east. Likewise, “Surprise Valley and Northern Washoe Valley” is drier and colder than the rest of Modoc County and most of Lassen County to the west.

## Want to Learn More?

If you are interested a spotter training session in your area, and can help provide a meeting location, please contact Wendell Hohmann at [wendell.hohmann@noaa.gov](mailto:wendell.hohmann@noaa.gov) or at 775-673-8100. Multimedia spotter training sessions typically last about 1.5-2 hours and are both educational and fun!

A wealth of spotter information and educational opportunities is available on the Internet. To start, just go to **weather.gov** and click the “Education/Outreach” button on the left side navigation panel.

An excellent glossary of meteorological terminology for Skywarn™ Spotters is available at [www.srh.noaa.gov/oun/severewx/glossary.php](http://www.srh.noaa.gov/oun/severewx/glossary.php).

Excellent disaster and emergency management training opportunities are also available at the Federal Emergency Management Agency’s (FEMA) web site at [www.fema.gov](http://www.fema.gov).

The Cooperative Program for Operational Meteorology, Education and Training or COMET, offers excellent free on-line training in various meteorology and related topics. The COMET web site is [www.comet.ucar.edu](http://www.comet.ucar.edu). A course highly recommended to spotters is “Anticipating Hazardous Weather and Community Risk”.

For more information about the Skywarn™ Spotter program, visit [www.skywarn.org](http://www.skywarn.org), or <http://renoskywarn.org>.