



Sterling Reporter



Newsletter of NOAA's National Weather Service Baltimore/Washington Forecast Office

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Winter 2007-2008

Staffing News

After 37 years of dedicated service, Carl Ewald, Meteorologist-In-Charge (MIC) of the NWS Central Weather Service Unit (CWSU) in Leesburg, VA, has retired. Carl earned his B.S. at St. Louis University and began his career as a Student Trainee then as a Meteorologist Intern at the NWS in Cincinnati, OH from 1970 to 1973. He was then a Base Weather Officer at McGuire AFB from 1973 to 1977. Carl returned to the NWS as an Intern at NWS Cleveland, OH and became the MIC at the NWS River District Office in Trenton, NJ. Carl joined the CWSU in Leesburg in 1981 and became the MIC in 1996. A special thanks to Carl for his 37 years of dedication and service to the National Weather Service.



Above: Carl Ewald (left) and Rick Winther (right)

Richard Winther, Senior Forecaster at NWS Sterling has been selected to fill Carl's shoes as the MIC of the CWSU. Rick joined our office last summer from Pocatello, Idaho, and has been in charge of our Staff Schedule, Fire Weather and Homeland Security Programs.

Congratulations and Best of Luck Carl and Rick!

MIC's Corner

James E. Lee, Meteorologist-In-Charge

Looking back on the Fall 2007 issue of the Sterling Reporter, I indicated that we would be receiving more than usual amount of sleet and freezing rain events due to La Nina conditions. Sure enough, that forecast was accurate, with Washington's National Airport receiving only 4.9 inches of snow through April 4, which is 10.2 inches below normal. BWI Marshall Airport recorded 8.5 inches of snow, which is 9.7 inches below normal. Dulles Airport's snowfall was 14.6 inches below normal, with only 6.5 inches of snowfall. Snowfall certainly has been a below normal in our region with the favored storm track up the spine of the Appalachians.

Now that spring is upon us, our office focus shifts to severe weather and flash flooding. In early April, our office trains for a complete day by reviewing severe weather forecasting tactics and policy. The following week after our internal staff training, we host our broadcast meteorologist partners, reviewing with them our technological and meteorological tools.

Construction on our new facility is continuing at a rapid pace. Those of you who travel Old Ox Road here in Sterling have noticed that our new WSR-88D tower and radome is already in place, and that our new facility shell is nearly completed. (A picture of the new radar is on page 4). Our office is still on schedule to move into our new facility in late August 2008. We have been busy clearing out old files, storage areas, and our library in preparation for our upcoming move.

You will have an opportunity to visit our new facility on October 18-19, 2008, when we once again open our doors with an Open House. You will not want to miss this once-every-two year event, so please mark these dates on your calendar,

If you have any questions or comments about the NWS Baltimore/Washington Weather Forecast Office, please email me at James.E.Lee@noaa.gov, or phone me 703-260-0107, ext. 222.

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Marine Outreach

Brandon Peloquin, Senior Forecaster

On February 2, 2008, our office welcomed 40 members of the Annapolis Yacht Club. Meteorologists Brandon Peloquin and Sarah Rogowski conducted presentations to the group, which included a discussion of marine hazards, marine forecasts and NWS product dissemination. The interactive group also received a detailed tour of the NWS Operations Center. Tom Dalrymple, part of the Annapolis Yacht Club Cruising Committee, stated: "As a group of local boaters, the NWS marine forecast is very important to us, and frankly a regular part of our planning as we go out on the Chesapeake Bay. Personally, as a recreational sailor with two kids, I am a regular listener to NOAA Weather Radio and plan our weekend sailing trips based on the NWS forecast." At the end of the event, our office was presented with an Annapolis Yacht Club burgee.



Brandon Peloquin (bottom center) with members of the Annapolis Yacht Club

The 47th Washington Boat Show was held at the Convention Center in Washington D.C. from February 14 through February 18, 2008. Our office proudly established a booth at this year's show, highlighting digital products on the NWS website and forecasts and warnings broadcast on NOAA Weather Radio. Thanks to those from our office who helped make our participation in this year's show a success, and thanks to our users for stopping by the booth to ask questions and provide feedback. Some of the comments included: "Great website!" "[I] tune in all the time and appreciate the service you provide" and one of my personal favorites from a 6 year old: "Is that a wave? Oh my gosh!" (referring to the massive wave shown on our booth's display).



Greg Schoor (left) and Sarah Rogowski at the Boat Show

Outreach of Note

Nikole Listemaa, Senior Forecaster

From November 1, 2007 to January 31, 2008, the NWS Baltimore/Washington Forecast Office performed around 25 Outreach events. These included office tours, visits to local schools, media events, meetings with our Emergency Managers and several Skywarn Basics I presentations.

On November 7, Chris Strong made a trip to Baltimore to visit with several TV meteorologists. Chris met with Tom Tasselmeyer (WBAL) and Bob Turk (WJZ) to discuss Storm Based Warnings, Winter Weather Products and to hold an "open discussion". Chris also visited representatives from WMAR.

On November 9, Chris Strong attended the Council of Governments winter meeting. Chris was the keynote speaker and gave a presentation on the 2007-2008 Winter Outlook and an overview of NWS operations. On December 12, a group from the Council of Governments came out to the NWS Baltimore/Washington Office for a tour.

From November through January, five Basics I Spotter classes were held. Brandon Peloquin taught the annual class at the University of Maryland on November 3rd. This class is always one of the highest attended of the year. Brandon had over 80 people attend. Greg Schoor taught a Basics I class in Gaithersburg, Maryland on November 13. This class had over 40 people in attendance. Sarah Rogowski taught two BASICS I classes, one in December and the second in January. The first class Sarah taught was in the City of Waynesboro, Virginia and the second class was in King George, Virginia. The combined attendance for those classes was around 80 people. Sarah also visited the City of Waynesboro and King George Emergency Operations Centers.

Five office tours were given during the November through January time frame. The tour groups included a Girl Scout Troop, and afterschool Science Program from Algonkian Middle School, officials from Six Flags and an Environmental Studies group. Greg Schoor, Sarah Rogowski, Nikole Listemaa and Chris Strong all led the tours for the NWS Office. Calvin Meadows and Jackie Hale assisted by giving demonstrations on the Upper Air Balloon release to the Girl Scouts and the group from Algonkian Middle School.

Several school visits were also made. Sarah Rogowski visited the Kilmer Middle School Career Fair in Vienna, Virginia on November 16th. On the same day, Chris Strong visited Eagle Ridge Middle School in Ashburn, Virginia. Chris talked to students from grades 6 through 9 about the weather. On January 28, Brian Lasorsa paid a visit to Fairfax Public County Schools in Alexandria, Virginia. Brian visited with students ranging from Kindergarten to 4th grade and talked about weather. An upper air balloon was also used as a hands-on tool for the students.

To request an office tour or outreach visit, please visit our website at <http://www.erh.noaa.gov/lwx/wesh/tourrequest.htm>

SKYWARN Training is Really a Trust

By Randy Sly, SKYWARN Amateur Radio Advisor

“Thank you for attending SKYWARN Basic I training, we look forward to receiving your reports!”

This was the final statement from one of the meteorologists at a recent SKYWARN class. It was more than a thank you. It was an invitation to participate in the SKYWARN program. Training is offered by the National Weather Service as a trust; they are looking for help from the field... from those who have attended a class.

We are soon entering the season when severe thunderstorms, tornadoes, and even hurricanes can occur within our County Warning Area (CWA). As SKYWARN spotters, this is the reason we have received our training. The NWS Forecast Office in Sterling depends on SKYWARN to provide “ground truth” reports during severe weather events. They look to our “eyes in the sky” and our measured surveillance as confirmation of their observations. We were trained in order to be activated.

Often spotters tell me that, while they are trained, they are reluctant to offer reports. They are afraid their reports may be wrong or that it is repetitive with others already reporting. NWS personnel are eager to have multiple reports for any area. The more information they receive, the more confirmation they have of certain weather events. Also, don't worry about offering improperly formed reports. If you give your report by phone, the forecaster can ask you questions to get a better picture of what you're observing. If you are reporting via amateur radio, the net control station or operator at NWS will be able to assist you.

With severe weather right around the corner, how can we prepare to be an active part of the SKYWARN spotter system? I have covered these essentials in an article last year, but they bear repeating.

1. Review the Basic SKYWARN booklets and training materials.

Your basic SKYWARN training provided two very important documents. The first is a printout of the Powerpoint presentation used by the forecaster. The second is a full-color booklet entitled the *Basic Spotter's Field Guide*. If you have completed Basic II, you were given another outline and a second companion booklet, the *Advance Spotter's Field Guide*.

Hopefully you have held on to these important resources and filed them so they are easily accessible. Take time now, while the sun is shining, to go over each outline of the presentation, including the notes you scribbled on the page. Read through the Spotters Guides, placing special emphasis on the diagrams and photos. Be sure to review the difference between a tornado and a funnel cloud; what a wall cloud looks like, and the parts of a storm. We must become personally “storm ready.”

2. Take a refresher course if one is scheduled for your area.

Over the last few years we have really ramped up the training phase for SKYWARN. Lots of classes are being offered and more are on the way. The website for the Baltimore/Washington Forecast Office contains a listing of the upcoming SKYWARN classes being offered. If you haven't attended a class in the past three years, the NWS requires that you take a refresher in order to keep your standing as a spotter. Even if you have attended a class within the three year time frame, you really can learn a great deal from going again. Carve out a few hours of your schedule and register for a class. If you have taken Basic I, also think about going on to Basic II or one of the specialized classes. You will enjoy the experience and even gain some new insights. Be sure you check the website regularly to see if a SKYWARN class has been scheduled near you.

3. Check all measuring devices to be sure they are working.

Many of us have small weather stations at home, or at least a rain gauge. Is everything in working order? From my time at the SKYWARN operations desk during severe weather I have come to appreciate even more how important accurately measured reports are for the forecasters. This information carries a great deal of weight in their assessment process. A few years ago SKYWARN was activated for a severe weather event that included a large amount of rain. After turning the net control responsibilities over to another operator I went outside to check the amount of rain that had fallen. Since this was the first activation of the year, I had not taken time to see if my gauge was properly set. Not only had the rain gauge tilted, but a wasp had decided that the interior would make a good place to begin a nest. So much for giving an accurate report! Let's check our equipment now.

4. Check your radio batteries and backup systems (if applicable).

Two-thirds of the spotters in our County Warning Area are licensed Amateur Radio operators. During severe weather activations, the Forecast Office depends a great deal on the Amateur Radio Nets and Sub Nets that are used to bring information quickly and accurately to the Warning Coordination Meteorologist. Often normal power can be lost during severe weather; our equipment can also cease to operate. As we say each time we read the SKYWARN script, “we ask all operators to check their systems and backup systems at this time.” How much more important this is before an event actually takes place. Be sure everything is in operational readiness. By the way, if you are not a licensed Amateur Radio Operator and would like to learn more, please contact me at w4xj@ar1.net and I'll help you get started!

5. Program SKYWARN reporting numbers into phones.

Severe weather reports, particularly during a “warning” activation, reach the NWS office in one of two ways: by Amateur Radio or telephone. Your spotter ID card lists two telephone numbers – an 800 number and a regular number – that can be used to make a report. Program these numbers into your cell phone and home phone. This way you won't have to fumble for your spotter ID when making a report. Just hit “send” and call.

6. Be an active Spotter.

The SKYWARN spotter program exists for one reason only – to support the work of the NWS forecasters by providing “ground truth” reports during severe weather emergencies. When SKYWARN is activated, the forecasters are not only hoping for but expecting reports from their more than 2,000 spotters across the CWA. If you're an Amateur Radio operator, why not take your handheld radio to the office or stick it in your brief case. Should severe weather come your way, you can participate. Some areas in our CWA are very sparse, when it comes to trained spotters. In those areas, it is vitally important for spotters to be involved. Other areas are more densely populated with trained spotters. Unfortunately, in those areas many spotters just assume that reports are being given. Wherever you live, send in your reports. In my years with SKYWARN I have never heard a forecaster say that they are getting too many reports.

Recently, at a SKYWARN Advisory Committee Meeting Dan Gropper, who was the founder of the SKYWARN program at NWS Sterling talked about the history and importance of our work here. Being situated near DC and the NWS headquarters we are “in the spotlight” so to speak. Federal Agencies monitor our repeater frequencies to keep updated on the latest during severe weather. The Government and the private sector depend on our reports to make life and death decisions concerning policies and people. Our work is more important than we may ever know.

Following Dan's comments, I found myself both excited and awed. What a trust we have been given by Jim Lee, our MIC; Chris Strong, our Warning Coordination Meteorologist; and the entire staff. Let's step up to the challenge and really get involved.

Climate Summary – November through January

Brian LaSorsa, General Forecaster

Average temperatures for the period of November through January were above normal while precipitation was below normal.

At Reagan National the average temperature for the month of November was 49.8 degrees. This is slightly above the normal of 48.7 degrees. November was on the dry side with 1.46 inches of precipitation. This is less than half the normal of 3.03 inches for the month. The warmest day in November was Thanksgiving Day where the mercury soared to 77 degrees. This set a new record for that date (22nd), breaking the previous record of 75 set back in 1940.

December featured above normal temperatures and near normal precipitation at Reagan National. The average temperature for December was 41.8 degrees, which is 2.3 degrees above normal. Precipitation totaled 3.28 inches, which is slightly above the normal of 3.05 inches. Snowfall for the month was slightly above normal. However, most of it fell in one storm on the 5th. No measurable snow was recorded after the 5th.

January featured mild conditions for the first half of the month but more seasonable conditions were recorded during the second half. Average temperatures were about nine degrees above normal during the first half of the month, but the second half of the month was actually 1.5 degrees below normal. Precipitation only totaled up to 0.31 of an inch, making it the ninth driest on record.

At Baltimore/Washington International the average temperature for the month of November was 46.2 degrees, which is 0.7 degrees above normal. November was a dry month with only 1.52 inches of precipitation. This is less than half the normal of 3.12 inches for the month. Thanksgiving Day turned out to be quite warm with a max temperature of 74 degrees. This ties Thanksgiving Day of 1933 for the warmest Thanksgiving ever.

The average temperature for the month of December was just over 1 degree above the normal of 36.7 degrees. Precipitation for December was slightly above normal with 4.03 inches for the month. Normal precipitation for December is 3.35 inches. Snowfall totaled up to 4.8 inches which is over twice the normal of 1.7 inches. However, most of this fell on the 5th. No measurable snowfall was recorded after December 5th.

The average temperature for January was over three degrees above normal. The first half of the month was actually 7.5 degrees above normal, but more seasonable conditions occurred for the second half of the month with temperatures averaging nearly one degree below normal. This January was a dry month with 1.47 inches of precipitation recorded. This makes it the twelfth driest on record. There was only one day of measurable snow for the entire month when 2.4 inches fell on the 17th. Trace amounts did occur on three other days.

NOAA Green Team

Jim Teklinski, Electronics Technician

I've always been interested in environmental issues, so when a chance came to serve on the NOAA Green Team, I volunteered. The charter of the NOAA Green Team reads as follows: *"The purpose of the National Oceanic and Atmospheric Administration (NOAA) Environmental Compliance and Safety (ECS) Committee Green Team is to provide guidance, tools, and direction for the implementation and management of environmentally, economically, and fiscally sound environmental/energy/transportation program elements. Program elements are to be appropriate, integrated, continually improving, efficient, and sustainable throughout NOAA."*

A little project I'm working on in my spare time is finding alternative packaging solutions for the NWS and NOAA. We order parts and supplies from the National Logistics & Supply Center in Kansas City, MO. They did stop using Styrofoam packing peanuts years ago and now use waffle pattern paper for wrapping small items. They still use the expandable foam for large electronics modules, but at least those can be reused many times. However, I would like to eliminate the expandable foam also, and replace it with these paper "Cushion Cubes" I found on the internet. The cubes are made from recycled newspaper and can be reused and recycled almost infinitely. Any plastic we can replace with items composed of domestically produced paper will help cut down on the country's use of oil, of which way too much is imported. There are many, many ways to help the environment (and the country), and I just touched on one. I like to keep in mind the 3 "R's" of the environmental movement: Reduce, Reuse and Recycle!

Progress on the New Facility

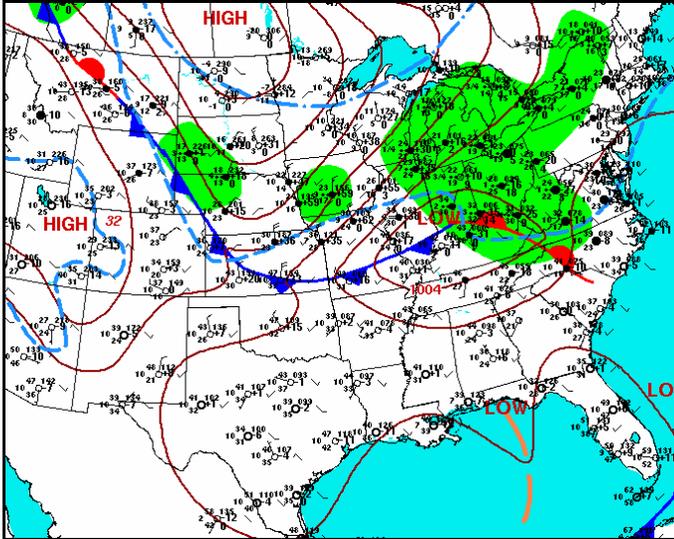
As Jim Lee mentioned in the MICs Corner on Page 1, there has been quite a bit of activity at the new facility. The latest construction of note is our new WSR-88D tower and radome. The tower was constructed first, and then the pieces of the radome were put together and lifted onto the tower. The shell of our new facility is nearly completed. Further progress of the construction will be included in the Spring issue of the Sterling Reporter.



Storm of the Season – December 5th Clipper

Sarah Rogowski, General Forecaster

An Alberta Clipper system moved quickly across the Mid Atlantic on December 5th. This was the first snow of the season for much of the region. Snow began during the early morning hours and ended during the afternoon.



December 5th Map (above) <http://www.hpc.ncep.noaa.gov/dailywxmap/>

The highest snowfall accumulations were measured west of the Allegheny Front in western Grant County. A Cooperative Observer in Mount Storm, WV, measured 13 inches of snow while the observer in Bayard, WV, measured 9 inches of snow. Another area of higher snowfall amounts was across northern Maryland along the Pennsylvania state line. Seven inches of snow was measured in far western Allegany County with 4 to 5 inches in Harford County. The remainder of the eastern Panhandle of West Virginia saw 3 to 6 inches of snow. Snow amounts decreased further south. Observers in Washington DC measured 2 to 3 inches, with northern Virginia seeing 3 to 5 inches. Lower southern Maryland measured 1 to 3 inches and the Shenandoah Valley only measured about an inch of snow. More information on local snowfall amounts can be found on our website at <http://www.erh.noaa.gov/lwx/events/?event=20071205>

This storm caused significant traffic impacts during the morning commute across the Washington DC and Baltimore metro areas. The Washington Times reported that “the worst of the traffic problems occurred on Interstate 270 where the thin layer of snow compressed into ice, causing numerous accidents and turning a typical 30 minute trip from Montgomery County to the District into a 2-hour commute”. The problems were not limited to the Baltimore and Washington DC suburbs. Schools in Allegany and Hampshire counties were closed for the first time this season. Slippery roads caused numerous accidents in Allegany and Mineral counties.

Thanks to Skywarn Spotters, Cooperative Observers, local Departments of Transportation and Emergency Managers for their continued reports.

Storm Data – October through December

Sarah Rogowski, General Forecaster

A more complete summary of Storm Data can be found on our website at <http://www.erh.noaa.gov/lwx/Storms/Strmdata/>.

The combination of moisture and a mostly clear and calm night lead to widespread dense fog during the early morning hours of October 4th, 5th and 6th across the region.

On October 9th, a cold front moving across the Mid Atlantic triggered scattered thunderstorms that produced wind gusts in excess of 30 knots across the Tidal Potomac River and the Maryland Chesapeake Bay. A secondary cold front moved through on the 10th, triggering a second day of storms.

Cold high pressure over the Mid Atlantic brought clear skies and light winds to much of the region on October 29th and 30th. This allowed for overnight low temperatures to fall to around 30 degrees. This freeze combined with a continuing drought brought an end to the growing season.

Strong northwest winds developed behind a cold front on November 22nd. Numerous wind gusts between 40 and 50 mph were reported across the region. Local media reported up to 8,000 power outages in Leesburg due to gusty winds.

A strong cold front on December 3rd brought gusty winds to the region. Many automated observations measured wind gusts between 40 and 55 mph. Damages consisted of trees and power lines brought down by the winds. Some trees and power lines fell onto homes and cars.

A low pressure system moving across the Mid Atlantic brought a mixture of rain and freezing rain to northern portions of northern and western Maryland on December 12th. Sub-freezing temperatures at the surface combined with a layer of warmer air aloft caused rain to change over to freezing rain. Ice accumulations between one quarter and one half inch were reported in western Allegany County, with lesser amounts further east.

A low pressure system developed over the lower Mississippi River Valley on December 15th and moved north across the Mid Atlantic on December 16th. Precipitation began during the late afternoon of the 15th as a mixture of snow and sleet. Warm air aloft then pushed over the region during the late evening and overnight hours on the 16th, changing the precipitation to a mixture of sleet and freezing rain. Significant accumulations of ice, snow and sleet were reported across the forecast area. High winds then developed as the system intensified to the northeast. Wind gusts of 50 to 60 mph were measured across the region.

Areas of dense fog developed across the region during the early morning hours of December 31st. Visibilities were often reduced to a quarter mile or less. Temperatures during the overnight hours fell into the lower 30s, causing areas of fog to freeze onto some surfaces. The fog and glaze of ice caused significant travel problems. Over 100 accidents were reported on Interstate 70, US 340 and US 15. One fatality was reported in Frederick County.

NWS Spring Related Weather Product Criteria

Severe Weather Outlook: Issued as a Hazardous Weather Outlook (HWO), this outlook provides the expected timing, extent and potential hazards posed by forecasted thunderstorms, 3-7 days before the expected event.

Severe Thunderstorm Watch: Issued for an area that appears favorable to receive at least 6 reports of severe thunderstorms (hail>0.74" in diameter and/or winds >57 mph) within the next 2-6 hours in collaboration with the Storm Prediction Center in Norman, Oklahoma. A Typical watch covers about 8,000 square miles.

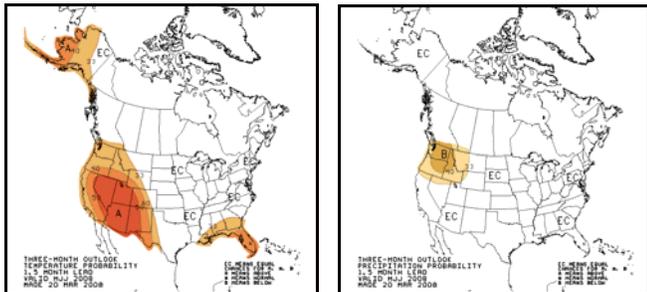
Severe Thunderstorm Warning – A thunderstorm is currently or will likely imminently produce hail>0.74" in diameter and/or winds >57 mph. These warnings are usually issued for a county for 30 to 60 minutes.

Tornado Watch – Issued for an area that appears favorable for at least 2 tornadoes, or any tornado F2 or greater within the next 2-6 hours in collaboration with the Storm Prediction Center in Norman, Oklahoma. A Typical watch covers about 8,000 square miles.

Tornado Warning – A thunderstorm is currently or will likely produce a tornado. Hail>0.74" in diameter and/or winds >57 mph may also occur. These warnings are usually issued for a county for 15 to 45 minutes.

May – June – July Outlook

NOAA's National Weather Service Climate Prediction Center created these May – June – July temperature and precipitation outlooks during mid March. 'EC' means Equal Chance, 'A' stands for Above Normal, while 'B' is Below Normal. These are probabilistic forecasts; the forecast probability anomaly is the difference between the actual forecast probability of the verifying observation falling in a given category and its climatological value.



Climate Prediction Center outlooks, discussions and explanations are available at:
http://www.cpc.noaa.gov/products/predictions/long_range/index.php

Skywarn News

For more information on upcoming classes, check out the website: <http://www.erh.noaa.gov/lwx/skywarn/classes.html>

ATTENTION ALL SKYWARN SPOTTERS:

Please email any changes to your contact information to Nikole Listemaa (Nikole.Winstead.Listemaa@noaa.gov).

Thanks to all Spotters for your reports. Please remember to provide storm reports as soon as possible. These reports are extremely valuable in the warning decision making process as well as for our verification effort. The ideal way to report hazardous weather is through Phone or Amateur Radio. There are several ways to report.

Telephone: 703-260-0107 or 800-253-7091

Radio Call Sign: WX4LWX

Email: LWX-Report@noaa.gov

**Please call or use Amateur Radio to report time-sensitive information such as tornadoes, hail, wind damage, flooding, ice accumulation, etc.*

What to Report:

Time (start and end)

Location (State, County, City/distance and direction from city)

Tornado (circulation on the ground)

Funnel (not on the ground)

Storm Rotation/Wall Cloud

Hail: size compared to a coin and depth on ground

Heavy Rain: measured 1 inch or more (duration)

Flooding: water out of banks or covering roadways

Wind: 50 MPH or greater (measured or estimated)

Damage: generally downed trees and/or power lines

Snow Accumulation: every 2 inches, storm total

Thank you for your time as a SKYWARN Spotter!



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