SKYWARN Tools

There are a number of tools that are used to support net activation. As a Net Controller (NC), you need to remain aware of weather conditions that could affect the safety or yourself and your storm spotters. It can become very busy for a NC during a severe weather event. It is a good idea to assign one of your check-ins, that is not mobile, to watch radar and/or alerts in order to advise you of potential hazardous situation. Some of the tools you might use are described below.

Additional Training

There are a number of web sites that you can use to acquire additional training, above that provided by the National Weather Service, at no additional cost. You may need to sign up for an account to gain access.

- Storm Spotter Guides Online: http://spotterguides.us/advanced/advanced03.htm

- Additional NWS Publications: https://www.weather.gov/owlie/publication_brochures

- Spotter Network: https://www.spotternetwork.org/

Radar

The main tool for weather awareness is Radar. You can get Radar from multiple sources but not all are the same. There are free ones, with limited products and resolution, and those for which you will need to pay. Some of the radar products and their use are:

- Reflectivity: this product shows rain intensity by color. This is the only product you will get with the free applications. The reason you need other products is that rain intensity does not show the presence of rotation, speed or storm location. With experience you can make educated guesses of these parameters. Some free sites will overlay rotation symbols but this is not guaranteed.

- Velocity: this product shows the speed of the weather relative to a fixed location, either the radar site or the storm itself. Green is weather moving toward the site and red moving away. When you see colors that don't match their surroundings, this indicates rotation. This is how they spot rotating thunderstorms and tornadoes.

- There are other products that show calculated rainfall totals, potential storm energy, storm ceilings, etc. Until you have become experienced, you are less likely to use these.

- Reflectivity and Velocity products are the main ones that you will use to keep you and your spotters safe.

Windows Radar Applications

- Free radar sources

  - Any of the NWS sites have Reflectivity and Velocity but at minimal resolution. https://radar.weather.gov/

  - Television station web sites and phone applications

- Internet weather sites: Accuweather, Weather Channel, Weather Underground
- For fee radar sources:
  - Allison House: the Cadillac of products. Ranges from $15 to $30 per month. https://www.allisonhouse.com/
  - Gibson Research: one of the older, tried and true tools. Many TV stations used this for years before switching to the Cadillac versions. Cost is one time $80 with lifetime updates. Can accept fee based radar feeds but there are lots of websites with free feeds and help files see Web Links section. http://grlevelx.com/
  - A review of different products: https://www.downloadcloud.com/weather-radar-software.html

Phone/Tablet Radar Applications

There are lots of these for Android – probably the same for iPhone. I will describe those for which I have experience.

- Raindar II: Free. Only shows Reflectivity.
- RadarScope: Fee, $10 to purchase, two tiers of extra data feeds for additional fees. This is an excellent application. The base fee provides data feed from NOAA. The extra feeds allows dual windows, lightning data, faster feeds and additional products. The Tier 1 feed is worth the $10/year.

Alerts, Watches, Warnings, Advisories

The NWS issues a number of informational products to keep you aware of the ever changing weather conditions. As a storm spotter, you need to be able to receive timely updates of conditions that could affect your or your fellow spotters. Here are some of the ways to get this information.

- Weather Radio: everyone should have at least one of these. Working with the Federal Communication Commission's (FCC) Emergency Alert System , NWR is an "All Hazards" radio network, making it your single source for comprehensive weather and emergency information. You can program the radio to only output the counties of interest.
- VHF Radio: You can also program the weather station frequencies into most any VHF radio. https://www.weather.gov/nwr/station_listing.
- Television and radio stations. Some stations have their own phone/tablet applications that has radar and weather products.
- Most cell phone service providers provide an application that provides alerts for weather warnings.
- Computer/Tablet/Phone Web browser: All of the weather products issued from a particular weather service office can be received at this address: https://weather.im/iembot/. In the left hand menu under "Available Rooms", start typing the name of the weather office, such as "Birmingham" and it will show you the possible stations. Click on the one you want and a tab will open and fill with the latest products

issued by that station. You can open multiple tabs for different stations.

- NWSChat2: The NWS uses the collaboration tool, Slack, to chat with other meteorologists, first responders, EMA directors, government officials and SKYWARN Net Controllers. You will see the meteorologists from your local weather service, TV and radio stations as well as government officials on these channels. They will discuss weather conditions, storm damage and impending alerts before they are actually issued. You must apply for an account with your local weather service office. It is getting harder for amateur radio spotters to get an account but they seem to include SKYWARN Net Controllers. The NWSChat main web page is here: https://www.noaa.gov/NWSChat. Once you have an account, you will need the Slack application on your computer and/or phone.

- iNWS Alerts: You can register for an account at https://inws.ncep.noaa.gov/, set up your areas of interest and receive weather product alerts, as text messages, on you phone.