

Many ARES® D-14 members participate in SKYWARN® activities. To be an effective ARES member performing SKYWARN activities a good weather go kit is a must. It is also required that you participate in the NWS training provided to PPARES members. To provide effective and accurate reports for NWS Pueblo here are the recommended items:
PPARES Skywarn training - This training is a full day and include much more information than the standard Skywarn training provided by NWS Pueblo. The training is available each spring on a specified date in Colorado Springs.

- Skywarn Spotter Guides – These guides provide a good source of information for both the beginner and advanced spotter. The pictorial references allow you to compare what you are seeing real-time to a picture to help with identification of the feature. They are also a good review prior to going into the field [http:// www.nws.noaa.gov/om/brochures/basicspot.pdf](http://www.nws.noaa.gov/om/brochures/basicspot.pdf)
- PPARES Staff Gauge Manual – NWS Pueblo will at times ask Skywarn spotters to provide staff gauge readings. NWS has a network of automated gauges throughout the area, however there are times that data needs to be validated or a reading needs to be taken where an automated gauge is not available. The PPARES Staff Gauge Handbook provides the location of all the area staff gauges as well as where the readings can be safely taken from. It is best to keep this document in your car at all times.
- NWS Hail card – Hail cards are provided by NWS Pueblo at Skywarn training sessions. The card has basic measurements on it as well as the NWS pueblo Spotter phone number. Note: This phone number is NOT to be given to the general public.
- Binoculars – Binoculars may be required for multiple rolls in your kit. A few are listed here: ·
 - Reading Stream Gauges. – It is always important to maintain a safe distance from any moving body of water. Binoculars are required to read a number of stream gauges.
 - Observer Weather Features. – Some weather features are better observed through binoculars. If the distance is too great it may be the only way that you can report a feature with confidence.
- Bright Spotting Light – A spotting Light is needed to read stream gauges at night and can also be helpful when providing damage reports after dark and you may need it for any number of other issues.
- Note book – Take Notes!!! Even though the net control is logging all your reports you may want to make your own notes for later reference. You may also need to document damage reports or other items while in the field.
- Pen – Goes with the above item. And make sure it works!!!
- Compass – A compass is required for 2 key items:
 - Reporting wind direction
 - Reporting the bearing from your location to a weather feature you are observing.
- Survey Tape – Has multiple uses. One key use in your weather kit is to tie a 2 foot long section to the top of your antenna to indicate wind direction for use with your compass.

- Wind Speed Gauge – There are multiple types of hand held wind speed gauges. This instrument will allow you to provide accurate reports of wind speeds in excess of 58 MPH. Wind speed can help indicate the strength of a super cell by showing the speed of the inflow or out flow. An instrument like the Kestrel 4000 will record wind speed as well as Temperature Sensor, Humidity Sensor, and Pressure Sensor making the a fully functional weather instrument.
- Rain Gauge – To help NWS Pueblo with flash flood forecasting during heavy rain you need to be able to report the rain fall rate. A rate of over 1 inch an hour based on a 10 minute sample is reportable. This can only be done accurately using a gauge. It is hard to gauge the rainfall visually and reporting “There is heavy rain fall at...” does not help Pueblo out very much.
- Ham Radio – We are PPARES Skywarn operators and with out a radio you won't do much good. When a Skywarn net is activated your reports need to be made to the Net Control who consolidates them and then reports to NWS. NWS will also monitor our nets during severe weather events.
- HT – If you need to leave your car to perform some activity such as checking a staff gauge, your HT allows you to keep in touch with the net.
- Understand Reporting Criteria:
 - Rain—Over 1 inch an hour recorded over a 10 minute period of time.
 - Wind—Gusts higher than 58mph
 - Hail—Report any hail “measured in fractions of an inch” Do not Estimate hail size.
 - Flooding—Any flooding that does not normally occur. Be careful with this, when driving around you may find an intersection under 2 feet of water and unknown to you this happens during most rain storm due to a drainage issue.
 - Lowering and cloud rotation—Persistent rotation of the cloud base and lowing can lead to the development of a funnel cloud and should be reported.
 - Funnel Development—When reporting a Funnel be sure that what you are seeing is not scud that is floating around under the cloud base.
 - Tornado Formation—A funnel become a tornado only after the vortex reaches the ground. This is usually initially indication by the creation of rotating debris or dust field under the funnel. Remember there can be clear air between the funnel and the debris field on the ground.
 - Injury or Damage—Ay injuries to live stock or people as well as storm related damage should be reported.

Remember, you are working for the United States Department of Commerce as an unpaid volunteer under the auspices of The National Weather Service Forecast Office in Pueblo Colorado. Where ever you go is your own choice and of your of volition. Be careful and ALWAYS consider your safety and the safety of others. Being a weather spotter does NOT grant you the right to break any laws or enter private property with out permission being granted.