

March 28, 2007

Re: Winter format

Dear Badger Weather Net member;

This letter will serve to refresh you on what is expected when you give your reports.

The winter format consists of the following, in this order:

A message number, any number, followed by this information:

1. 24 hour high temperature (rounded to nearest degree)
2. 24 hour low temperature (rounded to nearest degree)
3. Current temperature (taken at net time when the high and low temps are recorded)
4. 24 hour precipitation (to nearest hundredth [.01] of inch)
5. 24 hour new snow fall (to nearest tenth [0.1] of inch)
6. Total snow fall on the ground (to nearest inch) [from 0.01 to 0.49 report a trace]

I wish to emphasize that precipitation is the melted water equivalent of anything that falls from the clouds. This is rain, snow, sleet, hail. If you report any new snow, even a trace, # 4 must have something besides “zero”.

If precipitation is unknown, just say-- “missing”.

Water equivalent is measured in a calibrated cylinder such as the all weather rain gauge available at: <http://www.storesonline.com/site/453784> This instrument requires one to melt the snow, sleet or hail to get the melted water equivalent. If using the all weather gauge, you can just take off the input cone and inside measuring tube and let the snow collect inside the main tube. At the time of the net, take the gauge inside and melt the snow either by letting it warm up (could take awhile) or adding a measured amount of warm water to the snow sample and melt it that way. Don't forget to subtract the amount of water you added!

You may, also, use a white board out in an open area as your collection spot for a snow “cookie cut” sample, using your all weather 4 inch gauge as the cutter, for measurement of water equivalent. Don't forget to wipe off the white board after you have taken your sample.

There is a method of measuring the water content of snow directly, without melting it. You can weigh the snow sample from a coffee can using a food scale. Details available upon request.

Report the water content of the snow, sleet, hail, for your 24 hour precipitation, #4.

If you don't have any precipitation, then just report it as zero. If not measured, report it as missing or "X-ray". "Trace" of precipitation is still accepted. "Trace" of new snow is a "Trace" of precipitation since any snowfall, even a trace, has some water content.

When measuring total snow depth, #6, it is advisable to take several readings around your lot and average them. Take measurements out in the open; away from fences and trees.

Another helpful tip is to report all numbers separately. For example, a temperature of 50 degrees should be reported as "Five Zero degrees". You may add "fifty" afterwards, for clarity, but don't just give "fifty degrees". It can be confusing to the pickup station because fifty can sound like sixty under some propagation situations. There are plenty of other such examples. We want to be sure we are reporting what you want us to give!

Finally, and this is important, the National Weather Service wants your Ground Truth weather data recorded at the time of the net not before you go to bed or at local midnight. If you are using Davis or equivalent equipment, you must set the internal clock so that its "midnight" (when it records the past 24 hour high/low data) is actually the time when you check into the net every day. Hence, the time displayed on your instrument is not true local time.

I hope this letter helps clear up some of the confusion of reporting weather in the winter. We really appreciate your participation in the BWN because it provides valuable data to the National Weather Service. This data is used by them for numerous hydrological, meteorological, and climatological studies and is directly incorporated into computer models used in daily forecasting.

If you have any questions, please feel free to ask.

Looking forward to your daily reports and thanks for participating in this public service net!

73,

Don

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