

NOHRSC Recommendations for Making Ground-Based Snow Water Equivalent and Snow Depth Observations

2004 December 1

The NOHRSC has made the following recommendations at a variety of NWS and cooperator meetings to ensure that the NWS can capitalize on the best ground-based snow observations possible.

1. Make accurate, representative snow depth and snow water equivalent measurements.
2. Report snow depth with all snow water equivalent measurements.
 - The NWS has suggested changes to Meteorological Handbook No. 1, Surface Weather Observations and Reports (FCM-H1-1995) that read:

At designated stations, the **total depth of snow on the ground** shall be coded in the **0000, 0600, 1200, and 1800 UTC** observation whenever there is more than a trace of snow on the ground. The remark shall be coded in the format, 4/sss, where 4/ is the group indicator and sss is the snow depth in whole inches using three digits. For example, a snow depth of 21 inches shall be coded as "4/021".
3. Do not infer snow water equivalent; **it is not NWS policy to estimate snow water equivalent from tables or by dividing snow depth by 10.** See:
 - NWS Manual 10-1311 (July 7, 2004), section no. 3.3.6.3.
 - <http://www.nws.noaa.gov/directives/010/pd01013011a.pdf>
4. Code all snow data from all U.S. and Canadian reporting stations in SHEF and send to AWIPS.
5. Report time of snow observations; otherwise, 1200 UTC is the system default.
6. Report the correct units in SHEF for each observation; otherwise, English units are the system default.
7. Send snow data (in SHEF) to AWIPS as soon as possible, ideally within 24 hours after observation.
8. Use appropriate AWIPS headers for all SHEF snow data.
9. Check NWSLI to ensure that all snow reporting stations are in NWSLI.
10. Check NWSLI to ensure that all lat/long metadata in NWSLI are correct and reported to 4 decimal points for all snow reporting stations.
11. If possible, please provide digital photographs of each snow reporting station, estimate of percent forest cover, forest type, and canopy closure. Contact the NOHRSC for specific instructions on taking photographs (Carrie.Olheiser@noaa.gov).