RESPONSE TO SCHULTZ AND ROEBBER COMMENTS ON McCANDLESS ET AL.

Tyler McCandless
The Pennsylvania State University
State College, PA

Sue Ellen Haupt[1]
National Center for Atmospheric Research, Boulder, Colorado
and
The Pennsylvania State University, State College, PA

George S. Young
The Pennsylvania State University
State College, Pennsylvania

[1] Corresponding Author: Dr. Sue Ellen Haupt, National Center for Atmospheric Research, Research Applications Laboratory, 3450 Mitchell Lane, Boulder, CO 80301 haupt@ucar.edu

The authors of McCandless et al. (2011) thank Drs. Schultz and Roebber for their interest in this paper and for providing a useful literature review on snowfall quantification, quality control of the measurements, and earlier attempt at statistical prediction. We agree that many of these papers are relevant to the full context of snowfall forecasting and so are of interest to readers interested in the physics and details of snowfall forecasting.

The purpose of McCandless et al. (2011) was less about a full analysis of snowfall processes or even snowfall forecasting per se than a demonstration of the application of artificial intelligence techniques to an important forecasting problem of interest to readers of National Weather Digest. This application of artificial intelligence to snowfall prediction using a free software package that includes a wide range of techniques was aimed primarily at demonstrating the tools available to operational meteorologists and providing an example of how to rigorously chose between them. Thus, the focus of the literature review of that paper was on providing background on the available artificial intelligence techniques rather than on the phenomenon and past forecast efforts. The paper was written for meteorologists who may wish to use similar techniques in other real-world applications.

Our thanks to Schultz and Roebber for providing a thorough literature review on meteorological topics related to our example application. These coupled papers will provide readers with a full analysis of the literature for both the phenomenon and the artificial intelligent techniques that could be used for predicting it.

References

McCandless, T.M., S.E. Haupt, and G.S. Young, 2011: Statistical Guidance Methods for Predicting Snowfall Accumulation in the Northeast United States, National Weather Digest, 35 (2), 14 pp.

Schultz, D.M. and P.J. Roebber, 2012: Comments on "Statistical Guidance Methods for Predicting Snowfall Accumulation in the Northeast United States" by McCandless et al., National Weather Digest, this volume.