NWS Hydrology Forecast Verification Team
Teleconference Notes
03/23/2009

Agenda

- Presentation of the standard verification strategies to be described in the final team report by Julie Demargne

Questions, Comments and Actions

Slide #6: the proposed skill score for deterministic forecasts is the Mean Absolute Error Skill Score (MAE-SS). In IVP, the only skill score available is the RMSE Skill Score. Small enhancements will be included in the final team report to put in IVP all the proposed standard metrics.
Also the potential differences between the verification of forecasts for precipitation, temperature, flow and stage will have to be mentioned in the final report. Precipitation is intermittent by nature and for some users it is useful to use the intermittency threshold (0.01 in generally) in the verification analysis. Temperature has a diurnal cycle; the temperature persistent forecast should reproduce the last four 6-hr observed temperature values for each day in the future (and not the last temperature observation for all 6-hr time steps) to maintain the diurnal cycle. For temperature, one of the key threshold values is -32 Deg. F as it could impact the snow (and ice) processes. Flow and stage forecast verification is similar, except that the quality of the rating curves will impact the stage forecasts.

Slide #12: the first level of information should be the data display plots (time series and scatter plots) since they are the easiest plots to understand and help understand the values computed for the various verification metrics. The second level would be the summary information with a few key metrics.

Slide #19: the 'raw model' baseline proposed in the final report will be the baseline forecast to evaluate the impact on run-time mods on a day-to-day basis. This baseline could include some of the mods if they are determined a priori, before generating the forecast, including mods for regulated points. The agreement among the RFCs on this baseline will be developed in spring 09.

Slide #22: Kevin Werner suggested using a 3 color code instead of the smiley-frown faces. CBRFC is actually enhancing the spatial maps from the WR water supply website to include such verification information.

Slide #34: Tom Adams will develop another example of box-whisker time series plots to include at least two different ensemble forecasts, along with the observations; this will include in the final team report as an example and recommended for EVS enhancements.

The general comment from the RFCs was that the information given in these slides on the key metrics, plots and verification analysis was dense and the RFCs needed more training and more experience with case studies to actually give their feedback on the metrics and plots proposed as standards. Matt Kelsch from COMET mentioned that COMET would start working on the second hydrologic verification module based on case studies in summer 09. COMET, OHD, and two RFCs (one for an IVP case study, one for an EVS case study) will have to decide on the key verification questions to address in the module. But this training module seems much needed for the RFCs.
Also the team charter will be modified to expand the work on the team on the evaluation of proposed verification standards with RFC case studies, as well as help OHD develop a comprehensive CHPS Verification Service prototype for both diagnostic verification and teal-time verification.

Action: all the team members will review the draft of the final team report to be sent by Julie Demargne on 04/01/09. Please send your comments back to Julie D. by 04/15/09.

The next team meeting will be scheduled at the end of April to discuss the final team report and the new team charter.