

January 11, 2006

To: Digital Services Planning and Action Committee

From: Glenn Austin

Several years ago, when the NDFD first started to spin up, the NDFD Integrated Work Team established collaboration thresholds to be used in the coordination of WFO grids across WFO borders. The original thresholds were not much more than an educated guess, as very little was then known about user expectations for intersite consistency. However as a result of many WFOs working together to meet these thresholds and reach the standards of other NWS products, we were able to gain concurrence to transition several NDFD elements from experimental to operational status.

The NWS would now like to transition additional NDFD elements from experimental to operational status. One argument being made against this is the patchwork appearance NDFD mosaics sometimes assume. These discontinuities have been especially obvious during major weather events. In an effort to address this, the Digital Services Planning and Action Committee (PAC) has decided to replace the original NDFD thresholds, that checked consistency against a single value for each WFO border, with new threshold values, that can vary from point to point. The new thresholds provide the following advantages:

- Threshold values are more appropriate for forecast situation (i.e., wider thresholds for higher amounts).
- Any border containing at least some elevation differences over 500 ft benefits from wider thresholds for complex terrain. Currently, the average elevation difference for all points along the border must exceed 500 ft for the complex threshold to be used.
- Cases where it is mathematically impossible to be inconsistent will no longer mask out important cases. Scores should better match visual assessments of grid consistency (e.g., QPF, Snow Amount).

A detailed comparison of the current versus new thresholds can be viewed online at https://apps.weather.gov/ndfd-stats/supplementalpages/NDFD_proposed_thresholds.htm by using your NOAA email name and password.

These new variable thresholds have been tested at MDL for more than 6 months. The values have been adjusted and tuned according to regional feedback. At our request, MDL has agreed to schedule implementation of these changes on the NDFD operational server for Tuesday, January 17.

These modified thresholds will supersede those included in NWSI 10-506 and will be included in a future revision of the policy. The Digital Services PAC realizes that it will still take time for GFE tools to be updated. However current consistency measures have proven inadequate for the remaining experimental elements. We feel it can only benefit us to put this new standard in place without further delay.