

NW Flow Snow Conf Call Minutes for Feb 3, 2015

Participants from UNC-A, App State, WFOs GSP, LWX, PBZ and RNK, plus ER SSD

Sandy NWFS journal article:

ER SSD will likely have their review of the manuscript to us by early next week.

Feb 2 NWFS event and Winter Storm Impact Index depiction:

Some brief discussion of a relatively short-lived and minor impact NWFS event the previous day, and specifically sharing of WSII images generated by WFO BTYV for the entire CONUS, with emphasis on the Blowing Snow component/contribution to the final index. In this case the final index suggested some very high end (“Crippling”) category, in large part due to the high index values for the Blowing Snow component, in eastern WV. From what we know as of this writing, impacts were most likely in the “minor” category.

GFE Tools for AWIPS:

“CamPoP/Qpf”, a GFE procedure from WFO GSP, has been loaded on the Software Collaboration Portal (NWS internal), and allows blending of high resolution convective-allowing models to create PoP and QPF grids in GFE. It has proven useful at GSP for convective scenarios, and shows potential for upslope snow given the strong terrain signals. The SCP link is:

<https://collaborate.nws.noaa.gov/trac/nwsscp/wiki/Gfe/Procedures/CamPopQpf>

“Froude”, also from WFO GSP, is a GFE Smart Tool that allows the local set up for an upstream edit area of average terrain orientation and height, and then calculates an average upstream Froude #, which has shown some utility in suggesting a more significant snow event or not (see documentation). No specific quantification or adjustment value is produced by this tool, but is helpful for situational awareness and scientific insight as to the potential for a NWFS event (and possibly other types of weather events). The SCP link is:

<https://collaborate.nws.noaa.gov/trac/nwsscp/wiki/Gfe/Smarttools/Froude>

Hi Res model QPF validation potential study:

While resources for working on such a project appear limited right now at both UNC-A and AppState, there is still interest and the desire to at least begin archiving model data for any cases that would be worth including in the study. Since the issue of what and how to archive is the top priority right now, details

about what stations to use for the validation can be determined later. AppState may have enough server space to house an archive, but depends on what we are proposing. Some periodic manual effort (once a week?, once a month?, depending on space) will be needed to pick off the events we want to use and toss everything else. Since the grib data can be filtered, the first step is to define which models on the NCEP NOMADS server, and which elements and levels, plus the domains are desired, and do a test of one day's worth of this data set to determine how much space would be required for a 7 day or longer running archive (NCEP NOMADS only keeps 2 days of the hi res models).

Steve K will initiate a proposed list and share it with interested team members to determine a first guess, and then someone (RAH or ER SSD?) can create a basic script to grab these data for one full day and see what the space requirements will be. It was suggested that we save off more than just QPF output, but perhaps don't need model levels above 500mb, or every single model field.

Expanding wind climatology to some other stations on western slopes of Appalachians for upslope (or all snow) events.

Some discussion of how and when to pursue this idea, but may also need to wait for another semester when more student resources are available. There are challenges with using surface wind data since at these ridge locations many are influenced by nearby terrain and often only a couple favored directions show up in the climatology. May need to focus on ambient winds near ridge top level, and perhaps archived RAP soundings at grid points near select stations on western slopes with good precip and snow measurements is the way to go. AppState may be interested in leading this as they obtained the RAP archived soundings from ESRL for Poga Mtn NC, but again this may need to wait a bit. Will keep in back pocket.

Future calls:

Next call planned for Tues Mar 3 @11am