May 8, 2009 Conference Call Notes

Provided by: Steve Keighton, SOO - Blacksburg, VA (RNK)

UNC-A Field Project status: April 7-8 was the last field event (another non-classic NWFS case, but had some periods where it was mostly pure upslope driven). Doug still needs snow and SWE data from this event from the WFOs (RNK, GSP, MRX). Highest elevation locations most important where it remained all snow and little or now melting occurred during max heating time of day as it did in other locations.

Still trying to round up some equipment for possible data collection and continuing field project next season. "IMET 3050" mobile sounding system may be one option as it's relatively cheap. Brian will investigate possibility of borrowing RENCI mobile MRR to replace Sandra's which will be headed to Colorado.

Overall, looks like we have a fairly good collection of data from last couple of years, but could use one or two more to complete it (especially since all of this year's events were not considered pure NWFS). Group agreed to push on for rounding up necessary observational equipment for next winter; the earlier the better to be ready to start.

An interesting observation so far from students analyzing data at Appalachian State is that there appears to be a relationship between snow density and parcel trajectories (i.e., from over the Great Lakes region snow-liquid ratios are higher compared to from over continental Midwest). Really need larger sample size, so another incentive to continue collecting data.

On a related topic, Baker mentioned a new group at ASU going by "Appalachian Atmospheric Interdisciplinary Research", which includes experts in various fields related to atmospheric study such as climate, aerosols, and air pollution. There may be opportunities to be a part of this. There is already a 30 meter research tower set up (in/near Boone?), and so far it is measuring wind, temperature, pressure, RH, trace gases and aerosols. Once it is completely set up, this site will be the only NOAA aerosol observing site east of the Mississippi. Eventually, they hope to add precip sensors, sounding capability, and MRR, and a LIDAR.

BAMS article: Will be published in July issue!

Local model updates: The spin-up of the High Resolution Mid-Atlantic Ensemble Experiment (HME) at RENCI under the leadership of Brian Etherton, may benefit from the NWFS group's continued coordination at some point over the summer, so we agreed to try and have another call in July or August (and probably continue on monthly after that, more below). Brian provided an over of this project to those who have not been involved already, and it may require some existing local models to adjust somewhat in terms of domain (it will for the RNK ARW-WRF), but will also mean some new models will be configured, and will include several runs at RENCI to supplement all the other runs in the pseudo-ensemble. A collection of model output fields will be made available (including common ensemble spread and probability output), and the NWFS issue is one of the several topics that will be a focus of this overall project, hopefully to be up and running some time this summer.

The ERL High Res Rapid Refresh (HRRR) model from Stan Benjamin (3km, hourly) has a new expanded domain and sectorized windows of output, and may be considered as an initialization source for this project. It certainly has shown some promise with short term precip and convection, and now that it includes the entire NWFS region, it should be considered as a resource for our group

to pay more attention too. The main link should probably replace the old one we have on the NWFS page.

Overall future goals: We clearly have some incentive to continue on with more field projects and continuing to explore/expand better ways to utilize mesoscale model output to help with the NWFS issue, but we ran out of time to discuss more specific goals for this group over the coming years, but we have a sense we want to continue for another year or two at least. We can try and do this on another call.

Future calls: We'll propose something in July or Aug in a separate email. Otherwise, by September we'll probably continue with monthly calls.