Test run

Perform a simulation for 5 (not necessarily contiguous) days , for only one specific stability situation (either stable, unstable, or neutral), the exact date is of no interest. You can choose your own method to determine the stability situation for a particular day, but please be sure that there is a clear dominant stability situation for that day. For this run please use the following schemes:

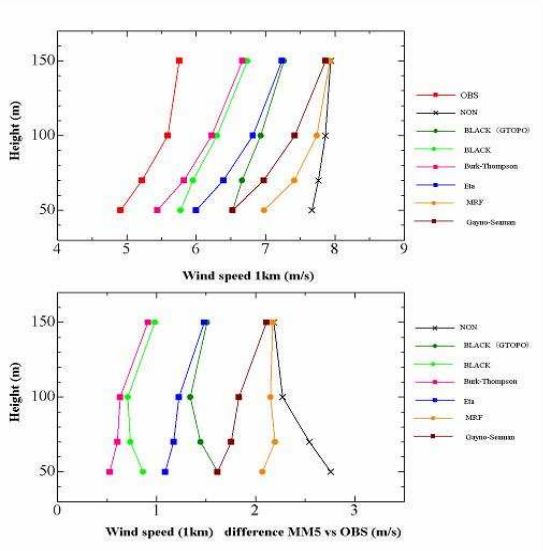
Cumulus Parametrization (ICUPA): Grell
Explicit moisture schemes (IMPHYS): Simple Ice (Dudhia)
Radiation schemes (FRAD): Clouds
Surface schemes (ISOIL): Depending on PBL scheme
PBL schemes (IBLTYP): Choose 3 out of 6:
MRF (Hong-Pan), Blackadder and ETA (Mellor-Yamada),
or Burk-Thompson, Gayno-Seaman and/or Pleim-Xiu.

Please use NCEP - FNL Global Tropospheric Analysis data for 2003 (or 2004), since they are 1°*1° horizontal resolution. You can get them from:

http://dss.ucar.edu/datasets/ds083.2/data/

Use as many domains as you like, but end at a horizontal resolution of 1 * 1 km^2. Have a vertical resolution of 5 layers below 200 m. Use 2-way nesting. Please use 4DDA with the NCEP - FNL 1°*1° data.

Average the MM5 output and observation data for all 5 days. Afterwards, plot wind profiles for the first 200 m for the MM5 output and the measurements in one graph. An example of this is given here.



We would also like you to present time series of your output, such as wind speed, - direction, temperature, potential temperature and other parameters you think are relevant. Further, we would like to discuss the way you consider stability situations (stable, unstable and neutral). It would also be very helpful if you would do some statistics on the output (bias, RMSE, correlation coefficient). Next, try to visualise the standard deviation of model output and measurements in your graph of the

vertical wind profiles.

Should there be a special situation during one of the 5 days you are investigating, don´t hesitate to present this. If you have more time, you could also perform a run for more than 5 days and do the analysis for this period.

If you have time and you are interested in participating in the test case, but you do not have access to meteorological mast data, please let us know, so we might be able to provide you with a data set and you could still perform the test case run with MM5 at your Institute / University.