

What's New in NWP Training at COMET?

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The NWP team at the University Corporation for Atmospheric Research's (UCAR) Cooperative Program for Meteorological Education and Training (COMET) has been working to keep up with the latest changes in the operational model suite at the National Centers for Environmental Prediction (NCEP). The newest training can be found on the Meteorological Education and Training (MetEd) website at <http://www.meted.ucar.edu>. It should be noted that registration (free to all users) is now required to access training information on the MetEd site. This facilitates tracking of usage and training results for both COMET administration and for supervisors making use of the training for their meteorologists.

The MetEd Numerical Weather Prediction (NWP) topic can be reached through the pulldown menu near the top of the MetEd page. Once there, a list of items of special interest can be found on the left. On the right can be found links to featured materials, the NWP distance learning course, and a series of modules describing various aspects of NWP and its potential uses (and limitations) in forecasting weather phenomena.

Additional training published since summer 2005

Since our last report in 2005, work has mostly concentrated on the new NCEP North American Mesoscale (NAM) WRF-NMM model and general and NCEP-specific information on ensemble prediction systems. A module called "Ensemble Forecasting Explained" was built to introduce forecasters to the concepts and applications of Ensemble Prediction Systems. Additionally, a webcast with somewhat more accessible information on ensemble prediction, "Introduction to Ensemble Prediction" was also completed. Matrix pages describing the construction of the NCEP short- and medium-range ensemble forecast (SREF and MREF, respectively) systems, and the marine wave models were made available in 2006.

Teletraining has been archived at the VISITView web site on the new 5-km National Digital Guidance Data base (NGDG), also known as Gridded MOS. It can be found at <http://rammb.ciira.colostate.edu/visit/griddedmos.html>. As of this writing, additional training on Use of Ensemble Prediction Systems in the Warm Season is also being made available via teletraining and VISITView. An archival version with voiceover will be made available in the near future.

For the NAM WRF-NMM, two webcasts were issued describing the model and comparing it to the NAM-Eta, which it was replacing. The delivery of these webcasts corresponded to the initial operational implementation of the model. Subsequently, live teletraining was developed and delivered during spring 2007 to discuss the impact of an important update to the NAM-WRF. A new column was added to the Operational Models Matrix to describe the dynamics and physics of the WRF-NMM as well.

The Operational Models Matrix page has been maintained to keep it current as a one-stop shop for finding information on NWP model physics and dynamics. A new interface allows users to interchangeably use the NWP model, ensemble, and marine wave model matrices. The new interface is shown in Figure 1.

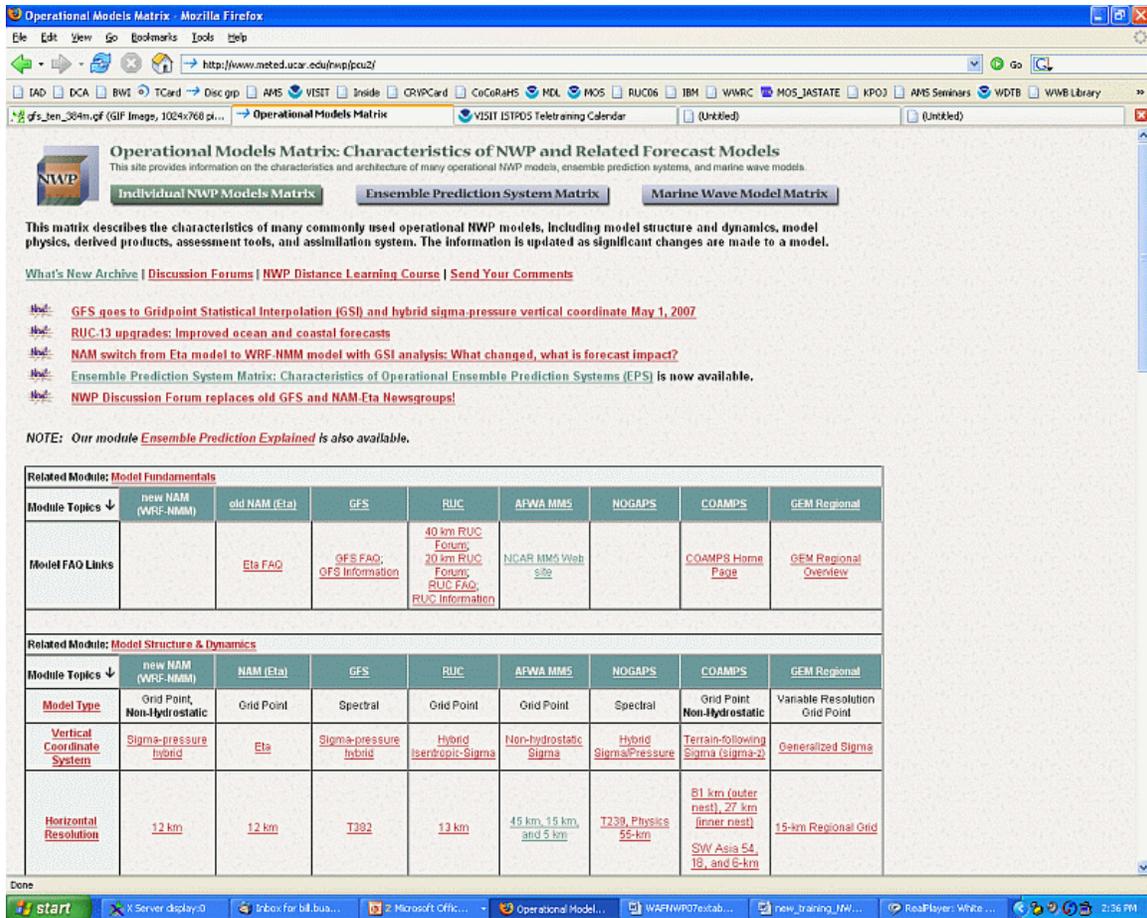


Figure 1. Screen capture of top of new Operational Model Matrix interface page.

Also from the matrix page, users can also reach the new NWP Discussion Forum, which replaced the old GFS and NAM-Eta Newsgroups in March 2006. A screen capture is shown below as Figure 2. The forum works like a discussion group, with discussion threads on topics including the GFS and global models (along with ensembles and the WaveWatch III), the NAM/mesoscale models, including the WRF-NMM and any other mesoscale models in use at NCEP. A topic for the Gridded MOS has been added as well. Forecast and observational graphics can be added to any thread, which makes using the forum more useful to discuss model performance. We invite National Weather Service and other meteorologists to share information, questions, and comments on this new resource.

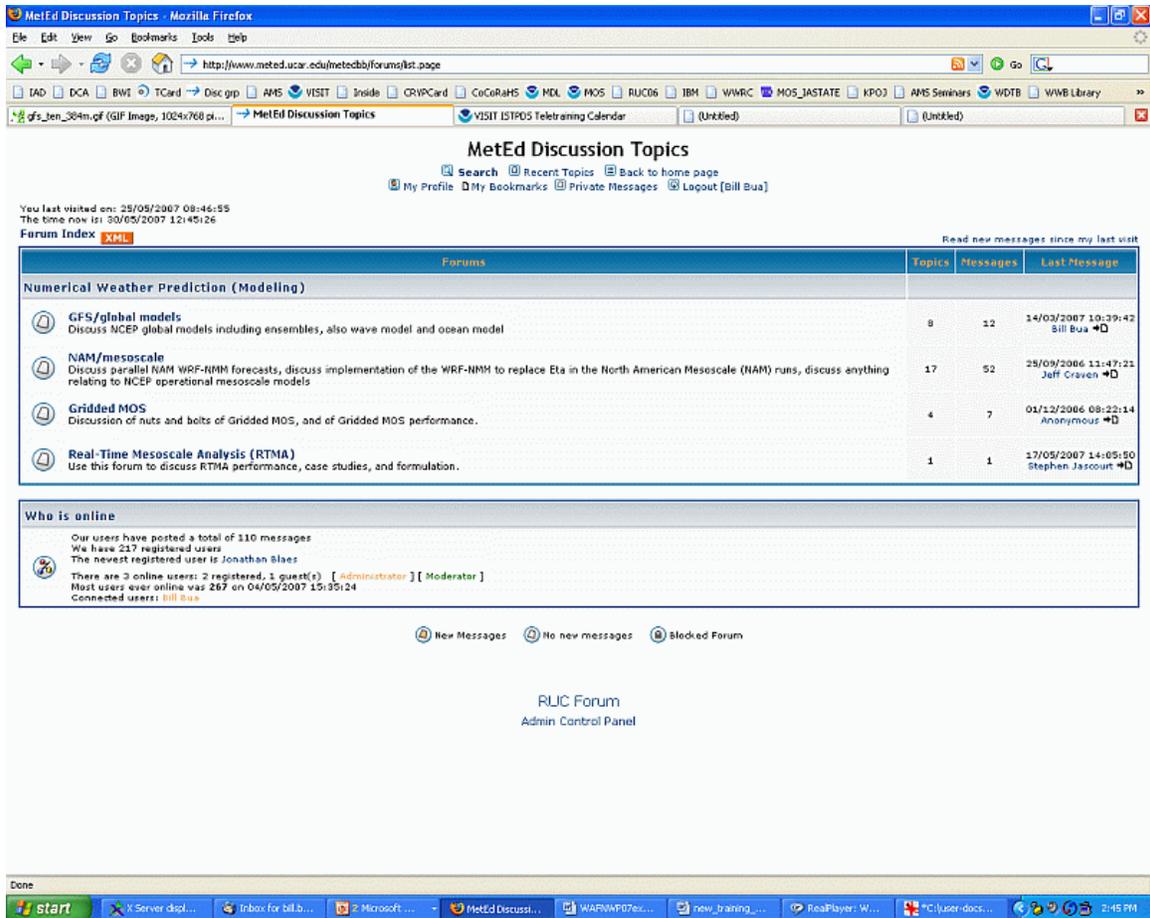


Figure 2. Screen capture of MetEd NWP Discussion Topics from the MetEd Webpage.

References:

Bua, William R., and Stephen D. Jascourt, 2005. The numerical weather prediction professional development series (NWP PDS). Preprints, *21st Conference on Weather Analysis and Forecasting/17th Conference on Numerical Weather Prediction*. Washington, DC, Amer. Meteor. Soc.

University Corporation for Atmospheric Research/Cooperative Program for Operational Meteorology, Education and Training, cited 2007. MetEd: Numerical Weather Prediction (Modeling). [Available at http://www.meted.ucar.edu/topics_nwp.php.]

Virtual Institute for Satellite Integration Training, cited 2007. VISIT Home Page: Training Sessions. [Available at <http://rammb.cira.colostate.edu/visit/ts.html>.]