

NCEP Synergy Meeting notes for July, 2018

The July 2018 NCEP Synergy meeting was not held as scheduled on July 30 as the meeting lead (Mark Klein) needed to cover operations at WPC. However, provided below contributed notes from available participants.

1. NOTES FROM NCO

- NBM: NCO has begun running NBM V3.1 in parallel on the Dell with a scheduled Implementation date on or about September 19th. An SCN will likely be issued within the next two weeks following Data flow coordination.
- RTMA/URMA: NCO has the code and we're targeting a mid-September 30-day start with an October implementation

2. NOTES FROM EMC

2a. Global Modeling

The evaluation of the FV3GFS is ongoing and will wrap up in September. The main evaluation page www.emc.ncep.noaa.gov/users/Alicia.Bentley/fv3gfs continues to be populated, with a new section added with images from multiple retrospective cases. A direct email link to the VLab forum has also been added.

2b. Mesoscale Modeling

RAPv4/HRRRv3

- RAPv4 and HRRRv3 were successfully implemented on Thursday July 12th.
- A downscaling modification that was introduced with this upgrade had to be removed. Following implementation we were notified by the field that unphysical 2-m temperatures were present over regions of relatively homogeneous terrain. Developers confirmed the problem was related to the downscaling, and we reverted back to the "alternate downscaling" technique that was used in HRRRv2.
- There was also an issue with one parameter (FRICV) that was incorrectly labeled; this caused a problem with a downstream application. The labeling was fixed.

V2.7 RTMA/URMA/RTMA-RU (and downscaling):

- Code has been handed off to NCO. Current estimate is early

October for implementation.

- Downscaling update: Fixing the downscaling issue that resulted in spurious 2mT fields that occurred with the RAPv4/HRRRv3 implementation is being worked on. EMC/GSD have made good progress in the past two weeks toward coming up with a robust, updated scheme that uses the local lapse rates to handle the temperature adjustments. Tests with historically challenging cases have been successful. We plan to continue evaluating across more regimes/environments and will share with the field shortly thereafter.

HREF V2.1 : The additional severe wx fields that need to be added to the NAM CONUS nest and HIRESW for HREF v2.1 will be delivered to NCO in September with the changes needed for these systems to use the FV3GFS for initial and/or lateral boundary conditions, and will be implemented when the FV3GFS is made operational in January-February 2019.

2c. Marine Modeling

Upgrades for HWRF and HMON got implemented at NCEP operations on July 9, 2018.

3. EARTH SYSTEM RESEARCH LAB

4. NATIONAL OCEAN SERVICE

5. FEEDBACK FROM MDL/OPERATIONAL CENTERS/REGIONS

5a. MDL

- NBM: NBM V3.1 Parallel is scheduled to begin August 14th with an implementation date of September 19th. Development work continues on NBM V3.2 which will continue to populate NWS Program service gaps such as FireWx,

Aviation, Marine, and Water Resources. A new NBM sector in Guam is also planned for V3.2, currently planned for July, 2019. Additional Probabilistic information will be added to V3.2 (i.e., PQPF, Snow Amount Exceedance, MaxT/MinT)

- GFS/GMOS/EKDMOS: These upgrades are bundled with the NBM v3.1 implementation and follow the same plan of August 14th and September 19th.
- BMOS v1.0 (Blended MOS): Work on gridded NAM MOS and GMOS ceiling and visibility continues for inputs to DAS grids for NBM v3.2.
- LAMP: MDL continues to work on the R2O for the following: upgrading the LAMP/GLMP ceiling and visibility guidance; adding 1-hr POP (POP1) guidance to LAMP/GLMP; extending the ceiling, visibility, and POP1 guidance out to 36 hours; and expanding the domains of the gridded guidance of those elements to match that of the NBM. We plan to have an evaluation period in August, and are on track for implementation in January.
- The FV3 GFS MOS testing was a joint effort between EMC and MDL, with EMC running scripts that immediately followed each retro run, drastically reducing the amount of time needed to evaluate impacts. The retrospective cold season of 2017-2018 is complete and shows little impact to GFS MOS. Warm season retros for 2017 have just completed and we expect to document impacts by the middle of August. The evaluation of the impact to LAMP guidance is in progress and expected to be completed in August.

5b. NCEP Centers

- Weather Prediction Center (WPC):
 - Actively participating in the GFS-FV3 evaluation

- Storm Prediction Center (SPC):

- National Hurricane Center (NHC):

- Ocean Prediction Center (OPC):

- Aviation Weather Center (AWC):
- Climate Prediction Center (CPC):
- Space Weather Prediction Center (SWPC):

5c. NWS Regions

- Pacific Region (PR):
- Alaska Region (AR):
- Western Region (WR):
- Southern Region (SR):
- Central Region (CR):
- Eastern Region (ER):

6. Office of Water Prediction

7. NESDIS

**The next Synergy Meeting is scheduled for Monday, September 24 at 2:30 pm
EDT in NCWCP conference room 2890, with remote teleconferencing capability.**

Telecon: 1-866-763-1213

Passcode: 524234#