



Strategic Implementation Plan (SIP) for a Community-based Unified Modeling System

Post-processing Working Group

Presented by Jeff Craven, NOAA/NWS/OSTI/MDL

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Post-processing WG Membership



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Co-Chair **



Postprocessing WG Short Term Projects



- Short term: EMC/MDL Completed 2017 Warm Season and 2017-2018 Cold Season GFS MOS (using FV3 retros) assessments. Minor impacts, do not recommend full redevelopment (will redevelop and tune in 1-2 years)
- Realtime GFS MOS operational/FV3 being run and available on <u>EMC FV3-GFS Evaluation</u> one-stop page
- LAMP (Local Aviation MOS Product) currently assessing impacts and should be complete by mid August
- Little impact to NBM for a month or two after implementation of FV3-GFS but URMA tuning will take care of that in time.



- 1) Transitioning all NOAA Operational Post Processing packages (ModPP, DiagPP, and StattPP) to support FV3. Work on UPP for GFS FV3 continues at EMC.
- 2) Developing Ensemble Visualization Capability (MDL funded by OSTI)
- Primary discussions aimed at adding more specific information such as National Blend of Models (NBM) and Weather Information Statistical Post-Processing System (WISPS)



Postprocessing WG LT Projects/Discussions



4) Station-based StatPP techniques for multi-model ensemble forecasts (BMOS rather than individual MOS such as GFS MOS, etc)

5) MDL moving along with EMC to transition all verification toward use of MET. Also transition from legacy MOS-2000 to WISPS harnessing git, netCDF, and python (coordination with Canada {ECCC} and UKMET in this area)



Postprocessing WG LT Projects/Discussions



6) Transition from deterministic forecast guidance to probabilistic guidance (challenges)

- Considered how we might produce and store this information using approximations (ie Gamma and the like) to be more efficient, especially for archiving purposes
- Consensus that information will be lost; full PDF/CDFs must be provided to forecasters (cloud solution with pull versus push of data)



Postprocessing WG LT Projects/Discussions



Items that have either not received funding or have received limited funding:

- Improve the accuracy of StatPP through better science and better data
- Comparison & Validation of Post-Processing Techniques: Testbed