

# Planned HMON v2.0.0 Upgrades

## ➤ System & Resolution Enhancements

- Upgrade to the latest NMMB dynamic core with bug fixes
- Increase vertical levels from 42 to 51
- NMMB dynamic core optimization
- Change diffusion parameterizations

## ➤ Initialization/Data Assimilation Improvements

- Update composite vortex
- Change co-ordinates for vortex initialization

## ➤ Physics Advancements

- Use scale-aware SAS scheme
- Update momentum and enthalpy exchange coefficients (Cd/Ch)
- Use GFS-EDMF PBL scheme

## ➤ Coupling Upgrades

- Add HYCOM coupling in NATL basin
- Use unified HWRF/HMON coupler