Updates on 2018 HMON Ensemble real-time experiment

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HMON ENSEMBLE

- HMON ENS, 1 + 10

- Real time parallel for one AL storm

- Probabilistic guidance and mean track/intensity forecasts

- Provide results for multi-model ensembles
HMON
Hurricanes in a Multi-scale Ocean coupled Non-hydrostatic model

One of NCEP operational hurricane forecast systems

- Dynamic core: NMMB
- Vortex initialization
- Moving nests
- Well-tuned Physics package
- Coupled to Ocean models (HYCOM)
HMON configuration

- Coupled to HYCOM
- BC and IC from GFS
- 42 levels
- Three domains, two nests
- D1: ~65° x 65°
- D2: ~ 12° x 12°
- D3: ~ 7° x 7°
Similar to 2018 operational deterministic HMON model:
- Less vertical levels (42 vs 51) to fit jet time window
- 10% larger domains than 2017 HMON_ENS

IC/BC Perturbations (large scale): 10 member GEFS/FV3GFS.

Random initial wind speed and position (TCVital) perturbations considering best track uncertainty

Multi-phys Options in members:
- Convection: BMJ, SAS, scale-aware SAS
- PBL: GFSPBL, EDMFPBL
- Land: GFDL, NOAH
- Microphys: Fer_hires, WSM6
- Surface layer: use different z0 and zt values (Cd,Ch)

~539 ujet nodes reserved.
## Configurations for HMON ensemble members

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<th>#</th>
<th>Domains</th>
<th>CU</th>
<th>PBL</th>
<th>Land</th>
<th>Cd,Ch</th>
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# use FV3GFS for IC and BC