EMC Development Plans

- A fully coupled global atmosphere - land - ocean - wave - ice - aerosol model for S2S time scales
  - Transition to CMEPS community mediator
  - Implement fractional masks for proper transition across different component models
  - Consider land as a separate component
  - For weather scales may consider wave - atmosphere and ocean - ice coupled systems initially
  - GOCART as the chemistry model at global scales
  - Adding in hydrology models

- Transition to CCPP/CPF physics package for atmosphere (Intra model coupling between dynamics and the physics package)
- Development of the FV3WAM - IPE coupled model for Space weather
- Developing ensemble capabilities at all scales
EMC Development Plans (contd.)

- Development of the HAFS modeling system
  - Telescopic nests
  - Multiple moving nests
  - Coupling between ocean, waves and multiple atmosphere/oceanic nests

- CAM development
  - Stand Alone Regional (SAR)
  - Multiple static nests
  - FV3 - CMAQ coupling at regional scales

- Development of a regional wave - surge - NWM modeling system for COASTAL Act

- DA development through JEDI
  - Initial focus is on DA for WAVEWATCH-III, MOM6, CICE5 (or CICE6) and FV3
  - DA initially will be uncoupled to weakly coupled (i.e. DA for each component would be considered independently, even if the coupled model is used to advance fields)