Some Take-Aways From this Week's Meetings

Tim's Perspectives

- **We're making a lot of progress!!!**

- Requirements / performance metrics
  - Collecting, categorizing and organizing what we have

- Need to further employ evidence-based processes
  - DTG-like process

Some Take-Aways From this Week's Meetings

- Growth of "opportunities"
  - Community – takes resources, effort, and attention
  - New "groups" (boards, committees, teams, etc.; e.g. community planning group)
  - Meetings

- EMC:
  - Central role in NGGPS
  - NGGPS poses impacts and challenges
  - Transition of EMC Leadership

World's Best Weather Prediction Capability

- **NOAA Governance/Organization (including R20/O2R relationship)**
  - Reduce risk and expedite transition/implementation of most promising capability

- **Develop a new community approach for model/component development**
  - External and Internal
  - Employ Global Modeling Test Bed (GMTB)/Developmental Testbed Center (DTC) and a more robust Joint Center for Satellite Data Assimilation (JCSDA) to encourage and facilitate community interaction
  - Community modeling workshop planned
  - Accelerate O2R & R2O

- **Consider "DTG like" approach for targeted/accelerated development of physics and data assimilation capabilities**
  - Plans in place for development/implementation of Common Community Physics Package (CCPP)
  - Investing in Joint Effort for Data assimilation Integration (JEDI)

World's Best Weather Prediction Capability

- **Extend Weather Forecast to 30 days**
  - Improved coordination and collaboration through ESPC
  - Implement a fully-coupled NWP System Atmosphere, Ocean, Sea Ice, Land Surface, Waves, Aerosols and Atmospheric Composition
  - Support development of products for weeks 3 and 4

- **Support unification of the NWS Numerical Weather Prediction Suite**
  - Across temporal and spatial scales

- **Optimize all aspects of high performance computing (allocation, resourcing, and advanced architecture/algorithms)**

- **Increase effectiveness of product distribution**
  - Post-processing, assessments, and display

World's Best… 2017 and Beyond

- NGGPS Priorities: the three legs of the stool
  - Implement advanced dynamic core (FV3) for global weather forecast applications
    - Highly scalable; non-hydrostatic;
    - Extend forecast skill beyond 8 to 10 days; improve hurricane track and intensity forecast
  - Physics (scale aware, etc.)
  - Data Assimilation (JEDI, JCSDA)

- We will continue work to work in parallel on:
  - Aerosols and Atmospheric Composition
  - Marine Prediction (ocean, waves, sea ice, and marine data assimilation)
  - Land surface prediction and land data assimilation
  - Nesting (includes hurricanes and convective systems)
  - Post-Processing
  - Ensemble Development
  - Overarching System (architecture/integration incl NEMS/ESMF)
  - Verification and Validation
  - Testbeds

World's Best… 2017 and Beyond

- Federal Funding Opportunity
  - Continue FY16 awards in FY17
  - Realign and focus as program evolves
- Upcoming meetings
  - Phase 3 Dycore Integration and Implementation Kick-off Meeting (~Sep)
  - Code, Data, Document Management Workshop (1-2 Sep)
  - Community Modeling Workshop (TBD: Oct-Nov)
  - NGGPS Atmospheric Physics Workshop (7-9 Nov)