



**NATIONAL
WEATHER
SERVICE**

EMC Review

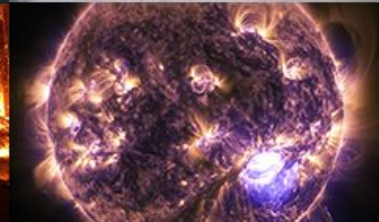
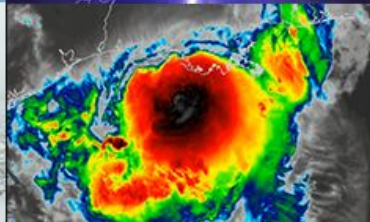
Pre-Review Information and Logistics

May 22, 2023

Dr. Stephan Smith Director OSTI

Dr. Brian Gross Director EMC

OSTI-Modeling: Kevin Garrett (Director), Aaron Poyer, Dr. Youngsun Jung, Dr. Yan Xue





Outline



- Opening Remarks
 - Dr Stephan Smith (Director OSTI)
 - Dr Brian Gross (Director EMC)
- Purpose of review
- Review themes
- Scope of review
- Roles and responsibilities
- Logistics
- Draft Daily Agendas





Purpose of the Review

- To assess:
 - EMC's operations and short- and long-term plans
 - EMC's alignment with NCEP's strategic plan and the UFS strategic plan
 - Simplifying NOAA's Operational Forecast Suite
 - Productivity and quality of science activities
 - Balance of resources and staff between development and operational system maintenance
 - Effectiveness of activities in research-to-operations (R2O), testing and evaluation, transition-to-operations (T2O), operation-to-research (O2R)
 - Organization's health and culture



Review Themes



1. Organization and Management

- a. Overview of EMC
- b. Staffing, Budget, and Contract Management
- c. Overview of Project Management



2. Applied Research and Development

- a. Development Priorities
- b. Coupled Systems
- c. Data Assimilation
- d. Physics and Dynamics



3. Operational Implementation

- a. Model Verification and Products
- b. Post Processing and Product Generation
- c. Evaluation and Verification
- d. The Implementation Process
- e. Engineering and Implementation
- f. HPC





Scope of the Review

- The review will cover EMC's activities over the last several years (2019-Present)
- Activities toward the following goals will be reviewed:
 - a. Multi-year plan to use the UFS as the basis for the future NCEP Production Suite
 - b. A simplified production suite under this unified framework using a single dynamic core for all temporal and spatial model scales, which is fully coupled and ensemble-based
 - c. Engagement with the nation's weather/water/climate community in all aspects of the project, from research/development to testing and validation
- Reviewers will consider whether each focus area is a strength, and provide recommendations for improvement



Roles and Responsibilities



- Each reviewer is asked to independently prepare their written evaluations and provide these to the review panel Chair
- Review Panel Chair: Dr Steven Pawson (NASA)
 - Synthesizing the individual evaluations collected from all reviewers
- OSTI-Modeling
 - Provides resources necessary for the review team to complete its work, including travel arrangements, on-site review team support, posting information on a public review website (<https://vlab.noaa.gov/web/osti-modeling/emc-review>)
- EMC
 - Facilitate the in-person review by presenting information on EMC functional areas

Logistics

- **Travel:** June 5 and June 8 or 9, 2023; arrangements are underway with traveling reviewers
 - **Hotel:** The Hotel at University of Maryland (<https://www.thehotelumd.com/#>)
 - **Local Travel:** arrangements between Hotel to NCWCP are being worked, will be communicated shortly
- **Review Location:** NOAA Center for Weather and Climate Prediction
 - 5830 University Research Ct, College Park, MD 20740
- **Meals:**
 - **Breakfast:** provided at hotel (must have booked the includes breakfast option)
 - **Lunch:** provided to reviewers on site at Kloud Cafe
 - Sponsored Reviewers must select their lunches from the menu in advance: <https://kloudcafe.wufoo.com/forms/q7z8ug20gxb14r/>
 - **Dinner:** Group dinner arrangements are in-process by EMC personnel. (This will be a reimbursed per diem rate)



Draft Day 1 Agenda



Pre-Review Morning Activities

7:30 am - 8:30 am Breakfast with NCEP Leadership, STI Leadership and Review Panel (Closed)



8:30 am - 9:00 am Travel to NCWCP

9:00 am - 9:15 am Logistics (Ivanka Stajner, EMC Deputy Director)



9:15 am - 9:30 am Opening Remarks (Mike Farrar, Director, NWS/NCEP)



9:30 am - 9:45 am Opening Remarks (Stephan Smith, Director, NWS/OSTI)



Review Theme 1: Organization and Management

10:00 am - 12:30 pm Presentations on EMC Organization and Management

12:30 pm - 1:45 pm Lunch with EMC staff

Review Theme 2: Applied Research & Development

1:45 pm - 5:30 pm Presentations on Research and Development

5:30 pm - 6:00 pm Transport back to hotel

6:30 pm - 8:30 pm Dinner (open to NCEP, STI, and EMC)





Draft Day 2 Agenda



Pre-Review Morning Activities

8:00 am - 8:30 am Transport from Hotel to NCWCP

8:30 am - 10:00 am Data Assimilation

10:30 am - 12:00 pm Physics and Dynamics

12:00 pm - 1:00 pm Lunch with EMC Staff



Review Theme 3: Operational Implementation

1:00 pm - 2:15 pm Model Verification and Products

2:45 pm - 3:30 pm Evaluation and Verification

3:30 pm - 5:00 pm The Implementation Process

5:00 pm - 5:30 pm HPC

5:30 pm - 6:00 pm Transport back to hotel

6:30 pm - 8:30 pm Dinner (open to NCEP, STI, and EMC)





Draft Day 3 Agenda



Final Day


7:30 am - 8:00 am Transport from Hotel to NCWCP

8:00 am - 9:00 am Review Panel with EMC Leadership



9:00 am - 9:30 am Wrap-up with STI Portfolio Manager, NCEP Director, EMC Director and Deputy Director

9:30 am - 10:00 am Break



10:00 am - 1:00 pm Review Panel internal deliberations (and writing) + Lunch Break

1:00 pm - 2:00 pm Review Panel reflections and report to STI and NCEP Leadership and EMC Director and Deputy Director



2:00 END



Questions?

