# GEFS v12 relevant info

GEFS v12 coordination google drive (<u>link</u>)

**Updated on 7/30/19** 

## High Level Timeline (dates as of 9/12/19, 2/26/20, 4/23/20, 5/20/20)

- Freeze GEFS-Atmosphere configuration for reanalysis/reforecast Q1FY19
- Freeze GEFS-Atmosphere configuration for retrospectives Q3FY19
- Freeze GEFS-Wave configuration/code for retrospectives Q4FY19
- Freeze GEFS-Aerosols configuration/code Q4FY19 → Q2FY20
- Produce 20 years reanalysis datasets (ESRL/PSD): Q3FY18 Q4FY19 → Q3FY18 Q1FY20
- Produce 30 years reforecast extended to 35 days: Q1FY19 Q1FY20
- Produce 2-3 years retrospectives for atmosphere: Q3FY19 Q2FY20
- Produce one year retrospectives for wave ensemble: Q4FY19 Q2FY20
- Produce one year retrospectives for aerosol: Q1FY20 Q2FY20
- Freese all components code (including workflow and post) for final I&T and EE2 compliance 4/1/20 → 4/23/2020
- EE2 process and coordination with NCO: Q4FY19 Q4FY20
- Deliver PNS to HQ: PNS1 (12/2019), PNS2 (04/2020), PNS3-Wave (5/2020), SCN (30 days before)
- Field evaluation for all components: Q2FY20  $(03/02/20 03/16/20) \rightarrow 3/2/20 4/10/20$
- MEG final briefing 4/23/2020
- Field evaluation recommendation due to EMC/MEG by 4/27/20
- EMC CCB 05/1/2020
- Science OD brief on or before 5/5/2020
- Deliver final package to NCO: Q3FY20; May 2020  $\rightarrow$  04/17/20  $\rightarrow$  05/15/20 (Tentative)  $\rightarrow$  5/22/20
- Transition to Operations Q4FY20 (Aug 26, 2020) → 09/07/20 (Tentative)

## Project plans related to GEFS v12

- DRAFT GEFS v12 project plan and charter (<u>link</u>)
- GEFS v12 latest Gantt chart (<u>link</u>)
- GEFS v12 retrospective plan (<u>link</u>)
- GEFS v12 reforecast plan (<u>link</u>)
- GEFS v12 field evaluation plan (<u>link</u>)
- Wave Ensemble development/evaluation plan (<u>link</u>)
- Aerosol evaluation plan (<u>link</u>)
- Latest SIP document (<u>link</u>)
- GEFS V12 test plan on Dell 3.5 (<u>link</u>)
- GEFS v12 SCN draft (<u>link</u>)
- Published NWS PNSs (<u>link</u>)

#### GEFS v12 related info

- EMC/NCO kick-off meeting 9/12/19 (<u>link</u>)
- Products retirement list (<u>link</u>)
- Downstream products validation (<u>link</u>)
- Model dependency spreadsheet (<u>link</u>)
- NWS notification: PNS, SCN,... (<u>link</u>)

#### GEFS v12 related V&V information

- GEFS-ops verification page (<u>link</u>)
- GEFS v12-retrospective verification page (<u>link</u>)
- GEFS v12-retrospective monitor system page (<u>link</u>)
- Integrated GEFS Official Evaluation page (<u>link</u>)
- EE2 document (<u>link</u>)
- Example of GEFS v12 retro case study (<u>link</u>)

### Quad charts related to GEFS v12

- Global Ensemble Dev quad (<u>link</u>)
- GEFS v12 T2O quad (<u>link</u>)
- Wave Modeling Dev quad (<u>link</u>)
- Air Quality Modeling Dev quad (<u>link</u>)
- Verification and Validation quad (link)
- Post Processing & Products quad (<u>link</u>)
- Model Evaluation quad (<u>link</u>)

## GEFS v12 R&R

Component	Manager	Lead	Developers (based on redmine tasks)
Overall management	Vijay	Farida	
Atmospheric ensemble	Vijay	Yuejian/Dingchen	
Wave Ensemble	Vijay	Henrique	Henrique, Roberto
Aerosols/Chemistry	Vijay	Jeff	
V&V	Jason		Binbin, Yan Luo, Jiayi, Alicia, Deanna, Partha
Model evaluation	Jason	Geoff	Alicia
Post Processing & Products	Jason	Hui-ya	Wen Meng (Atm & Aerosol), Bhavani (Wave)
Infrastructure	Arun	Lin Gan	?? (workflow), Lin (EE2)

#### GEFS v12 R&R for V&V activities (FINAL)

Evaluation plan for NGAC

Activity	Lead	Developers	Notes	Branch
Integrated GEFS field evaluation	Geoff Manikin	Alicia Bentley	Field evaluation	VPPPGB/Jason
Develop GEFS evaluation plan for atmospheric week 1	Geoff Manikin	Alicia Bentley		VPPPGB/Jason
Develop GEFS evaluation plan for atmospheric week 2-4	CPC			VPPPGB/Jason Vijay/MDAB
GEFS test plan and execution	Yuejian		Need to coordinate with Wave and NGAC teams	MDAB/Vijay
Execute verification package	BinBin Zhou	BinBin Zhou, Yan Luo, Alicia Bentley		VPPPGB/Jason
Develop verification tools/metrics for week 1	BinBin Zhou	BinBin Zhou, Yan Luo, Jiayi Peng, Alicia Bentley	METplus and VSDB Is METplus ready/validated?	VPPPGB/Jason
Develop verification tools/metrics for week 2-4	CPC			VPPPGB/Jason Vijay/MDAB
Evaluation plan for wave ensemble	Henrique		Share it with the GEFS team	MDAB/Vijay
Wave verification tools and execution	Deanna	Todd Spindler,	Python3	VPPPGB/Jason

Deanna Spindler

Share it with the GEFS team

MDAB/Vijay

Spindler

Jeff