NAEFS (V5.0) Upgrade

Project Status as of 05/29/2015

Y Project Information and Highlights

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Scope:

- Based on NAEFS/GEFS 1*1
  - Using RTMA/URMA as proxy of truth, downscale bias corrected ensemble forecast to CONUS 2.5km & Alaska 3km. Grid will extend CONUS domain to north to cover part of Canada, and south to cover part of Mexico for NAEFS project. Products include 10%, 50%, 90%, mean, mode and spread. ~~Adding precipitation bias correction and downscaling.~~
  - **Adding cloud cover to the list of bias correction and downscaling**
  - Various new methodologies have been applied to improve NAEFS bias correction, 2nd moment adjustment.
- **ECMWF ensemble based post-product (new – internal use only)**
- GRIB II (encoding/decoding directly) for:
  - All new/exist products

Expected Benefits:

- Higher resolution (2.5km for CONUS and extended domain, 3.0km for Alaska)
- Reduce the bias for most variables
- Increase probabilistic forecast skills
- For WPC, regions (Alaska), CPC (likely) and Partner of North American

G Issues/Risks

Issues: N/A

Risks:

Mitigation:

Y Scheduling

Milestone (NCEP)	Date	Status
Initial coordination with SPA team	12/20/2014 →01/31/2015 →4/13/2014	complete
EMC testing complete/ EMC CCB approval	2/01/2015 → 03/01→06/25	
Final Code Delivered to NCO	4/1/2015 →7/1/2015	
Technical Information Notice Issued	5/1/2015	
SPA begins prep work for 30 day test	4/6/2015 →6/6	
30-day evaluation begins	5/4/2015 →7/3	
30-day evaluation ends	6/2/2015 → 8/1	
IT testing ends	5/15/2015 →7/15	
Management Briefing	6/19/2015 →8/14	
Operational Implementation	6/23/2015 →8/18	

G Finances

Associated Costs:

Current: 16 nodes – 60 minutes
Future: 48 nodes – 60 minutes

Funding Sources: EMC Base and **Blender project**: T2O 24 Man-months NCO Base: 2 man-months for implementation, 1 man-month annually for maintenance

R	Management Attention Required	Y	Potential Management Attention Needed	G	On Target