Verification and Validation *Working Group*

Presented by

Tara Jensen, NCAR and DTC

Presented at SIP Coordination Meeting

January 31, 2018; College Park, MD

Verification and Validation WG
Membership

- **Tara Jensen,** NCAR and DTC **
- **Ivankja Stajner,** OSTI**
- **Geoff Manikin**, EMC**
- **Lance Bosart**, SUNY/Albany**
- **Mike Baldwin**, Purdue
- **Mike Bodner**, WPC
- **Michael Brennen**, NHC
- **Jan-Huey Chen**, GFDL
- **Bruce Entwistle**, AWC
- **Tabitha Huntemann**, MDL
- **Israel Jirak**, SPC
- **Mark Klein**, WPC
- **Arun Kumar**, CPC
- **Rolf Langland**, NRL

- **Tanya Peevey,** ESRL
- **Jason Otkin**, U of Wisc - Madison
- **Paul Roebber** U of Wisc.-Milwaukee
- **Hui Shao,** JCSDA
- **Joe Sienkiewicz**, OPC
- **Bonny Strong**, ESRL & DTC
- **Rodney Viereck**, SWPC
- **Zhuo Wang**, U of Illinois
- **Xuguang Wang**, OU
- **Betsy Weatherhead**, CU
- **Steve Weygandt**, ESRL
- **Fanglin Yang**, EMC
- **Zizang Yang**, CSDL
- **Linjiong Zhou**, GFDL

- Co-Chair **

Verification and Validation WG Project Milestone Accomplishments

- **SIP project accomplishments to date:** (13.1, 13.3, 13.5)
  - On track to deliver initial real-time MET+ system running on WCOSS
    - MET+ beta release available on Github
    - EMC global gridded and point VX on WCOSS by end of Mar18
  - Test plan and Metrics workshop: **Late July** – KEEP THIS IN MIND!!!
  - SOO based teams ready to evaluate
  - Steps to establish governance of repository included in DTC planning for next year

- **SIP project issues:** (13.2, 13.4)
  - Redesign of new METViewer database slowed waiting for addt'l supporting evidence that it's needed - METViewer is not upgraded and may not be
  - MET+ interface with UPP delayed and CROW will occur in stages
  - Not engaged with JEDI at the level needed to identify MET+ development requirements
  - Need more FTEs to address all that is required of this group right now

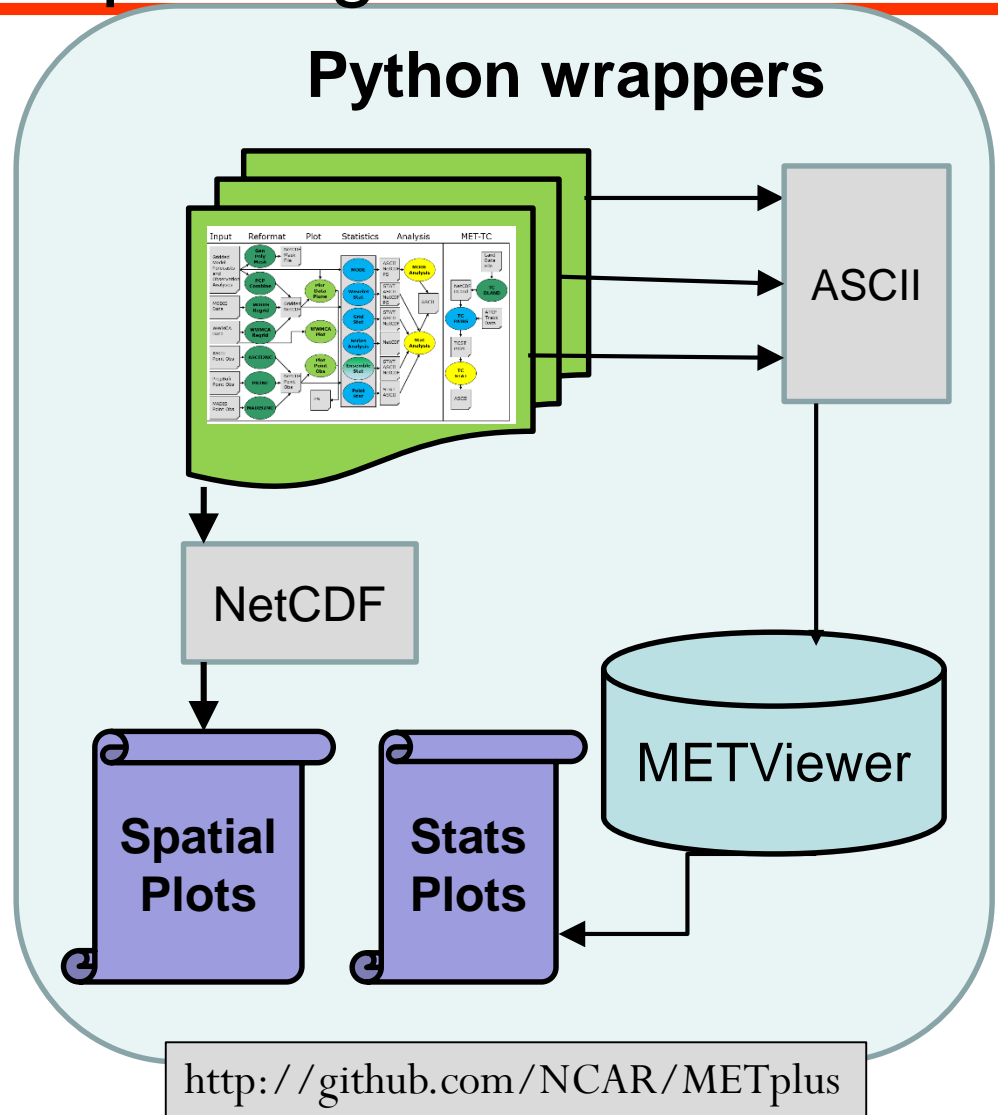# Verification and Validation WG MET+ package

- Python wrappers around MET and METViewer in GitHub
- Automated plotting of 2D fields and statistics (end of March)
- Cython will allow python modules to be used (end of June)

4 use-cases: Cyclone Track and Intensity, Track Plotting, QPF, and Feature Relative
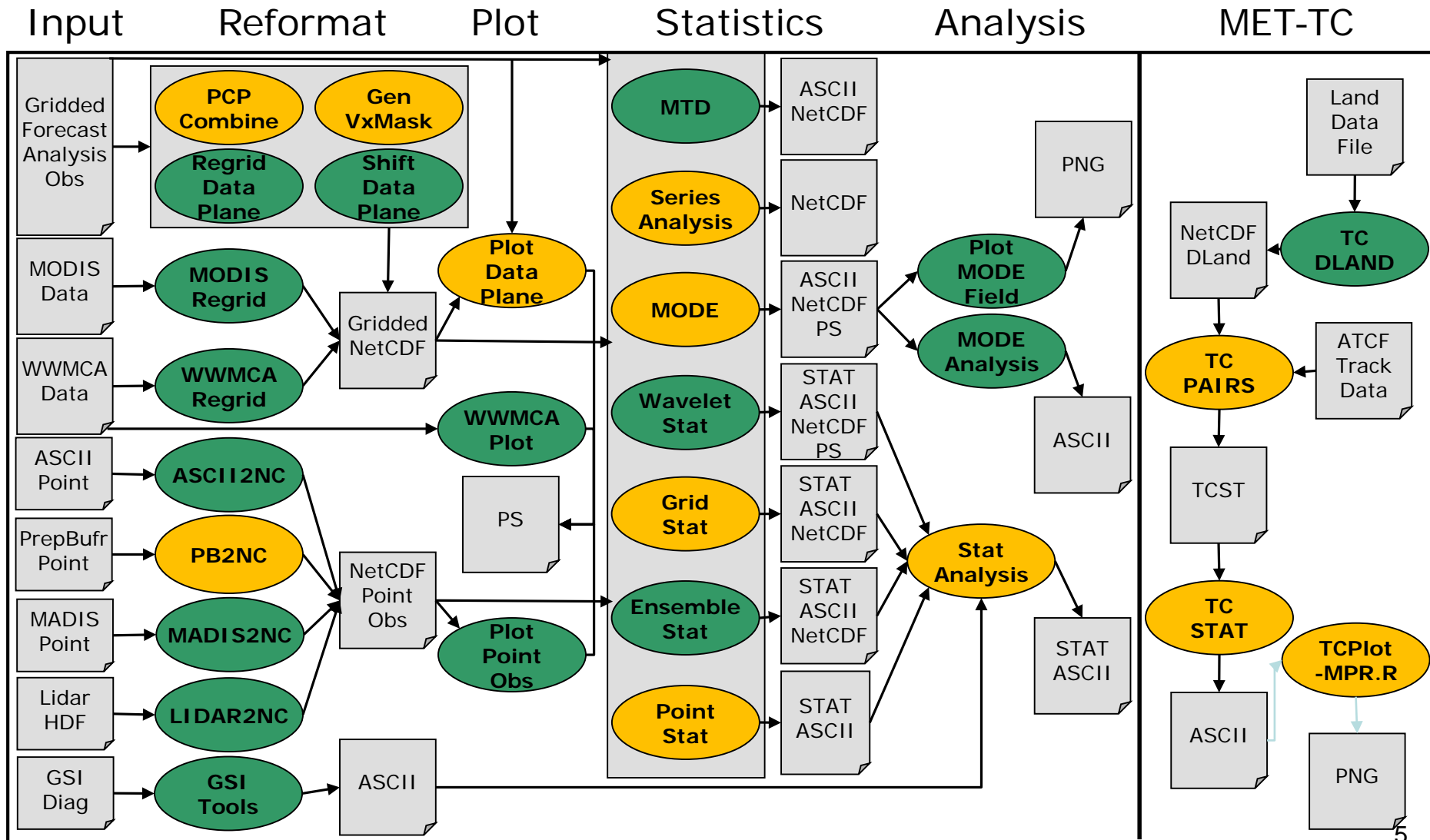
MET+ with 4 existing and 2-3 new Global Deterministic case to be available by mid-March

Running on WCOSS Dev soon

Python wrappers

ASCII

NetCDF

Spatial Plots

Stats Plots

METViewer

http://github.com/NCAR/METplus

Verification and Validation WG
MET C++ tools wrapped w/Python

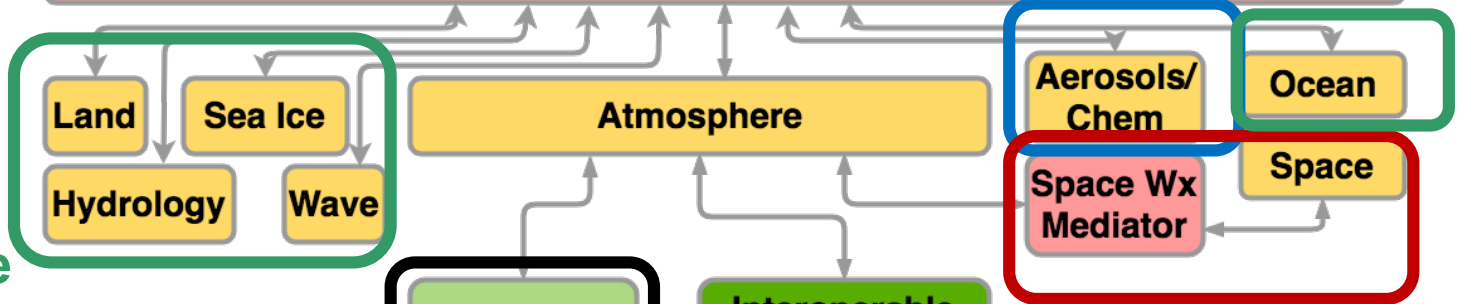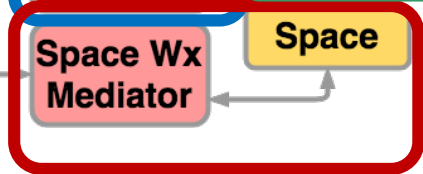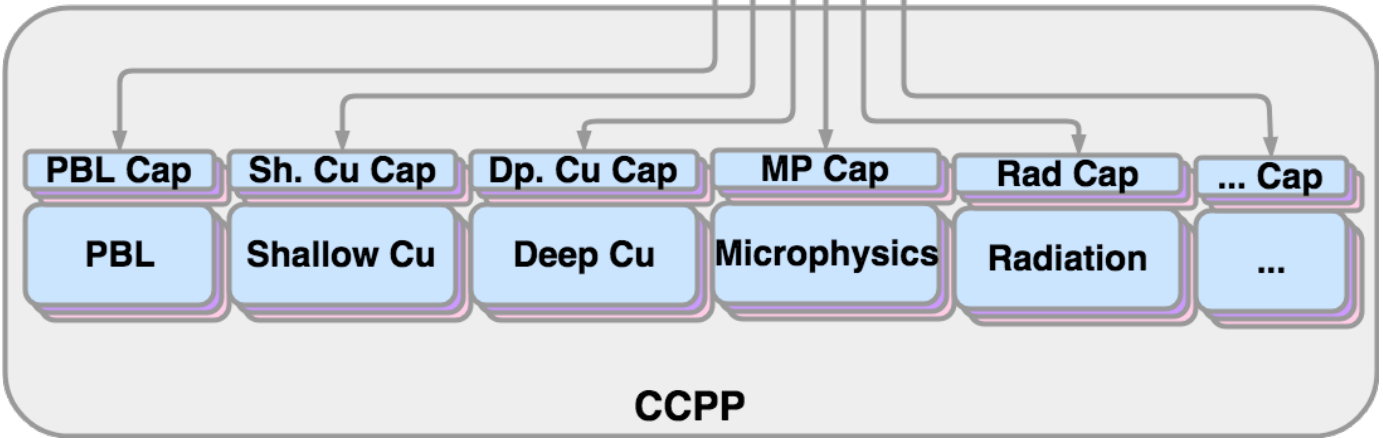# Verification and Validation WG Adding Additional Capability

In Progress

Already have pre-existing packages which we will link in
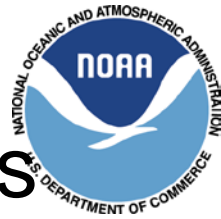
By end of March

Visit SWPC and NASA in Feb

Image courtesy of GMTB

Next year hoping to add more process-oriented diagnostics to aid in CCPP development

Verification and Validation WG
Team Coordination and Dependencies

- V&V team needs to be coordinated with all other WGs
  - Tight connection with Global, Physics, Ensembles, CAM and Aerosols & Atmospheric Composition
  - Just started working closely with Infrastructure
  - We've talked about being better connected with Post-Processing and System Architecture
  - Dynamics and Nesting connection through DTC tasks
  - Others have been on back-burner due to time constraints

NCWCP reserved 17-19 July 2018 for
Test Plan and Metrics Workshop *

*Is it preferred to be 3 days before NGGPS meeting (stay weekend)?
Sponsorship pending