Model Evaluation Tools (MET) tutorial

4 – 5 February, 2009

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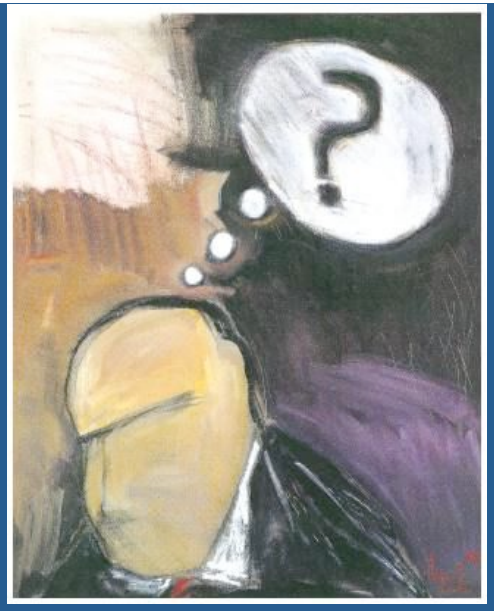
Support for MET is provided by
the Developmental Testbed Center (DTC),
NOAA
and
the Air Force Weather Agency (AFWA).

Who?



Presenting :
(In order of appearance)

- Tressa L. Fowler
- **John Halley Gotway**
- Tara Jensen
- Dave Ahijevych
- **Randy Bullock**
- Eric Gilleland

Involved but not present:

- Barbara G. Brown
- **Steve Sullivan**
- Lacey Holland (now at 3Tier)

- What?
  - Set of verification tools for evaluating forecasts via
    - standard statistics
    - object-based methods
    - scale decompositions

- Why?
  - Make verifiying easy.
  - Encourage verification.
  - Promote consistency across users.

- How?
  - A (unix like) package of software tools and scripts.
  - Community contributed methods, graphics, etc.

Schedule

Wednesday PM

Introduction
Installation instructions
Data types and formats
File preprocessing

Break

Verifying WRF with point
and grid observations

Break

Verifying WRF with point and grid observations

Thursday AM

Confidence Intervals

Verifying WRF with objects

Break

Defining and verifying with objects

Lunch

Thursday PM

Verifying WRF on different spatial scales

Verifying with wavelets

Break

Wrap Up
Suggestions

Lecture in Auditorium ***Practical session in classroom***

Wednesday PM

- **Intro – MET tutorial**
- **MET download and installation instructions**
- **Data types and formats**
  - Gridded forecasts
  - Gridded observations
  - Point observations
- **Intro to basic verification methods**
- **File preprocessing**
  - Ascii observations - ascii2nc tool
  - PrepBufr observations - pb2nc tool
  - Accumulating precip observations - pcp_combine tool
- **Verifying WRF with point and grid observations**
  - Point stat tool
  - Grid stat tool
  - Accumulating results over time - stat analysis tool
  - Interpreting output
  - Customizing output

Thursday AM

- **Confidence Intervals**
  - Normal Confidence Intervals
  - Bootstrap Confidence Intervals
  - Use and Interpretation

- **Verifying WRF with Objects**
  - Why use objects?
  - Defining objects
  - Matching and merging objects
  - Running the MODE and MODE analysis tool
  - Interpretation of MODE output

Thursday PM

- **Verifying WRF on different spatial scales**
  - Why use spatial scales?
  - Neighborhood methods
  - What are wavelets?
  - Using / customizing wavelet tool
  - Interpreting output of wavelet tool