



DEVELOPING A SPACE WX O2R CAPABILITY

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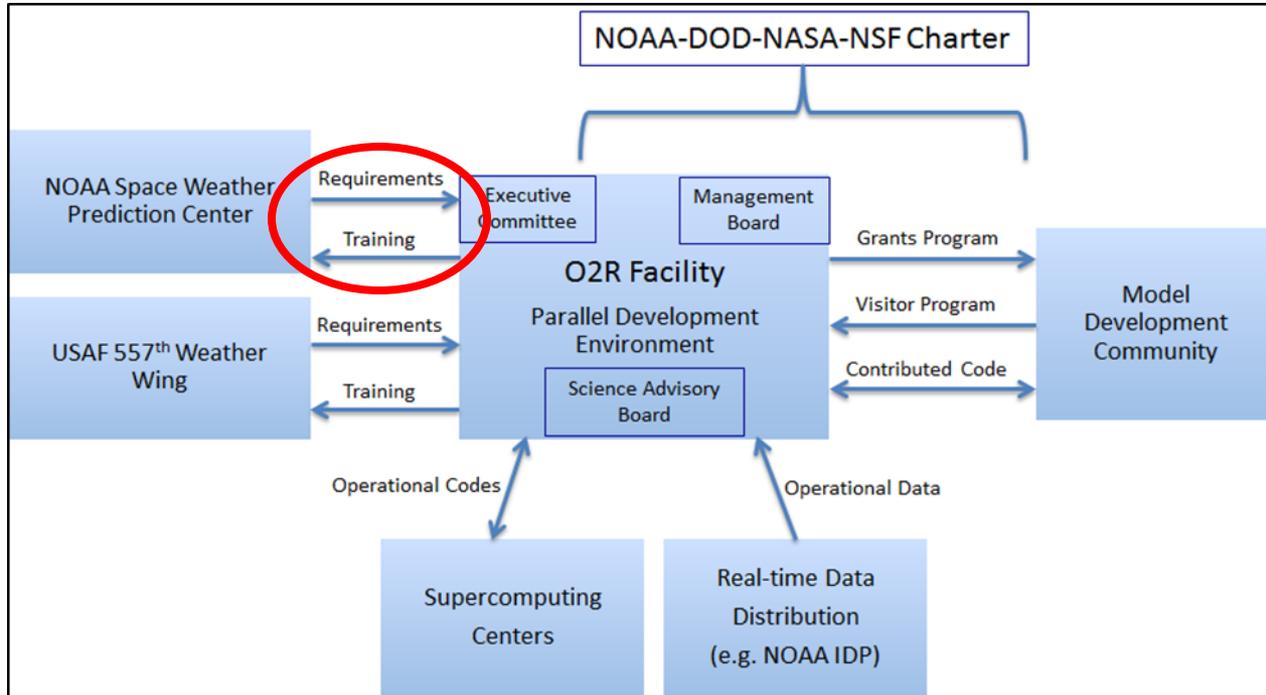


OUTLINE

Where am I? Who's who?
Collaboration
Evaluation
Training
Rob's Dream



THE NOTIONAL O2R CAPABILITY





O2R: Who is Operations? Who is Research? Who is 2?





THE IMPORTANCE OF COLLABORATION

Collaboration occurs:

Forecaster Involvement
↓

Publications

Conferences (Space Weather Workshop, etc) & Talks

Formal Training (CISM Summer School, SOON Exec Course, 557th Intro)

Through daily briefings at SWPC

An opportunity (for Feedback!):

Online communication (e.g. Listservs, forums)

Testbed interactions? (Displaced real-time simulations and evaluations)



THE IMPORTANCE OF EVALUATION

Every “case” is our “case”.

In the absence of ongoing model performance data

- O2R suggestions directed towards model improvements are
 - at best misguided
 - at worst counterproductive.
- there is an increasing likelihood that a given model will be
 - inappropriately applied
 - ignored altogether

Current *operational* forecast models at SWPC are not subject to long term, structured evaluation yet. Ad-hoc efforts are occasionally undertaken.



THE IMPORTANCE OF EDUCATION AND TRAINING

Where do forecasters come from?

Numerical models should not be “black boxes” .

Physics-based numerical models are not the only thing that’s needed.

Conceptual models (and understanding/insights)

Diagnostic tools / techniques (pre/post event).

Empirical tools / techniques (even if we don’t necessarily understand)



Rob's dream at this moment...

A **physical space** (testbed?) where forecasters and researchers sit down together and interact with space environment data and models, in real-time or **displaced-real-time**.

An informal, low-threat, **virtual space** for forecasters and researchers to exchange ideas, questions, issues (email list? Forum?)

Rigorous, ongoing model & forecast **evaluation**; with evaluation criteria defined not only by the forecasters, but also by the end-users.

Forecasters **writing, publishing** (e.g. Weather Forecasting, Journal of Operational Meteorology) themselves or co-authoring with researchers

Summary

Collaboration can come in a variety of ways.

Evaluation is essential to inform the process (deterministic and anecdotal)

Ongoing education and training should be considered a part of the R2O2R cycle.

