

Administrative Notes

- Welcome!
- For those on the phone, mute your phones during the talks
 - During Q&A, use “raise hand” option in GoToWebinar
- For those in the audience, silence your phones
 - During Q&A, use microphones in the aisles
- Facility: (1) Access and security; (2) Restroom locations
- Meals and coffee breaks (no food/drinks in auditorium!)
 - Working lunches on your own (or pre-order)
- Wifi (NOAAGuest): type your email into browser
- Safety and evacuation (see next slides)

Day 1 Review

- User needs
 - Many and various: water (worldwide). Need other variables . . . throughout ocean, ice, water domains
 - High-resolution on global scale for local impact, plus teleconnections
 - Reforecasts from multiple models, for multiple uses
- Agency capabilities: meeting some needs, not all
- Gap between
 - Large-scale features: blocking (and others?)
 - Better cloud simulation
 - Watershed scale info
 - Detecting small signals
 - Variation in predictability—when is it greater, or less (where?)
 - High-impact events, on-demand
- Other issues:
 - Need sane public/private policy
 - Community of practice to maintain corporate knowledge, training
 - Improve/focus scientific talent
 - Invest in hardware
 - Improve federal funding model: each agency appropriation separately, does not lend toward group objectives
 - Understanding global economic/humanitarian providers/competitors

Day 2 Goals

- Keep identified gaps in mind!
- Potential operational solutions
 - More frequent/extended NWP runs, more ensemble members, output parameters?
- Potential technological solutions
 - post-processing, analog, statistical-dynamical techniques?
- Research needs and opportunities beyond the immediate pipeline
- Breakout groups: discuss identified gaps vs. potential solutions
- Metrics: how do we measure how well we've done?
 - What metrics might demonstrate model performance/signal?
 - Should metrics be designed for specific regions/missions/time scales?
 - Can metrics/diagnostics provide fidelity of replicating a process, and lead to model improvement?

Expected results

Baseline needs and capability:

- Identify current agency operational capabilities for S2S prediction and how the agencies evaluate them (current metrics they are using)
- Identify user data and product needs (parameters, frequency, availability, reliability)
- Gaps between current capabilities and needs

Address gaps:

- Potential operational solutions to gaps (more frequent NWP runs, more ensemble members, more output parameters, better product design, etc.)
- Potential technological solutions to gaps (post processing, analog, statistical/dynamical methods, AI, etc.)
- S2S opportunities and research

Measure progress:

- Discuss usability, reliability and improved metrics (developer metrics and reliability metrics)
- Recommend metrics to measure progress in meeting community/user needs

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- Challenging agenda—please stick to times
 - Your participation in these working groups will help inform the workshop report and policy recommendations
 - Begin with goal in mind:
 - Recommendations for operational community
 - Research directions forward