

Discussion on Observational Needs

AMS Washington Forum

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Discussion on Observational Needs

- A Few of the Priorities:
- Next Generation Global Prediction System – Observations, Compute, Code
- Accelerate Research-to-Operations
- Cost-Benefit Analysis on Observational Systems



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How to improve forecast skill...

- Observations
- Quality control
- Data assimilation
- Dynamic core and model physics



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Observations are not created equal

- Observing system experiments
- Forecast sensitivity to observations
- Cost-benefit analysis



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Ocean observations are needed

- Ocean observations
- Ocean model data assimilation
- Two-way coupled models



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The global observation network

- Geographic data voids
- Data sharing
- Public-private sustainable business models



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What other observations are out there?

- New space-based data
- Smartphone observations
- Aircraft-based observations
- Crowd-sourced data
- Unconventional automated systems



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Ideas to accelerate research-to-operations

- Virtual machines (cloud HPC) for parallel development
- Fast-tracking satellite DA
- Improves forecast skill sooner
- Drives up benefit in cost-benefit ratio



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Thank You!



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