



# Ensemble based products, probabilistic IDSS, and post processing

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# Discussion points

- The data, the whole data, and nothing but the data
  - Developers - NHC example - never know where innovation will emerge.
  - Format - More tools to read NetCDF but NOAA is required by WMO to send out Grib2
- Visualization
  - Benefits for NCEP to display ensemble products as others don't have bandwidth to download all ensemble data
  - Without better visualizations, leaving a lot of value on the floor. Balance by making full data avail, let private sector leverage for full potential.
- Sectoral support
  - Many customers → Different needs → many products.
  - How much can we pre-generate, how can we help customers, help themselves?
  - Emerging trends in sectors (e.g. - Marine is growing/underserved)
- Post-processing
  - Observations are key. Without good obs/truth, post-processing is hampered.
  - Grids vs points - depends on the users (see prior point). Marine highlighted
  - AI/ML - need longer datasets
- Reanalysis/reforecast
  - Critical - why not for regional models as well? Something to work toward.
  - Help with extreme/rare events - a growing part of the IDSS portfolio.



# Takeaways

- Modeling centers need better ways to share the full resolution data.
  - Facilitate interactions with forecast operations and R&D community.
  - Current, core dissemination paths are full/tightly managed. Is cloud the answer?
- Probabilistic IDSS
  - Ensembles enable scenario interrogation, helps build narratives for outreach. How can post-processing help highlight these scenarios?
  - Forecaster interrogation for scenarios and IDSS. DESI and WSUP help - what else do those need from the ensemble datastream?
  - Collaborative knowledge building with partners - What question are they trying to answer?
- Post-Processing
  - Reforecast length - longer is better
  - Methodology and tool sharing (promote innovation, reduce duplication, empower more)
- AI strategy- What's the NOAA strategy for AI within NWP realm?