February 13-14 Winter Storm: An Example of an Analog System's Benefits

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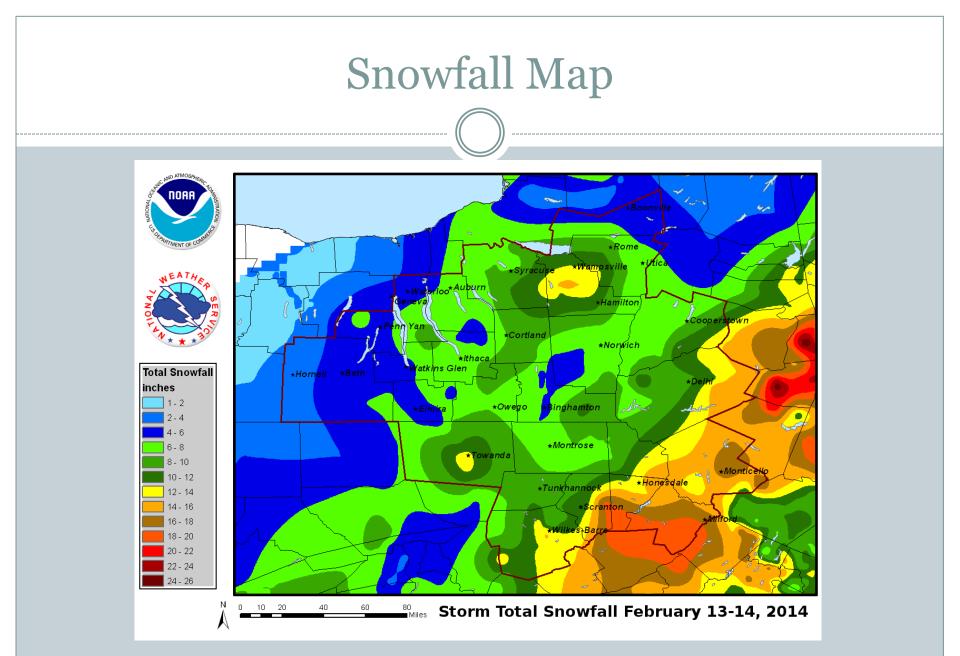
Outline

- Brief Storm Synopsis
- Model Comparisons
- SLU Analog Output
- Summary/Conclusions

Storm Synopsis

• Evolution of Key Mass Fields

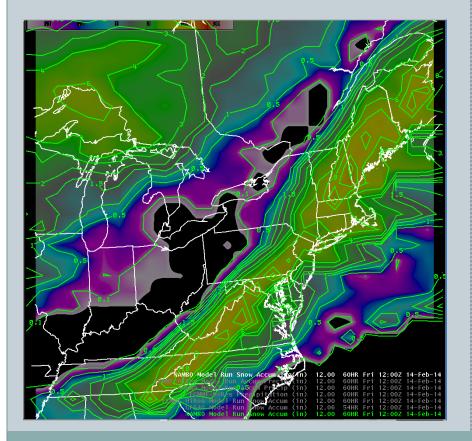
- o 500 mb Heights
- o 700 mb Heights/Frontogenesis
- o MSLP
- Radar Loop
- Snowfall Map

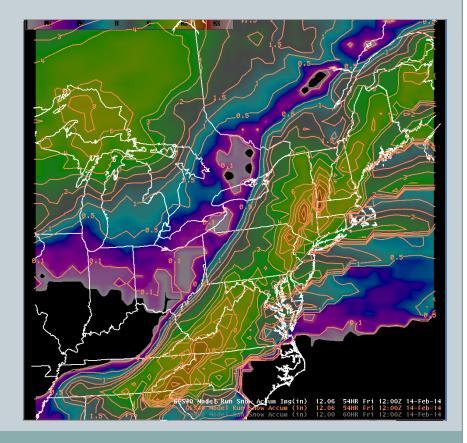


Model Comparisons

NAM Total Snow, Valid 12z, 14 Feb 14

GFS Total Snow, Valid 12z, 14 Feb 14

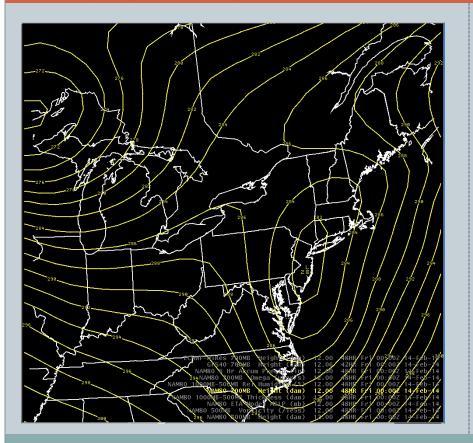


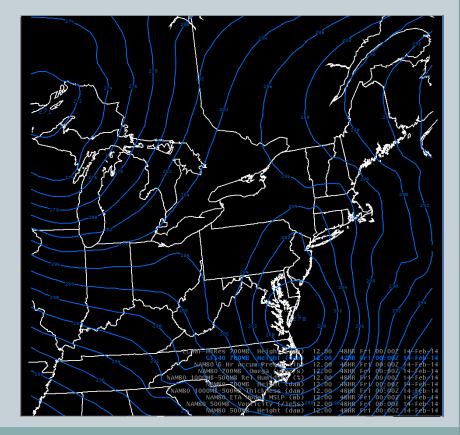


More NAM/GFS Comparisons

NAM 700 mb Prog, Valid 00z, 14 Feb 14

GFS 700 mb Prog, Valid 00z, 14 Feb 14

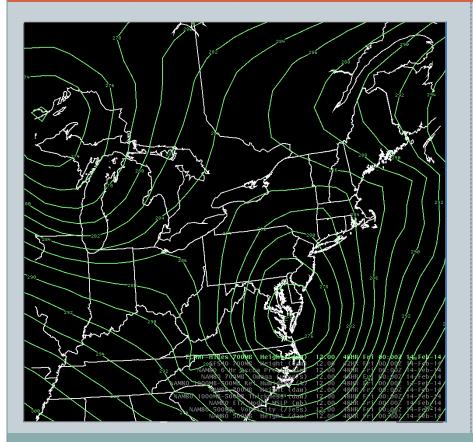


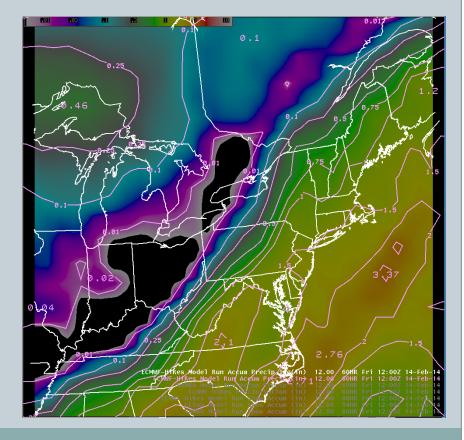


European Model

EC 700 mb Prog, Valid 00z, 14 Feb 14

EC Run-Total Pcpn, Valid 00z, 14 Feb 14





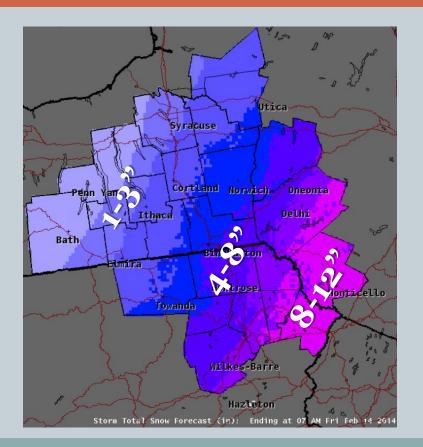
SLU Analog Data

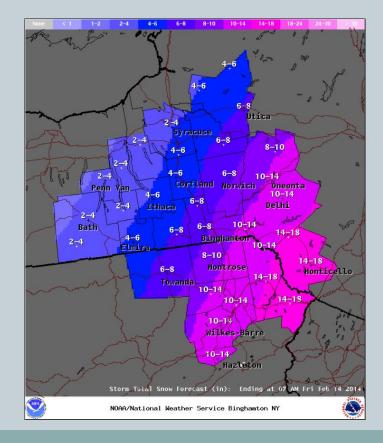
 Best-fit analogs for the NAM/GFS within the storm life cycle (forecast hours 36 to 72 - Watch/Warning Phases)

WFO BGM Forecasts

As of 6 am, 12 Feb 14

As of 3 pm, 12 Feb 14





Summary/Conclusions

- Amidst significant model flux/discrepancies, SLU Analog data lended confidence to both the EC scenario, as well as forecaster pattern recognition
- Analogs showed that the NAM/GFS mass fields supported potentially heavy snowfall for at least southern and eastern portions of the CWA, despite suppressed and inconsistent QPF progs