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

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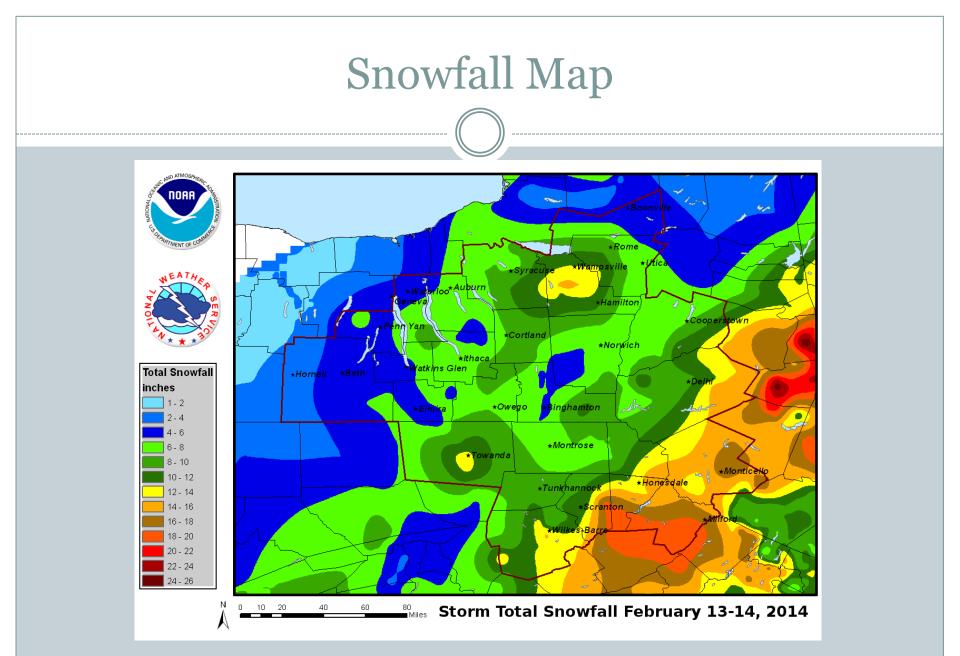
# Outline

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

# **Storm Synopsis**

### • Evolution of Key Mass Fields

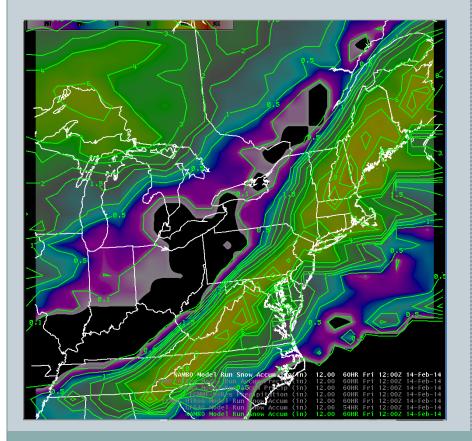
- o 500 mb Heights
- o 700 mb Heights/Frontogenesis
- o MSLP
- Radar Loop
- Snowfall Map

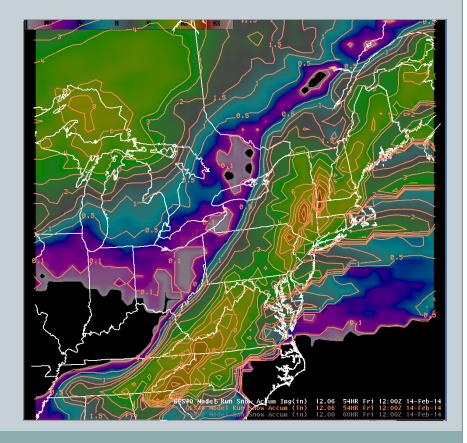


# **Model Comparisons**

### NAM Total Snow, Valid 12z, 14 Feb 14

### GFS Total Snow, Valid 12z, 14 Feb 14

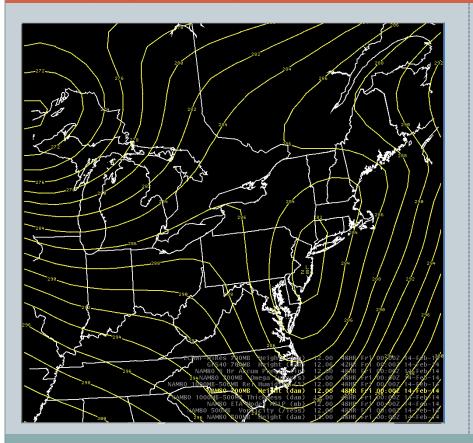


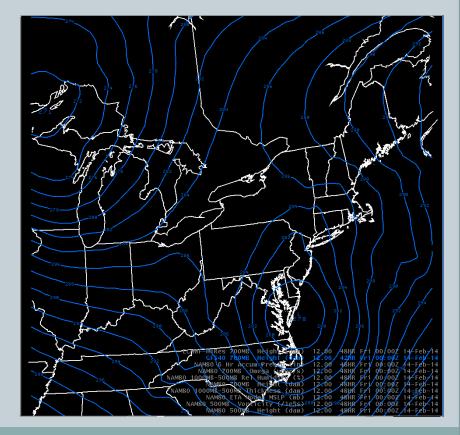


# More NAM/GFS Comparisons

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

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

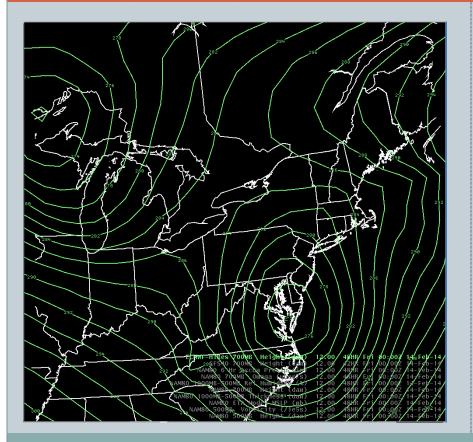


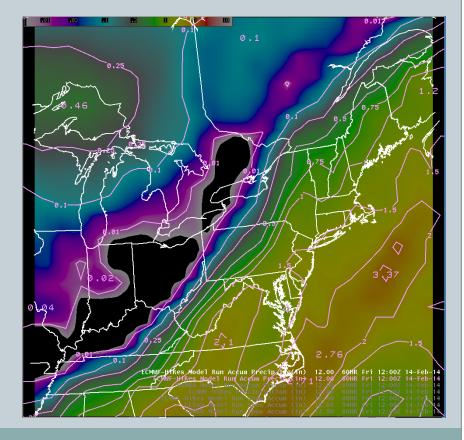


### European Model

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

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





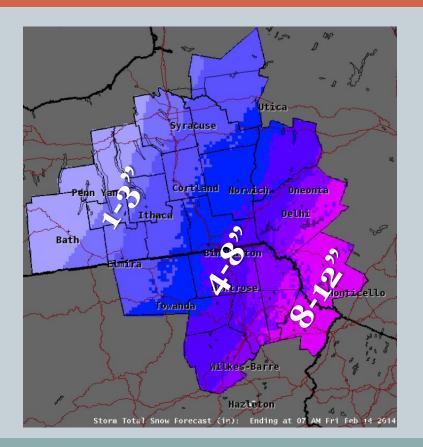
# **SLU** Analog Data

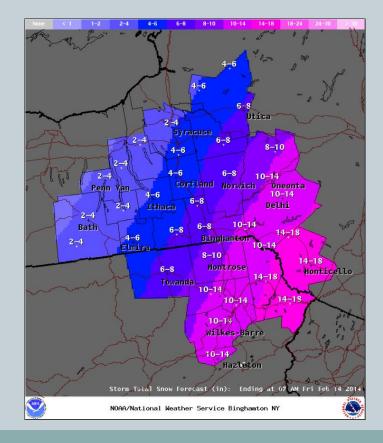
 Best-fit analogs for the NAM/GFS within the storm life cycle (forecast hours 36 to 72 - Watch/Warning Phases)

### 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