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# **NOAA's National Weather Service Vision for Digital Forecasting**

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***Greg Mandt***

*Director, Office of Climate, Water and Weather Services*

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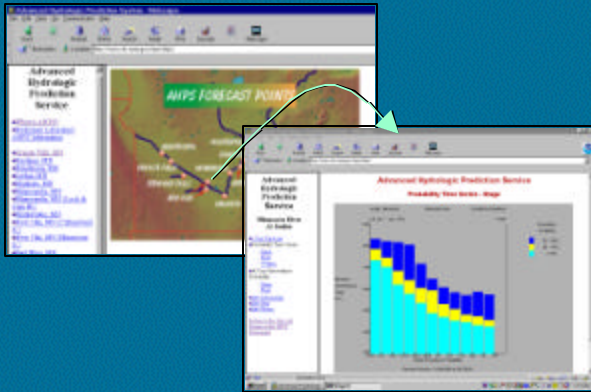
***American Meteorological Society***

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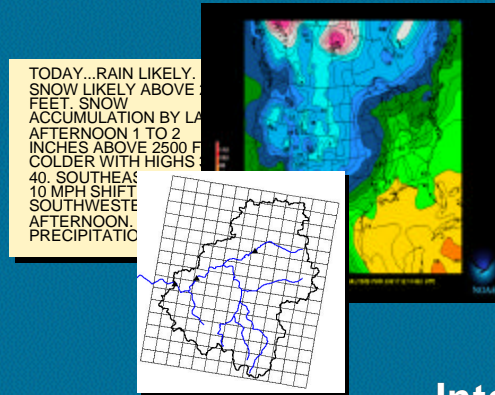
*February 9, 2003*

# Digital Forecasting Today - Initial Capabilities

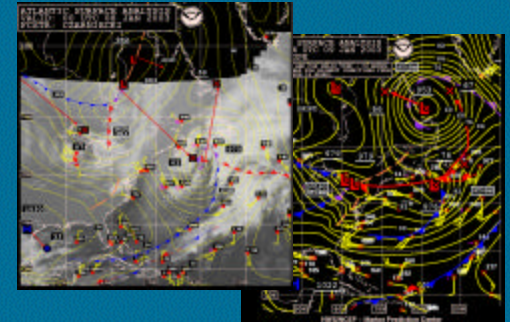
## Advanced Hydrologic Prediction Services Deployment



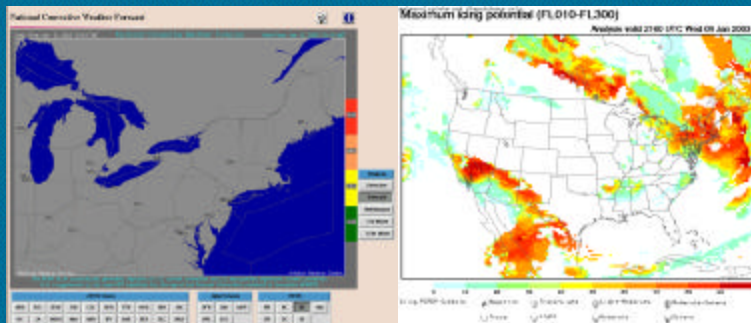
## National Digital Forecast Database Grid Mosaics



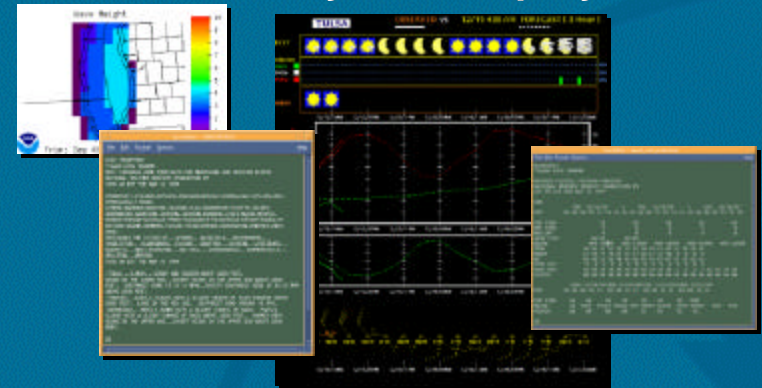
## Marine Techniques at National Centers for Environmental Prediction



## Aviation Techniques at National Centers for Environmental Prediction



## Interactive Forecast Preparation System Deployment



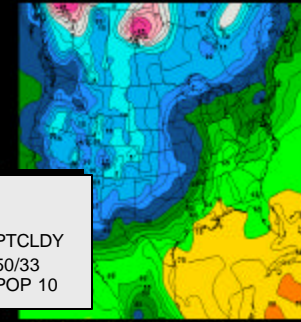
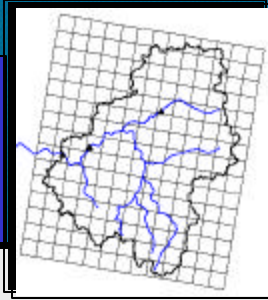
# Digital Forecasting Today - Product/Service Improvements

## Wide Array of Data

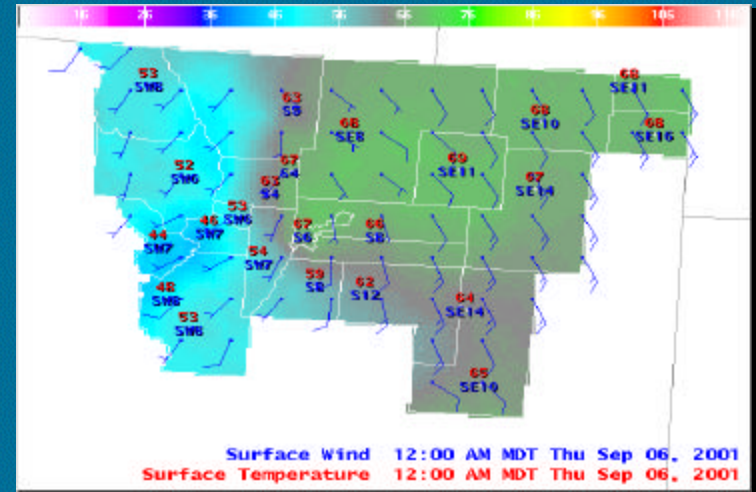
TODAY...RAIN LIKELY. SNOW LIKELY ABOVE 2500 FEET. SNOW ACCUMULATION BY LATE AFTERNOON 1 TO 2 INCHES ABOVE 2500 FEET. COLDER WITH HIGHS 35 TO 40. SOUTHEAST WIND 5 TO 10 MPH SHIFTING TO THE SOUTHWESTEARLY THIS

MARYLAND EASTERN SHORE  
EASTON

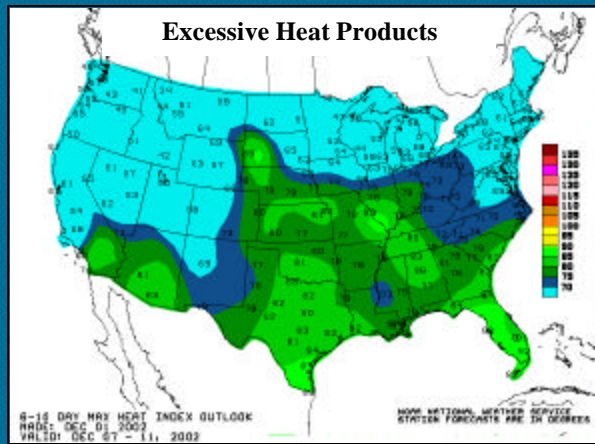
PTCLDY	CLOUDY	PTCLDY	PTCLDY	SUNNY	PTCLDY
60/52	63/54	65/47	55/40	55/37	50/33
POP 20	POP 20	POP 20	POP 20	POP 10	POP 10



## Grids/Graphics Facilitate Communication of Forecast Information



## Direct and Interactive Access to Products



## Increased Temporal/Spatial Resolution

# **10-25 Year Vision – A New Digital Dimension**

***Provision of Data and Services through a  
4-dimensional digital forecast database***



***Current advances will lead to broad changes in forecasting  
and decision-making support***

# Flagship Product – 4-D Digital Database

- Integrated database
- Uncertainty metrics
- Frequent updates
- Observations
- Human Forecasts
- Model Output
- Climatological Datasets
- Gridded warnings and outlooks for risk levels



# Future Product/Service Sources

- **NWS-disseminated products**
- **4-D database accessible to all**
- **Private-sector tools/techniques to support decision-making needs of individuals and organizations**

**Road to future depends on private meteorological organizations and academia to turn the 4-D database into broad array of public services**

