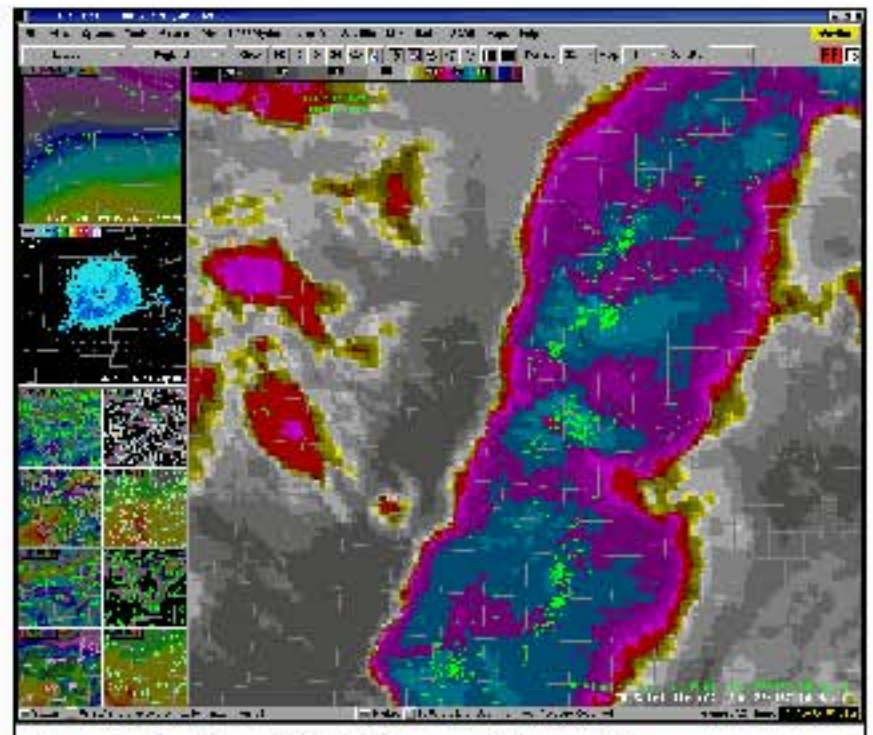
FORECASTING

The National Weather Service has modernized its operations by bringing the newest and fastest technology into the forecast office and integrating it into the forecast process. One use of technology to support the forecast process is Interactive Forecast Preparation (IFP). IFP is an interactive, graphic means of defining the forecast state of the atmosphere from a digital database of forecast values, and from these data, automatically generating forecast products that can be disseminated after forecaster review. Initialization of the digital forecast database is prepared from statistical and numerical models such as Model Output Statistics (MOS) and the Eta model, as well as previous forecasts or manually prepared forecast grids from the National Centers for Environmental Prediction (NCEP). From the initial forecast, IFP tools allow the forecaster to interact graphically in order to modify the database into its final form. IFP enables forecasters to produce a range of machine-generated products with greater spatial and temporal detail. The computer (i.e. AWIPS) formats the forecast into a suite of products for dissemination such as text, voice-ready, and graphics.



Example of the AWIPS 4-panel Screen Forecasters use.

Some people think that a good forecast is luck...

but a lot of time and thought goes into the forecasting here at North Platte.

Public Products

- Zone Forecasts
- Short Term Forecast
- Hazardous Weather Outlook
- Area Weather Summary
- Special Weather Statement
- Area Forecast Discussion

Winter Weather/ Non-Precipitation Products

- Winter Storm Warning/ Watch/Advisories
- Non-Precipitation Watches/ Warnings/Advisories

Aviation Products

- Terminal Aerodrome Forecast
- Transcribed Weather Broadcast
- Hydrological Products
- Flood Watches/Warning/ Statement
- Flash Flood Statement

Convective Severe Weather

- Tornado Warning
- Severe Thunderstorm Warning
- Severe Weather Statement

Other Products

- Climate Summary
- Regional Temp and Precipitation Summary
- Public Info Statement
- Local Storm Report
- Fire Weather Forecast

Benefits of Interactive Forecasting Preparation

- **More Time, More Science**

Less typing and the ability to create many different forecast products from one database

- **Extra Hand**

During conditions of severe weather, the AWIPS IFP capabilities can become an "assistant" in the preparation of routine forecast products.

- **Consistent Data Source**

AWIPS will offer automated consistency checking , monitoring, verification, and quality control .

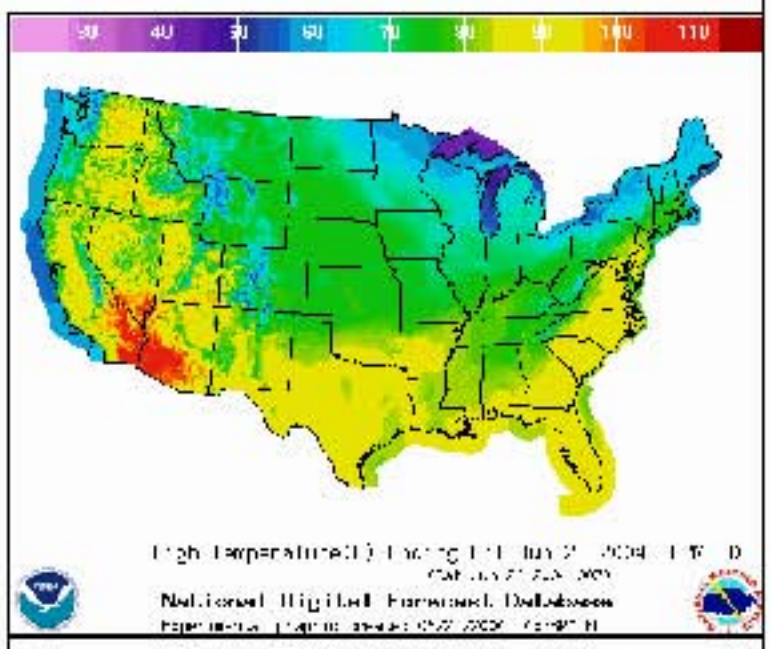
- **Facilitate Intersite Coordination**

Portions of a site's digital forecast database can be sent to neighboring sites to produce composite displays.

Text Based Forecasts are generated from the NDFD grids to produced by the local office.

The grids consist of:

- Maximum Temperature
- Minimum Temperature
- Surface Temperature
- Dew point
- 12 hour probability of precipitation
- Sky cover
- Wind direction and speed
- Quantitative precipitation forecast
- Snow Accumulation
- Weather



Example of a high temperature graphic created by the National Digital Forecasting Database.