



# Maximizing AWIPS Procedures

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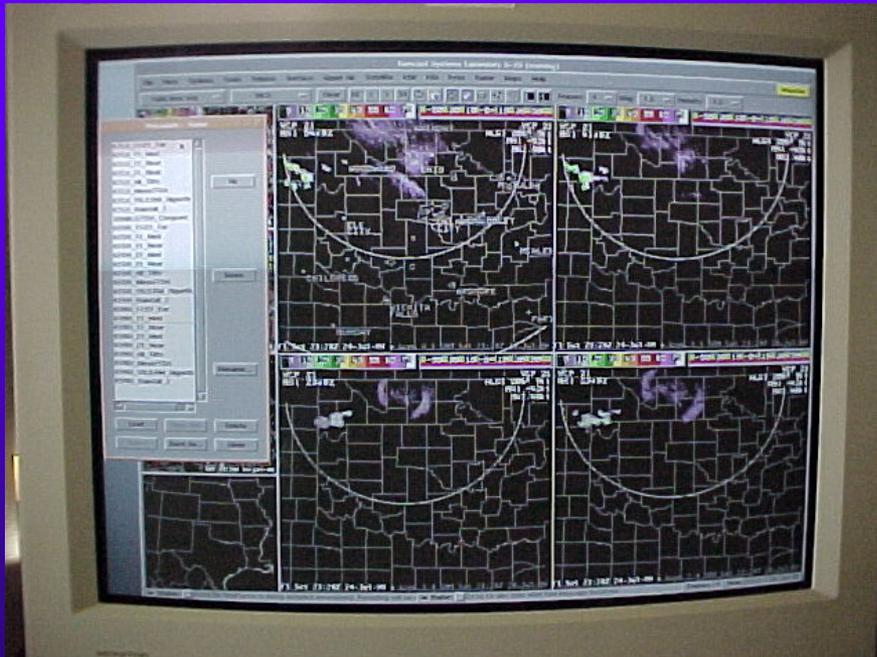




# *Why Procedures?*

*Procedures allow rapid construction of complex displays with customized product combinations, colors, magnifications, densities, and fade/overlay characteristics.*

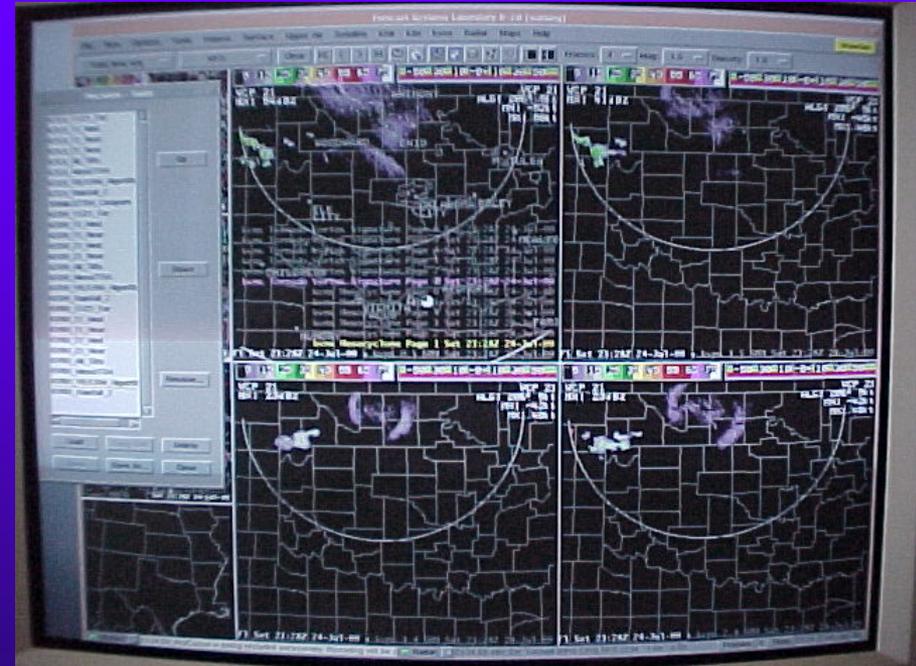
# Four Panel Z/SRM Only



- ◆ Displayed by hand from menus...22 seconds
- ◆ Using a procedure... 12 seconds

# Four Panel Z/SRM, Meso, TDA

- ◆ By hand using menus...37 seconds
- ◆ Using procedure ...12 seconds



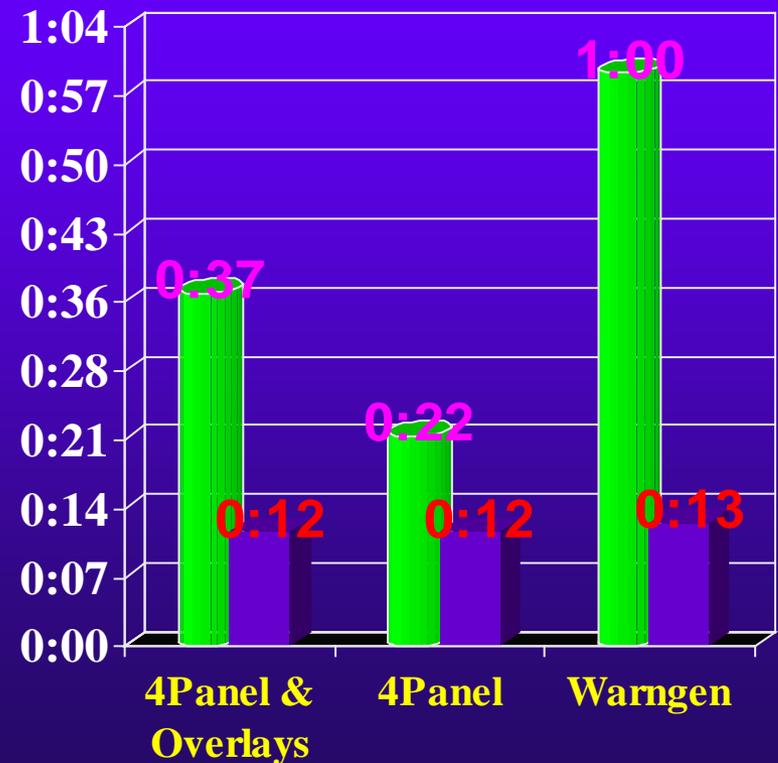
# Custom Warngen Display

- ◆ By hand using menus... 60 seconds
- ◆ Using a procedure... 13 seconds



## *The Bottom Line...*

- ◆ Procedures, on average, load displays 2 to 4 times faster than can be accomplished through menus.

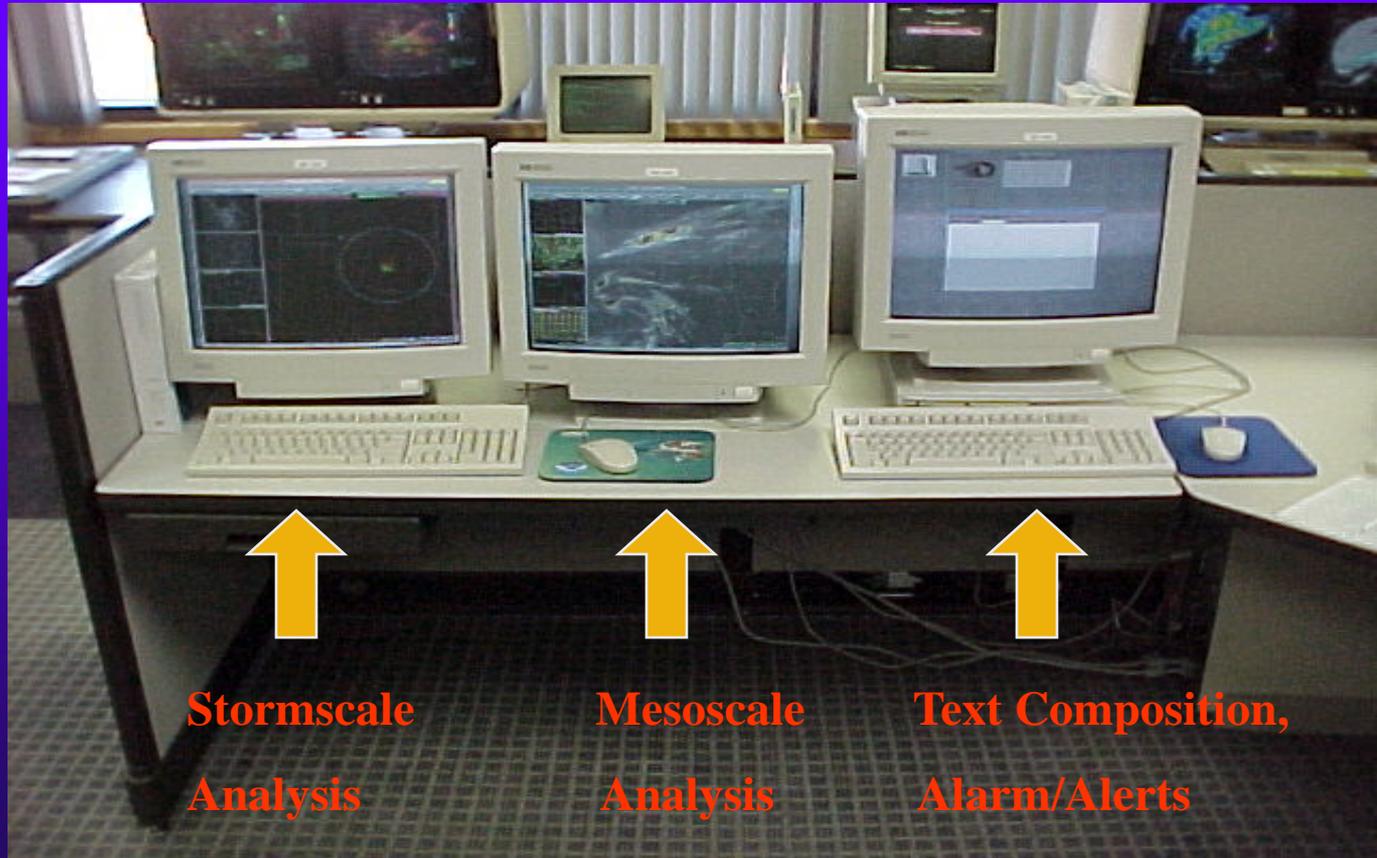




## *Considerations for Development*

- ◆ Series of procedures to construct meso analysis display.
- ◆ Series of procedures to construct radar/storm scale analysis displays.
- ◆ Procedure(s) to construct display for **WARNGEN**.

# *Consider the following Workstation*





## *The Mesoscale Analysis Display...*

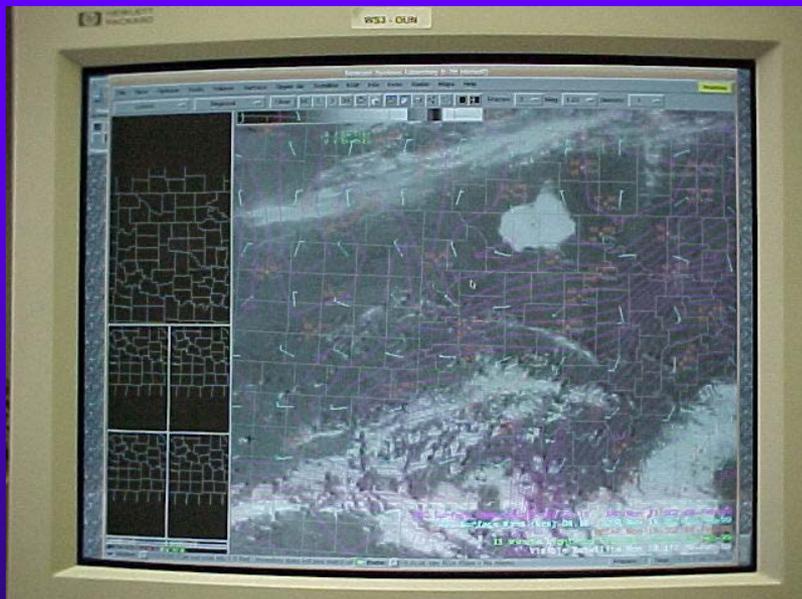
- ◆ Located adjacent the text workstation to facilitate warning preparation
- ◆ Operated in 3 pane mode
- ◆ Panes contain a variety of mesoscale data sets that allow the forecaster to maintain a high level of situational awareness with respect to mesoscale boundaries, CAPE, shear, and watches/warnings/advisories



## *The Mesoscale Analysis Display...*

This display is used to: 1) assess the spatial and temporal evolution of the mesoscale convective environment; and 2) provide pane for WARNGEN polygon manipulation.

# *The Mesoscale Analysis Display...*



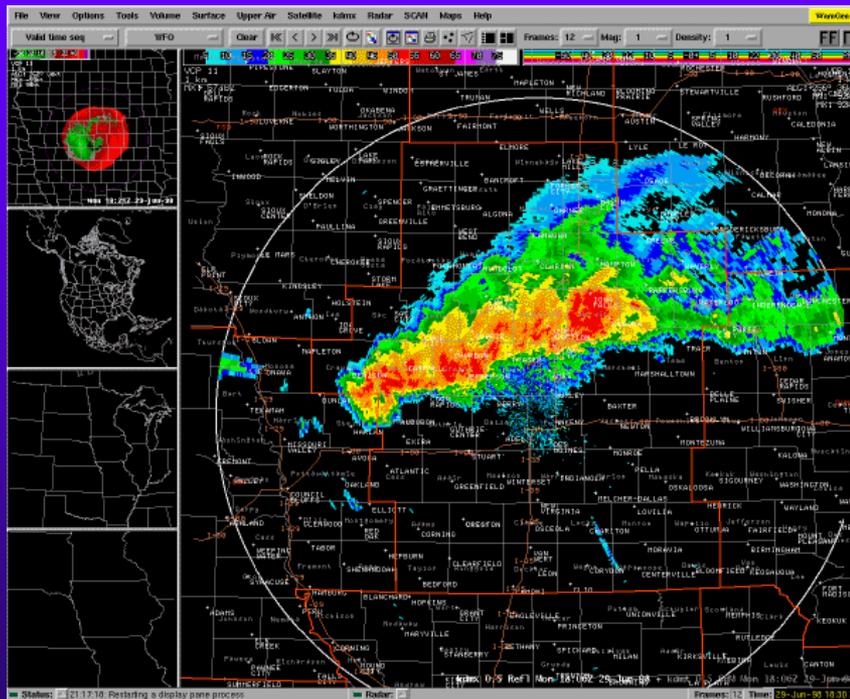
- ◆ Regional Overview
  - Goes IR or VIS on regional scale
  - 15 min lightning
  - MSAS, RUC, LAPS shear and buoyancy fields
  - MTRs, profilers, SPC watches

# *The Mesoscale Analysis Display...*



- ◆ WFO Overview
  - State scale Z or Mosaic
  - 5 min lightning
  - Local Warnings
  - 6 to 7 frame loop
  - Interstate, CWA, County maps

# *The Mesoscale Analysis Display...*



- ◆ **WARNGEN Window**
  - WFO scale Z/SRM
  - City and custom maps
  - 6 to 7 frame loop
  - Restart WARNGEN after each use



## *The Stormscale Analysis Display...*

This display is used to assess the 4D (spatial and temporal) evolution of severe convective storms from the perspective of one or more radars.

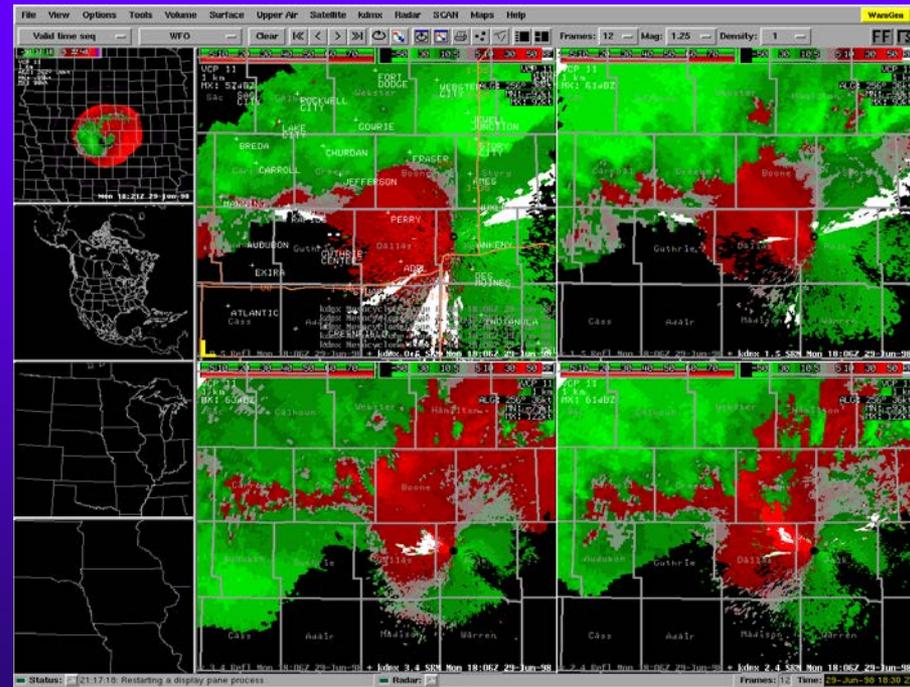


## *The Stormscale Analysis Display...*

- ◆ Located farthest from the text workstation
- ◆ Operated in 5 pane mode
- ◆ Panes contain a variety of radar products with an emphasis on those used to assess storm structure and hazard identification

# *The Stormscale Analysis Display...*

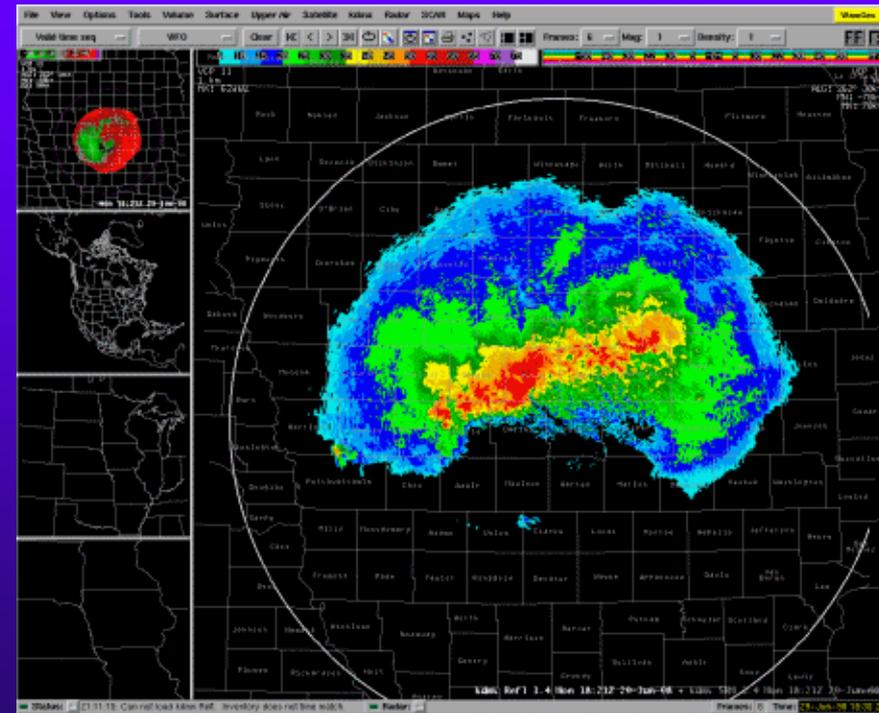
- ◆ Four panel Z/SRM combined imagery
  - Limit to 3-6 frames
  - Lowest four angles + any other angle combo needed for vertical sampling
  - Use image fade, time lapse, and cursors



# *The Stormscale Analysis Display...*

## ◆ All Tilts Z/SRM

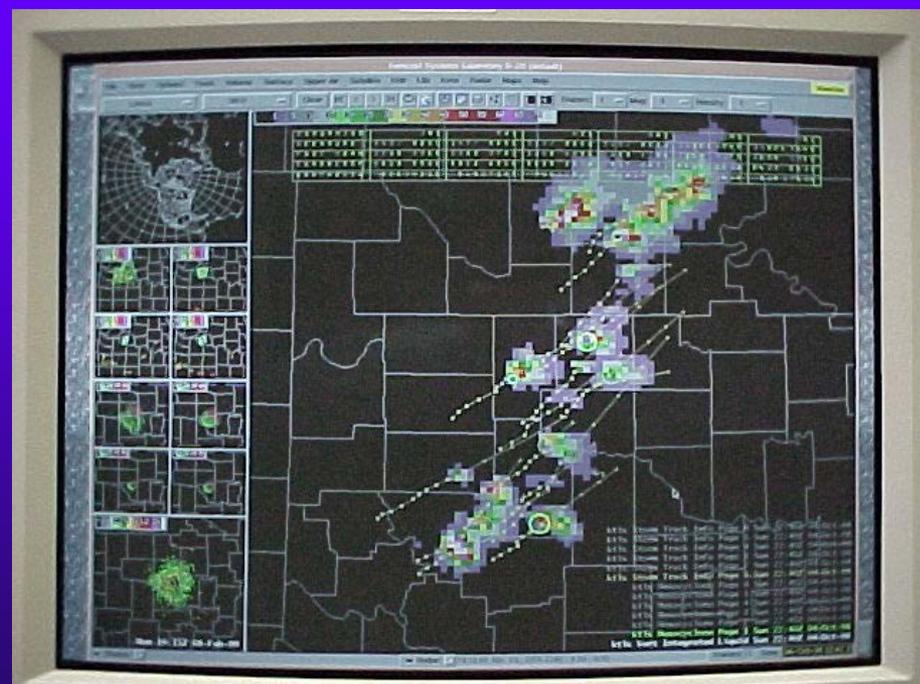
- Pick sufficient frames to include all angles
- Creates vertical loop
- Quick way to see all base data
- Minimal distortion when zoomed
- Displays most recent volume scan and auto updates





# *The Stormscale Analysis Display...*

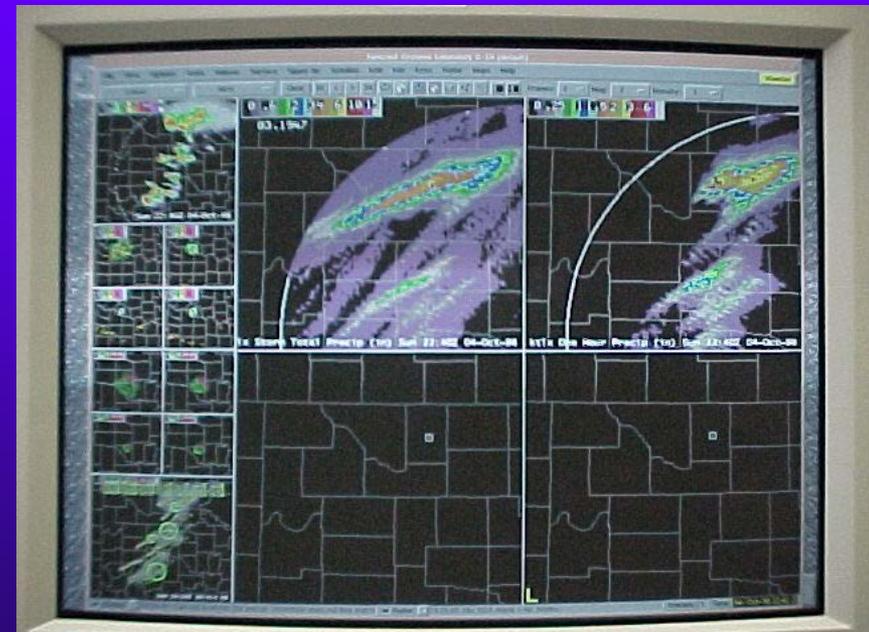
- ◆ Algorithms/SCAN
  - Select 6 or 7 frame loop
  - Start with SCAN, VIL, CR, or LRM
  - Overlay Meso, TVS, Hail, etc.



# *The Stormscale Analysis Display...*

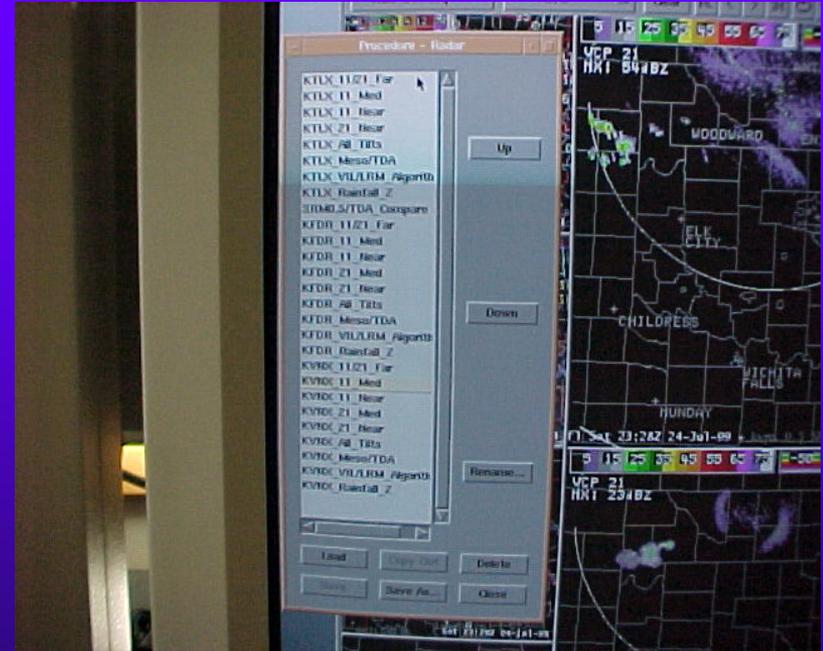
## ◆ Miscellaneous Fields

- Select 6 or 7 frame loop
- Precipitation products
- 4panel VIL, ET, CR, LRM, other radars
- Image combine Z/OHP



# *Hints for Operational Use*

- ◆ Place procedure dialog on left or right display margin or minimize.
- ◆ Stretch procedure dialog box to display all procedure options.





## *Hints for Operational Use*

- ◆ Modify *density* and *magnification* to more easily view cities.
- ◆ Set *frame count* in procedure.
- ◆ Vary *line thickness* to improve map contrast.
- ◆ Vary map *colors* and map overlay precedence to enhance usability.



## *Hints for Operational Use*

- ◆ Set overlay toggle in procedure to de-clutter display.
- ◆ Consider creating generic account for warning operations.
- ◆ When constructing Z/SRM procedures, toggle display to fully Z or SRM in the procedure.