



# Issues in Tactical Weather Support

Kevin R. Petty  
William P. Mahoney

National Center for Atmospheric Research (NCAR)

MDSS Stakeholder Meeting #9  
NWS Training Center  
Kansas City, MO  
19 September 2007



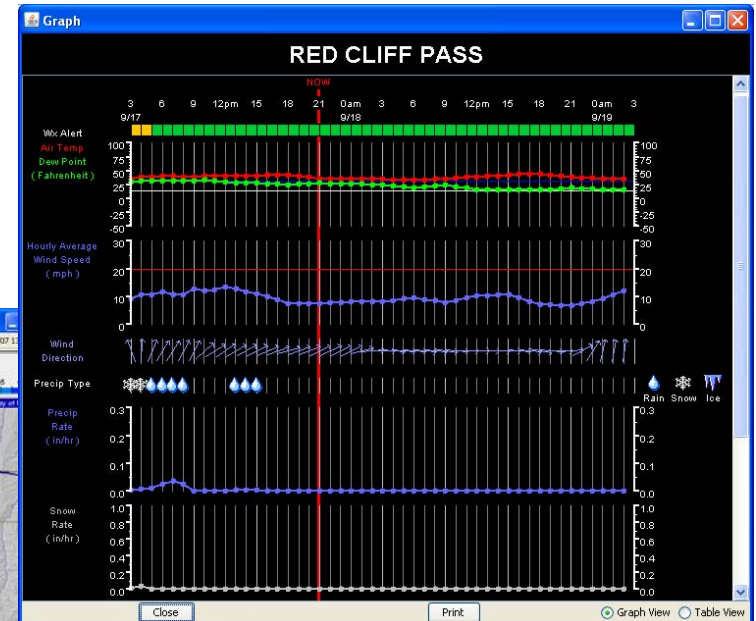
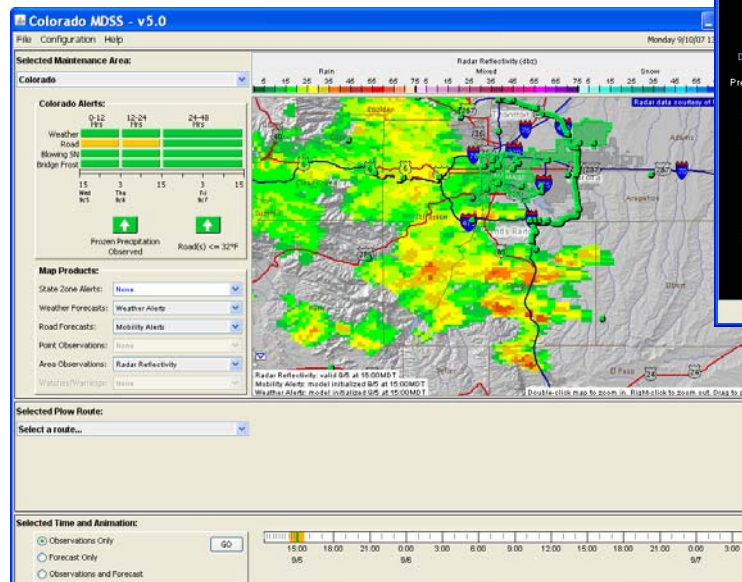
## Tactical Versus Strategic

### ❖ Tactical

- Near real-time (0 to 3 hrs)
- Ensure effective response to critical situations

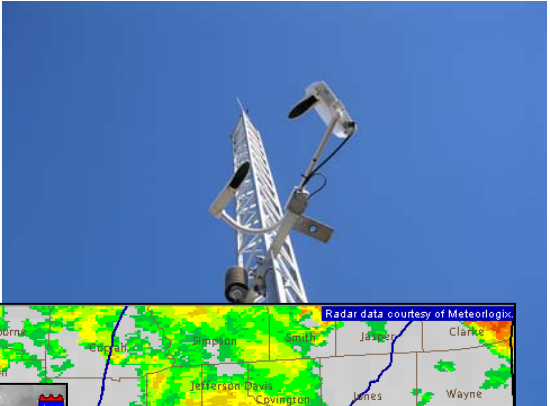
### ❖ Strategic

- Several hours to days
- Support the planning decision process





# Tactical Data



## ❖ Observations

- Road Weather Information System (RWIS)
- Automated Surface Observing System (ASOS)
- Automated Weather Observing System (AWOS)

## ❖ Radar Data

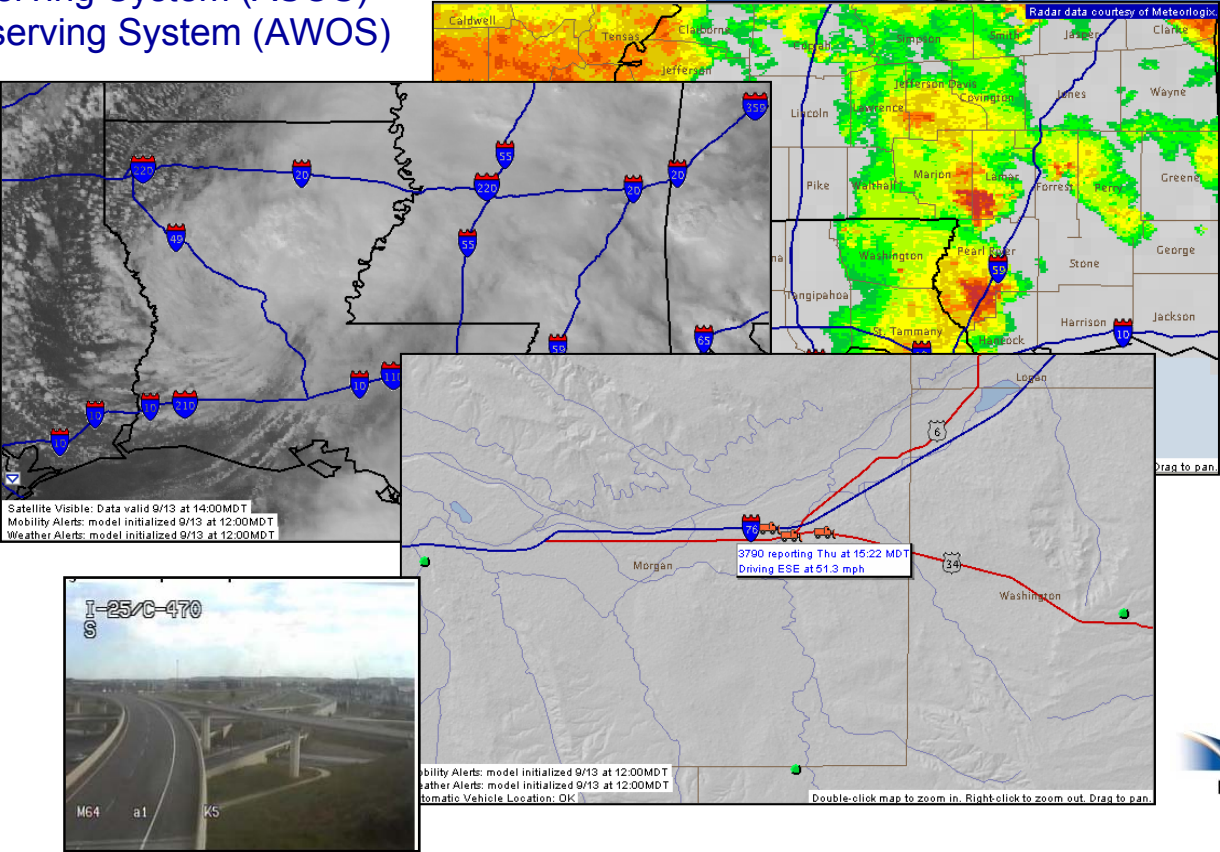
- Reflectivity
- Velocity fields

## ❖ Satellite Data

- Visible
- Infrared
- Water Vapor

## ❖ Video Cameras

## ❖ Mobile Data





## Issues and Challenges

### ❖ Using Tactical data to develop applications and products (e.g., Alert Generation)

#### ○ Data availability

- Poor coverage (e.g., precip)
- Sensor maintenance
- Communication channels

#### ○ Disparate data

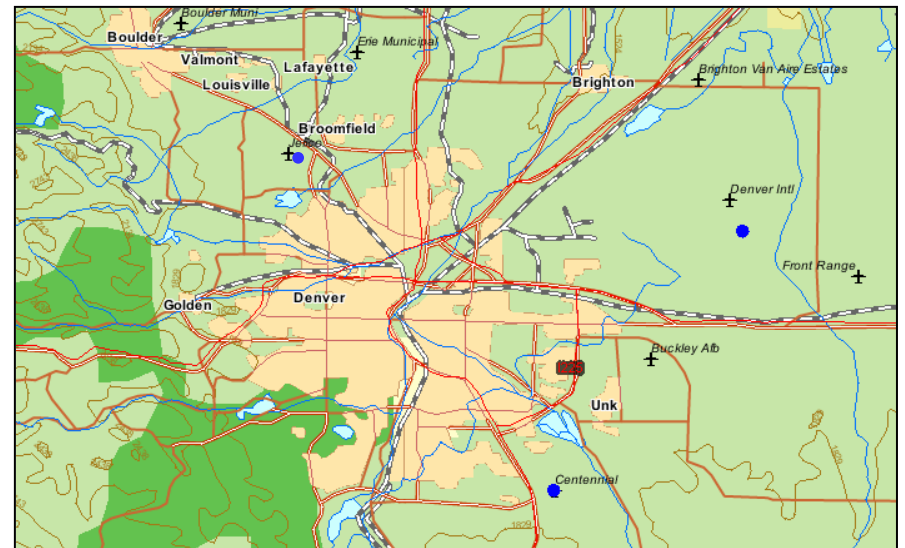
- Spatial
- Temporal
- Formats
- Multiple sources

### ❖ Ensuring most current data are display

#### ○ Asynchronous data retrieval techniques

#### ○ Radar Imagery

- Single Images
- Animations



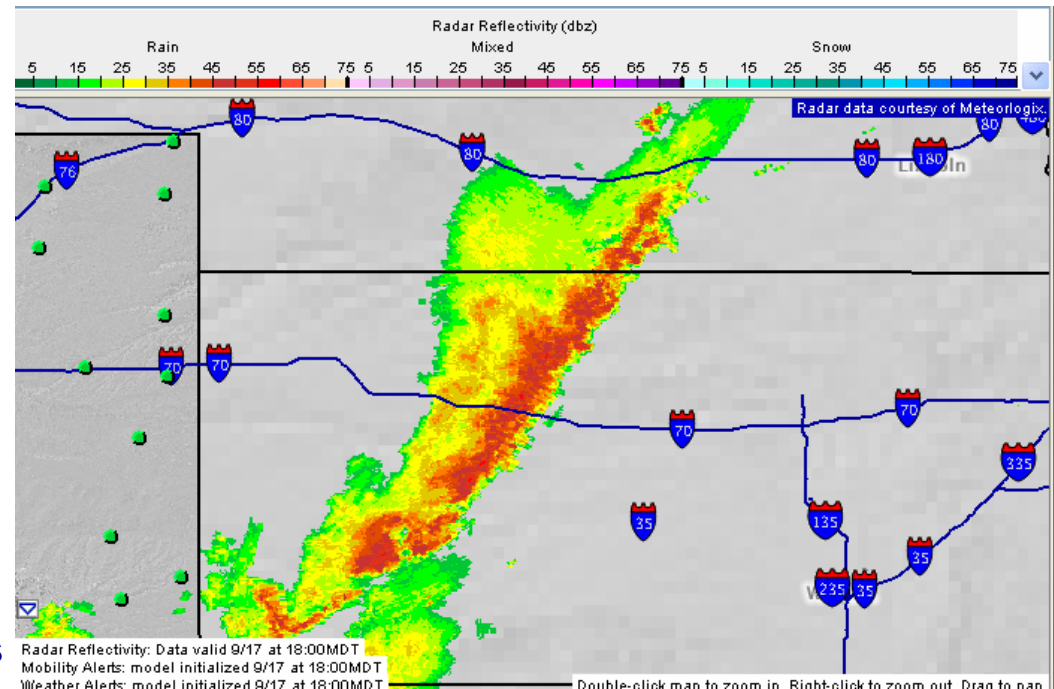


## Issues and Challenges

### ❖ Data acquisition and dissemination

#### ○ End User Communication Channels

- Dial-up
- DSL
- Cable Modem
- T-1



### Impacts System Design

- Asynchronous data retrieval techniques
- Data degradation (Secondary Maps)
- Sematic Zoom
  - Zoom map and data
  - Enhance display once data are available