Kentucky Transportation Cabinet
Best Practices

Maintenance Decision Support System (MDSS) Weather
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Maintenance Decision Support System (MDSS)

- Currently, 14 states participating in the PFS: CO, KY, MD, MI, MN, NE, NH, NY, ND, SD, PA, VA, WI, WY
- 2013 will be Kentucky’s 5th year as a member
- PFS began in October, 2002
- As a PFS member state, Kentucky has been able to practice the technology as it develops
- This will be the 2nd year of a statewide deployment effort
- PFS will soon be nearing an end, as it is going on 10 years in practice
- Once the PFS concludes, states and other agencies will have the opportunity to solicit weather services with the MDSS technology
MDSS

- A ‘Grass Roots’ program with design and development led by DOT members
- Iteris (Meridian Environmental) has been the PFS contractor providing the weather forecasting and technology development
- Utilizes a route specific weather forecast
- Recommendations are given for each route
- In Kentucky, primary use has been to plan for an approaching weather event
MDSS Concept

- A forecast is provided for a designated route
- Program utilizes forecast, radar, RWIS and NWS observations
- User reports are necessary for forecast accuracy

Reports generated by individual on site, or
Reports generated by AVL equipment, or
Reports generated by truck driver
Some Info About KY

Population: 4.38 million, 51.8% urban

Maintained Centerline Miles
27,572 state (~60,000 lane-miles)

Average Winter weather – temp 36 degrees (Jan 33 degrees), 12 in snowfall (10-20 in), FEMA declared ice storms (2003, 2009)
Wet Pavement Policy

- Provide **bare pavement** or adequate traction on road surfaces
- Keep traffic moving in a safe and uninterrupted manner
- Provide statewide uniformity of pavement conditions within each snow and ice control priority system
- Consider economic and environmental factors while achieving safe driving conditions
Wet Pavement Policy – Why?
Weather Prediction

- Guess?
- Wooly Worm
- Farmer’s Almanac
- Pawpaw or Persimmon Seeds
- DTN Sentry (aka Meteorlogix, Telvent, Schneider Electric)
- Local Television
- NWS
- MDSS (Meridian by Iteris)
In case you haven’t seen it...
District 7 - Lexington

- 12 counties (120 in the state)
- Population: 685,271 (16% of state)
- Maintenance Centerline Miles: 2,178 (5,285 lane-miles)
Now what?

Kentucky likes the program.

When Pooled Fund Study Ends? Another 2 more years...

Problems? Technology, Patents, Lawsuits....

Cost?

Apple/Android App
Fun Kentucky Facts!

• ~155,000 horses
• $1.75 billion worth of horses bought and sold each year in KY
• Bourbon production is a $2 billion industry in KY
• There are 4.7 million barrels of bourbon currently being stored in KY (more than there are people)
• KY ranks 3rd in vehicle production in the US (behind Michigan and Ohio) ~ 1 million veh’s
• Coolest of those: Chevy Corvette
Questions?