

Arkansas State Highway and Transportation Department



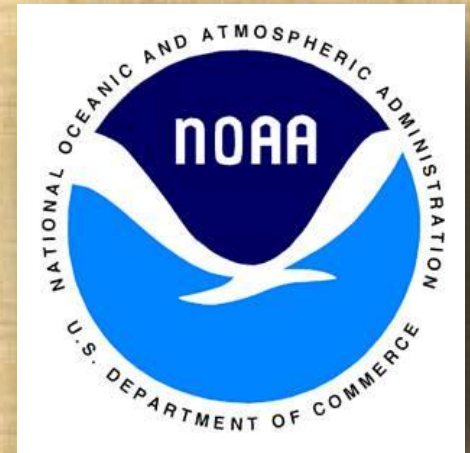
Winter Weather Legislative Briefing

Arkansas State Capitol

Tuesday, March 11, 2014



Weather Forecast



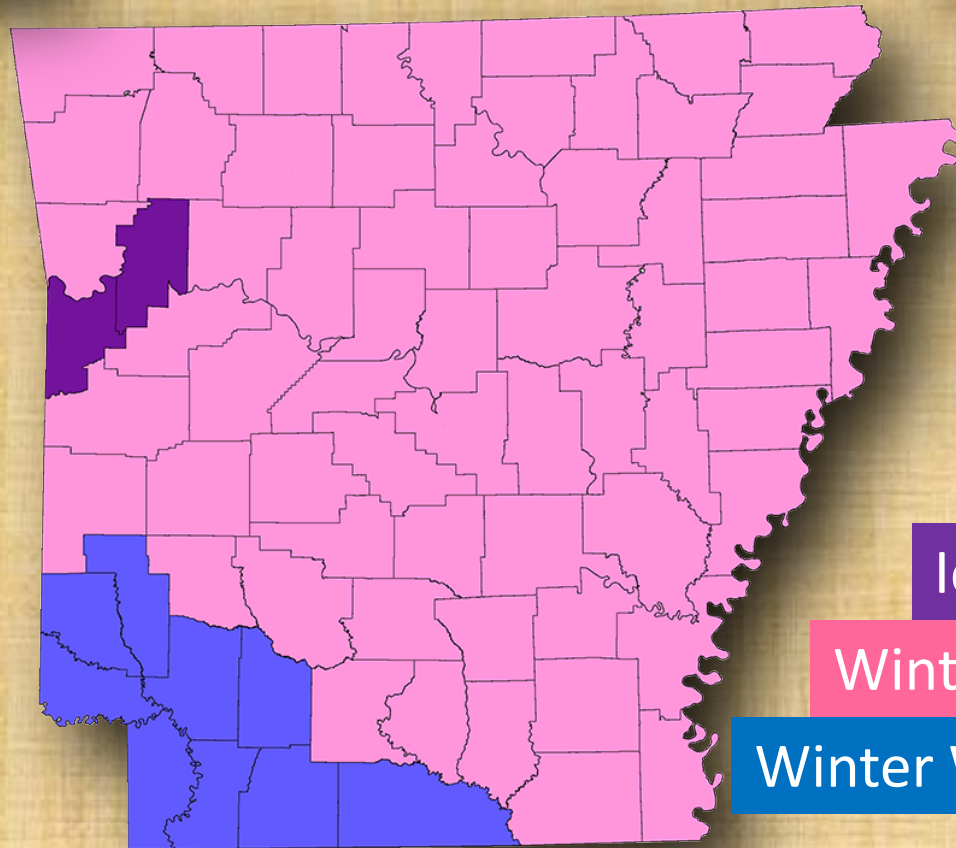
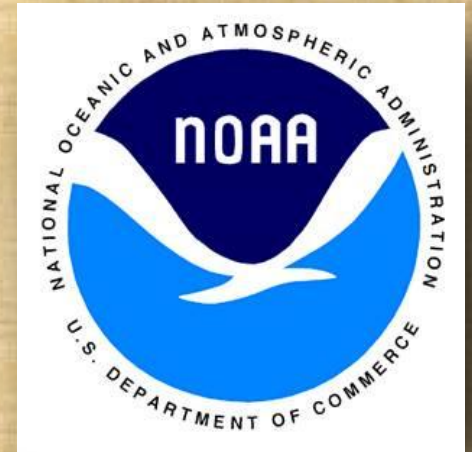
Wednesday: Good chance of wintry precipitation in northern Arkansas in the form of freezing rain and sleet Sunday night. Uncertain whether it will extend into central Arkansas. Rain only in south Arkansas.

Thursday: More certainty about icy precipitation in north Arkansas from midday Sunday, ending Monday morning. Possible freezing rain in central Arkansas for awhile Sunday night. Only rain in south Arkansas.

Friday: Winter Storm Watches for north Arkansas, greater probability of freezing precipitation in central Arkansas Sunday night, slight chance of freezing precipitation in south Arkansas late Sunday night.



Weather Advisories



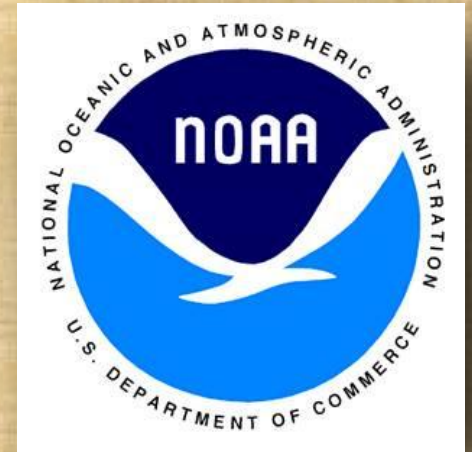
Ice Storm Warning

Winter Storm Warning

Winter Weather Advisory

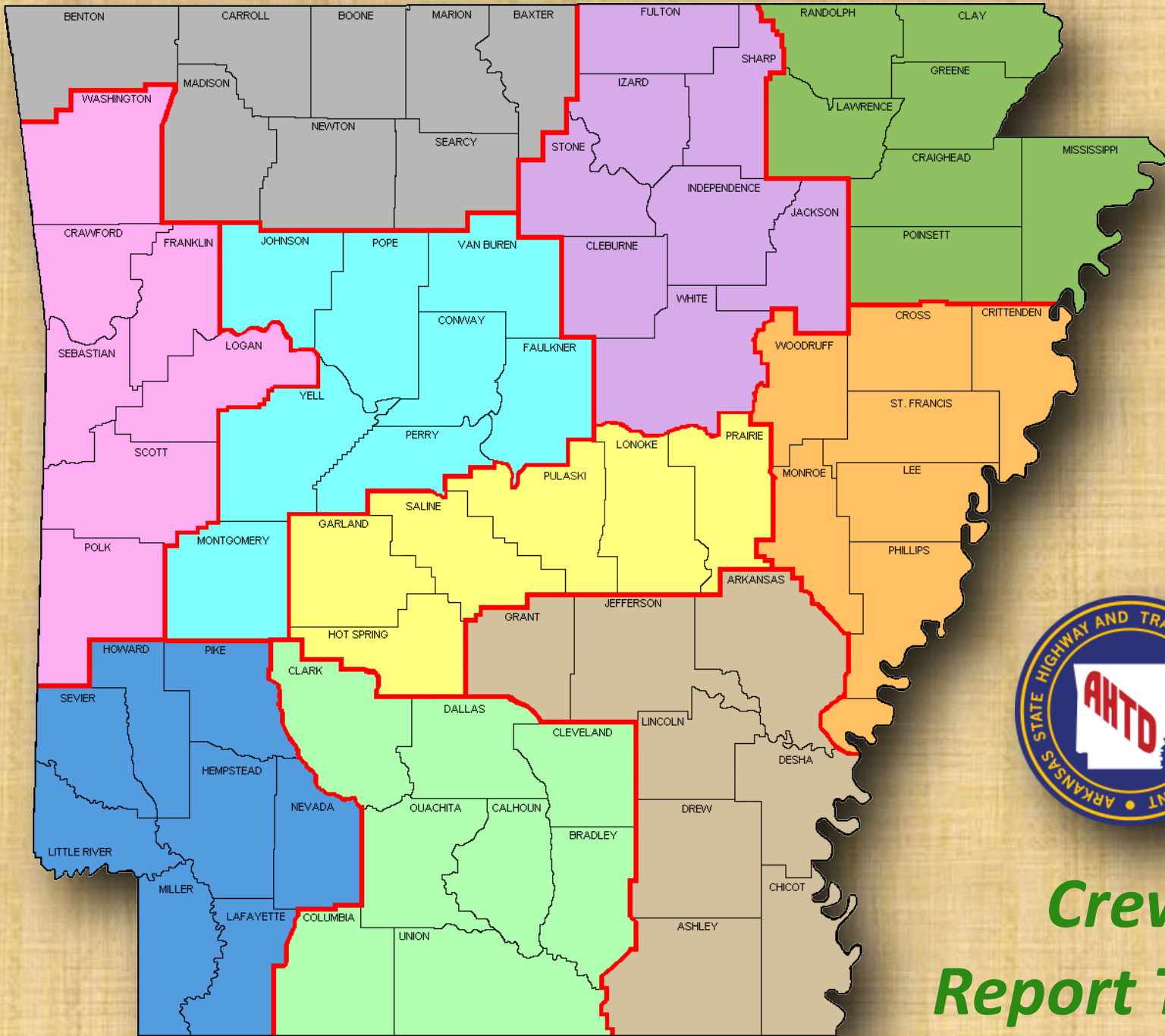


Weather Forecast

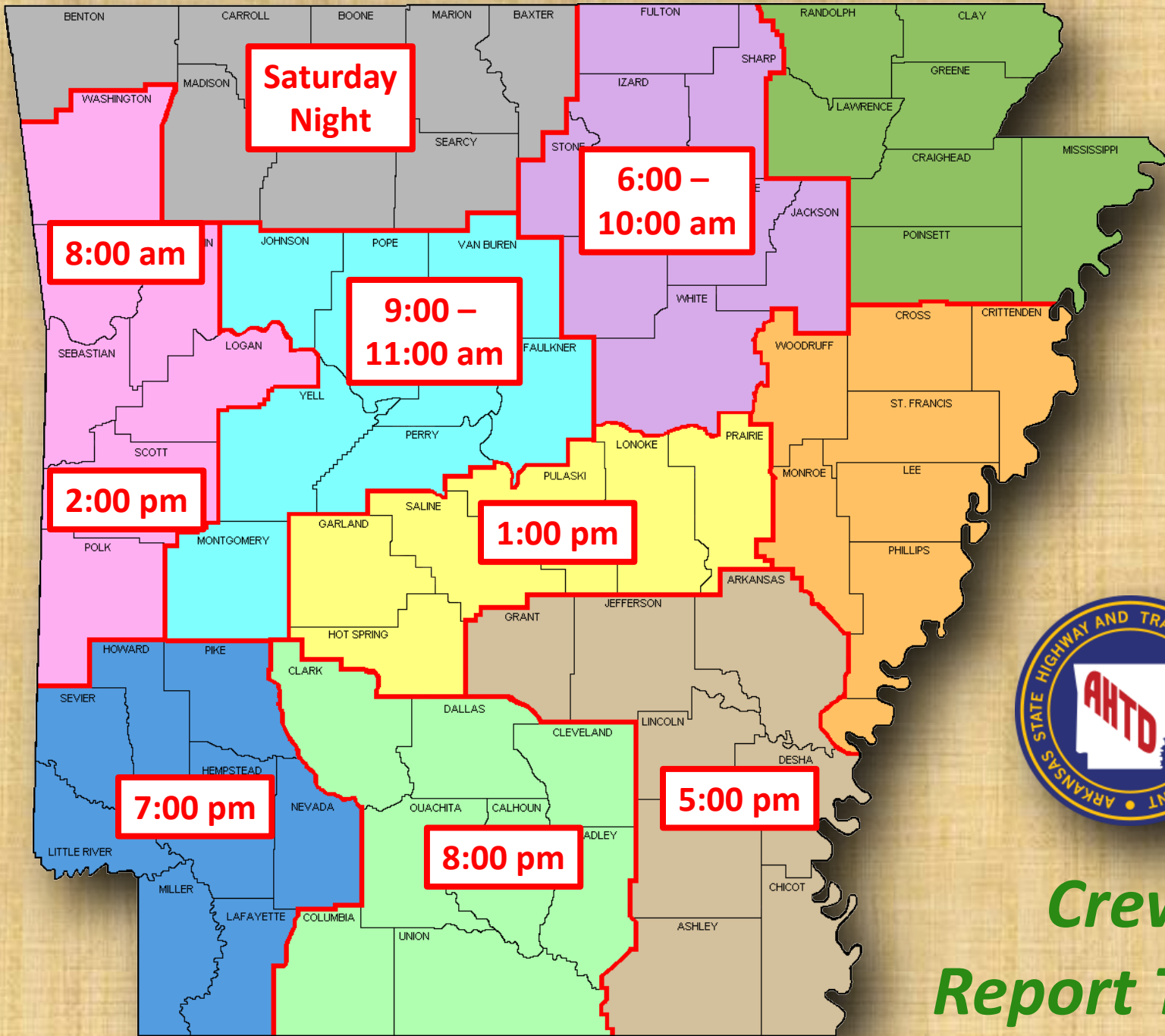


Saturday: “There is likely to be a band of heavy sleet, probably somewhere in the northern third of the state, where sleet could pile up 1 to 2 inches. This would be an unusually large amount.”

Sunday: “Amazingly low temperatures in all parts of the state for the next few days and nights.”



Crew Report Times



**Saturday
Night**

**6:00 –
10:00 am**

8:00 am

**9:00 –
11:00 am**

2:00 pm

1:00 pm

7:00 pm

5:00 pm

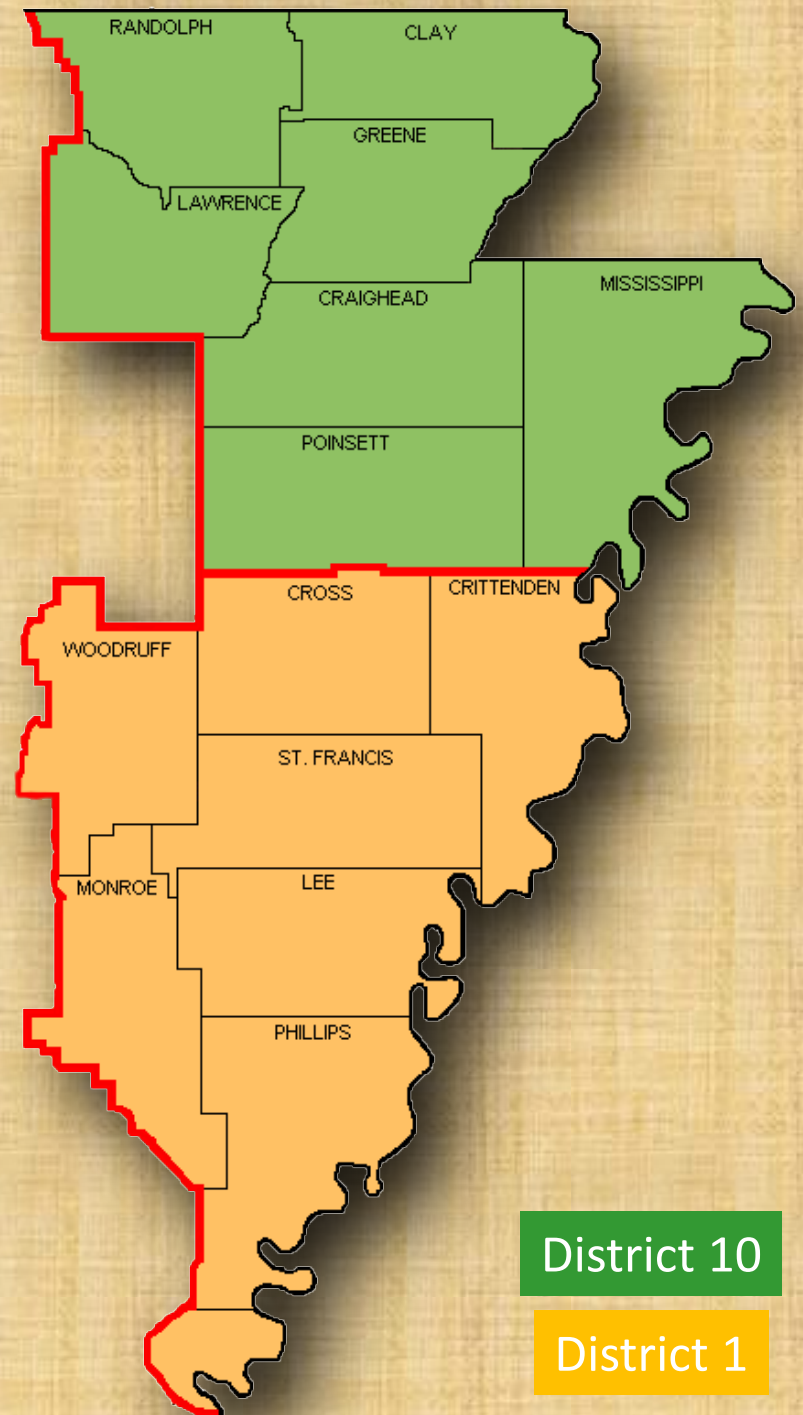
8:00 pm



*Crew
Report Times*



County by County *Crew Report Times* *Sunday*

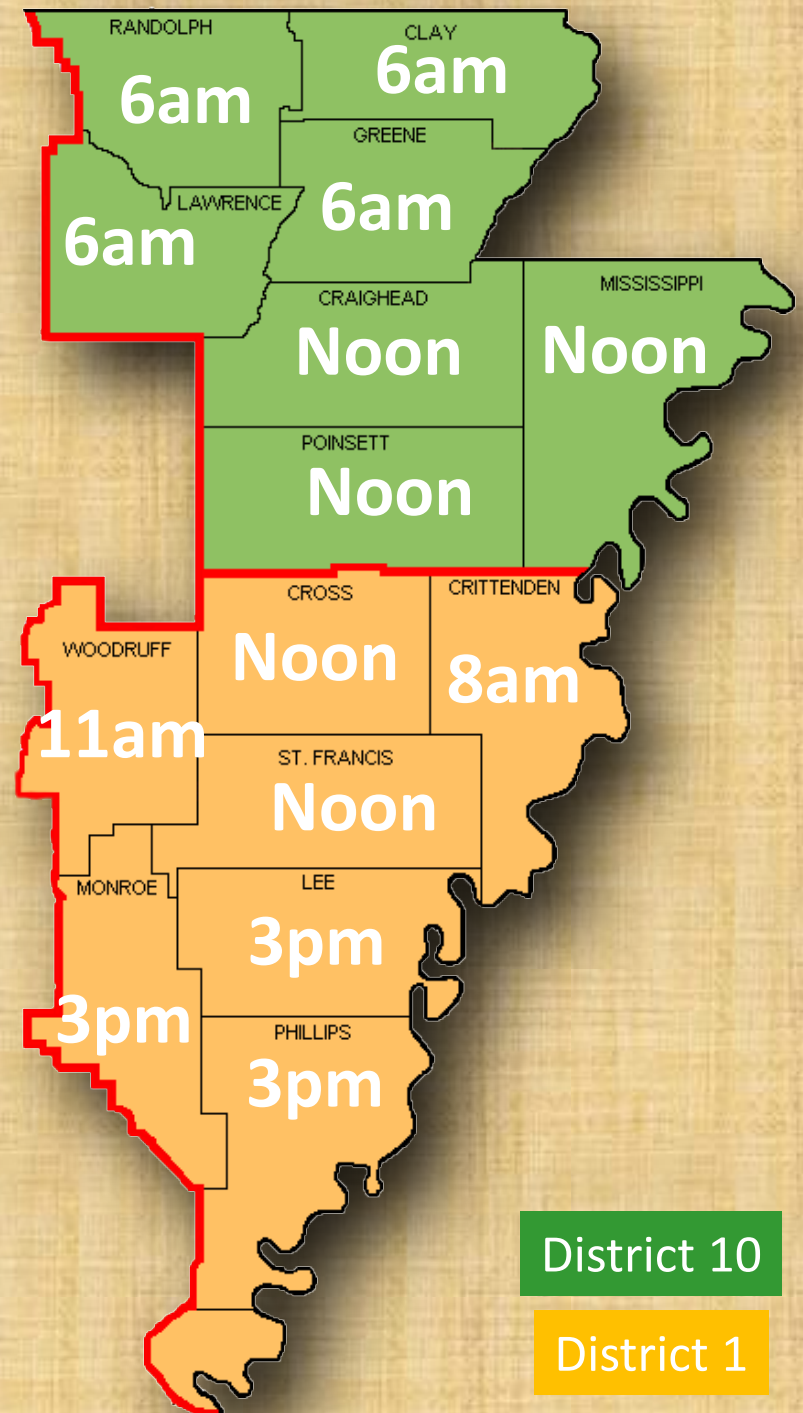


District 10

District 1

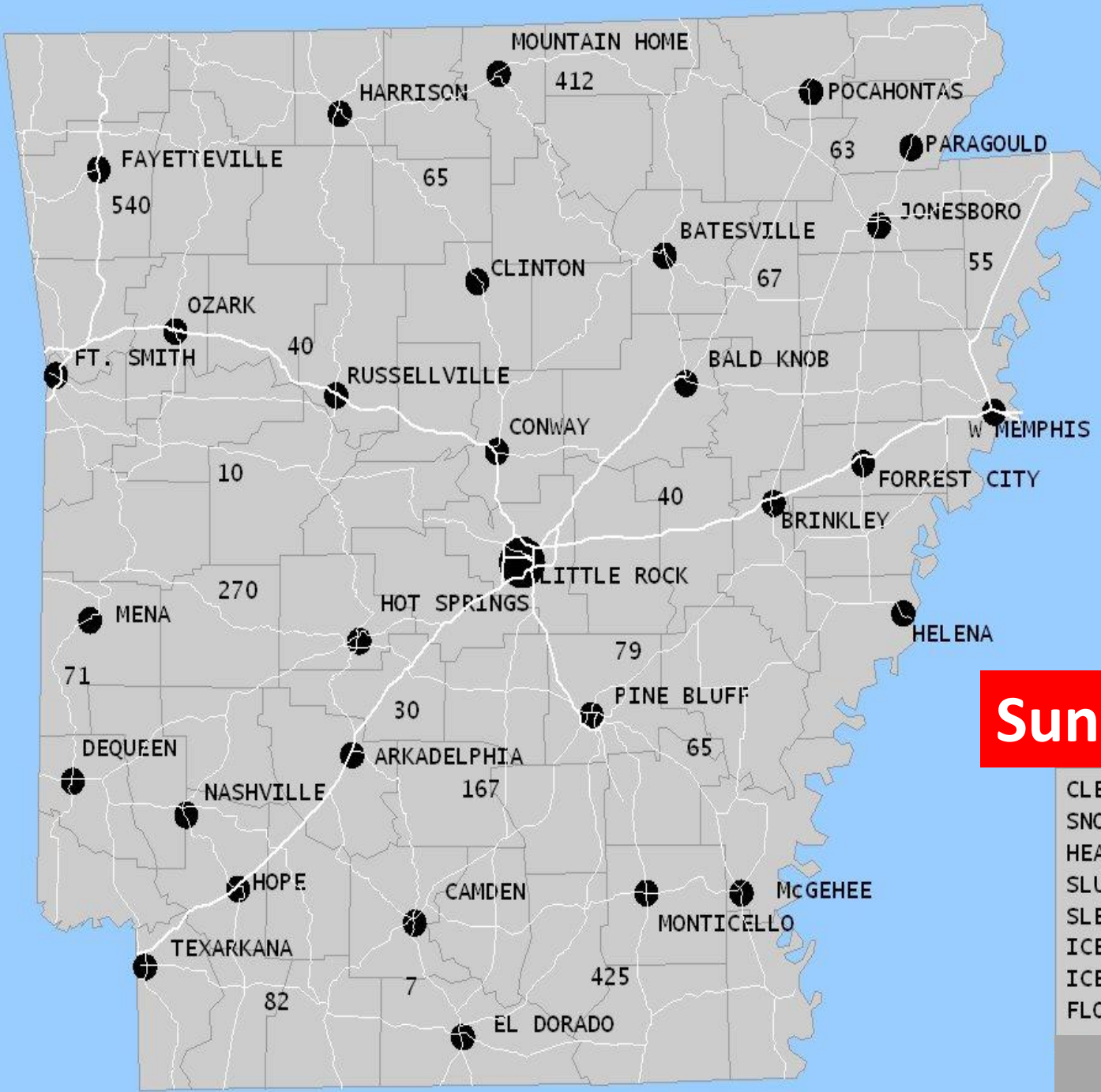


County by County Crew Report Times Sunday



District 10

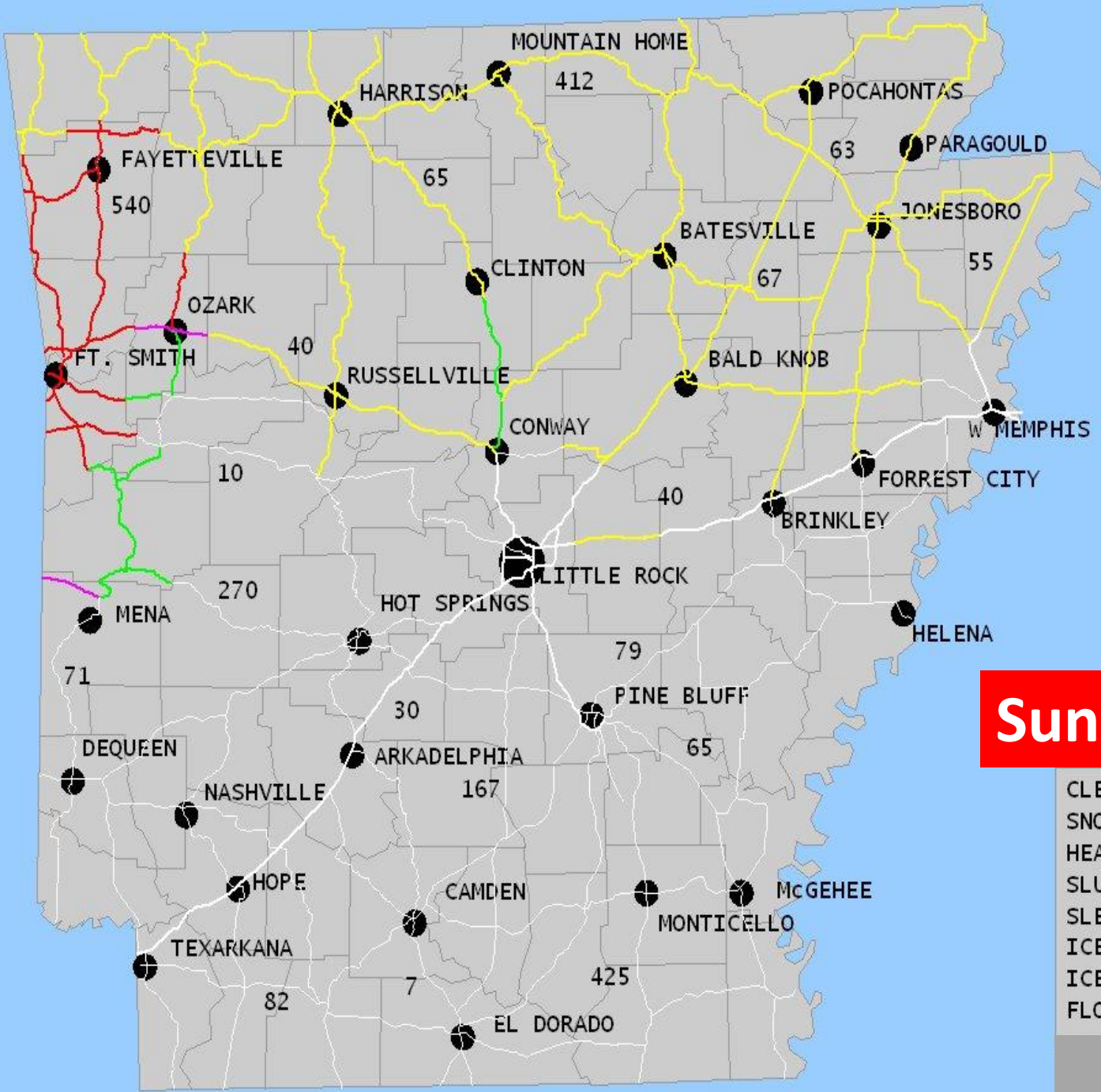
District 1



Road Conditions:
(501) 569-2374

Sunday 6:00 a.m.

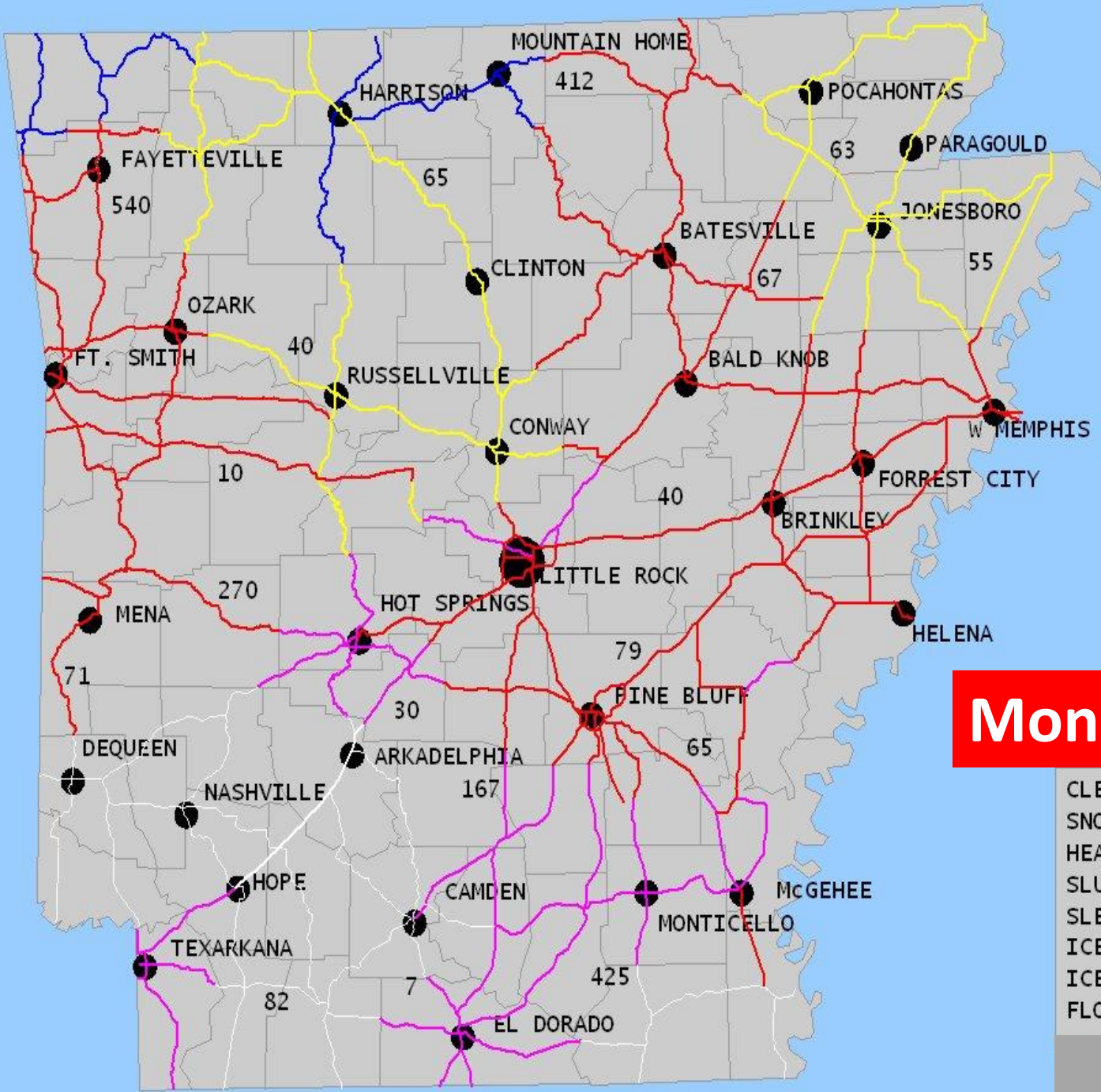
CLEAR	
SNOW	
HEAVY SNOW	
SLUSH	
SLEET	
ICE	
ICE PATCHES	
FLOODED	



Road Conditions:
(501) 569-2374

Sunday 6:00 p.m.

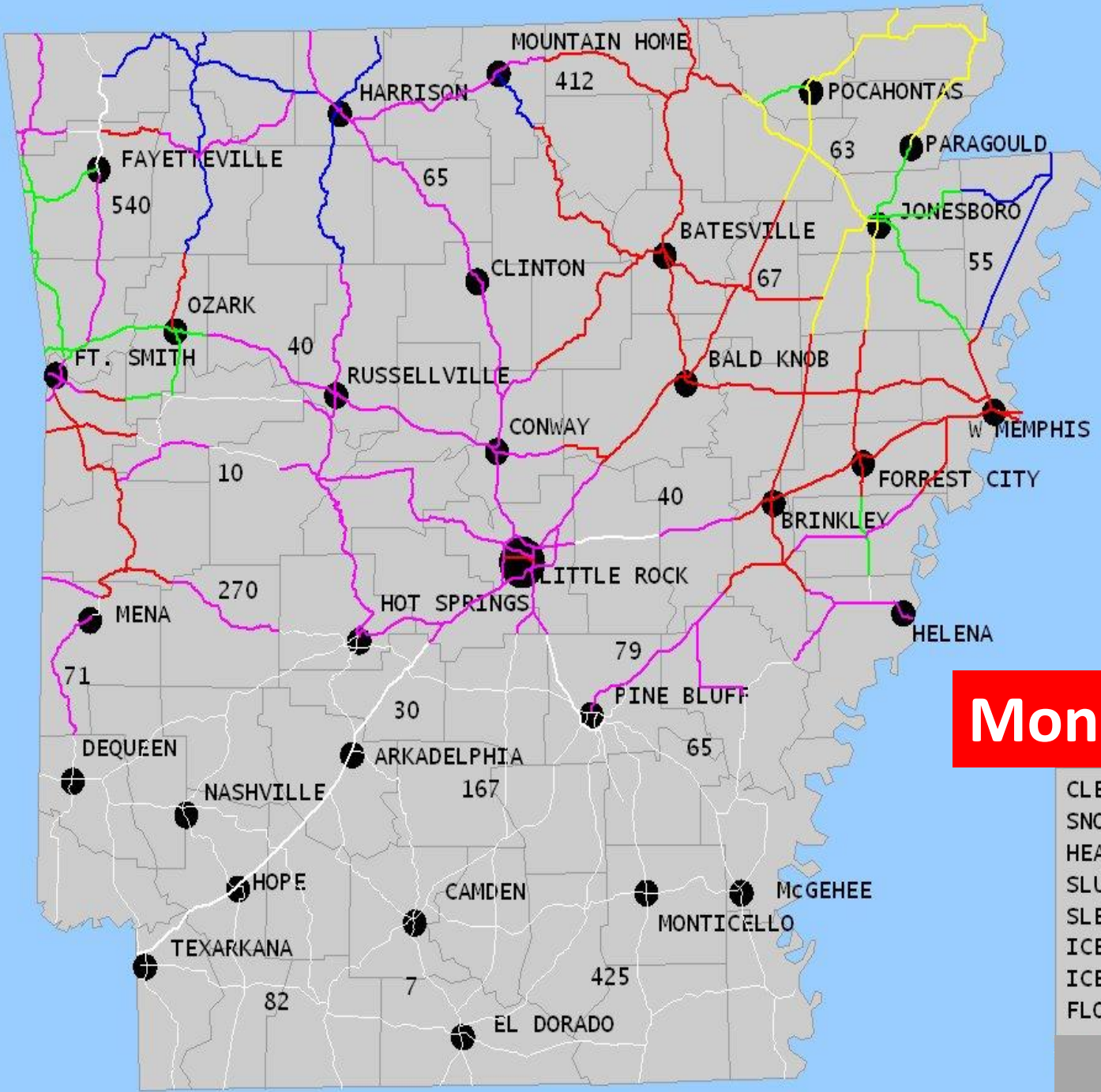
CLEAR	
SNOW	
HEAVY SNOW	
SLUSH	
SLEET	
ICE	
ICE PATCHES	
FLOODED	



Road Conditions:
(501) 569-2374

Monday 6:00 a.m.

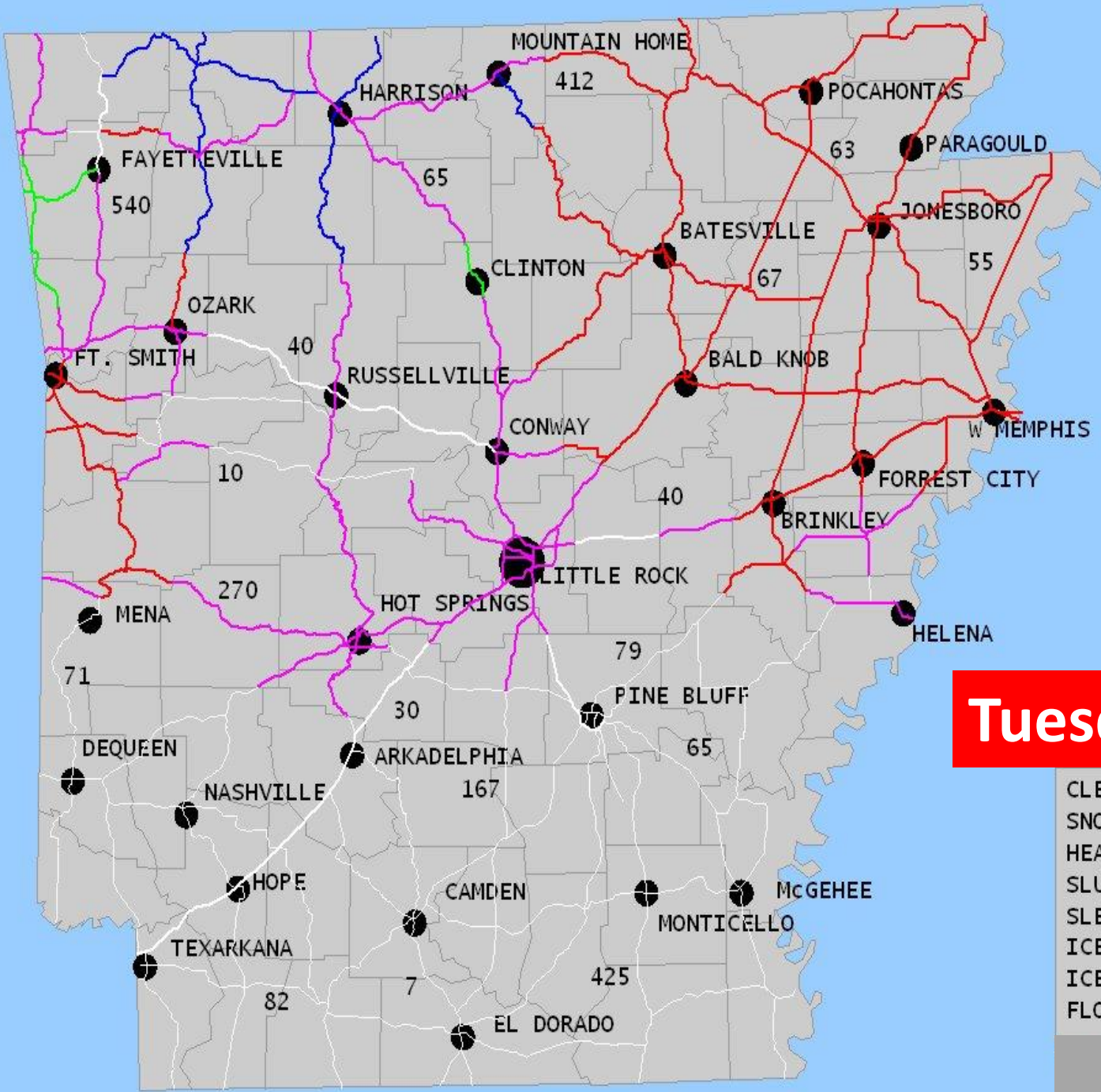
CLEAR	
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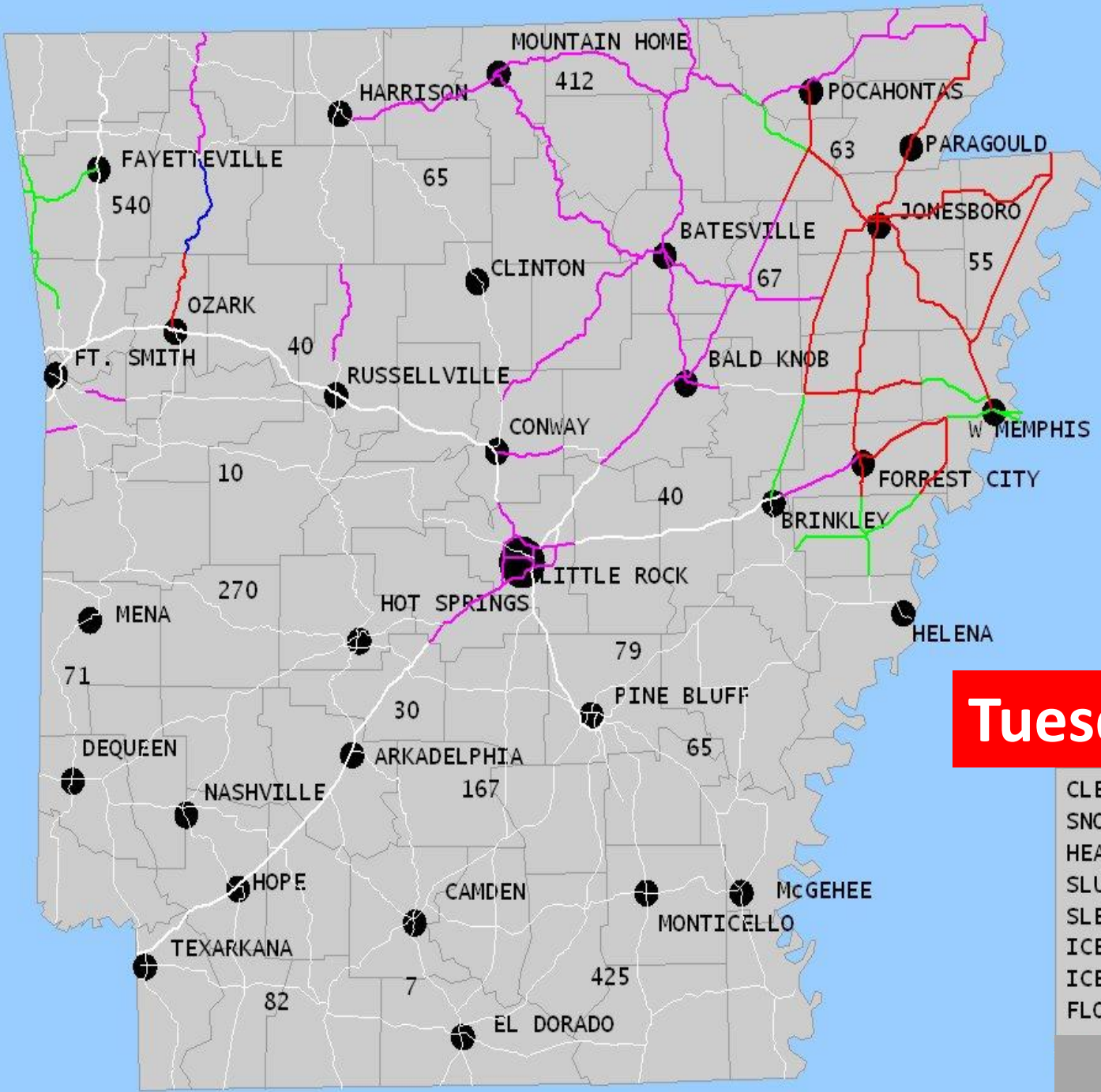
CLEAR	
SNOW	
HEAVY SNOW	
SLUSH	
SLEET	
ICE	
ICE PATCHES	
FLOODED	



Road Conditions:
(501) 569-2374

Tuesday 6:00 a.m.

- CLEAR —
- SNOW —
- HEAVY SNOW —
- SLUSH —
- SLEET —
- ICE —
- ICE PATCHES —
- FLOODED —

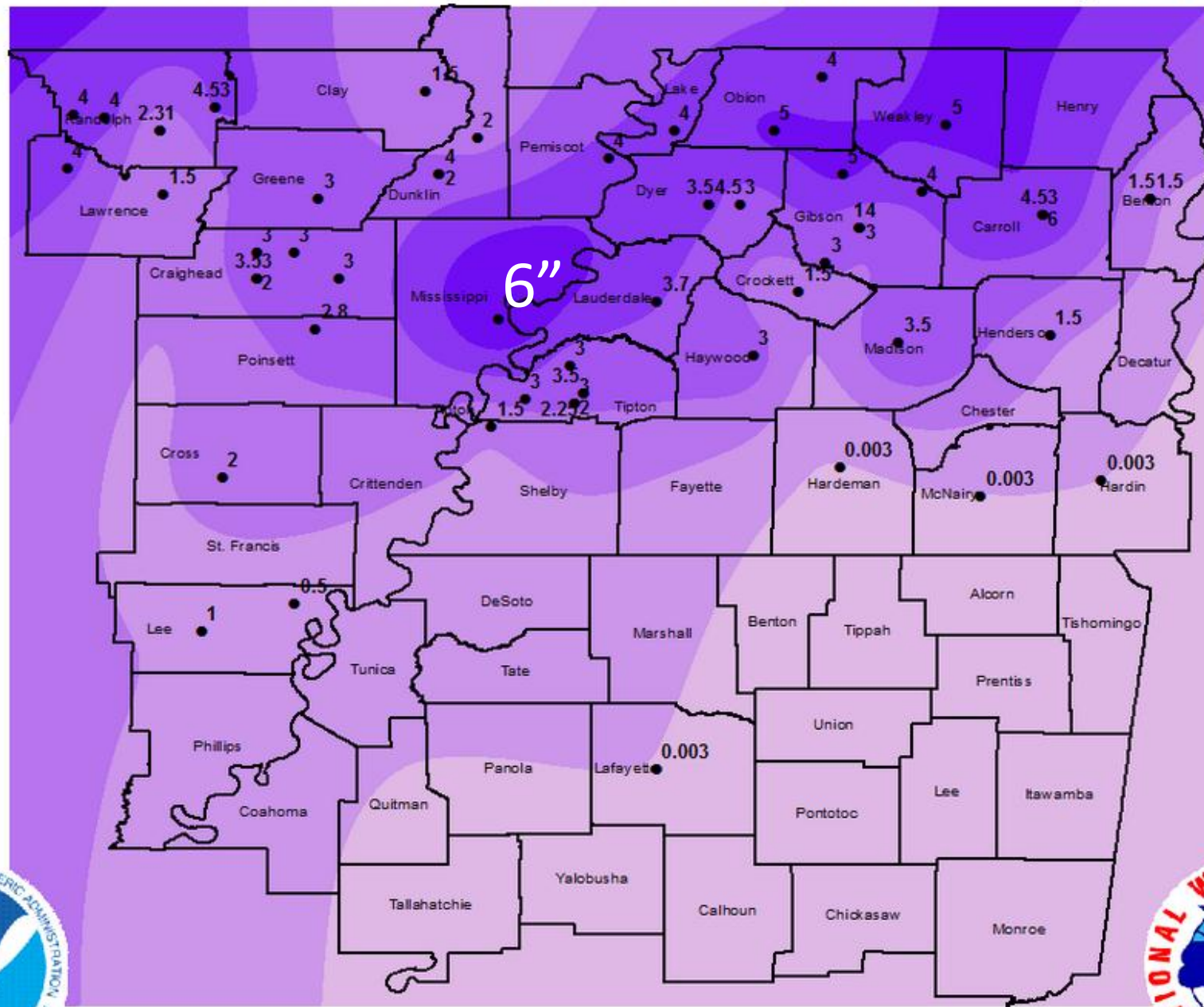


Road Conditions:
(501) 569-2374

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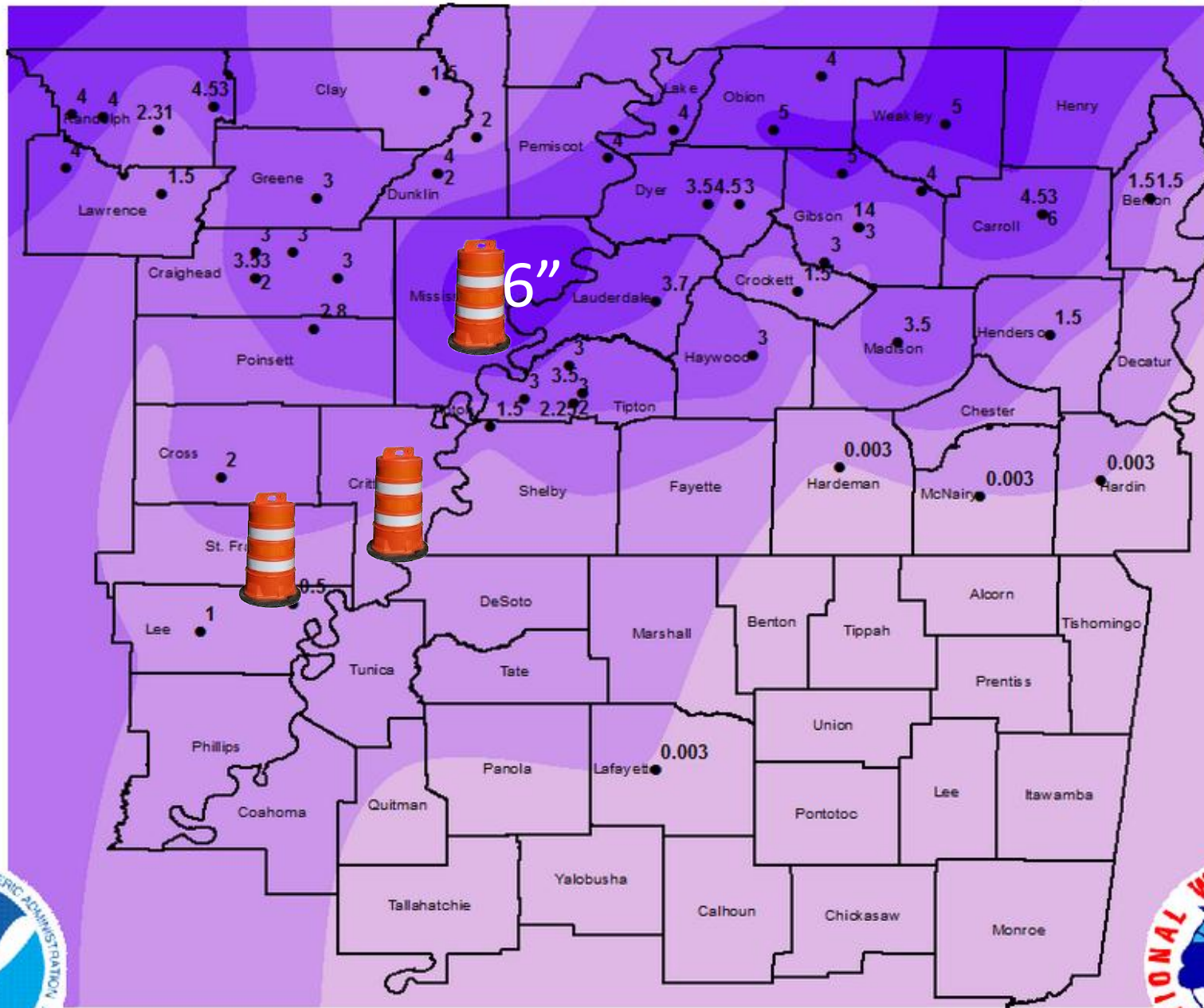
CLEAR	
SNOW	
HEAVY SNOW	
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ICE PATCHES	
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Total Sleet Accumulation :: March 2 - 3, 2014



This preliminary map was created by the National Weather Service Office in Memphis, Tennessee using reports from Emergency Managers, COOP Observers, and members of the public.

Total Sleet Accumulation :: March 2 - 3, 2014



This preliminary map was created by the National Weather Service Office in Memphis, Tennessee using reports from Emergency Managers, COOP Observers, and members of the public.



Sunday

- 6:23 a.m. – 36 degrees and light rain in Jonesboro.
- 11:39 a.m. – Randolph Co. ice issues, one accident.
- 3:24 p.m. – Icy conditions on several highways. Nothing on 40 or 55 in east or northeast Arkansas.
- 8:21 p.m. – Ice on Interstates 40 & 55, including W. Memphis.
- 9:58 p.m. – 6 inches of snow and ice on I-55.
- 10:59 p.m. – I-55 getting worse in Miss County. Very deep sleet & ice. Traffic moving slowly. Tow trucks unable to move on sleet.



Monday

- 12:33 a.m. – I-55 8mm shut down, vehicles stuck.
- 1:51 a.m. – I-55 in Miss Co. covered with several inches of sleet. Very dangerous. Plows having trouble.
- 2:21 a.m. – I-40 east truck stuck on Missouri St. Overpass.
- 4:50 a.m. – Vehicles moving on Missouri St. Overpass
- 6:42 p.m. – I-55 in Miss Co. shut down at 41 mm. Multiple accidents. Multiple trucks need removal.
- 10:13 p.m. – I-55 covered in ice. Traffic at standstill. Accidents at 41 and 36 mm.
- 11:06 p.m. – NB I-55 at 41 mm re-opened.



Tuesday

- 1:36 a.m. – I-55 in Miss Co. NB & SB moving from 55 mm. Waking truckers.
- 3:12 a.m. – Semi broke down on I-55 SB at 48 mm within construction zone.
- 3:36 a.m. – I-55 SB shutdown as wrecker removes semi.
- 4:23 a.m. – I-55 SB traffic shutdown again north of 48 mm. Semi jackknifed and stuck. Another one at 51mm. We are out of wreckers. One coming from J-boro.
- 5:49 a.m. – I-55 shutdown from Missouri.



Tuesday

- 9:29 a.m. – I-55 NB & SB slowly moving in Miss. County. Numerous vehicles in ditches.
- 10:00 a.m. – AHTD enlists help from contractor on I-55. AHTD & contractor work through const. zone.
- 11:25 a.m. – Governor enlists help from National Guard.
- 11:37 a.m. – I-40 WB at 267mm overturned tractor trailer.
- 12:42 p.m. – MO & TN close I-155 from Hayti to Dyersburg due to six inches of ice on the highway.
- 1:06 p.m. – MODOT: We have I-55 SB and I-155 EB closed. All traffic is forced back north or west in Missouri.



Tuesday

- Afternoon – AHTD sends crews from Pine Bluff to Forrest City and Little Rock to West Memphis.
- 2:41 p.m. – I-40 WB 250mm at dead stop.
- 5:40 p.m. – I-55 NB & SB Traffic slow and stopping in Miss. Co. 1 lane passable from Missouri to Burdette.
- 5:41 p.m. – I-40 at 248 mm in St. Francis Co. shutdown as AHTD works on bridges.
- 6:00 p.m. – Trucks stuck in both directions on Hwy 148 overpass near Burdette. Wreckers called. Arrived at 9:00 p.m. Trucks removed by 10:00 p.m.



Tuesday

- 5:26 p.m. – I-40 EB & WB back open.
- 10:24 p.m. – One lane blocked at I-40 WB at 166 mm in St. Francis County due to overturned semi.
- 11:13 p.m. – I-55 NB at 21mm at a standstill.

Wednesday

- 1:48 a.m. – I-55 open in both directions. Traffic moving.
- 4:43 a.m. – I-40 WB at 166mm moving after truck is removed.
- 4:57 a.m. – I-55 N of 21mm looks good. Waking truckers.
- Afternoon – AHTD sends crews from Batesville to Osceola.

Ice Removal Costs

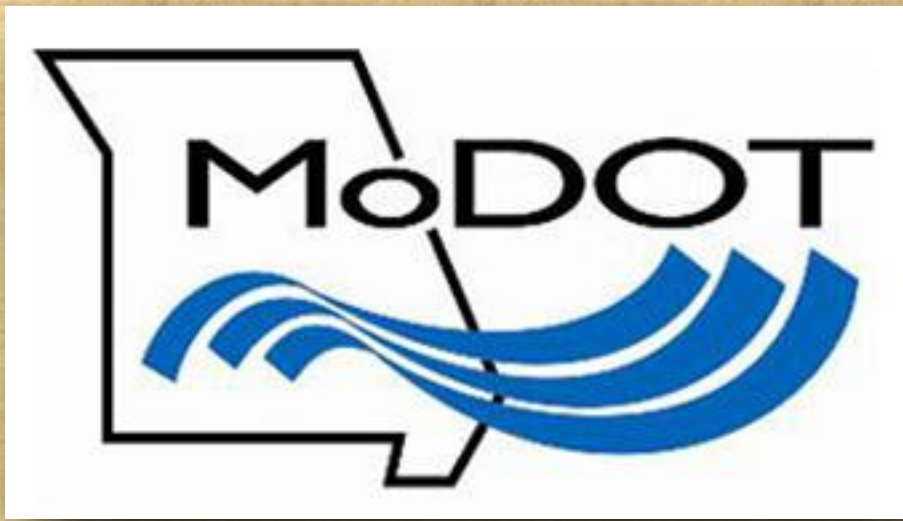


Annual Snow & Ice *Removal Costs*

Year	Amount
2014	\$18,064,699.90
2013	\$4,983,550.96
2012	\$1,612,364.18
2011	\$12,319,883.30
2010	\$11,572,338.88
2009	\$6,115,738.51
2008	\$4,750,376.87



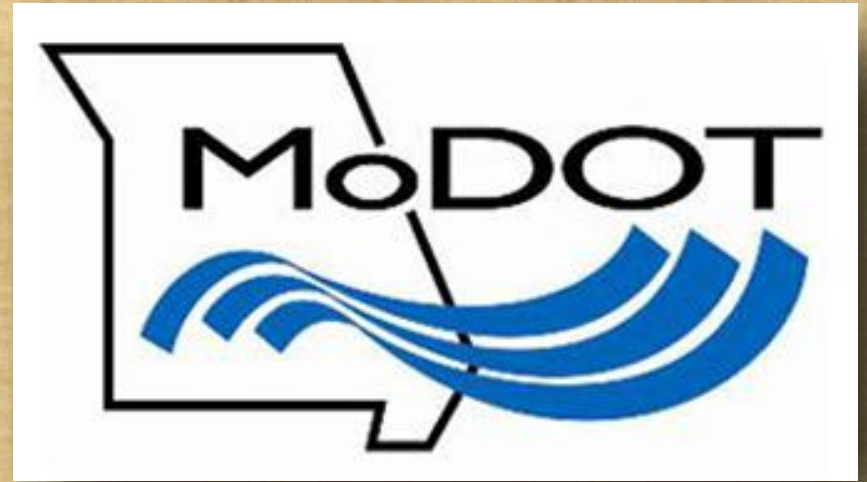
- ✓ Crews were sent from Sikeston and Kewanee areas to work solely on I-55 from Hayti south.
- ✓ 8 belly plow trucks with 14' front plows and 12 cubic yard spreaders were dedicated to the 30 miles north of the state line. These trucks did not work any other highways.



- ✓ **Missouri had one truck for every 15 lane miles on that section of Interstate 55.**
- ✓ **Missouri's volume of equipment and materials allowed them to hit a given location once every 36 minutes.**
- ✓ **It took Missouri 31 hours to clear Interstate 55.**

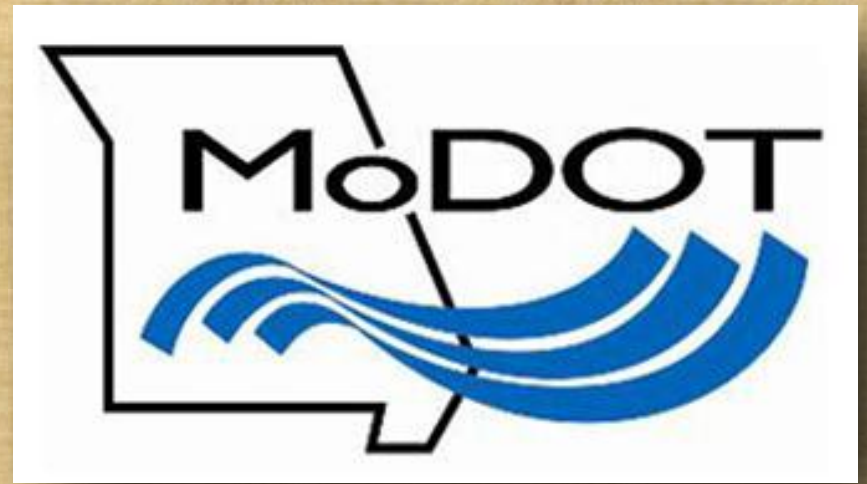


- ✓ **We have a total of 8 trucks in Mississippi County**
- ✓ **None of the trucks have belly plows**
- ✓ **8 trucks responsible for 418 lane miles**
- ✓ **That equates to 52 lane miles per truck**
- ✓ **With trucks and area of responsibility, we could only hit a given area once every 125 minutes**



In comparison:

- ✓ There are 46 counties in Missouri's southern two highway districts that border Arkansas
- ✓ They have 570 belly plows those two districts
- ✓ Arkansas has almost 700 trucks statewide, BUT
- ✓ Arkansas only has 6 belly plows



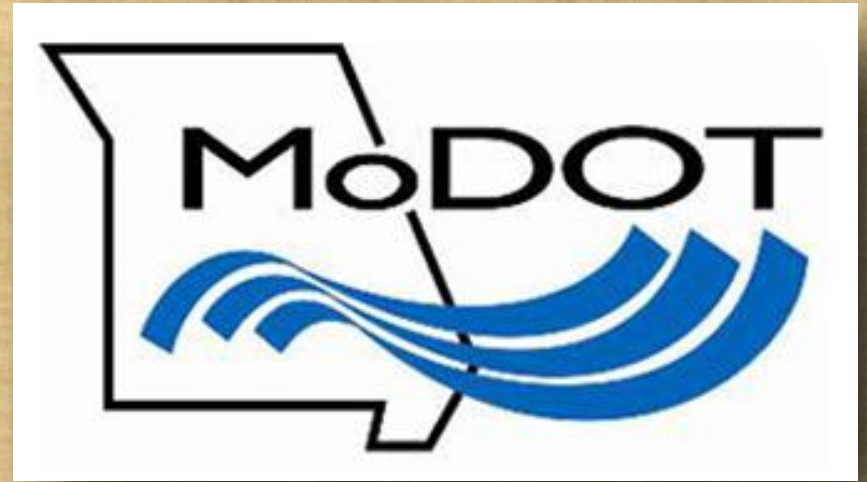
In comparison:

- ✓ Missouri has 5100 employees
- ✓ Arkansas has 3600 employees
- ✓ Missouri receives \$20,000 more revenue per mile
- ✓ Missouri's annual budget is \$2.8 billion
- ✓ Arkansas' annual budget is \$1.0 billion



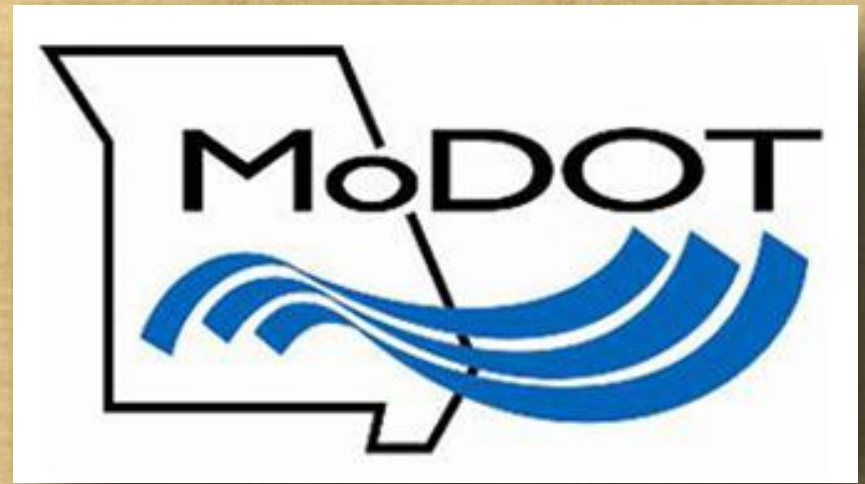
New Belly Plow





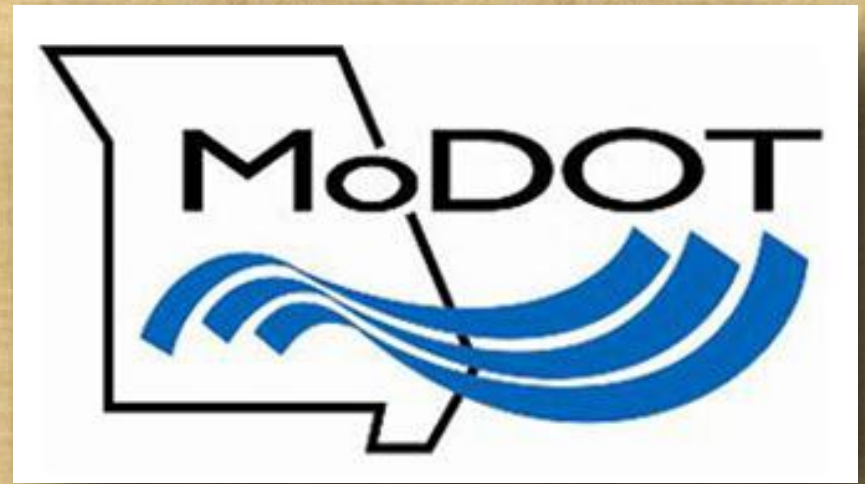
In comparison:

- ✓ Missouri belly plows have spreaders that are operated and calibrated from cab
- ✓ Arkansas spreaders are turned on and off at rear of truck
- ✓ Missouri has 1,250 people to operate plows in south
- ✓ Arkansas has 1,400 people available statewide



What we have learned from meeting

- ✓ Missouri has comprehensive snow & ice removal plan
- ✓ Goal is to clear highways in as short a time as possible after precipitation ends
- ✓ Must be aggressive early to stay ahead of storm
- ✓ Publicize A, B, and C routes and clear them in that order
- ✓ A = Continuous Operation Routes (ADT's above 2,500)
- ✓ B = Non-Continuous Operation Routes
- ✓ C = Cleared after A & B Routes

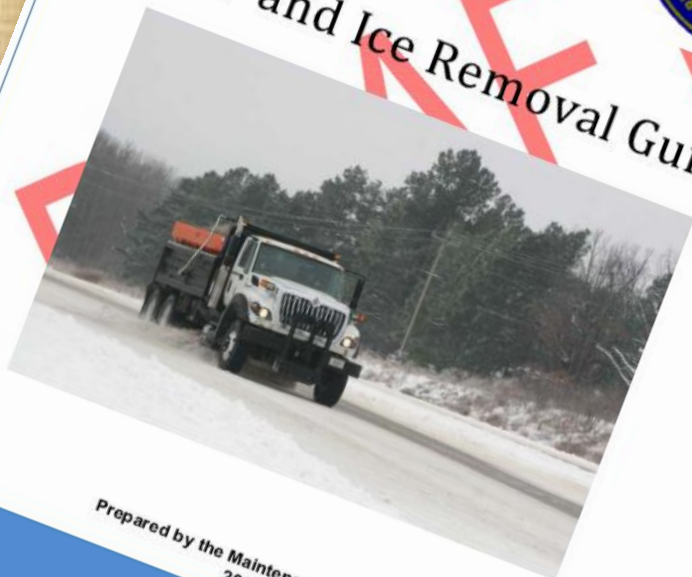


What we have learned from meeting

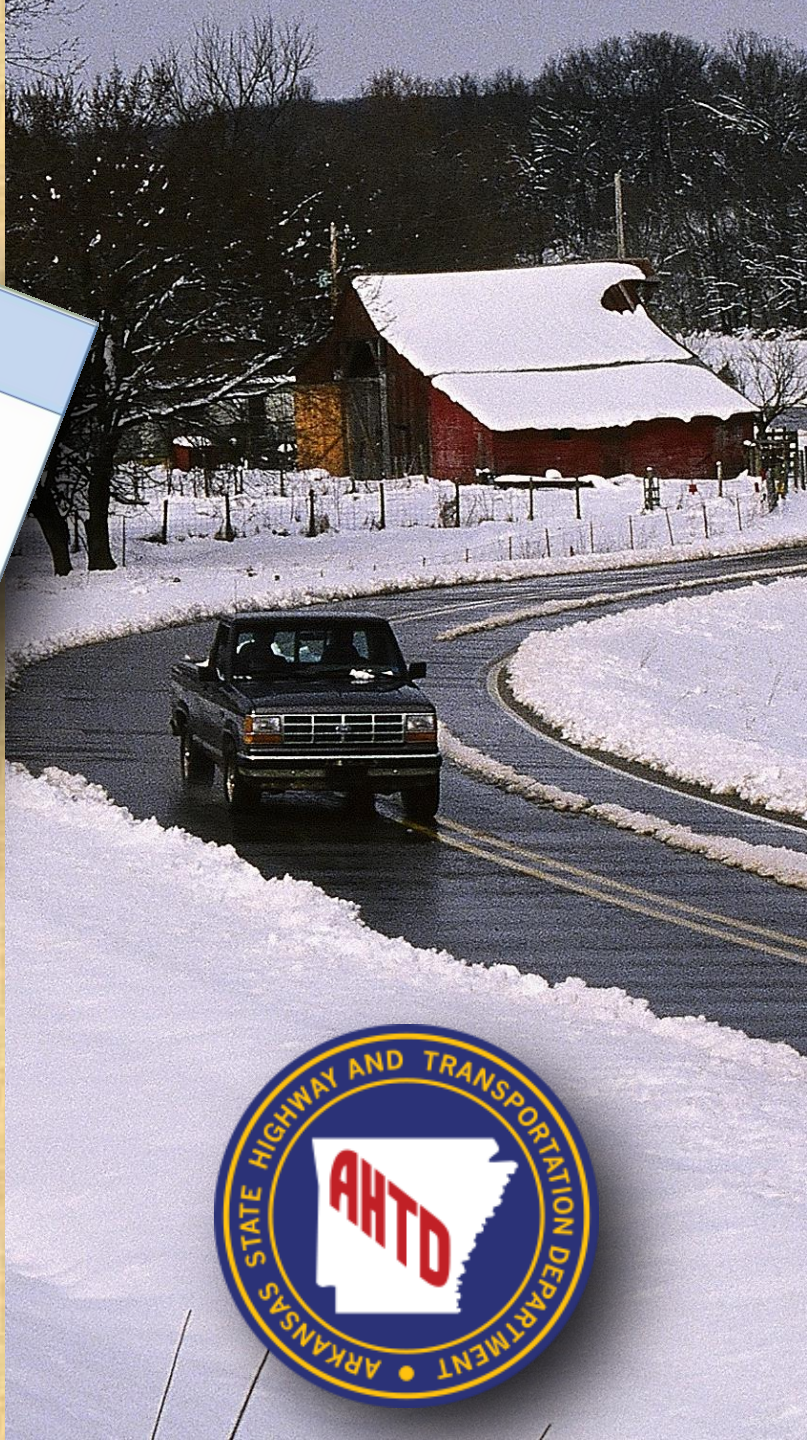
- ✓ Aggressive in moving people and equipment
- ✓ Use greater amounts of salt (often use it straight)
- ✓ Salt is pre-treated with beet juice
- ✓ Private weather service provides hourly forecasts
- ✓ Workers below a Resident Engineer can drive plow
- ✓ Hire seasonal employees during winter months
- ✓ Statewide snow drill in early November



Snow and Ice Removal Guide



Prepared by the Maintenance Division
2014



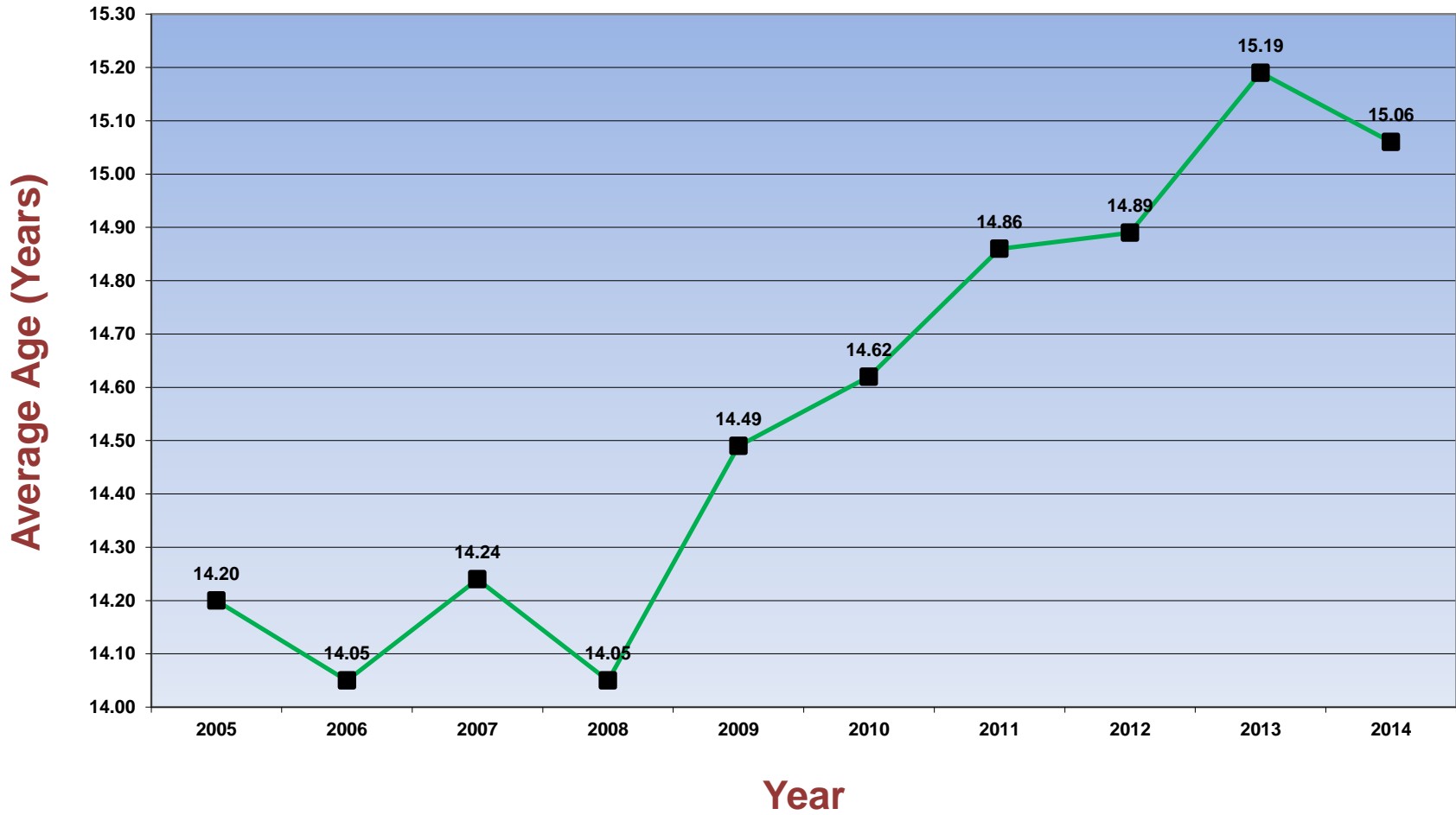


Snow & Ice Removal Guide

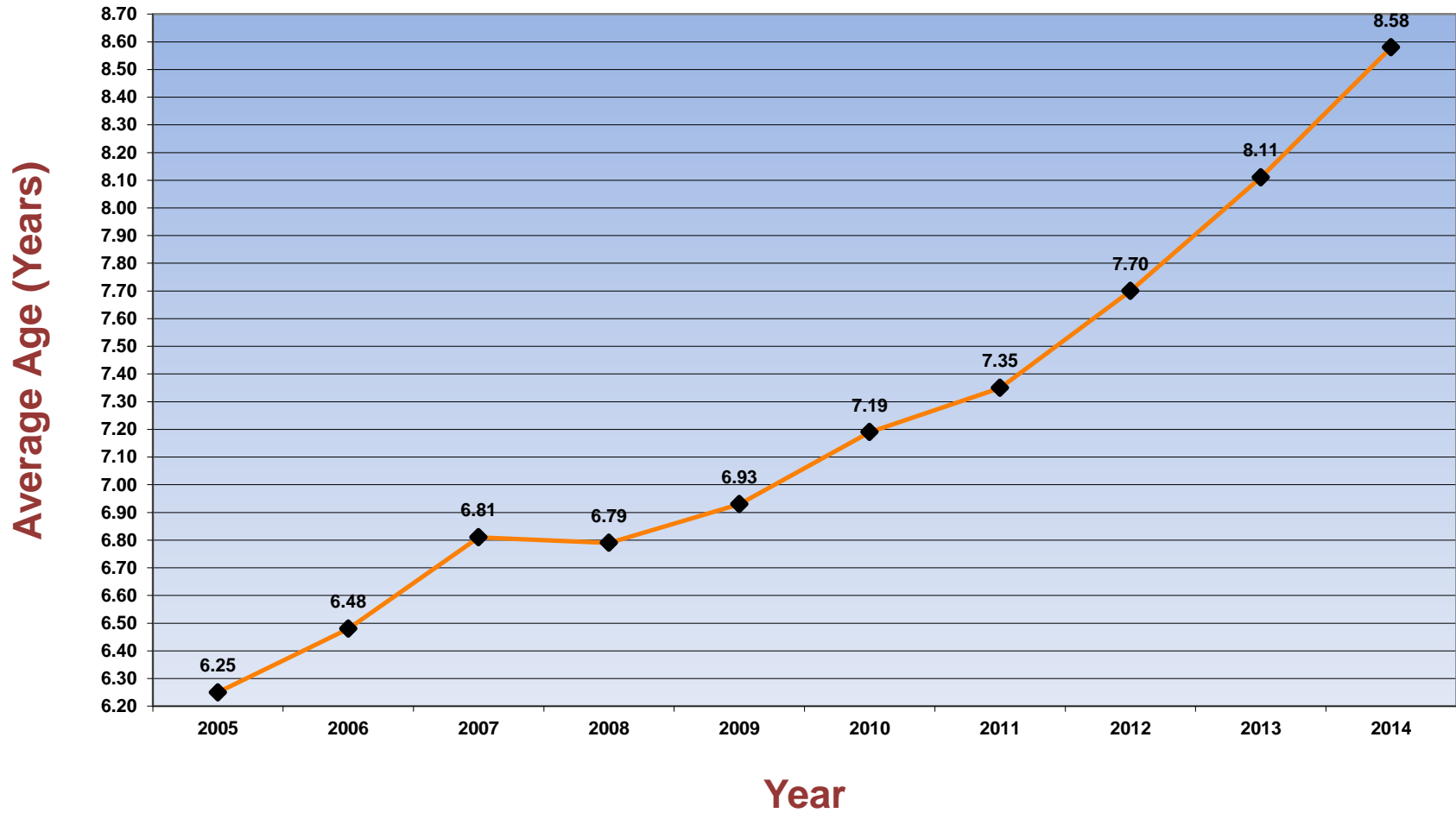
Implementation Needs

	Trucks	Plows	Spreaders	Salt	Personnel
Needed for Implementation	614	614	614	32,000 tons per storm	1750
Current Inventory	692*	362	420	TBD	1400
Balance of Needs	TBD	252	194	TBD	350

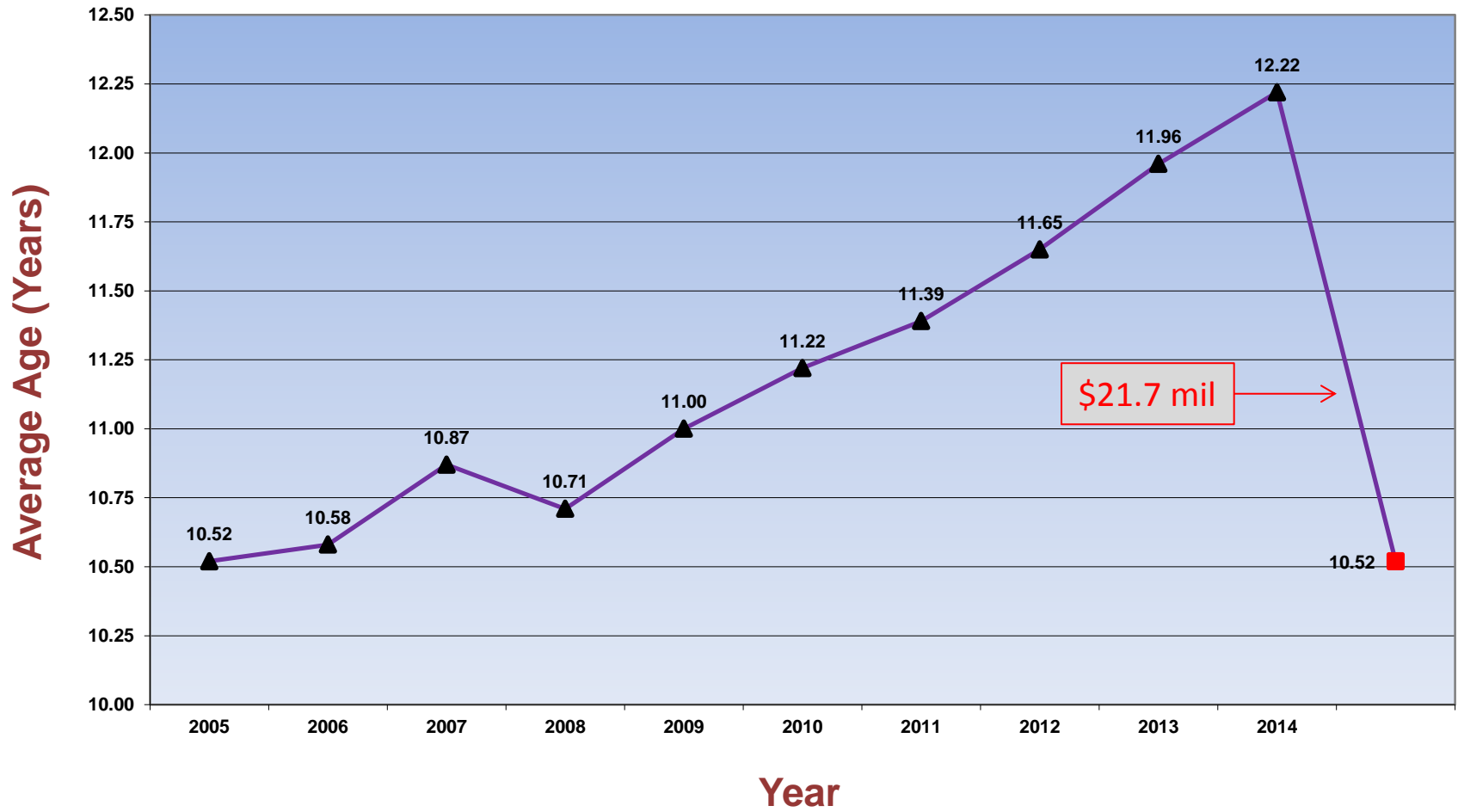
Average Age of AHTD Off-Road Equipment



Average Age of AHTD On-Road Equipment



Average Age of AHTD Equipment Fleet



Lessons Learned

- ✓ Communications from roadway to districts & Administration must improve
- ✓ Be more aggressive in moving equipment & personnel
- ✓ Be more aggressive when considering closing major highways

Lessons Learned

- ✓ Require cross-training of employees so more can operate snow plows
- ✓ Major highways are priority, but secondary roads can't be neglected
- ✓ Extended cold temps will complicate a manageable snow & ice event

Lessons Learned

- ✓ There is no magic potion:
 - Beet Juice
 - Potato Mash
 - Salt
 - Salt Brine
 - Calcium Chloride

- ✓ It takes muscle (equipment & people)



Where do we go from here?





Where do we go from here?

- ✓ Repair existing winter damage
- ✓ Foster & expand a culture of mutual assistance
- ✓ Purchase 12 belly plow trucks
- ✓ Construct regional salt storage facilities
- ✓ Pursue equipment upgrades
- ✓ Snow & Ice line item in budget
- ✓ Assist with humanitarian aid

Arkansas State Highway and Transportation Department



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Cable Median Barrier



Federal-aid Highway Safety Improvement Program

- **STRATEGIC HIGHWAY SAFETY PLAN (SHSP)**

- Requirement of the Highway Safety Improvement Program (HSIP) (*23 USC 148(c)(1)(A)*)
- Four “E’s”
 - Engineering
 - Education
 - Enforcement
 - Emergency Services



Federal-aid Highway Safety Improvement Program

- **STRATEGIC HIGHWAY SAFETY PLAN (SHSP)**

- **Arkansas Highway Safety Steering Committee**

- Arkansas State Highway and Transportation Department (AHTD)
- Arkansas Highway Police (AHP), a Division of the AHTD
- Arkansas State Police (ASP)
- Arkansas Highway Safety Office (HSO), a Division of the ASP
- Arkansas Department of Health (ADH)
- Arkansas Department of Finance and Administration (DFA)
- Arkansas Administrative Office of the Courts (AOC)
- Little Rock Police Department
- Metroplan
- Pulaski County
- West Memphis Metropolitan Planning Organization (MPO)
- Federal Highway Administration (FHWA)
- Federal Motor Carrier Safety Administration (FMCSA)
- National Highway Traffic Safety Administration (NHTSA)



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Federal-aid Highway Safety Improvement Program

- **STRATEGIC HIGHWAY SAFETY PLAN (SHSP)**

- Adopted by the Commission – February 2013
- Toward Zero Deaths Vision
- Eight Primary Emphasis Areas
 - Roadway Departure
 - Intersections
 - Impaired Driving
 - Aggressive Driving
 - Distracted Driving
 - Younger Drivers
 - Safety Restraints
 - Motorcycles



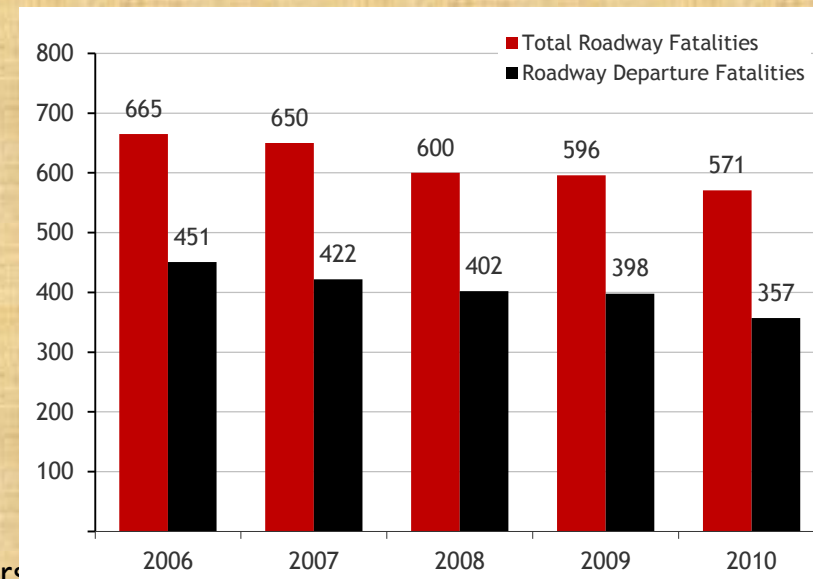
Federal-aid Highway Safety Improvement Program

PROJECT SELECTION PROCESS

- Data Driven
 - Crash Experience
 - Crash Potential
 - Crash Rate
- Address Emphasis Areas in the Strategic Highway Safety Plan

- Example: Roadway Departure

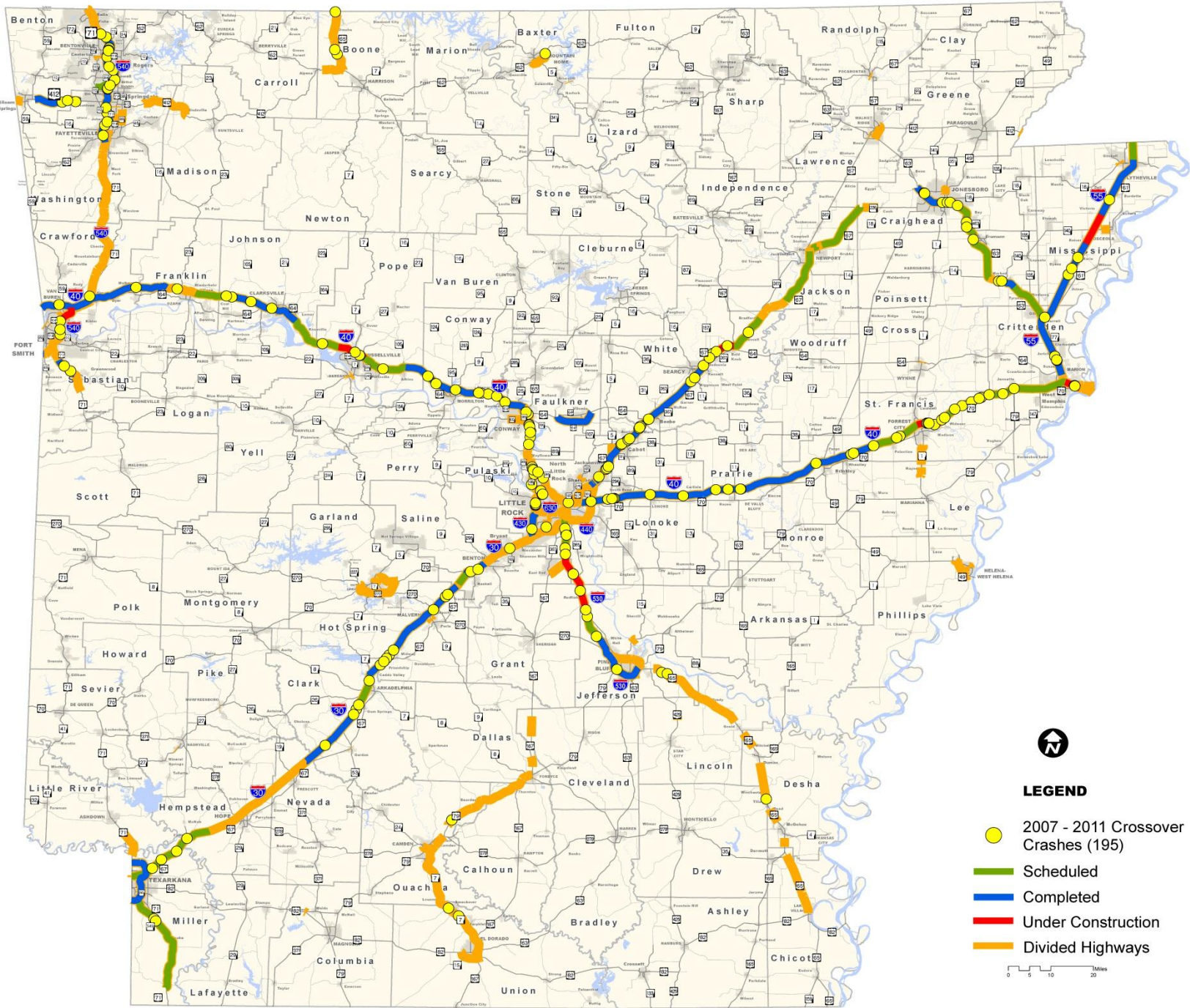
- ✓ Non-Intersection Collision
- ✓ Vehicle Crosses Centerline/Median–Leaves the Roadway
- ✓ 67% of all Arkansas Traffic Fatalities
- ✓ Effective Prevention Methods – Cable Median Barriers, Rumble Strips, Shoulder Widening, Geometric Improvements, etc.



Roadway Departure Fatalities in Arkansas

Fatal and Serious Injury Crossover Crashes

Fatal and Serious Injury Median Barrier Projects



LEGEND

- 2007 - 2011 Crossover Crashes (195)
- Scheduled
- Completed
- Under Construction
- Divided Highways

0 5 10 20 Miles



Federal-aid Highway Safety Improvement Program

- **Progress To Date**

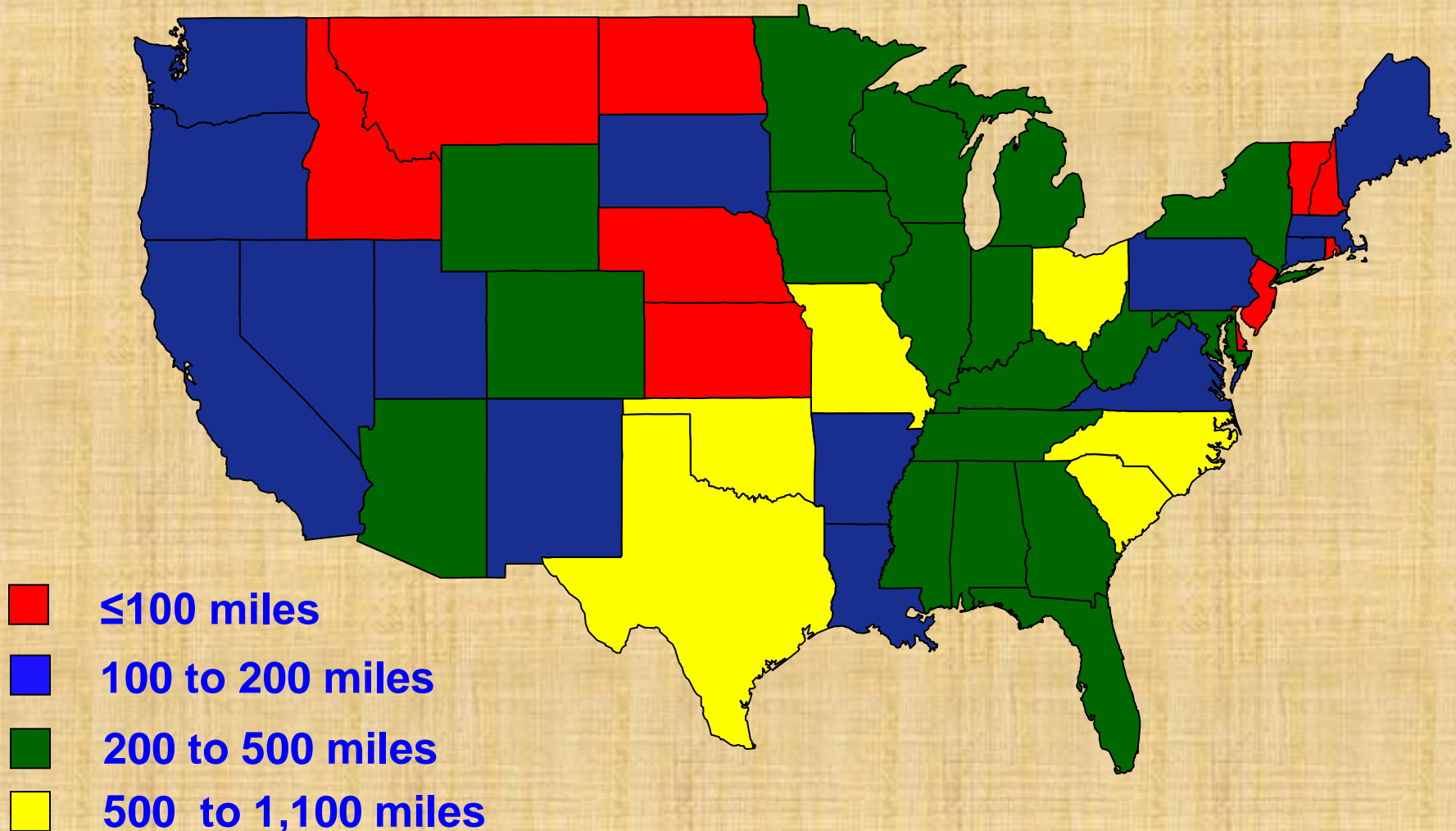
- Recent Data Released
- Annual Roadway Fatalities

Year	Number of Fatalities
2012	560
2013 (Preliminary)	490
Reduction	70

- Lowest since 1961 – 52 year low!

Cable Median Barrier Status

Note: This map was prepared prior to February 2012 by the Federal Highway Administration Resource Center Safety and Design Team. We were advised that it is not an official report...it was only meant to give an idea of the number of states that had embraced this safety approach.





ArkansasHighways.com

Litter Hotline 866-811-1222



[@AHTD](https://twitter.com/AHTD)

