



Superpave Center Update

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Outline

- ▶ History of Superpave Centers
- ▶ Update on Superpave Training
- ▶ Update on Superpave Implementation Status
- ▶ Potential Changes Affecting Training
- ▶ M-TRAC Website

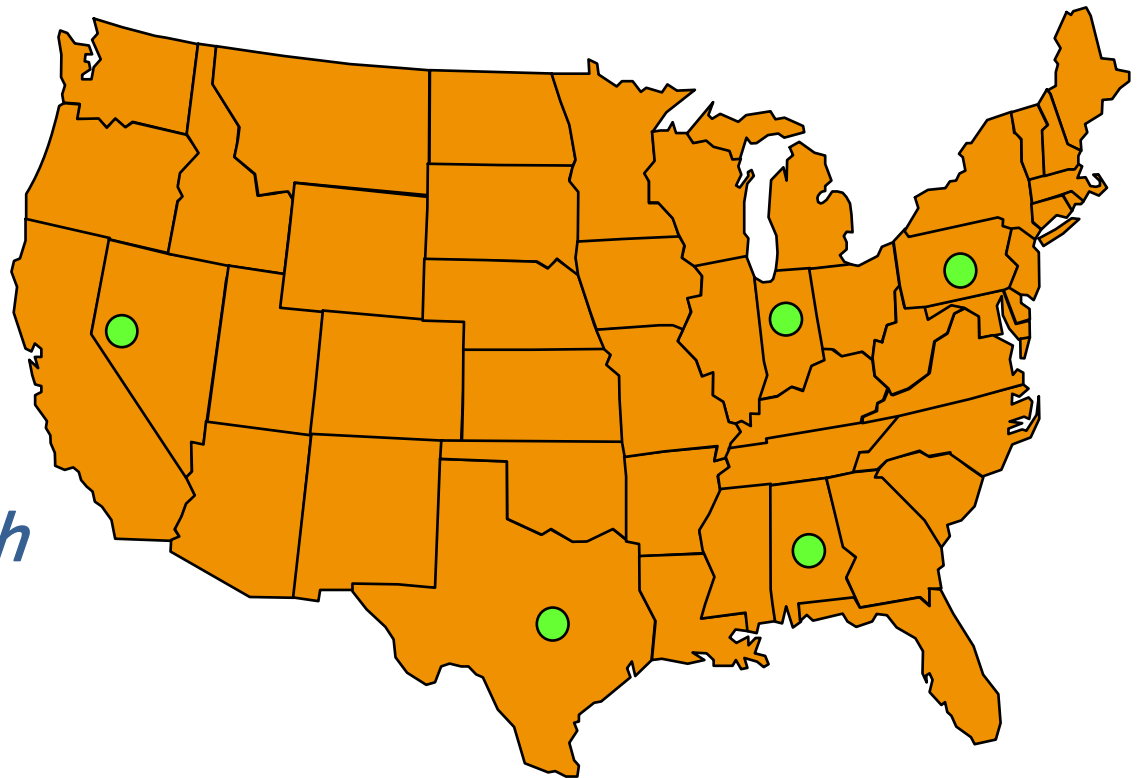
History of the Center

- ▶ Created in 1995 by the FHWA as one of five regional Superpave centers
- ▶ Original purpose was to assist agencies and industry with implementation of the Superpave system
- ▶ Purpose has now evolved into addressing many HMA issues such as noise, friction, pavement performance, materials characterization and recycling

Superpave Regional Centers

- n West Lafayette, IN
- n State College, PA
- n Auburn, AL
- n Austin, TX
- n Reno, NV

*Host state works with
Local University*



NCSC Major Activities

- ▶ Research
- ▶ Technical Support
- ▶ Technology Transfer
- ▶ Training
- ▶ Training used to be our main activity


Superpave Training

- ▶ Training was initially one of the main reasons to have the Superpave centers
- ▶ Thousands have received training from centers
- ▶ Most training now done by state or regional training groups
 - Absorbed into existing training programs
- ▶ Some training still done by centers
 - Varies by region


Superpave Implementation Status

- ▶ Most states, but not all, have implemented Superpave
- ▶ Even more states have implemented PG binders
- ▶ Wealth of experience
- ▶ Becoming “routine”
 - Many local variations
- ▶ Adoption of Superpave has led to changing training needs

Performance

- ▶ Overall positive performance
 - ▶ Large percentage indicate improved, some unchanged, a few worse
 - ▶ Rutting virtually eliminated
 - ▶ Greatly reduced thermal cracking
 - ▶ Concern about permeability, joint density and durability
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AMAP Survey

- ▶ Association of Modified Asphalt Producers survey in 2004
 - ▶ 34 states have tweaked the PG binder specifications
 - ▶ Similar situation with Superpave mix design
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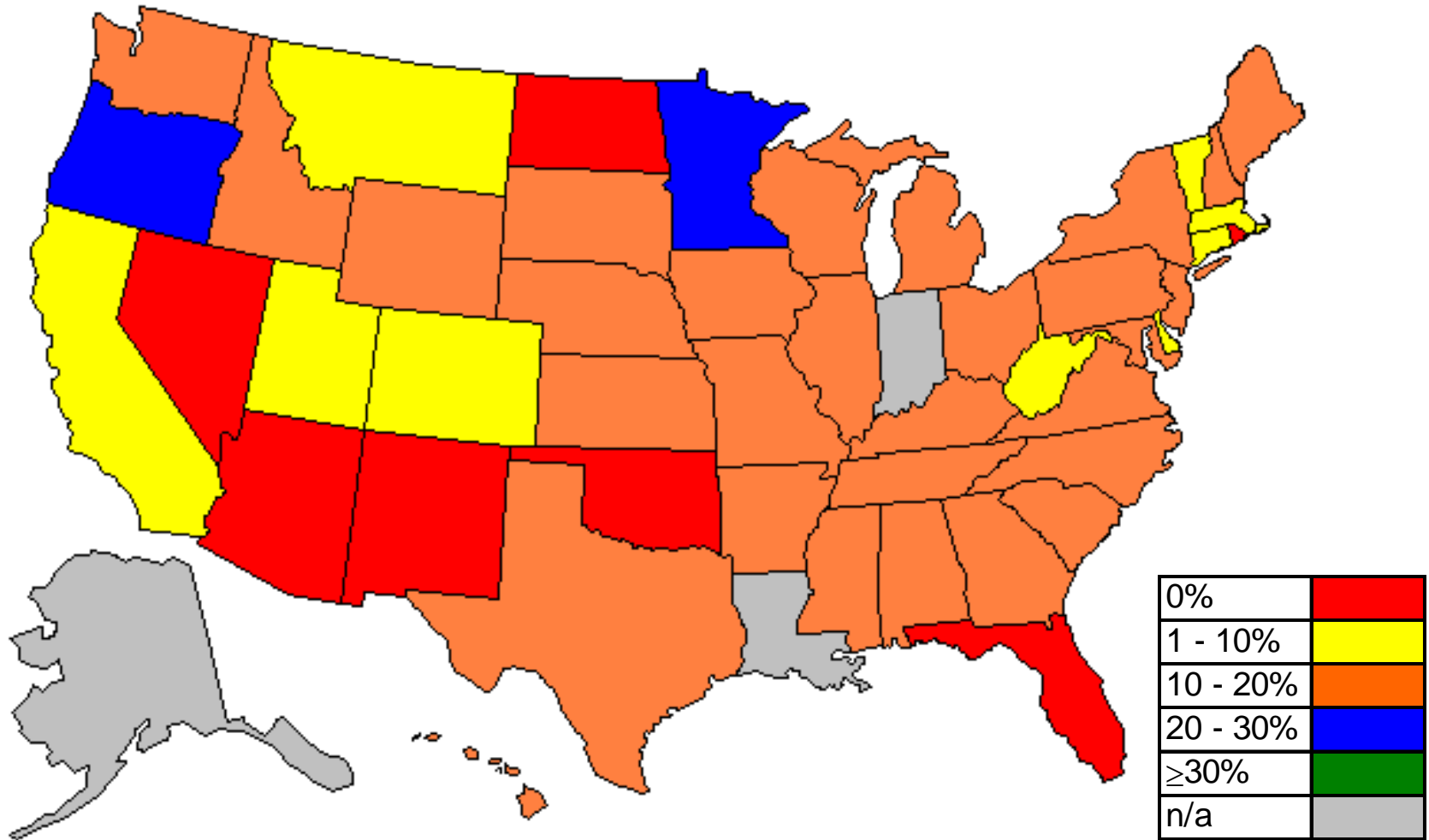
Binders

- ▶ The norm in most of the country
- ▶ Most states (34) have implemented pluses
 - Not comfortable with blind specs
 - Want assurance they are getting what they want or what they used to use successfully
 - Want to ensure they *do not* get some products
- ▶ Added tests, modified criteria, require specific modifiers, etc.

Mix Design Issues

- ▶ Some states still using old design methods
- ▶ Concern that mixes are too dry
 - Durability problems?
- ▶ Permeability issues
- ▶ Compaction variations
- ▶ Increased use of finer mixes
- ▶ Added tests
 - Wheel tracking, for example
- ▶ Variations in RAP use

Surface Mixes -- Average RAP Use



Cecil Jones, NCDOT, RAP ETG Survey


Uniformity

- ▶ We will never all do things the same way
 - Early goal/wish
 - There are reasons for some differences
- ▶ We may still be able to share commonalities in training and certification
- ▶ Reciprocity practices between some states
 - Still desired in others
- ▶ Interest seems to be increasing in North Central to streamline training/certification
 - Share common core, offer short state-specific course

Likely Modifications

- ▶ **Multi–Stress Creep Recovery (MSCR) Test**
 - Better account for fatigue, modifiers
- ▶ **Asphalt Mix Performance Test (AMPT)**
 - Commercial version of what was once called Simple (or Superpave) Performance Test
- ▶ **Mechanistic–Empirical Design Guide (MEPDG)**
 - Dynamic Modulus
 - Data Analysis
- ▶ **Higher RAP Contents**
- ▶ **Warm Mix Asphalt**
- ▶ **New Surface Types** – porous, more SMA, 4.75mm mixes, preservation, etc.

Conclusions

- ▶ Superpave and PG Specs are the norm in most parts of the country
 - ▶ Superpave Centers have evolved differently depending on region
 - ▶ Superpave training has largely been absorbed into existing training programs
 - ▶ Continuing refinements to the system (and asphalt in general) should be reflected in training programs
 - ▶ *We have learned a great deal through the process of implementation*
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M-TRAC Website

- ▶ Maintained by NCSC
- ▶ New info posted when provided
 - *New material welcome!*
- ▶ NCSC site recently redesigned
- ▶ About M-TRAC
- ▶ Member States
- ▶ Meetings / Reports
- ▶ Program Contacts
- ▶ Training Info
- ▶ Web Links
- ▶ What's New

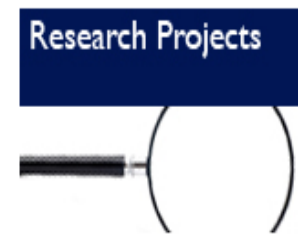
Website Status

Site Content



Home

Affiliates: CSBG M-TRAC NCAUPG



Welcome

Welcome to the [North Central Superpave Center](#) (NCSC) website. The NCSC was initiated in 1994 to assist agencies and industry in the North Central region of the country and to continue the development and implementation of the [Superpave](#) system for asphalt binder and mixture design. As the use of Superpave became routine in the region, the focus of the NCSC broadened to address any issue related to hot mix asphalt. Today the NCSC continues to conduct research, provide technical information, assist with testing, participate in equipment/protocol evaluations, contribute to standards development and provide training related to hot mix asphalt and aggregates.





Multi-Regional Training and Certification

- Home
- About M-TRAC
- Member States
- Meetings/Reports
- Program Contacts
- Training Info
- Web Links
- What's New

Welcome to the **Multi-Regional Training and Certification (M-TRAC)** Website. M-TRAC is one of five regional training partnerships working through the Transportation Curriculum Coordination Council (TCCC) to help train a qualified workforce to maintain and rehabilitate the Nation's aging roads and bridges.

M-TRAC offers many [training programs](#) to its participating states, most of whom follow reciprocity policies for certifying highway workers. The M-TRAC programs are continually growing and changing. We invite you to explore our website and learn more about the training programs available.

The [Transportation Curriculum Coordination Council](#) (TCCC) is a partnership between the FHWA, State Departments of Transportation (DOTs), and the highway transportation industry and it's mission is to provide leadership at a national level, develop and maintain a national curriculum for various transportation disciplines, identify training and certification requirements, and coordinate/facilitate training efforts.

To see a list of [TCCC technical panel members](#) click here.

Click here to see the [Partnership agreement for the Cooperative Development of Highway Construction Courses](#).



Website Administrator: North Central Superpave Center
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Last update 16-Nov-06

Website Future

- ▶ M-TRAC URL
 - <http://rebar.ecn.purdue.edu/Superpave/M-TRAC/index.htm>
- ▶ NCSC URL
 - <https://engineering.purdue.edu/NCSC/>
- ▶ Our “geeks” recommend migrating M-TRAC to our server
 - May simplify URL
 - Opportunity to update webpage
 - Thoughts?

Thank you!

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