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What is Happening at WesTrack?
WesTrack, FHWA’s hot-mix asphalt performance related specification test facility in Nevada, passed another significant milestone in mid-April of 1997—the track has been trafficked for one full year. The effects of accelerated loading are already beginning to show on the pavement. The application of more than 2.7 million ESALs, from April 1996 to April 1997, has resulted in rutting in almost every test section and severe fatigue cracking has occurred in several other sections. This distress has required the removal of ten sections. A new mix design was developed for the replacement sections. The new mix designs were to fill-in the experimental cells not completed to date.

The new mixes have a coarse graded Superpave gradation made from quarried stone. The mix met all Superpave requirements for aggregate properties and volumetrics. Sections were placed as in the original sections with low, optimum and high asphalt contents, and low, medium and high in-place air voids. Quality control testing was conducted behind the paver during construction; the data indicate the mixes had the required volumetric properties and reasonable gradation and asphalt content. The binder was checked and met Superpave requirements. Most of these new sections exhibited some deformation within two days of trafficking. There is something about these coarse graded mixes that needs to be more fully understood.

Coarse graded mixes, similar to the mix placed at WesTrack, have been placed on many pavements around the country. These mixes have performed well. From Baltimore to St. Louis to Phoenix, these mixes have been placed on pavements with high traffic and hot climates and have not had the failures we see at WesTrack. There are many questions about what has happened with the new sections placed at WesTrack.
The FHWA understands the need to quickly address the questions that have emanated from the performance at WesTrack. To promptly address the questions, the FHWA is pulling together an independent team of experts to evaluate the new test sections. The team will look into each aspect of the design and construction of the new test sections to determine what might be the cause of the early distress. A report will be produced to put forward the findings of the team to the industry.

We will continue to work on answering the many questions on the performance of Superpave. There will be more refinements and corrections as we gain experience. Several sections at WesTrack have not performed as expected. Similar mixes are performing in the real world under real conditions. Only by continuing to build pavements and evaluate their performance will we improve our ability to design and build asphalt pavements for the 21st century.

For more information, please contact Terry Mitchell at (703) 285-2434, e-mail terry.mitchell@fhwa.dot.gov; or John DAngelo at (202) 366-0121, e-mail john.dangelo@fhwa.dot.gov.

Note: The independent team evaluating the new sections at WesTrack just issued the preliminary report on their findings, identifying many factors that may have had a minor impact on construction. The team indicated that the major cause for the early rutting is a combination of a course-graded mixture with high optimum asphalt content (5.7 percent) and a low binder stiffness (PG 64-22). The final report, expected in December 1997, will include a summary of the data and recommendations to prevent similar problems. A preliminary report is available on our website or by calling the NCSC.

NCAUPG Fall Meeting Plans Announced

The Fall meeting of the North Central Asphalt User-Producer Group will be held October 22-23, 1997, at the Hilton Inn near the Kansas City airport (formerly the DoubleTree and site of the Spring 1996 meeting). The meeting will begin at 1 p.m. on the 22nd and end at 12 p.m. on the 23rd. The meeting of the full user-producer group will be preceded by a meeting of the Management Committee at 10 a.m. on the 22nd. The North Central Superpave Center Steering Committee Meeting will follow from 12:30 to 4 p.m. on the 23rd.

A block of rooms at the Hilton will be held until October 7, so please call early to make your reservations, (800) 525-6322. The hotel is located on 112th Street, along I-29 at Exit #12.

The proposed agenda for the NCAUPG meeting is as follows:
DAY ONE: Wednesday, October 22, 1 to 5 p.m.

National Research Plan for Highways and Superpave Update (Donald Steinke, FHWA)

AASHTO Update (Haleem Tahir, AASHTO)

Binder Update (Rick Smutzer, Indiana DOT)

Mixture Update (Wayne Murphy, Minnesota DOT)

DAY TWO: Thursday, October 23, 8 a.m. to 12 p.m.

Goal I: Local Agency/Industry Groups (Don Jordison, Iowa Asphalt Paving Association)

Goal II: Benefits/Criteria For Pavement Performance (Rick Smutzer, Indiana DOT)

Goal III: Review, Evaluate and Re-Define Superpave (Rebecca McDaniel, North Central Superpave Center)

Goal IV: Review, Evaluate and Refine QC/QA

- Identify Criteria for QC/QA (John Volker, Wisconsin DOT)
- Use and Document Standard Test Methods and Equipment (John Volker, Wisconsin DOT)
- Training and Certification (Laird Weishahn, Nebraska DOR)
- Plan for Development and Implementation of Uniform Quality Specifications (Gerry Huber, Heritage Research Group)

Goal V: Monitor Constructability Issues (Lloyd Bandy, Indiana Asphalt Pavement Association)

Future Plans (David Holt, Minnesota Asphalt Pavement Association)

Adjourn
Flushing was observed on the driving lane throughout the mainline surface on one project in Indiana.

Superpave implementation is advancing in Indiana to the point where it will be utilized on all of the major projects on the State system. It will be required on all DOT and Local Public Assistance (LPA) QC/QA projects in 1998. PG Binders have been required on asphalt products and local public agency projects since January 1, 1997. Forty-five projects are in progress on the State system, including a few local agency projects. The Indiana projects contain 2,119,774 metric tons of hot mix asphalt.

There are two projects with designated traffic volumes of less than one million ESALs, ten projects from one to three million ESALs, 16 projects from three to 10 million ESALs, eight projects from 10 to 30 million ESALs, seven projects from 30 to 100 million ESALs, and one project over 100 million ESALs. PG Binder 64-22 is primarily used in mainline mixtures. Some mixtures use PG 58-28 and a few use PG 70-28. Shoulder mixes generally use PG 58-28.
Construction of Superpave mixtures has been very satisfactory to date, although a few projects have experienced some tenderness and density problems. In addition, a few have experienced performance problems related to rutting and flushing. Industry has met with the Department and identified the following common factors that may be contributing to the problems: high binder content in surface 9.5 mm mixtures; not using the actual specific gravity of the aggregates; moisture in the mixture; excessive 325 material; quality issues related to the fine aggregate (agg lime); use of an absorption test in conflict with curing period in PP 2; FAA requirements vs. low gyrations for three to 10 million ESALs; design selection of the binder grade for mainline/shoulder; design and selection of ESALs for shoulder mixtures; and bag house fines.

Nine of the 45 projects were identified as experiencing rutting and flushing problems. Rutting is occurring on the shoulders on high volume interstates where traffic is maintained during re-construction operations. The existing design of the shoulders uses 500,000 ESALs, but early distress is being attributed to the rate of application of the loadings during maintenance of traffic operations. Shoulder design ESALs have been increased to 2,000,000.

Flushing on eight projects has ranged from minor isolated "spots" in the mainline and/or shoulder mixtures to one catastrophic occurrence resulting in the removal and replacement of the driving lane surface course on I-74 west of Indianapolis.

The implementation of Superpave specifications has been very successful in Indiana. Field personnel and industry are pleased with the engineered mixture. The single I-74 project represented nearly 26,315 metric tons, or less than 1.5 percent of the total statewide mixture usage. The limited problems on the surface course appear to be related to the transition from Marshall to Superpave, likened to cook book mixtures compared to engineered mixtures. Superpave specifications have identified various shortcomings in the asphalt program that are not entirely related to Superpave. It is believed that the same problems in the mixtures (particularly flushing) were occurring under the Marshall design period, but the reasons were not fully apparent. Superpave has provided the mechanism to advance asphalt products in Indiana.

Superpave is working in Indiana.

Article by David H. Andrews, Indiana DOT, and Victor (Lee) Gallivan, FHWA

Binder ETG Meets, Focuses on Testing and Specification

The Binder Expert Task Group discussed a number of testing and specification issues at their last meeting in June. A brief summary of those issues follows. Discussions continued on the comparison of
Cannon and ATS Bending Beam Rheometers and other BBR testing issues. Several revisions to TP1, Standard Test Method for Determining the Flexural Creep Stiffness of Asphalt Binder Using the Bending Beam Rheometer (BBR), were proposed. These revisions would specify a 0.5 second loading time and require that the specific gravity of the bath fluid not exceed 1.10. Chuck Maggi, of Cannon Instruments, also discussed using a smaller radius for the support arms in the BBR to reduce testing variability. Four sets of new support arms were distributed for testing and comparison to the currently used, larger radius supports. Maggi also recommended use of a partial immersion type thermometer (ASTM 62C) calibrated to BBR test temperatures rather than a total immersion type thermometer; this will also reduce testing variability by placing tighter controls on the bath temperature. Dave Anderson, of Pennsylvania State University, presented a list of important factors relating to repeatability and reproducibility of BBR results. Gerry Reinke, of MTE Services, showed test results that indicate silicone BBR molds could be used if used properly. He also showed that variations in beam dimensions could also result when aluminum molds are used and, therefore, beam thickness should be measured and standardized regardless of mold type. Recommendations will be finalized at the next meeting of the group to be held in January 1998.

Vacuum degassing of PAV residue was also considered. A proposed degassing procedure was presented that would reduce the degassing time from three to four hours down to about 35 minutes for non-polymer modified binders. Results of a study to optimize vacuum degassing conditions identified important factors to standardize for a vacuum degassing procedure.

Preliminary results of a study of factors affecting the horizontal direct tension test were presented. Variables affecting the test results included such things as age and contamination of the molds used to form specimens, and contamination of the fluid bath. Alternative measures to control these factors were also considered. This study will continue and results will be discussed further at the next meeting.

Other studies are investigating the use of a microwave instrument to simulate long term aging behavior in lieu of the pressure aging vessel and a comparison of the Rolling Thin Film Oven to the modified German Rolling Thin Film Oven.

The contribution of the binder to fatigue behavior of the mixture continues to be a topic of concern to the ETG and a work plan to address this issue was discussed. Part of this work plan will include an assessment of field projects exhibiting good and bad fatigue performance. Results of this study will also be discussed further at the next meeting.

Other on-going research projects discussed included NCHRP 9-10, Superpave Protocols for Modified Asphalt Binders; a comparison of mixtures incorporating PG 76-22 binders produced using different methods; and a validation experiment using the FHWA Accelerated Loading Facility (ALF). The Binder ETG will continue to follow these studies and consider their findings.

As this summary shows, there are a number of issues still under consideration and data are being collected to address those issues. The next meeting of the group in January 1998 should result in
Aggregate Training Standards Developed

In the last edition of this newsletter, we reported on the work to establish minimum training standards for asphalt binder and mixture technicians at the Region 5 and 7 Training and Certification Workshop. This group has been working for four years to establish a basis for training uniformity and certification reciprocity among the states in this part of the country and possibly beyond. At the same conference, other training development teams worked on training requirements for aggregates, soils and concrete.

The requirements for aggregate training and qualification/certification are likely of interest to Superpave users, since aggregates constitute 95 percent or so of the mixture. In addition, qualification as an Aggregate Field Tester and Aggregate Laboratory Technician is proposed as a prerequisite for being certified as a Hot Mix Asphalt Technician.

Two categories of qualification/certification are proposed in the aggregates area. They are:

**Aggregate Field Tester**: required for persons at the construction site, at the aggregate quarry or pit, and at the asphaltic or portland cement concrete production facility and testing aggregate. The training will cover ten AASHTO or ASTM standard test methods. Qualification at this level will require both a written and performance exam, which have yet to be developed.

**Aggregate Laboratory Technician**: required for persons in the laboratory testing aggregates and making decisions on quality or acceptability. Qualification as an Aggregate Field Inspector is required. This training will cover an additional 11 AASHTO and ASTM test methods. A written exam will be developed covering all 11 test methods. A performance exam will be developed covering eight of these tests.

Test methods specified for use under Superpave are included in both the aggregate and asphalt training programs.

Task groups from each of the four training development teams are meeting this Fall to continue the work that was initiated this Summer. The task groups will begin the process of assembling and/or developing instructional materials for the proposed courses. The goal is to have training programs ready for use in the 1998/9 training season.
NCSC Announces Winter 1997/8 Superpave Training Schedule

The NCSC recently announced its Superpave training schedule for Winter 1997/8. Because of the positive feedback we have received in response to last year's training efforts, the Superpave Binder and Superpave Volumetric Mix Design courses will be offered again this year in the same format.

The Superpave Binder Course is designed to provide classroom overviews of the binder specification and test methods followed by hands-on laboratory work with all of the binder test procedures except direct tension. The course is based on materials developed by the National Asphalt Training Center. This three-day course is primarily for binder lab technicians who will be performing these tests on a routine basis.

The Superpave Mix Design Course offers a thorough presentation of the Superpave mix design system and include brief overviews of the binder specification and mix analysis. The majority of this three-day course focuses on the Superpave Gyratory Compactor (including hands-on work), mixture volumetrics and the mix design procedure. The course concludes with a workshop session on the calculations used in the mix design process.

The Winter 1997/8 training course schedule is as follows (additional courses may be added depending on demand):

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<thead>
<tr>
<th>Superpave Mix Design</th>
<th>Superpave Binder</th>
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<tr>
<td>October 27-29, 1997</td>
<td>October 14-16, 1997</td>
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<td>November 5-7, 1997</td>
<td>December 3-5, 1997</td>
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<td>December 15-17, 1997</td>
<td>April 1-3, 1998</td>
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<td>January 26-28, 1998</td>
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<td>February 11-13, 1998</td>
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<tr>
<td>March 24-26, 1998</td>
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All of the binder courses will take place at the NCSC Binder Branch in Indianapolis, Indiana. The mix design courses will take place alternately at the Binder Branch (November 5-7, January 26-28 and March 24-26) and the Mixture Branch in West Lafayette, Indiana (October 27-29, December 15-17 and February 11-13).

The NCSC staff is also available to travel to your facility to provide group training. We can customize
the above courses to suit your needs, or develop courses from your concepts. If your organization needs customized training or envisions courses other than those outlined here, please contact the NCSC to discuss your ideas. We would be happy to work with you to meet your needs.

Our new training brochure, complete with registration information, was recently distributed. If you are interested in our courses and did not receive a brochure, please contact Julie Smith at the NCSC.

NCSC Lands NCHRP Contract

The North Central Superpave Center was selected by the National Cooperative Highway Research Program to conduct a two-year research effort on NCHRP 9-12, Incorporation of Reclaimed Asphalt Pavement in the Superpave System. The project is focused on developing clear and detailed guidelines for incorporating RAP in the Superpave mix design and field control procedures, developing a manual of laboratory and field testing procedures for technicians, generating an implementation plan for moving the research results into practice and a final report summarizing the project. The effects of RAP on both binder and mixture properties will be considered.

The Asphalt Institute is partnering with the NCSC on the project as a subcontractor. Hamid Soleymani will be joining Purdue and the NCSC in October as a post-doctoral fellow to work on the project. Soleymani is currently completing a Ph.D. at the University of Saskatchewan where he is working on a project entitled Implementation of the PG Binder System for Asphalt Pavement Recycling with Dr. A. T. Bergan, University of Saskatchewan, and Dr. Hussain Bahia, University of Wisconsin.

This NCHRP research is on a national level. A regional pooled fund study on Use of Reclaimed Asphalt Pavement Under Superpave Specifications will compliment, but not duplicate, the national study. The regional study will focus specifically on regional materials, performance and issues.

The project was initiated in April 1997 and is scheduled for completion by March 31, 1999.

NCSC Helps Spread the Word to Local Agencies

As states implement Superpave and make changes in their standard specifications, many, if not most, cities and counties will also need to make the change-over, since they rely on their respective states
specification book. The local agencies buy binder and aggregate from the same suppliers, who are making the switch to Superpave in increasing numbers. The local agencies also hire the same hot-mix contractors; many of these contractors are investing in Superpave gyratory compactors and need to use that equipment on many projects to justify the expense. Factoring in the local agencies greatly increases the number of people needing Superpave training and understanding.

A network exists to contact, educate and advise the local agencies. Each state has a designated Technology Transfer (T2) or Local Technical Assistance Program (LTAP) center. These centers provide training, publications, software and videos; newsletters; and technical assistance to thousands of people across the country.

Rebecca McDaniel, NCSC Technical Director, was invited to address the LTAP Centers at their annual meeting in Duluth, Minnesota, in July. Total attendance at the conference exceeded 230 people. More than 70 people attended the concurrent session on Applied Technologies, which included presentations on Superpave and Cost Effective Pavement Preservation. Other sessions at the conference were devoted to strategic planning, intergovernmental partnerships, needs assessment, best practices, using the internet, adult learning, and more.

McDaniel outlined the need for Superpave training and the resources that are available to help meet those training needs. The T2 Centers can draw upon their regional Superpave Centers, Federal Highway Administration and Asphalt Institute to get training assistance. McDaniel also discussed the National Highway Institute (NHI) Courses that are in the works. One of the three Superpave courses will focus directly on Superpave for Local Governments. Other courses are available through NHI, the Superpave Centers, NCAT, the Asphalt Institute and some local universities.

McDaniel also provided some suggestions on assessing training needs in their state and what sorts of questions to ask their state DOT about Superpave implementation on a state level. Results from the Lead State Team survey on implementation showed the overall status of implementation nationwide.

The LTAP Centers can help to provide information on Superpave to a vast audience that needs to hear what Superpave is, how they can use it and what changes its implementation will require. By working with the FHWA and the regional Superpave Centers, the LTAP centers can ensure that they are providing accurate and up-to-date information to their clients, the local agencies.

Lead State Teams Review Goals

After one year of activity, the AASHTO Lead State Teams met in St. Louis, the site of their initiation, to re-examine and update their goals and action plans. The seven teams met individually to review their
progress, confirm the status of implementation, and revise or renew their goals as needed.

PAST PROGRESS

The Superpave Lead State Team reported progress has been made in determining the status of implementation of the Superpave technology through a survey compiled by the New York DOT. This survey shows that 28 states used the binder and mix specifications in awarding 95 Superpave projects in 1996. In 1997, at least 44 states awarded a total of over 326 projects. Nationwide, 47 states have formal Superpave implementation plans; all states in the North Central Region have plans. The survey also asked about barriers to implementation and the assistance states needed to overcome those barriers. These responses were reviewed in establishing new goals for the team.

The Lead State Team has also provided information about technical contacts who can help to answer questions and share experiences. This listing of experts includes people from the DOTs, industry and academia. The list was published in this newsletter and is available at our website. Other Lead State activities included completing a survey on training needs, which shows that thousands of people need Superpave training of various types. One of the teams earliest actions was to provide an example implementation plan to guide states that have not yet developed a plan.

A new pamphlet was unveiled at the meeting which will serve as a guide to Superpave resources. This pamphlet will provide information on the Superpave Centers, FHWA Superpave Technology Delivery Team, the Lead States, training resources, expert task groups and more. The pamphlet is being printed now and will be widely distributed soon. The NCSC will arrange to make copies available to the North Central Region.

NEW GOALS

The Superpave Lead State Team developed a new set of five goals, replacing earlier ones that were essentially complete and revising/updating some others. The five goals are:

1. Develop and execute strategies to remove or diminish the real and perceived risks associated with Superpave implementation to states and industry. Achieving this goal will require maintaining and sharing an updated list of Lead State Team technical experts and key contact people in partner states. The team will also encourage rapid communication between and among the FHWA, Lead State Team, and industry and state partners.
2. To enable uniform national implementation, we shall identify and disseminate the unchangeable elements of the Superpave system. A recent AASHTO Subcommittee on Materials resolution recommends all AASHTO members implementing Superpave not "substantially modify" the specifications, test methods or requirements. This goal will identify the core elements of Superpave that cannot be changed without detriment to the system and which elements can be modified to some extent to meet local or regional conditions. This goal also includes identification of gaps in the research that should be assessed.
3. Summarize and advocate quality control/quality assurance (QC/QA) guidelines stated in AASHTO PP-26 and National Cooperative Highway Research Program (NCHRP) 9-7, Field Procedures and Equipment to Implement SHRP Asphalt Specifications. This goal involves reviewing NCHRP 9-7 and developing a set of generic specifications in modular form that states
can utilize to write their individual specifications.

4. Benchmark progress and assist implementation of Superpave by collecting, publishing and disseminating program and project level data. This goal will identify the information that needs to be collected on all or some Superpave projects and suggest a mechanism by which those data can be collected and disseminated. Key to this goal is determining what data will be useful and developing a format for collection of those data.

5. To increase AASHTO member implementation from 39 to 52, the Lead State Team will, based upon analysis and expert opinion, estimate, publish and disseminate the potential financial benefits of Superpave. This goal will attempt to quantify the life cycle cost benefits of Superpave through the establishment of an expert panel to review and analyze data supplemented with their expert opinion. The ultimate goal is to encourage all 52 AASHTO members to use Superpave by demonstrating the benefits of implementation.

YOUR INVOLVEMENT WITH THE LEAD STATE TEAM

The Lead State Team is not an exclusive club. It is a group of committed states and industry partners that is working to "assist in the uniform implementation" of the Superpave system. You can participate with and use the resources of the Superpave Lead State Team in many ways. If you need technical or administrative advice about implementing Superpave on a state or project level, there are contacts who can help you. (Call the NCSC or check our website for information on the Lead State pool of expertise.) The sharing of information can go both ways, though. The team will be asking for accounts of experiences with Superpave and data from Superpave projects through some mechanism that has yet to be determined. Please share your experiences—your gripes, problems and successes. This information is vital to getting a clear picture of how Superpave implementation is going and what areas need further attention. Using the Lead State Team (and the Superpave Center), you can share your experiences—good and bad—so that others can learn from them.

NCSC Reviews Second Year Operations

At the end of its second year in operation, the North Central Superpave Center staff paused to review the progress made since the inception of the center and make plans for the future. Activities in the areas of initiation of operations, communications, training, research, ruggedness testing, technology transfer, funding and remodeling were reviewed. At the risk of blowing our own horn, we would like to share some of the highlights of our review with our readers to update you on what your Superpave Center is doing and planning.

ACCOMPLISHMENTS

The NCSC has established working relationships with the DOTs and industry in ten states and two Canadian provinces. This newsletter and the NCSC website [http://ce.ecn.purdue.edu/~spave/] are prime examples of the major emphasis the center has placed on communication of
information to a wide audience. Communication and technology transfer also include face-to-face contact; the NCSC staff has made invited presentations to over 20 different organizations. Through representation on both the Binder and Mixture Expert Task Groups and cooperation with the other Superpave Centers, the NCSC has mechanisms to bring issues from the region into a national arena and vice versa.

Training is a second major emphasis area for the NCSC. Over 200 people have received formal training in Superpave binder testing, mix design or the Superpave gyratory compactor through NCSC training courses. Participants in these courses have included industry personnel from asphalt suppliers, hot mix paving contractors and aggregates suppliers; state and FHWA agency personnel; and university professors, students and staff. In addition to regularly scheduled courses at the Center, courses have been sponsored by industry and taught on location.

The third primary area of emphasis for the NCSC is research. Projects have been initiated on national, regional and state levels to address various Superpave issues including the use of reclaimed asphalt pavement, low temperature cracking, fine aggregate angularity, validation of Superpave and laboratory rut testers. The NCSC is working with the National Cooperative Highway Research Program, Asphalt Institute, various state DOTs and other universities on these research projects. (See NCSC Lands NCHRP Contract for more information on one of these research projects.)

The NCSC is also working with the other Superpave Centers on ruggedness testing of the indirect tensile tester and Superpave shear tester.

PROBLEMS Any new venture involves some obstacles and problems. The initiation of the NCSC was no exception. Getting the program off the ground, establishing a funding mechanism and completing the necessary remodeling took longer than expected. Loss of a trained technician near the end of the first year was a setback that required hiring and training a new technician. These problems have now been overcome and the operation is in full swing.

Some problems have been experienced with some of the specialized Superpave equipment that are continuing to delay the ruggedness testing somewhat. The NCSC is working with the vendors, FHWA and other Centers to work out the bugs. For the most part, vendor support has been very helpful.

PLANS The NCSC plans to continue to stress communication through continued development of the newsletter and website. We will also be strengthening our efforts to amass and disseminate information on implementation issues and experiences. Twelve different courses have been scheduled for the 1997-98 training season continuing the emphasis on training. Our research efforts will also continue and we will work towards establishing more collaboration with other universities around the region. We will also be participating in an initiative to move Superpave into the undergraduate curricula of engineering universities and begin training the engineers of the future. This pilot effort is beginning in Indiana, but could be expanded to other states. The NCSC is also exploring ways to strengthen its ties to industry and the North Central Asphalt User-Producer Group.
Your suggestions, comments and questions are always welcome. Please remember that we are a resource for you to use.

1996 Superpave Experiences Recounted

The Asphalt Institute surveyed 18 states regarding their Superpave projects placed during the 1996 construction season. A report published in July 1997 summarizes the experiences of these states on a total of 86 projects. Approximately 93 Superpave projects were constructed nationwide in 1996.

Experiences with Superpave were generally favorable. Difficulties were reported on 28 projects. The difficulties primarily related to achieving density or VMA, segregation, shoving under the roller, pick-up on pneumatic-tired rollers, and mix sticking to truckbeds. The report notes that "problems" are to be expected when implementing a new design system and learning to deal with different materials. The report adds that many of the "problems" were resolved during construction by implementing well-known corrective measures.

The report includes some comments on individual projects from ten states.

AASHTO Issues New Provisional Standards

The AASHTO Highway Subcommittee on Materials has issued its 1997 Interim Edition of the AASHTO Provisional Standards. This 202-page document includes the most up-to-date versions of the test methods (TP), specifications (MP) and practices (PP) related to Superpave.

TP33, Standard Test Method for Uncompacted Void Content of Fine Aggregate (as Influenced by Particle Shape, Surface Texture and Grading), has been made a full standard and is no longer printed with the Provisional Standards.

Copies of the Interim Standards can be obtained from AASHTO, 444 North Capitol Street, N. W., Suite 249, Washington, DC 20001.

Return to What's Inside
U. S. Hot Mix Conference Features Superpave Workshop

The Fifth Annual United States Hot Mix Asphalt Conference will include a full day of presentations on Superpave, in addition to other sessions on Construction Issues (segregation, compaction and balancing production rates) and Controlling HMA Construction (training and certification, measuring density and smoothness). The Superpave Workshop will include the experiences of the Arizona, New York and Arkansas DOTs; Maricopa County, AZ; Glendale, AZ; and contractors from Utah and Florida. The afternoon session will consist of updates on WesTrack, Superpave specifications, ongoing research activities, aggregate issues, binder issues and a summary entitled "How Is Superpave Doing?"

The conference will be held October 29-31, 1997, in Phoenix, AZ. The Superpave Workshop is all day Thursday, October 30. Information is available from the National Asphalt Pavement Association (NAPA) at 1-888-468-6499.

Thanks to Dick Ingberg

Dick Ingberg will be stepping down as the long term pavement performance (LTPP) regional engineer when his contract ends September 22, 1997. LTPP support had enabled Mr. Ingberg to serve as NCAUPG secretary since the groups inception.

The region owes a debt of gratitude to Mr. Ingberg for his able assistance and dedication to the concept of a regional partnership between asphalt users and producers. Mr. Ingberg was instrumental in developing the NCAUPG into one of the most active and influential user-producer groups in the country.

Thanks, Dick, and best wishes for the future.

The NCAUPG Executive Committee is currently exploring options for fulfilling the secretarys duties.

Region Remains Intact (correction)
Alert readers of the last issue of the Centerline questioned whether Michigan, Minnesota and Wisconsin had seceded from the North Central region. These states were inadvertently omitted from the article summarizing the reorganization of the North Central Asphalt User-Producer Group.

The article should have stated that the region is being realigned into two sub-groups, as follows:

**North Sub-Group:** Iowa, Manitoba, Michigan, Minnesota, Nebraska, North Dakota, Saskatchewan, South Dakota and Wisconsin.

**South Sub-Group:** Illinois, Indiana, Kansas, Missouri and Ohio.

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**Fall 1997 Calendar**

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<th>Date</th>
<th>Event</th>
<th>Location</th>
<th>Contact Information</th>
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<tr>
<td>October 29-31</td>
<td>U. S. Hot Mix Asphalt Conference and Superpave Workshop</td>
<td>Phoenix, Arizona</td>
<td>(301) 731-4748</td>
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<tr>
<td>November 6</td>
<td>41st Annual Kansas Asphalt Paving Conference</td>
<td>Lawrence, Kansas</td>
<td>(913) 864-3969</td>
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<tr>
<td>November 16-19</td>
<td>The Canadian Technical Asphalt Association Annual Meeting</td>
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<td>November 18-19</td>
<td>Ohio Transportation Engineering Conference</td>
<td>Columbus, Ohio</td>
<td>(614) 292-4815</td>
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<td>November 24-25</td>
<td>MAPA Workshop</td>
<td>Minneapolis, MN</td>
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<tr>
<td>December 2-4</td>
<td>Southeastern Asphalt User-Producer Group Meeting</td>
<td>Williamsburg, VA</td>
<td>(334) 844-6240</td>
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<tr>
<td>January 28-9</td>
<td>Binder ETG Meeting</td>
<td>Albuquerque, NM</td>
<td>(202) 366-0121</td>
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<tr>
<td>February 9-10</td>
<td>Nebraska Asphalt Paving Conference</td>
<td>Kearney, NE</td>
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<td>Date</td>
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<tr>
<td>March 11-12</td>
<td>MAPA Workshop</td>
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<td></td>
<td>Minneapolis, Minnesota</td>
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<tr>
<td>March 16-19</td>
<td>AAPT Annual Meeting and Technical Session</td>
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<tr>
<td>April 21-23</td>
<td>Superpave: Today and Tomorrow</td>
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