

LTPP Today

Southeastern States
Pavement Management and Design
Conference
Louisville, KY
June 25, 2003

Why LTPP?

To Provide Answers to
How and Why
Pavements Perform as they do.

Looking at the Past

- Began in 1989
 - GPS: 793 Sections
- SPS Construction
 - 233 Projects
 - 1298 Core Test Sections
 - 431 State Supplemental Test Section

LTPP Today

- GPS: 652 Test Sections
- SPS: 173 Projects
 - 929 Core Test Sections
 - 333 State Supplemental Test Section

Protect Endangered Species:

LTPP Test Sections

Endangered Species: LTPP Test Sections

- States Assistance.
 - Notify LTPP when maintenance/rehab planned.
 - Traffic Control.
 - Material testing.
- No Rehabilitation after January 2004.

Data Collection

- Distress
- FWD
- Profile
- Weather Stations
- Seasonal Monitoring
- Materials
- Traffic
- GPR
- Drainage
 - Edge Drain Inspection
 - NCHRP 1-34(D)

Current Events

- Materials Action Plan
- Traffic Pool Fund Study
- GPR
- Drainage Survey
- Data Release Policy
 - 5-CD Standard Release
 - DataPave Online: www.datapave.com

Data Analysis

- New contract awarded
 - Three contractors
- Data analysis strategic plan.
 - Data analysis ETG.
 - Placemat.
 - Table cloth.

Where's the Beef: Benefits of LTPP

Major Benefit of LTPP

Pavement Performance Database

LTPP Products

LTPP Product Team

- Started in 2000
- Currently a three member team

LONG TERM PAVEMENT PERFORMANCE

LTPP PRODUCT PLAN



U.S. Department of Transportation
Federal Highway Administration

- Congress tasked FHWA to “*prepare products and deliver them to the appropriate customers in a rational, organized manner*”
- Congress tasked FHWA to work with TRB and LTPP by establishing an TRB-LTPP Products Subcommittee
- Consider National Pavement Needs
- Establish an FHWA product development and implementation program
- Development of an LTPP Product Plan

LTPP Products

Existing Need Areas:

1. Design of New and Reconstructed Pavements
2. Maintenance and Rehabilitation of Pavements
3. Pavement Management System, Tools and Techniques
4. Traffic Loading and Environmental Effects
5. Provide Data (database) information and Services

LTPP Products

Coordination:

- LTPP Data Analysis (Tablecloth)
- LTPP ETGs & Products Subcommittee
- LTPP Operations Team
- Other FHWA Pavement Initiatives

LTPP Products

Some Products ...

- LTPPBind 2.1
- Resilient Modulus CDROM
- FWD Calibration Procedures
- Manuals of Practice
- SMP CDROM
- Guidelines for FWD Temperature Adjustments
- Rigid Pavement Design Software
- ProVal
- DataPave online

LTPPBIND 2.1

LTPP Products

Product Format: Software Application

- LTPPBIND is program developed to aid highway agencies and contractors with the selection of the most suitable Performance Grade (PG) of asphalt binder for a given project.
- If you are using SuperPave, LTPPBind can help you.

Resilient Modulus

LTPP Products

Product Format: CDROMs

- The resilient modulus (M_r), or stiffness of the soil and rock in the sub-grade of a paving project, is a critical factor in determining the thickness and composition of pavement layers.
- Since 1993 the FHWA, under the Long Term Pavement Performance (LTPP) program, has done extensive work on the test protocols and procedures.

LTTP Products

Product Format: Publication

- LTTP calibration procedures adopted by AASHTO
- Product delivered in report form.
- Explains in details the calibration procedures.
- Videos are available!
- Report recommends calibration be conducted by everyone that has an FWD.
- No Calibration is a critical mistake, given the complexity of an FWD.

WHY SHOULD WE CALIBRATE?

To ensure consistent and high quality data
between FWD units.

**FWD Pool Fund
Study TPF-5 (039)**

LTTP Products

Product Format: Pool Fund Study

Purpose:

To develop and implement long-term plans for FWD calibration centers and to minimize the variability in pavement deflection data obtained with falling weight deflectometers.

Current Status:

Currently generating interest and participation from potential state partners.

LTTP Products

Product Format: Publication

Set of four manuals

- Materials and Procedures for Rapid Repair of Partial-Depth Spalls in Concrete Pavements
- Materials and Procedures for Repair of Potholes in Asphalt-Surfaced Pavements
- Materials and Procedures for Repair of Joint Seals in Portland Cement Concrete Pavement Joints
- Materials and Procedures for Sealing and Filling Cracks in Asphalt-Surfaced Pavements

SMP CDROM

LTPP Products

Product Format: CDROMs (3)

Purpose: To deliver all information and data related to the Seasonal Monitoring Program (SMP)

- Introduction to the program
- Videos
- Guides for installation of monitoring equipment
- Comprehensive Data Users Guide
- Table Navigator program
- Document Navigator program

LTTP Products

Product Format: CDROM

- Showcases report FHWA-RD-98-085 “Temperature Prediction and Adjustment Factors for Asphalt Pavements”.
- Includes a spreadsheet that includes all the methods described in the report.
- Source code so it can be used in other operating environments.

LTPP Products

Product Format: CDROM

- Microsoft Excel spreadsheet
- Automates the design and analysis procedures of the 1998 AASHTO Supplement
- Spreadsheet has separate sheets:
 - For determining:
 - accumulated traffic loadings
 - seasonally adjusted k values
 - adjusted k-value for fill and/or depth to rigid layer
- Also perform corner break checks and faulting cracks

PROVAL

LTPP Products

Product Format: CDROM

Profile Viewer and Analyzer

- Is a software package that imports, displays, and analyzes the characteristics of pavement profiles.
- International Roughness Index, Ride Number, Profile Index, California profilograph, and rolling straightedge, and other more complex filters such as Butterworth band pass filters and power spectral density.

ProVAL

LTPP Products

ProVAL uses a new standard file format that is fast, compact, and portable.

ProVAL can analyze large numbers of profiles of virtually any length.

Formats: industry-standard University of Michigan Transportation Research Institute Engineering Research Division (ERD) profiler; the Texas DOT profiler; and the K.J. Law profiler.

DataPave Online

LTTP Products

LTTP DataPave Online - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media History Mail Print Print Preview

Address <http://www.datapave.com> Links Rocketmail MyCalendar MapQuest LTTP My Excite MEKU FedTrip Cox.net

DataPave Online Federal Highway Administration
Your Access to the World's Largest Pavement Performance Database

Home | Visualize | Tools | Help **ENGINEERING**
Register | Login

The Long-Term Pavement Performance (LTTP) program-the largest pavement study ever conducted - is becoming the primary source of pavement performance information for the North American highway community. This 20-year LTTP program was initiated in 1987, as part of the Strategic Highway Research Program (SHRP). Responsibility for program management was transferred to FHWA in 1992. Today, the program has more than 2,400 test sections on in-service highways at over 900 locations throughout North America. Data are collected through cooperative efforts of the agencies that own the pavement and the LTTP program organization. The extensive data collection effort includes inventory, material testing, pavement performance monitoring, climatic, traffic, maintenance, rehabilitation, and seasonal testing modules. The data are housed in an information management system (IMS) - the LTTP database - that is the world's largest pavement performance database, with enormous potential for the development of products to improve pavement technology. The data are subject to an extensive series of quality control checks before being made available to the public.

LTTP DataPave Online is a major effort to make the LTTP data more accessible to worldwide transportation community. LTTP DataPave Online has been developed to address two objectives:

Visualization - The first objective is to provide mid- and upper-level managers and other users with quick, easy-to-use presentations to illustrate the value and potential of LTTP data.

Analysis - The second objective is to provide a user-friendly format for exploring, extracting, and organizing the extensive LTTP data for data analysis.

LTTP DataPave Online has been developed by [iENGINEERING Corporation](#). Please visit the [FHWA LTTP Web Site](#) for more information on the LTTP program and database.

DISCLAIMER: This web site is an evaluation site for the database application program "DataPave" produced by the Long Term Pavement Performance (LTTP) program. The Federal Highway Administration (FHWA)/LTTP updates the database information on this web site every six months. For more up to date information, please visit the LTTP website at <http://www.fhwa.gov/ohp/ltp>. Tel: (662) 404-2667 Fax: (662) 404-2555 e-mail: lttp@fhwa.gov

Done

Start Group... LTTP Se... Microso... LTTP D... Internet

10:06 AM

What is DataPave?

- A web application that provides access to all releasable LTPP data.
- Data can be extracted (exported) to a number of popular file formats to be used for analysis.

LTPP Products

What makes DataPave so special?

- Continuing effort to have the LTPP data more accessible to everyone via the INTERNET.

What will **NOT** do for you DataPave?

- Will **NOT** resolve your pavement problems, but will provide useful data to step you in the right direction!

LTPP Products

Additional information

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Thank You

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<http://www.tfhrc.gov/pavement/ltp/ltp.html>