Update for TPF 5(063)
“Improving the Quality of Pavement Profile Measurement”

By
Robert Orthmeyer, Sr. Pavement Engineer, FHWA
Automated Pavement Distress

• Data Collection Equipment Seminar – June 1990
• 275 participants
• 30 vendors
• Sponsored by FHWA & Iowa DOT
FHWA ProVAL 1.0

- Pilot Workshop – December 2002
- Thirteen attendees
- Instructors: Dr. Rob Rasmussen & Dr. James Wilde – Transtec Group, Inc.
Pooled Fund Study
TPF-5(063)

Improving the Quality of
Pavement Profiler Measurement

Update for the
Kick Off Meeting Group Meeting
May 6 & 7, 2003
2003 Participating Agencies

FL – Nazef
NY - Corbett
OH - Schleppi
MS - Watkins
ND - Fuchs
KY – Shive
OK – Williams
IL – Rowden

NJ - Beke
TX - Meshkani
SD - Huft
GA - Santha
CO – Prieve
KS – Parcells
WFLHD, EFLHD, LTPP, RC, HQ
Overview TPF 5(063)

▪ “Improving the Quality of Pavement Profiler Measurement”

▪ FHWA is lead agency with 22 participating State Highway Agencies (SHA’s) includes:
  • FHWA Office of Technical Services / Resource Center
  • FHWA Long Term Pavement Performance (LTPP)
  • FHWA Federal Lands
Participating State Agencies (22)

- Ohio
- Louisiana
- Kentucky
- California
- Colorado
- Florida
- Georgia
- Kansas
- Mississippi
- New Jersey
- Nevada

- New York
- North Dakota
- South Dakota
- Illinois
- North Carolina
- Maryland
- Oklahoma
- Connecticut
- Texas
- Wisconsin
- Pennsylvania
TPF 5(063) Priorities

1. Build Reference Profile Device
2. Critical Requirements – Became #1
3. Bumpfinder Software - ProVAL
4. Certification/Validation Sites
5. Evaluating Upper Limits of Single Accelerometer
6. Emerging Technology that Enhances Profile Measurement
7. Support RPUG
Progress on TPF 5(063) Priorities

1. Build a Reference Profile Device (ongoing): Two parts –
   i. Benchmark Testing – UMTRI
   iii. Last round of evaluations: 2015

2. Critical Requirements (completed - 2005): UMTRI; final report on pooled fund study website – “Critical Profile Accuracy Requirements”
FHWA PARKING ProVAL – site to be determined

   • ProVAL 3.3 released in December 2011
     Includes Automated Faulting Module (AFM)
   • ProVAL 3.4 released Dec. 2012
   • ProVAL 3.5 released Sept. 2014
   • ProVAL 3.6 released April 2016
   • Workshops completed.
ProVAL 3.6 software
ProVAL Version 3.5 included mapping
Export files to Google Earth
ONE EQUATION NECESSARY

Collect a Quality Pavement Profile = Any Index
FHWA HPMS – Network level surveys

Field Manual references

AASHTO R43 – 6.2: Data collection for ride ≤ 2.0 inch longitudinal spacing.
TOOLS FOR QUALITY PAVEMENT PROFILE

AASHTO STANDARDS

• M328 “Standard Specification for Inertial Profiler”
• R54 “Standard Practice for Accepting Pavement Ride Quality When Measured Using Inertial Profiling Systems”
• R56 “Standard Practice for Certification of Inertial Profiling Systems”
• R57 “Standard Practice for Operating Inertial Profiling Systems”
TRANSITION TO NEW STUDY LED BY SDDOT

TPF 5(354) “Improving the Quality of Highway Profile Measurement”

- Details at: [http://www.pooledfund.org/Details/Study/605](http://www.pooledfund.org/Details/Study/605)
- Transition session held Tuesday November 1, 2016
- 14 State Highway Agencies have joined as of October 31.
  - CT, FL, IL, KS, KY, LA, NC, NV, NY, OH, PA, SD, TX, WI.
- Room for additional agency support!!
TPF 5(063) “Improving the Quality of Pavement Profiler Measurement” terminates on December 31, 2016

QUESTIONS??

Call Dave Huft!!!