Update of TPF- 5(063)
"Improving the Quality of Pavement Profiler Measurement"

Dated March 21, 2003

A kick-off meeting is scheduled to begin at 8:00 AM on May 7th – 8th at the FHWA National Resource Center in Olympia Fields, IL.

The following 13 States have submitted commitment forms to support the study: Connecticut, Colorado, Georgia, Florida, Kansas, Kentucky, Mississippi, New Jersey, New York, Ohio, Oklahoma, South Dakota and Texas. Along with the support from the FHWA LTPP Products, the commitments total $957,200 over a four-year time frame.

There is still time for states to get in on the ground floor!!

It is anticipated that a Request for Proposals (RFP) to provide technical support for implementation and research will be advertised through regular government channels shortly after the kick-off meeting.

The initial meeting will provide a forum to discuss the proposed AASHTO Provisional Standards, to review state-of-the-art technologies, review current research, and to prioritize specific tasks for the RFP.

The following pages provide points of contact for questions and present a few questions that may be of concern.

Can your inertial profiler be trusted?

Ride quality results from smooth pavement. But how will you know when you've got it if you can't measure pavement smoothness adequately?? Inertial profilers don't always give the same values on the same roads.

That's why the Federal Highway Administration (FHWA) Long Term Pavement Performance (LTPP) Program has initiated:

—Transportation Pooled Fund Study TPF-5 (063) "Improving the Quality of Profiler Measurement"—

This pooled fund study will assist with the implementation of the AASHTO Provisional Standards and establish greater integrity to the measurements. TPF-5 (063) is a multi-year, $1.6 million, multi-tasked study designed to work with SHAs in providing implementation processes. This study will:

- Deliver sample procurement specifications and maintenance guidelines.
- Establish criteria for verification centers and assist with their development.
- Investigate the feasibility of a portable verification device.
- Provide software that can relate localized roughness to highway users and locate surface imperfections that require corrective repair.

Get involved in this high-payoff initiative. To obtain a commitment form or learn more about this study, contact:

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As state highway agencies (SHA) have started to use inertial profilers to measure ride quality for quality control and quality assurance processes, a number of studies have revealed that those tools may lack the integrity needed to perform the required data collection. To help States obtain better ride quality data, the American Association of State Highway and Transportation Officials (AASHTO) has developed provisional standards that can provide SHAs with information on variability, repeatability, reproducibility, calibration/verification, and precision/bias. When implemented with quality assurance programs, these standards will give engineers an edge in improving ride quality on their State's highways. The proposed inertial profiling standards include:

- **AASHTO PP 50-02 "Standard Equipment Specification for an Inertial Profiler"**
- **AASHTO PP 51-02 "Certification of Inertial Profiling Systems"**
- **AASHTO PP 52-02 "Operating Inertial Profilers and Evaluating Pavement Profiles"**
- **AASHTO PP 53-02 "A Pavement Ride Quality Specification When Measured Using Inertial Profiling Systems"**

What do these inertial profilers have in common? A lot. Unfortunately, it's not always the values they give for the same roads.

Profilers use state-of-the-art technology, accelerometers, lasers, distance measurement instruments, and they can provide International Roughness Index (IRI) values. But, they may not give the same measurements on the same roads. **Pooled Fund Study TPF-5 (063) "Improving the Quality of Profiler Measurement"** could change that.

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