The goal of the PSDAT Pooled-Fund Study (Study), TPF-5(299), is to assemble state highway agencies (SHA), the Federal Highway Administration (FHWA), industry and academia to:

• Verification/validation of existing standards
• Field Evaluations of vendor data collection and analysis systems (rodeos)
• Analysis standards for transverse profiles related to water retention
• Implementation/demonstration of results
• Procurement standards for vendor services
• Calibration standards
• Verification standards
• Feasibility studies for innovative technologies
• Technical assistance services to assist SHAs in implementing standards
• Define critical accuracy requirements
• Monitor emerging technologies
• Develop surface distress indices
• Support other efforts with complementary goals

## Objective

The goal of the PSDAT Pooled-Fund Study (Study), TPF-5(299), is to assemble state highway agencies (SHA), the Federal Highway Administration (FHWA), industry and academia to:

1. Identify PSDAT data integrity and quality issues
2. Suggest approaches to addressing identified issues
3. Initiate and monitor projects intended to address identified issues
4. Disseminate results
5. Assist in solution deployment
6. Support other efforts related to improving PSDAT data collection and analysis

## Potential Projects

- Verification/validation of existing standards
- Field Evaluations of vendor data collection and analysis systems (rodeos)
- Analysis standards for transverse profiles related to water retention
- Implementation/demonstration of results
- Procurement standards for vendor services
- Calibration standards
- Verification standards
- Feasibility studies for innovative technologies
- Technical assistance services to assist SHAs in implementing standards
- Define critical accuracy requirements
- Monitor emerging technologies
- Develop surface distress indices
- Support other efforts with complementary goals

## Projects

The following are a list of active projects, their objectives, and expected deliverable and date.

### Evaluation of Proposed Standard Data Format and Compression Algorithms for 2D/3D Pavement Surface Image

**OBJECTIVE** | The objectives of this project are to:
- Evaluate and recommend changes to the three reports delivered under contract FHWA DTFH6115P00103 and proposed draft specification for the standard data format and compression algorithm for 2D/3D pavement images
- Verify the functionality and performance of the proposed standard data format and compression algorithm in terms of image fidelity, processing speed, data storage requirements, and other parameters
- Assess the suitability of the standard data format for use by state highway agencies and 2D/3D technology vendors
- Propose a methodology by which a state highway agency can confirm compliance with the standard data format

**DELIVERABLE | Proposed AASHTO standard, Fall 2019**

### Calibration, Certification, and Verification of Transverse Pavement Profile Measurements

**OBJECTIVE** | Provide transportation agencies with the information to monitor and evaluate pavement testing programs that include transverse pavement profile. The methods and procedures developed by the Contractor under this contract shall provide the transportation agency with the ability to:
- Determine the precision and accuracy of (highway speed) transverse pavement profile measurements, and evaluate if the precision and accuracy are within recommended guidelines and operating parameters
- Determine if two or more measurement systems are providing results within tolerances
- Determine if measurements are providing consistent results within tolerances, and how often should the results be evaluated

**DELIVERABLE | Proposed AASHTO standards, Fall 2019**
TPF-5(299) Improving the Quality of Pavement Surface Distress and Transverse Profile Data Collection and Analysis (PSDAT)
Initiated 2014. New project, TPF-5(399), will continue the efforts.

Projects
The following are a list of active projects, their objectives, and expected deliverable and date.

Developing Guidelines for Cracking Assessment for Use in Vendor Selection Process for Pavement Crack Data Collection/Analysis Systems and/or Services

- **OBJECTIVE** | Develop guidelines that include assessment protocols for automated and semi-automated pavement cracking data collection/analysis systems and/or services for use in SHA vendor selection contracting documents. The guidelines will be applicable for automated 2D/3D data collection systems that collect data at the prevailing speed limit.

DELIVERABLE | Guidelines, Fall 2019

Guidance for Quality Management of Pavement Surface Condition Data Collection and Analysis

- **OBJECTIVE** | Develop Quality Management Plan (QMP) guidelines for pavement surface condition data collection and analysis. This will include conducting a pilot project with three SHAs to test the proposed QMP guidelines.

DELIVERABLE | Guidelines, 2022

Jointed Concrete Pavement Faulting Collection and Analysis Standards

- **OBJECTIVE** | Provide transportation agencies with the information and procedures necessary to conduct, monitor, and evaluate pavement testing programs that include jointed concrete pavement faulting. The methods and procedures developed by the Contractor under this contract shall provide the transportation agency with the ability to:
  - Quantify faulting according to a standard definition at each joint and transverse crack of a jointed concrete pavement
  - Determine the precision and accuracy of (highway speed) jointed concrete pavement faulting measurement including joint/transverse crack identification, and evaluate if the precision and accuracy are within recommended guidelines and reasonable operating parameters

DELIVERABLE | Proposed AASHTO Standards, 2022

Other related national projects that the Research Needs Statement that initiated the project was developed by TPF-5(299):

- NCHRP 20-07/Task 411 Review and Update of AASHTO R87, Determining Pavement Deformation Parameters and Cross-Slope from Collected Transverse Profiles
- NCHRP 01-60, Measuring the Characteristics of Pavement Surface Images and Developing Standard Practices for Calibration, Certification, and Verification of Imaging Systems
- NCHRP 01-57A, Standard Definitions for Comparable Pavement Cracking Data

Agencies participating in TPF-5(399): AL, AR, GA, IL, KS, KY, MS, MT, NC, ND, OR, PA, TN, TX, VA and WA.
If your agency is not participating, please consider joining to assist in developing quality standards for pavement performance measures.