Memorandum

U.S. Department
Of Transportation

**Federal Highway
Administration**

6300 Georgetown Pike
McLean, Virginia 22101

Subject: **ACTION**: LTPP Directive D-50
LTPP Distress Data Quality – Reviewing and Correcting
PADIAS and PADIAS42 Distress Data

Date: October 27, 2009

From: Jack Springer
Long Term Pavement Performance Team

Reply to
Attn of: HRDI-13

To: Dr. Frank Meyer, PM - LTPP North Atlantic Regional Contract
Dr. Frank Meyer, PM - LTPP North Central Regional Contract
Mr. Mark Gardner, PM - LTPP Southern Regional Contract
Mr. Kevin Senn, PM - LTPP Western Regional Contract

Attached is the Long-Term Pavement Performance (LTPP) Program Directive D-50. D-50
modifies the criteria for removal of PADIAS and PADIAS42 data from the database to
include the stipulation that the anomaly in question must be due to an error in the data and
adds the statement that directive D-50 SQL approvals do not relieve the RSC from any other
required IMS approvals.

Please make this directive and attachments available to all personnel involved in distress data
review and processing.

If you have any questions concerning this transmittal, please do not hesitate to call me at
(202) 493-3144.

Attachment

FHWA:HRDI-13:BBellinger:mdeeney:493-3156:10/27/09
File: c:/mdeeney/directive/distress/D-50dir.doc
cc:
Jonathan Groeger
Directive Binder
LTPP Team
Official file
Chron

**LONG TERM PAVEMENT PERFORMANCE
PROGRAM DIRECTIVE**

For the Technical Direction of the LTPP Program

Program Area: Monitoring   **Directive Number**: D-50

Date: October 27, 2009   **Supersedes**: D-47

Subject: Reviewing and Correcting PADIAS and PADIAS42 Distress Data

---

There are known anomalies in the photographic distress survey (PADIAS and PADIAS42) data. Possible causes of these anomalies are poor film quality (e.g., scratches on the film), inexperienced raters, and the very procedures that were used to collect the data. These data should be checked during routine DiVA reviews conducted after new manual distress surveys (MDS) and erroneous data corrected or removed from the database.

At the present time LTPP does not have the capability or resources to re-interpret questionable photographic distress surveys. Reviews must depend on prior and subsequent manual distress surveys (MDS), photographs and a review of PADIAS42 digital images and maps where available. Accordingly, the following procedure for correcting or removing erroneous PADIAS and PADIAS42 data shall be followed:
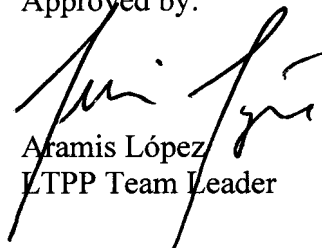
1. A data element substantially (greater than 25%) outside the expected data variability, as reflected in the current version of DiVA, is considered an anomaly. Due to the limitation of the 35 mm film resolution, it is expected that PADIAS and PADIAS42 values will normally be less than MDS values.
2. If the number of anomalies identified within a given PADIAS or PADIAS42 survey is:
   a. More than two (2), the survey in question should be considered for removal from the database if the anomalies are due to an error.
   b. Only one or two, the anomalous data elements in question should be set to null if the anomalies are due to an error.
   c. In some cases, it may be possible to correct the PADIAS or PADIAS42 data. Examples would include wheelpath versus non-wheelpath longitudinal cracking, removing distresses reported in error such as traffic loop saw cuts, marks or grooves on the pavement or distresses not reflected in any other surveys of the section, before and after the date of the suspect survey.

3. The RSCs should review PADIAS or PADIAS42 surveys identified during routine DiVA reviews that have these errors and make resolution recommendations to LTPP headquarters based on their findings.
4. Before any changes are made to PADIAS or PADIAS42 data, LTPP headquarters approval is required.
5. Actions taken to correct PADIAS or PADIAS42 data should be briefly summarized in the OTHER field in tables **MON_DIS_PADIAS_AC**, **MON_DIS_PADIAS_JPCC**, **MON_DIS_PADIAS_CRCP**, **MON_DIS_PADIAS42_AC**, **MON_DIS_PADIAS42_JPCC** or **MON_DIS_PADIAS42_CRCP**. This summary information should be included as part of the SQL statement used to change the data base. AIMS PADIAS and PADIAS42 data summaries, where available, should be annotated with changes made to the data. LTPP headquarters approval is required for any SQLs used to change or remove PADIAS and PADIAS42 data from the LTPP database. Re-use of previously approved SQLs, with the STATE_CODE, SHRP_ID or SURVEY_DATE changed is permissible. This approval does not relieve the RSC from any required IMS SQL approvals.
6. The RSCs will apply the approved SQL to make changes or remove erroneous PADIAS and PADIAS42 survey data identified.
7. Erroneous PADIAS and PADIAS42 surveys that are removed from the database will be considered for possible re-interpretation at a future date. The RSCs will keep a log of all PADIAS and PADIAS42 surveys that are removed from the database.

This procedure applies to all PADIAS and PADIAS42 data reviews performed by LTPP Headquarters, the TSSC and the RSCs.

Prepared by: LTPP HQ

Approved by:

Aramis López
LTPP Team Leader

2