

# LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE



*For the Technical Direction of the LTPP Program*



Program Area:	Monitoring	Directive Number:	D-20
Date:	October 11, 2000	Supersedes:	D-18
Subject:	Storage of LTPP Digital Distress Maps and Photographs		

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The LTPP program has recently undertaken a number of activities aimed at making potentially valuable data (not currently in the IMS) more readily available to data analysts and other potential users. Two such efforts include the digital conversion of manual distress maps and the use of digital cameras for distress photographs. Although neither of these efforts will lead to the upload of data into the LTPP IMS in the immediate future, the resulting data will be stored in CD ROMs which can be easily copied and made available upon request. This directive details the procedure to be followed by the four LTPP Regional Coordination Office Contractors (RCOCs) to create those CD ROMs and their directory structure and to specify their naming convention.

Effective immediately, files containing LTPP digital distress maps and photographs shall be stored on CD ROM (Note: use of name brand CD ROMs such as Sony and Maxell is encouraged as they are generally made of better quality materials, thus providing longer life and better security against loss of data). They include:

- Manual distress survey (MDS) maps created using TIF file format.
- Distress photographs created using JPG file format.

In the future, CD ROMs may also be used to store automated distress survey (ADS) maps.

Please refer to LTPP Directives D-16: Distress Photographs Using Digital Cameras and D-17: Digital Conversion of LTPP Distress Maps or most current directives for creation of these files.

Digital distress maps and photographs shall be kept together, and to the extent possible, all maps and photographs for a given section shall be kept on the same CD ROM. The following CD ROM naming convention shall be used:

Data\_Regions\_Volume\_State\_Version

where:

Data	=	Data type or module to which information is linked in the IMS; <b>DIS</b> shall be used for CD ROMs containing LTPP distress maps and photographs.
Region	=	Two digit LTPP region abbreviation, as follows: <ul style="list-style-type: none"> <li>• NA for North Atlantic region.</li> <li>• NC for North Central region.</li> <li>• SR for Southern region</li> <li>• WR for Western region.</li> </ul>
Volume	=	Unique number in sequence starting with 01, which represents total number of distinct CD ROMs created; a distinct CD ROM is defined to be a set of sections from just one state/province to which additional digital photographs or maps are added – please see example below.
State/Province	=	Two letter standard state/province postal code, e.g., Alabama is AL, Alberta is AB, Florida is FL, etc.
Version	=	Three digit version number, starting with 001, used to keep track of writes, rewrites and updates. Version is incremented by 1 each time changes are made to a volume; i.e., when new data files are added to volume or existing data files are deleted or revised.

For example,

Early in 2000, the Southern Region scans all the manual distress maps for AL, FL, GA, MS, TX and NM. Six CD ROMs are then created for all available distress maps and photographs for each of the six highway agencies. Each agency's data fits comfortably on its respective CD ROM with sufficient room to put maps and photographs expected to be completed for those states between now and the end of the contract. The CD ROM for Alabama becomes DIS\_SR\_01\_AL\_001. The CD ROM for Florida becomes DIS\_SR\_02\_FL\_001. As CD ROMs are created for each state/province, volume numbers are assigned as 03, 04, 05, and 06,... with no particular attention paid in attempting to correspond each state/province code in order with volume number unless so desired.

Later in 2001, a set of automated distress maps are received for the same states. The AL maps are added to the information already on its respective CD ROM and the revised CD ROM is named DIS\_SR\_01\_AL\_002. Similarly, the Florida data is added to its CD ROM and the revised CD ROM is named DIS\_SR\_02\_FL\_002. If a CD ROM is becomes full for a particular state/province, the remaining data will be placed on a new CD in a like manner. For example, a second CD ROM with data from Alabama is labeled DIS\_SR\_0X\_AL\_001, where 0X is the latest volume number assigned at the time the CD ROM is created.

The following subdirectory structure will be used in all CD ROMs:

## SHRP\_ID\SURVEY\_DATE

For example,

Data for Texas' 0001 GPS section collected on July 4, 1995 would be stored in 480001\07\_04\_1995. Data for Arizona's SPS 5 sections collected on either October 1st (core sections) or October 2nd (supplementals) 1999, would have as subdirectories: 040501\10\_01\_1999, 040502\10\_01\_1999, ...040509\10\_01\_1999, 040559\10\_02\_1999.

Working files may be stored on zip disks, jaz cartridges or other FHWA approved medium between intervals of creating CD ROMs. At least one copy of working files shall be kept to minimize potential loss of data or effort. Medium used to store working files must have the same subdirectory structure as CD ROMs, prefaced by the label of the CD ROM being updated or created. For example,

Manual distress maps are being scanned over the course of several weeks. AL and MS maps are done first. Maps for the AL surveys go in DIS\_SR\_01\_AL\_001\01.... The data for the MS surveys goes in DIS\_SR\_0X\_MS\_001\28....where 0X is the volume number assigned at the time the CD ROM is created.

One copy of the most current version of each distress CD ROM shall be provided to the FHWA and one to the TSSC for use by Customer Support Services on the first Monday in June, beginning in June 2001. A minimum of two copies of each version of each CD ROM shall also be retained by the regional contractors.

Questions concerning this directive should be addressed to the FHWA LTPP Team staff member responsible for distress operations, with a copy to the LTPP Technical Support Services Contractor.

Prepared by: TSSC

Approved by:

Aramis Lopez  
LTPP Team Leader