

Continuous Friction Measuring Equipment (CFME) Loan Program: GripTester and DYNATEST HFT



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Pavement Evaluation Conference 2010



Center for Sustainable
Transportation Infrastructure



Overview



Objective



Background



Equipment



Results



GripVal

Objective

- The objective of the project is to conduct an equipment demonstration-loan program for continuous fixed-slip pavement friction measurement equipment :
 - IF GripTester and DYNATEST HFT.



Objective (cont.)

- Project through the Transportation Pooled Fund Project # TPF5 (141), The Surface Properties Consortium, a joint effort of six member states, the Federal Highway Administration, VTRC and VTTI.



Smart Road









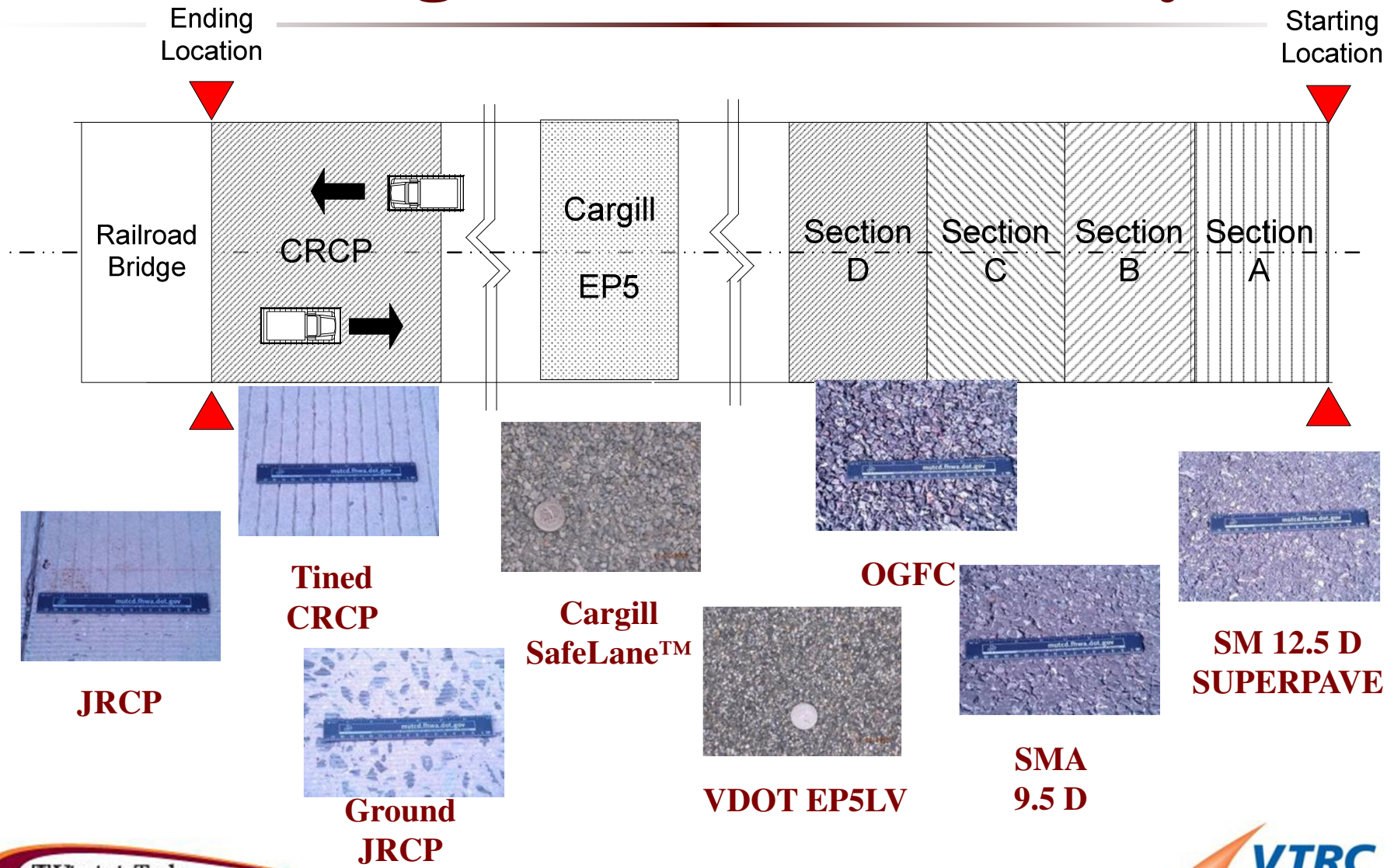
What is going on with the Smart Road? Update...

Standard

Next Gen

Noise
Wide footprint
Friction
Etc.

The Virginia Smart Road Layout



Virginia Smart Road

PCC, HFS
and bridges

Sections
E-F-G-H-J-I-K-L

Sections
Loop-A-B-C-D

VTTI and labs



Asphalt Sections

Three HMA sections:

1. SMA – OGFC
2. SM 9.5
3. SM 12.5



PCC, HFS and bridge sections

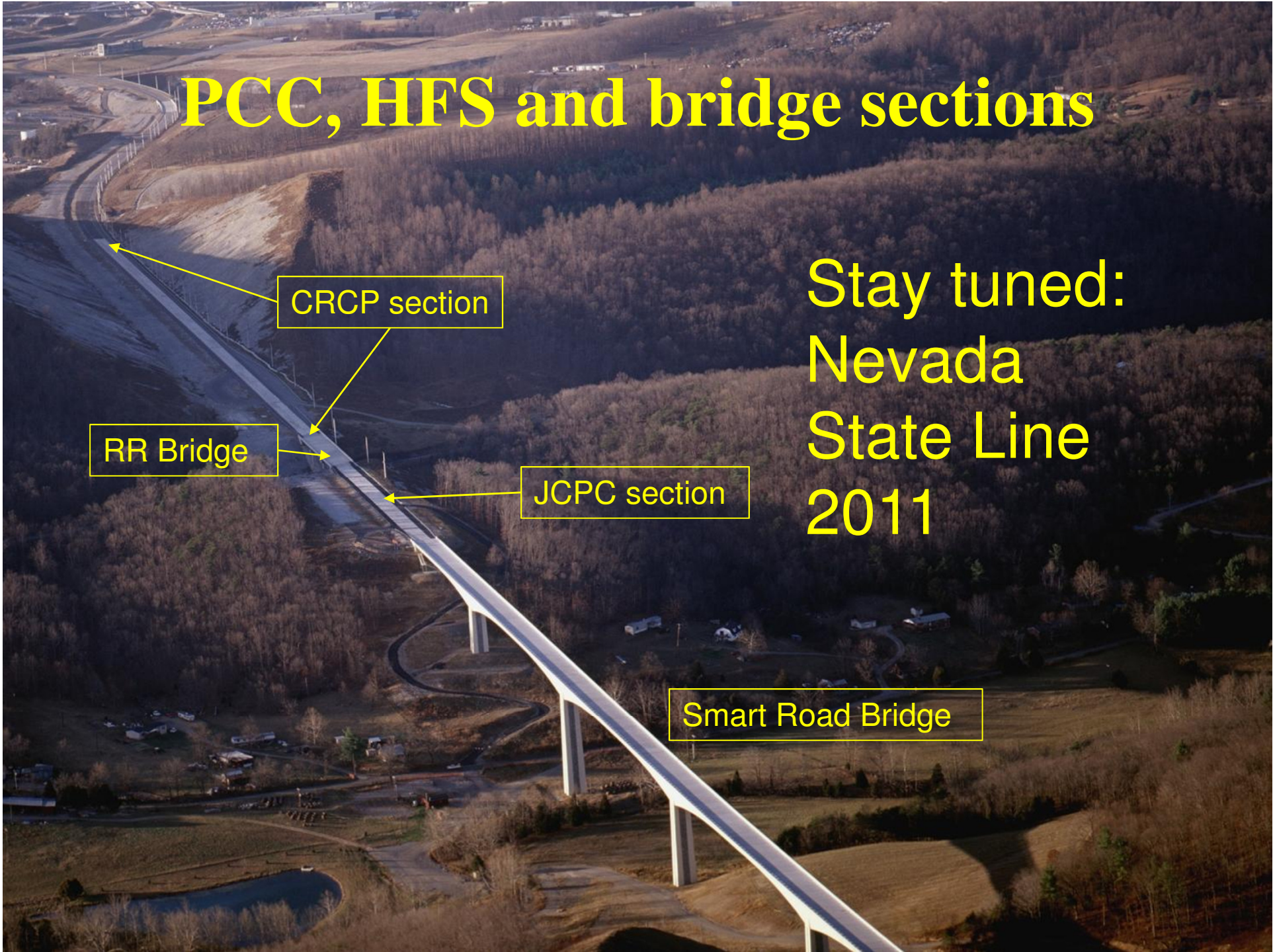
CRCP section

RR Bridge

JCPC section

Smart Road Bridge

Stay tuned:
Nevada
State Line
2011



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- **Development and Demonstration of Pavement Friction Mgt. Programs: (FHWA DTFH61-09-R-00035)**
- **Objectives (for at least 6 states):**
 - **Determine criteria and methods, for investigatory (desirable) level and intervention (minimum) levels for friction and macro-texture.**
 - **Assist in developing PFM Programs.**
 - **Demonstrate state-of-the-art friction (and macro-texture) measurement equipment.**

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Conclusions



24/6/2008



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Experimental program

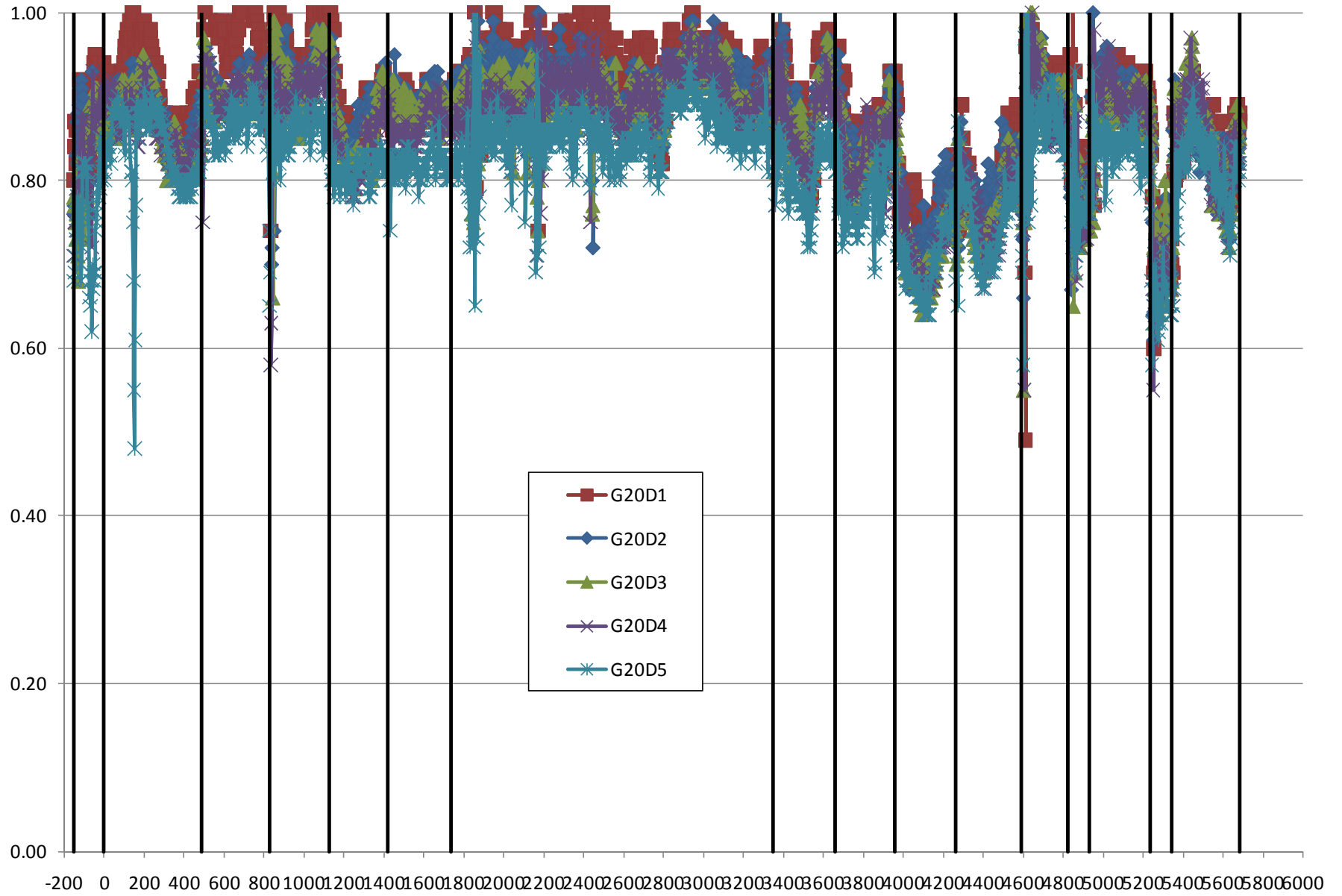
Results

Conclusions

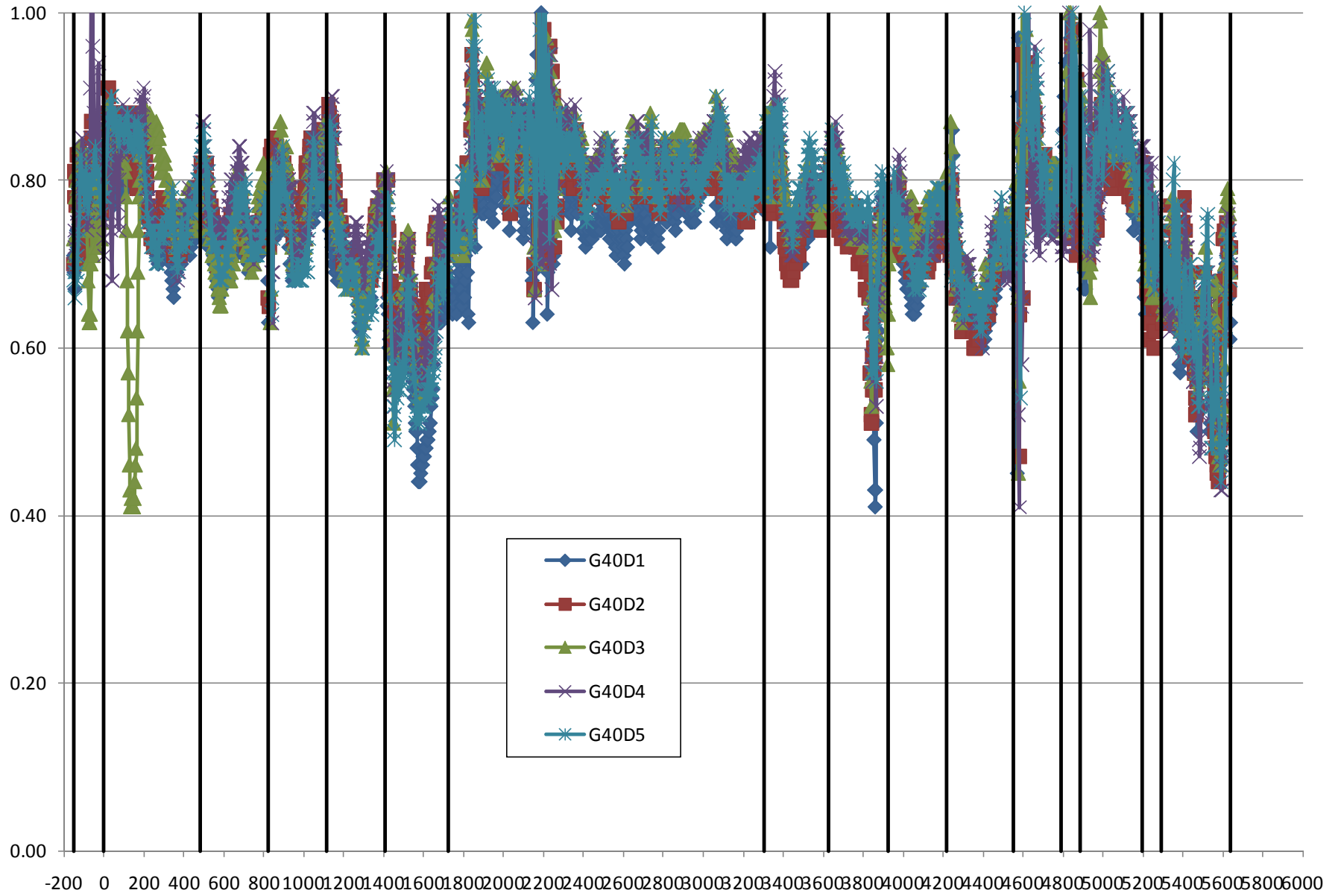




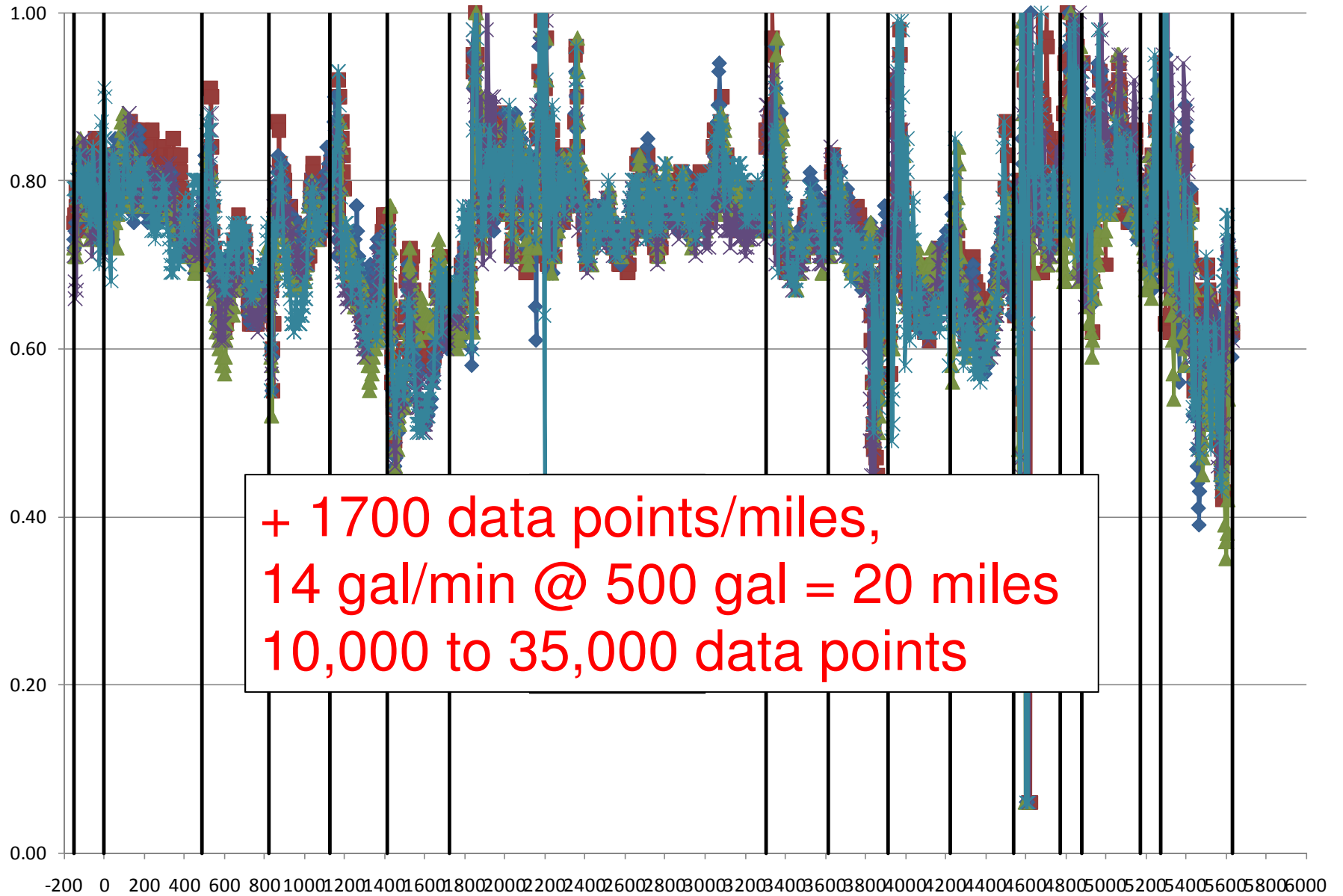
Griptester SR Rodeo 2008 Down



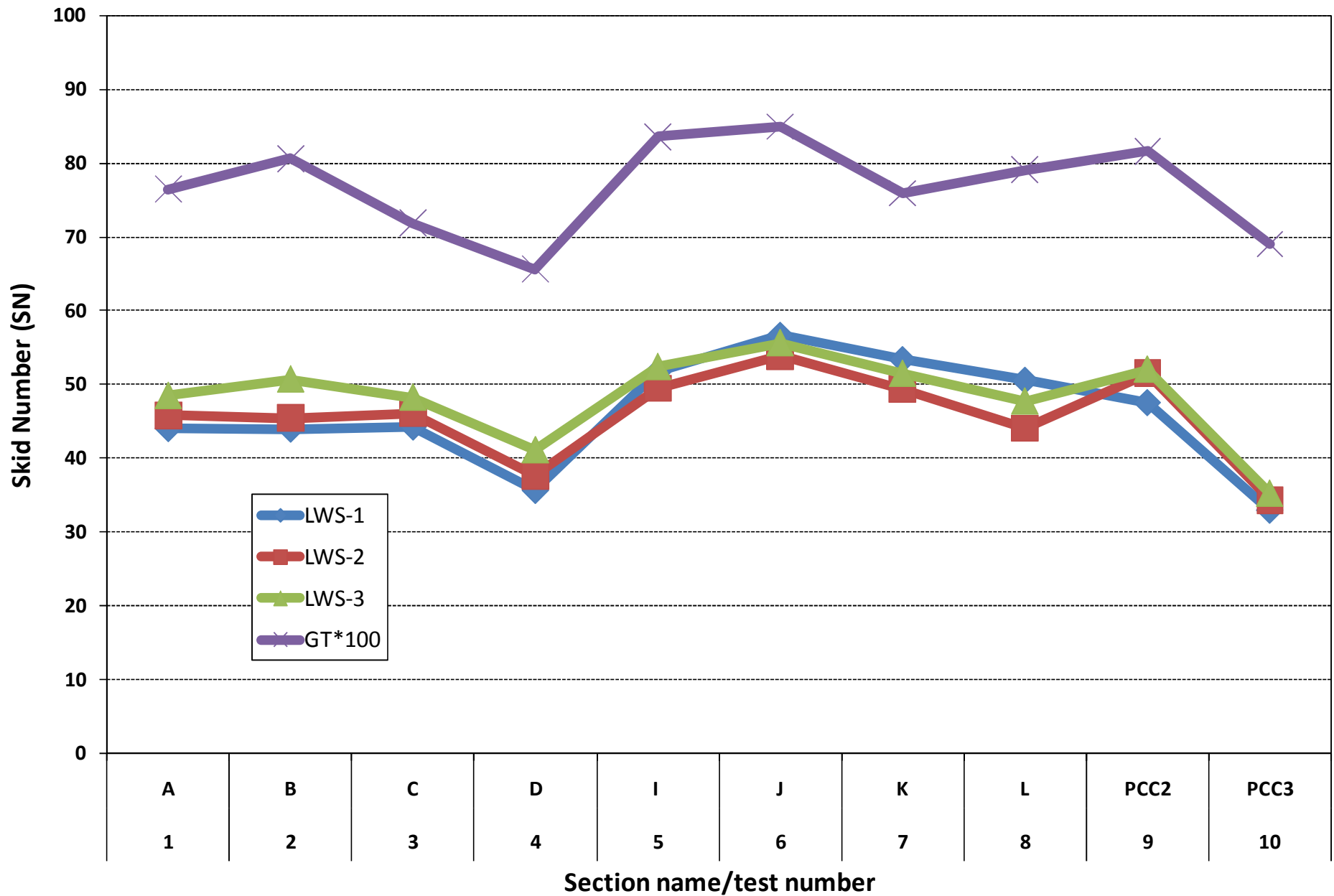
Griptester SR Rodeo 2008 Down



Griptester SR Rodeo 2008 Down



Skid Number Comparisons (40 mph Down)



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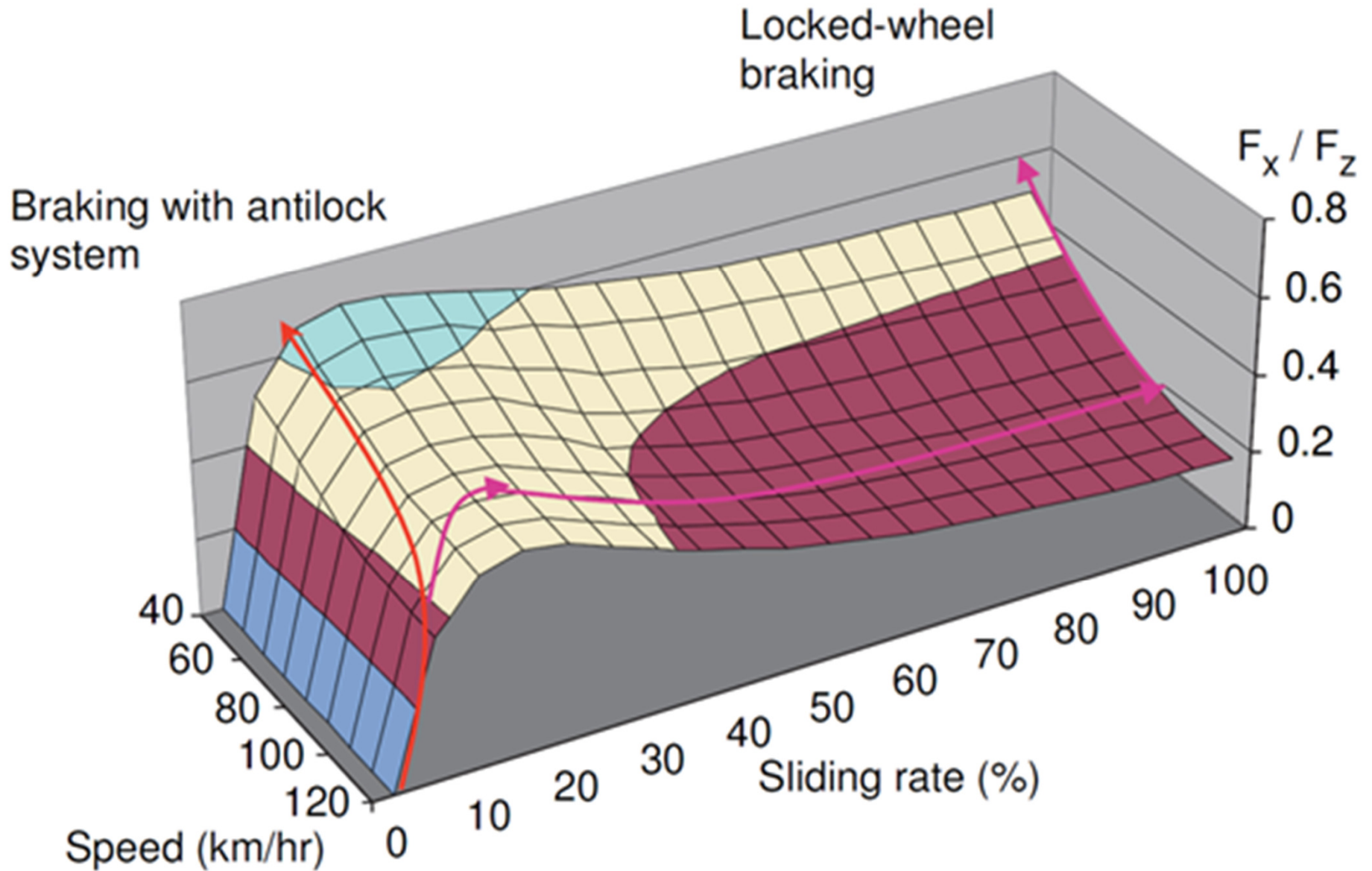


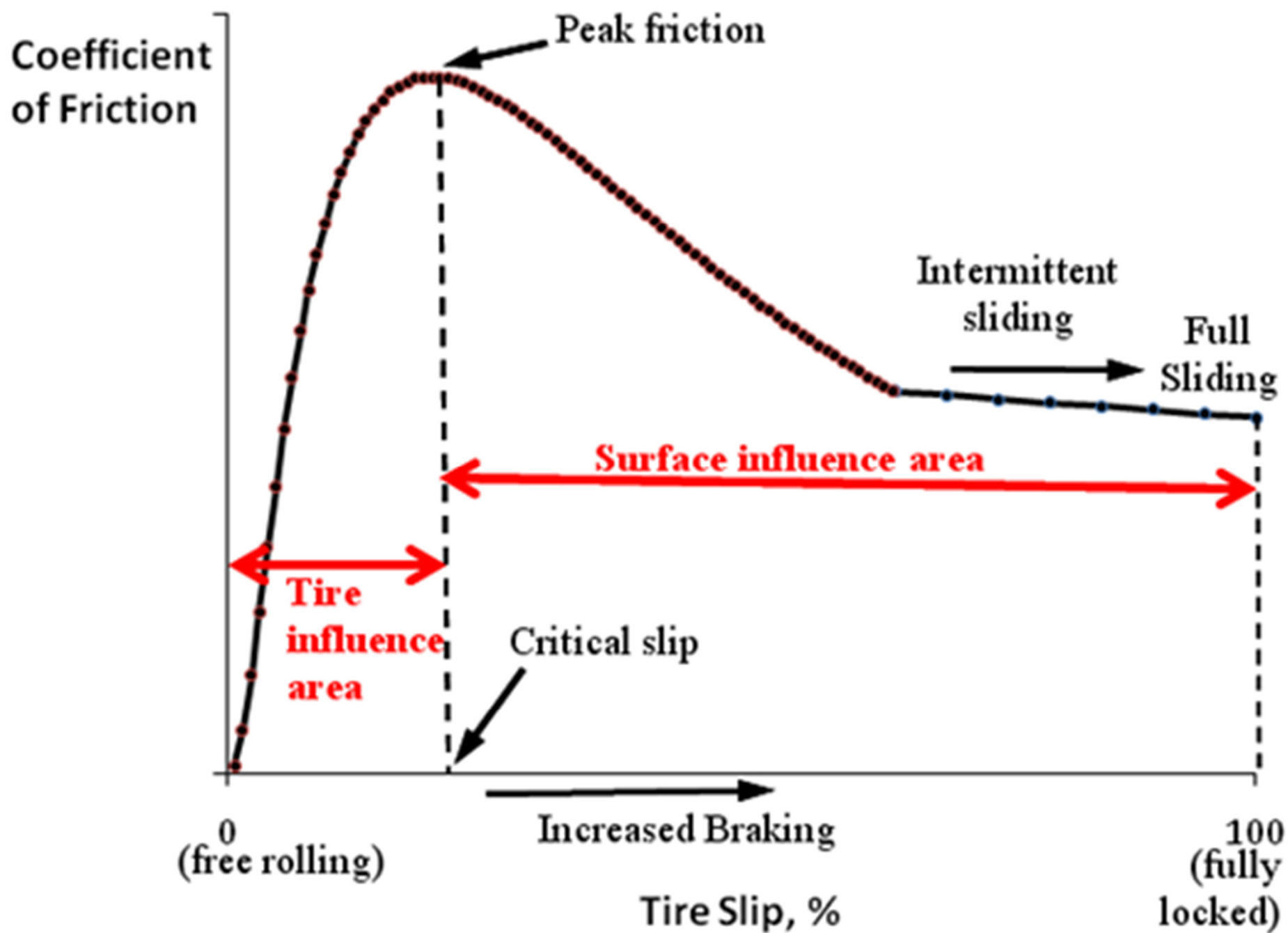
GripVal

Loans made



Continuous Friction Fixed-slip





**Continuous Friction
Measurement Equipment
(CFME)/GripTester Loan
Program (By George)
GripTester Viewing and
Analysis Software
(GripVal)**

Dr. Ricardo Archilla



GripVal - Analysis of GripTester Friction Measurements

File Edit Tools View Help

Reports [X] [Y] [Z]

Create summary report

Analysis Options [X] [Y] [Z]

Segment GN series

Clear Segmentation

Show GN threshold [] [] []

Show Mov. Avg. lines []

Period [] [] []

Average Grip Numbers

Do not show average []

Show series and average []

Show average line only []

Speed correction

Apply []

Units [] US [] SI

Reference speed 40 mph

Adjustment factor 0.006 1/rph

Chart Title

Chart Title

Title:

Font:

Font size (p)

Chart Options [X] [Y] [Z]

Series' Labels and Off... [] [] []

GN Series Selector [] [] []

Open

Look in: GT Rodeo 2008

1-2-3-4.csv	SR40-D-04_AVE.csv
1-2-3.csv	SR40-D-05_AVE.csv
GT analysis Down Rodeo 2008.xlsx	SR40-U-01_AVE.csv
Rodeo_2008_Griptester Shahriar.xlsx	SR40-U-02_AVE.csv
SR20-D-01_AVE.csv	SR40-U-03_AVE.csv
SR20-D-02_AVE.csv	SR40-U-04_AVE.csv
SR20-D-03_AVE.csv	SR40-U-05_AVE.csv
SR20-D-04_AVE.csv	SR50-D-01_AVE.csv
SR20-D-05_AVE.csv	SR50-D-02_AVE.csv
SR20-U-01_AVE.csv	SR50-D-03_AVE.csv
SR20-U-02_AVE.csv	SR50-D-04_AVE.csv
SR20-U-03_AVE.csv	SR50-D-05_AVE.csv
SR20-U-04_AVE.csv	SR50-U-01_AVE.csv
SR20-U-05_AVE.csv	SR50-U-02_AVE.csv
SR40-D-01_AVE.csv	SR50-U-03_AVE.csv
SR40-D-02_AVE.csv	SR50-U-04_AVE.csv
SR40-D-03_AVE.csv	SR50-U-05_AVE.csv

My Recent Documents

Desktop

My Documents

My Computer

File name:

Files of type:

Open

Cancel

GRIPVAL

- **Offsets shift (138 feet)**
- **Zoom**
- **Direct read**
- **Averages**
- **Speed corrections (SM 0.006, PCC 0.01)**
- **Segmentations**
- **Summary reports**
- **Plots**

GO TO GRIPVAL SCREEN



Questions???