

HVSIA 2009

HVSIA LTPP FEEDBACK

3 to 5 November 2009



100
1908 - 2008



UNIVERSITEIT VAN PRETORIA
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HVSIA LTPP feedback

- Background
- Current status
- Recommendations



Background

- Objective
 - Comparison between APT output and LTPP for calibration with real-time where required
- Mostly SA and UC? efforts



Current status

- Other programs?
- SA
 - LTPP program with PAWC and Gautrans
 - Financial support may become an issue in future
 - Current data for 7 HVS sites over 5 years
 - Monitoring
 - Twice a year
 - Measurements
 - FWD, rut, visual, PSPA, LFWD, traffic
 - Whatever is available at that stage

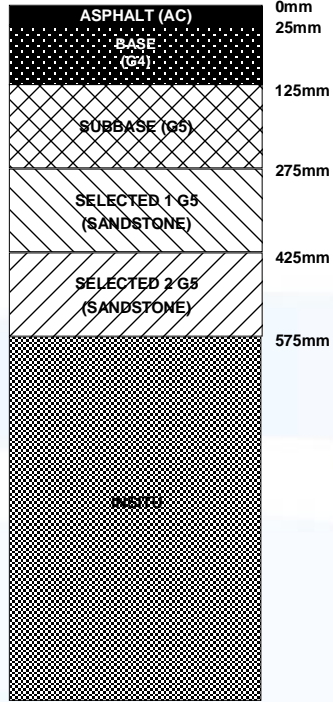


Current status

- SA – current picture
- Sections monitored
 - 5 in Gauteng (show data for 4)
 - 2 in Western Cape (show data for 1)
 - Pavement types

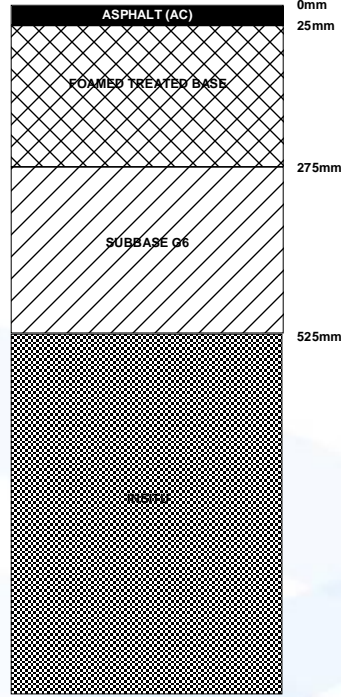


2388 (ETB)



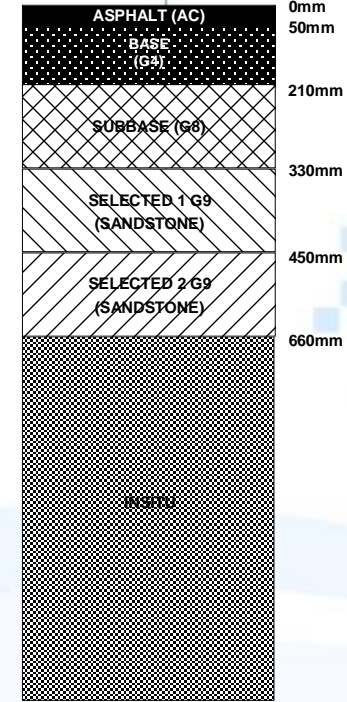
Pavement Structure of R2388

243/1 (foam)



Pavement Structure of P243/1

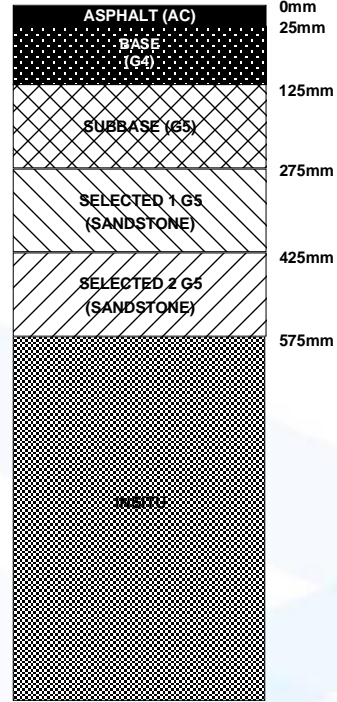
R80 (G1)



Pavement Structure of R80



N7 (foam)



Pavement Structure of R2388



Current status

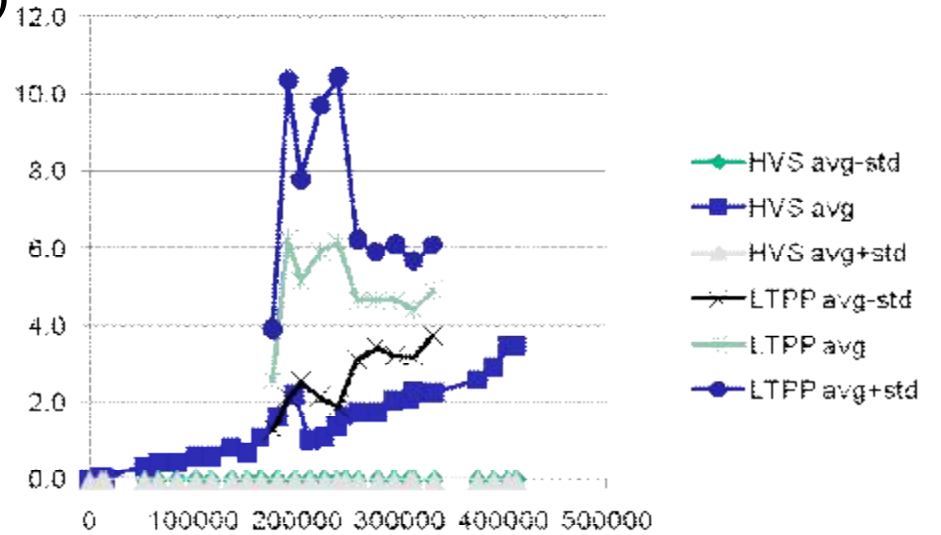
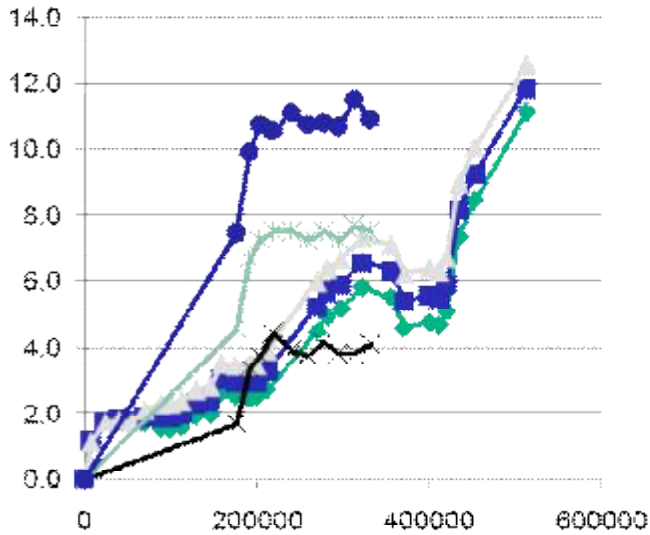
- Findings



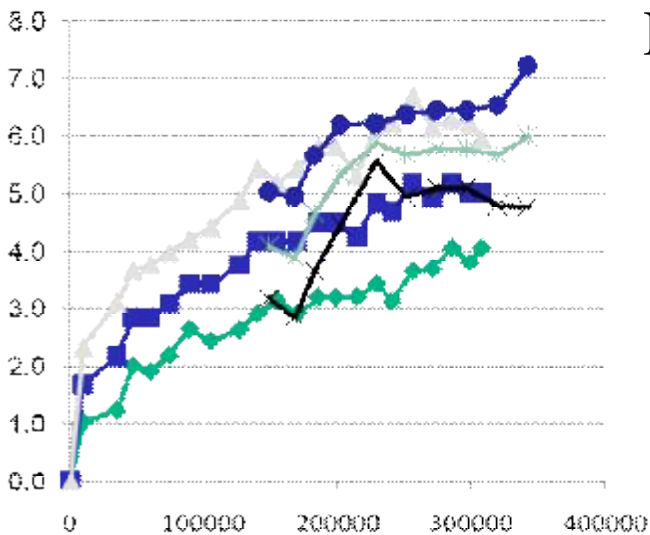
Rut correlations (repetitions – not E80s)

2388 and 243
Gauteng, provincial
N7
Western Cape, highway

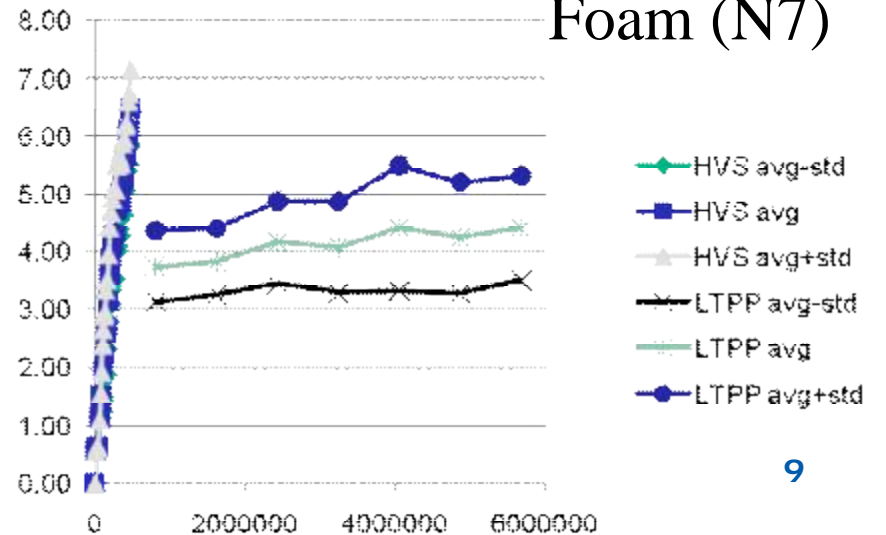
ETB (2388)



Foam (243)

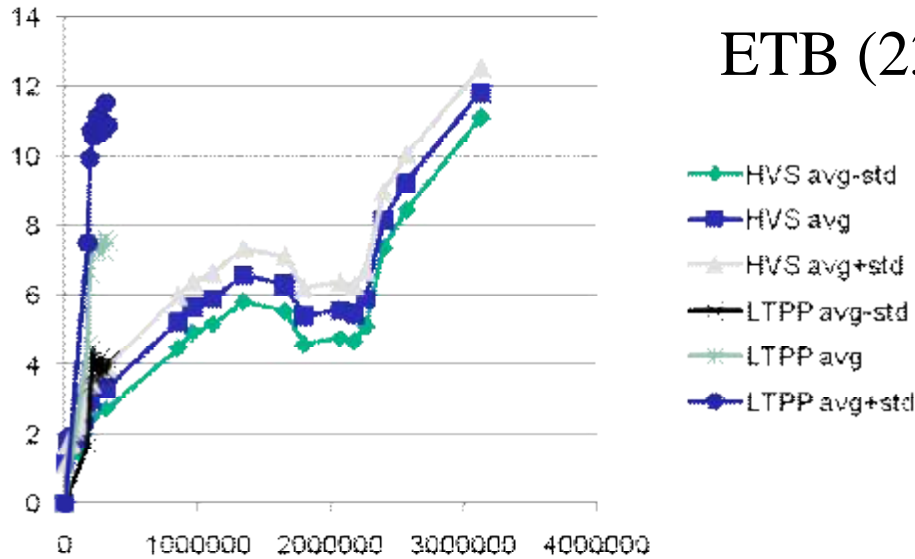


Foam (N7)

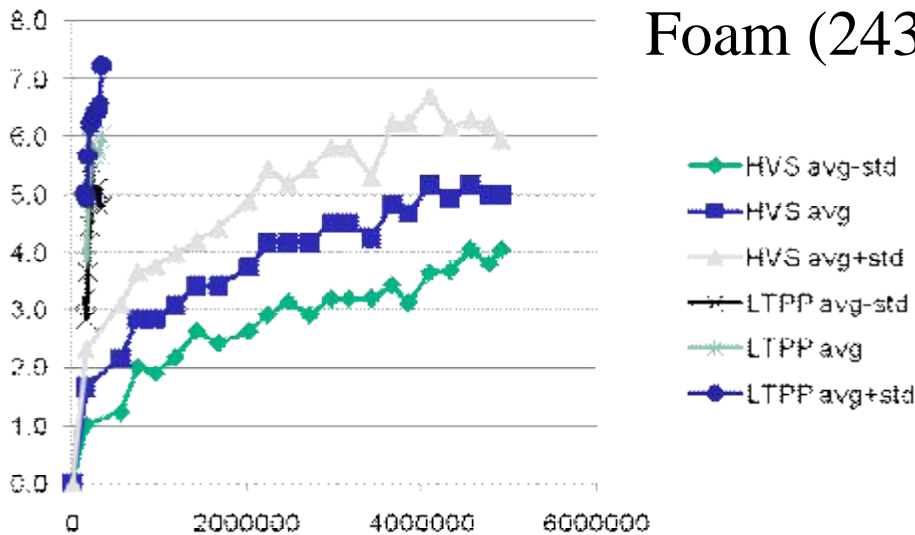


Rut correlations (E80s)

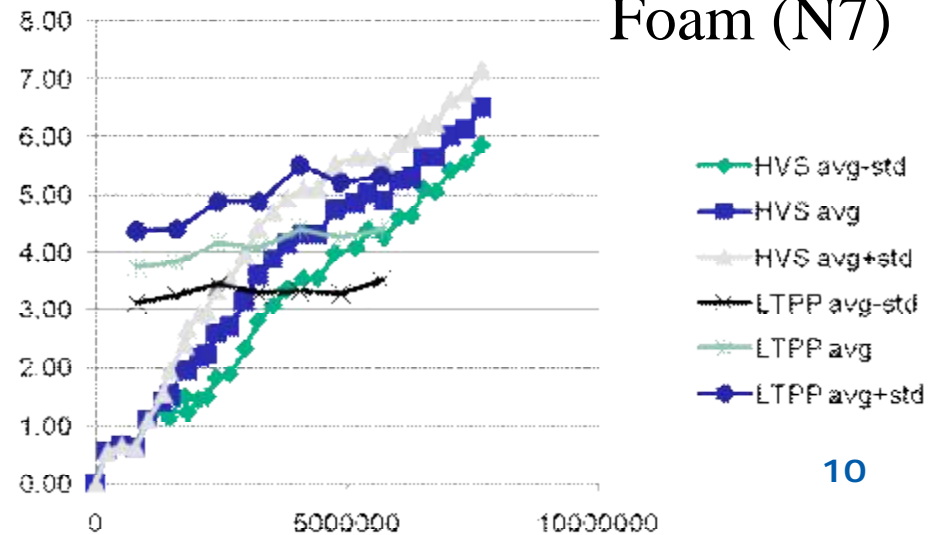
ETB (2388)



Foam (243)

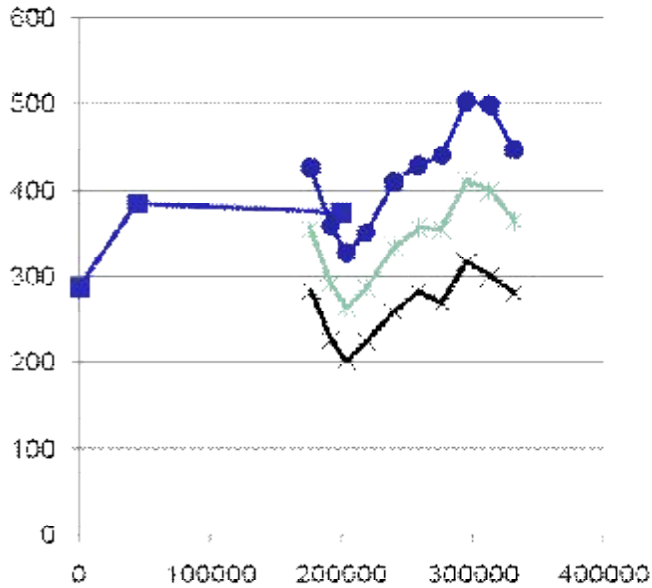


Foam (N7)



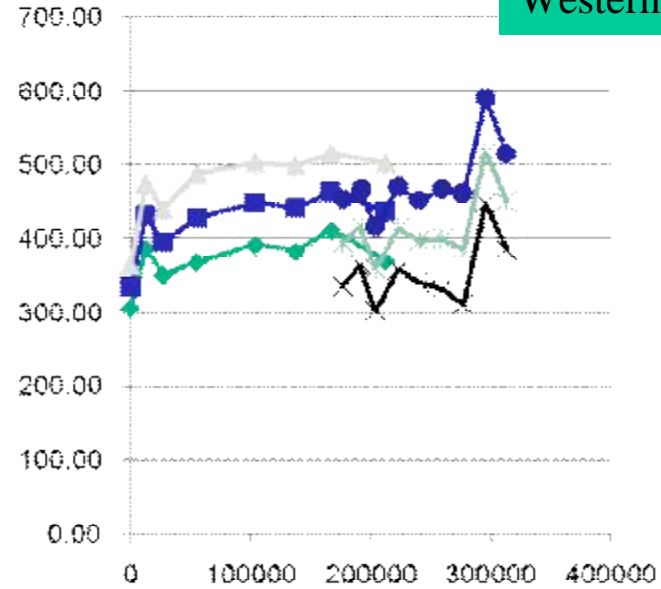
Deflection correlations (repetitions – not E80s)

2388 and 243
Gauteng, provincial
N7
Western Cape, highway

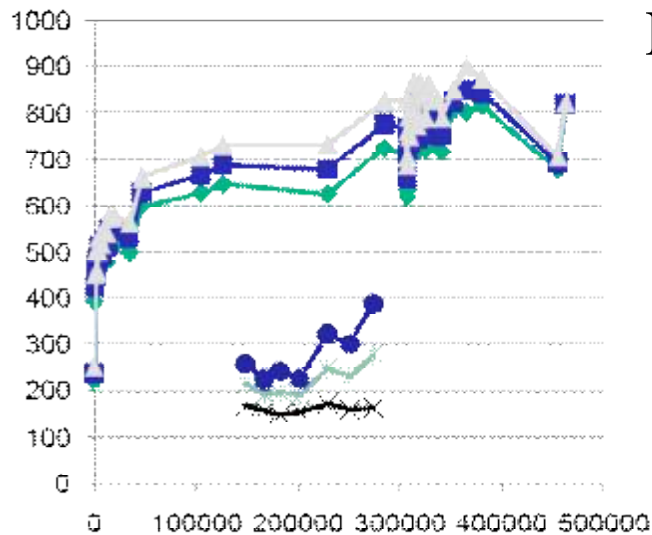


ETB

- ◆ HVS avg-std
- HVS avg
- ▲ HVS avg+std
- × LTPP avg-std
- * LTPP avg
- LTPP avg+std

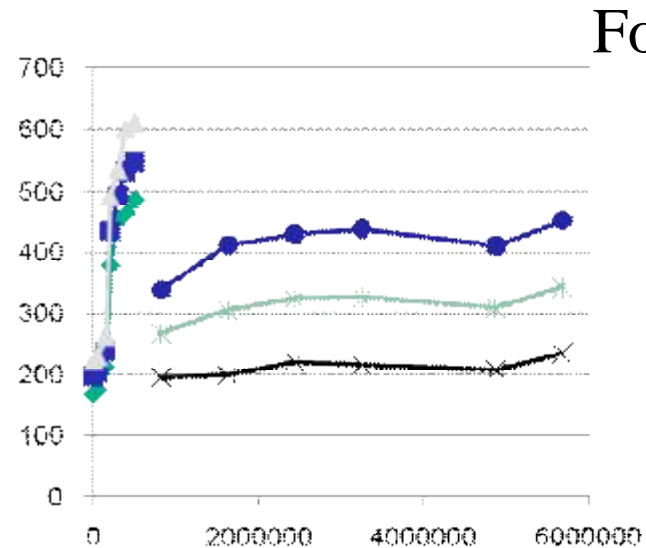


- ◆ HVS avg-std
- HVS avg
- ▲ HVS avg+std
- × LTPP avg-std
- * LTPP avg
- LTPP avg+std



Foam (243)

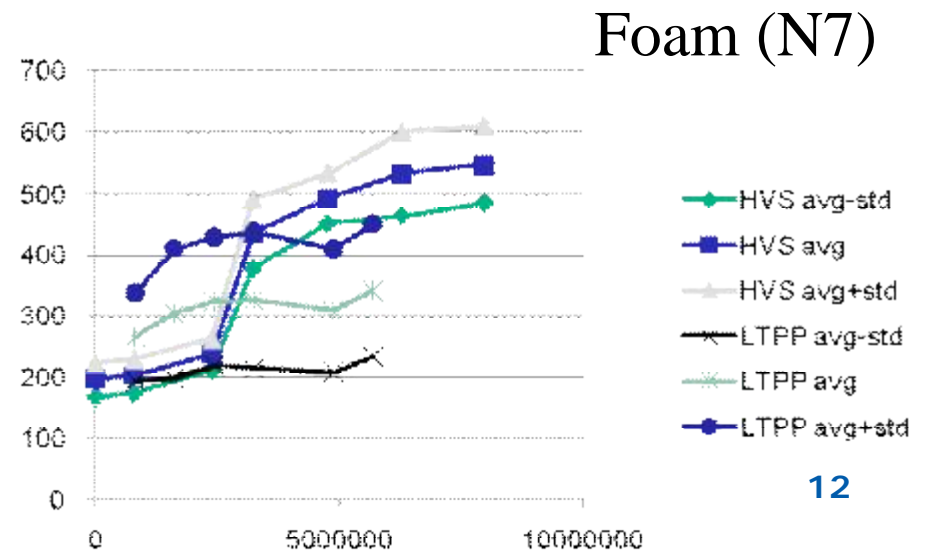
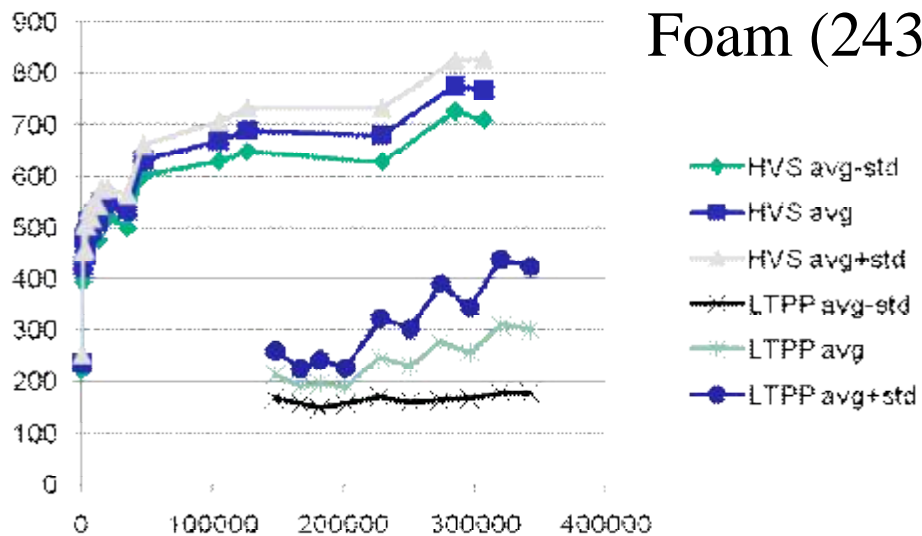
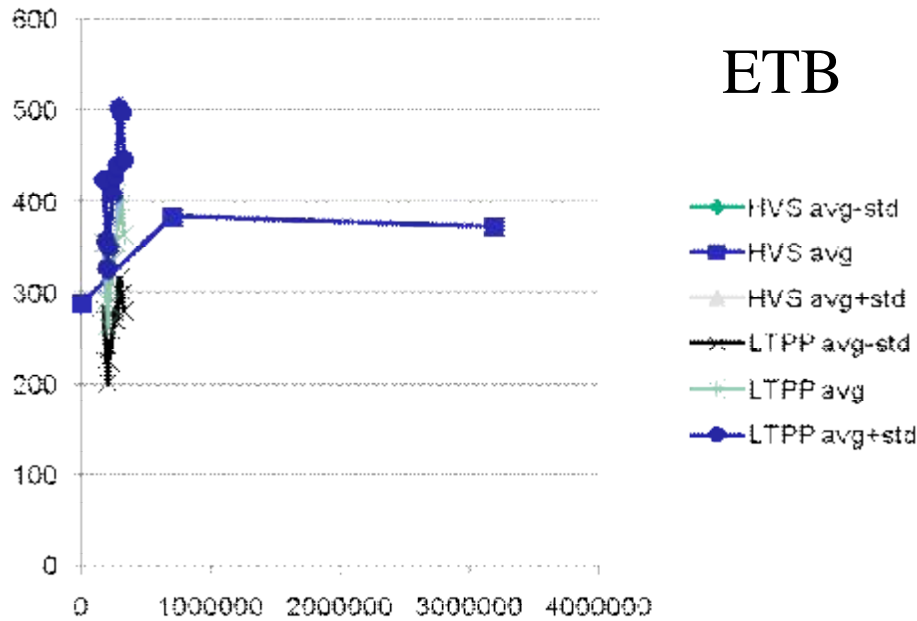
- ◆ HVS avg-std
- HVS avg
- ▲ HVS avg+std
- × LTPP avg-std
- * LTPP avg
- LTPP avg+std



Foam (N7)

- ◆ HVS avg-std
- HVS avg
- ▲ HVS avg+std
- × LTPP avg-std
- * LTPP avg
- LTPP avg+std

Deflection correlations (E80s)



So what?

- Appears to be relationships between the data
- Effect of load equivalency and ‘environmental equivalency’ need discussion
 - Wetter vs drier environment
 - Traffic volumes
 - What else?
- Effect of different structures interesting
- Real traffic is a major issue



Recommendations

- Important activity
- Step-child activity
- Motivate for continuation and some APT2012 feedback
- Other data ?

