



Vehicle Performance Statistics & WILD, THD, ABD, TPD

MARTS 2008 Annual Technical Conference

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Chicago, IL**

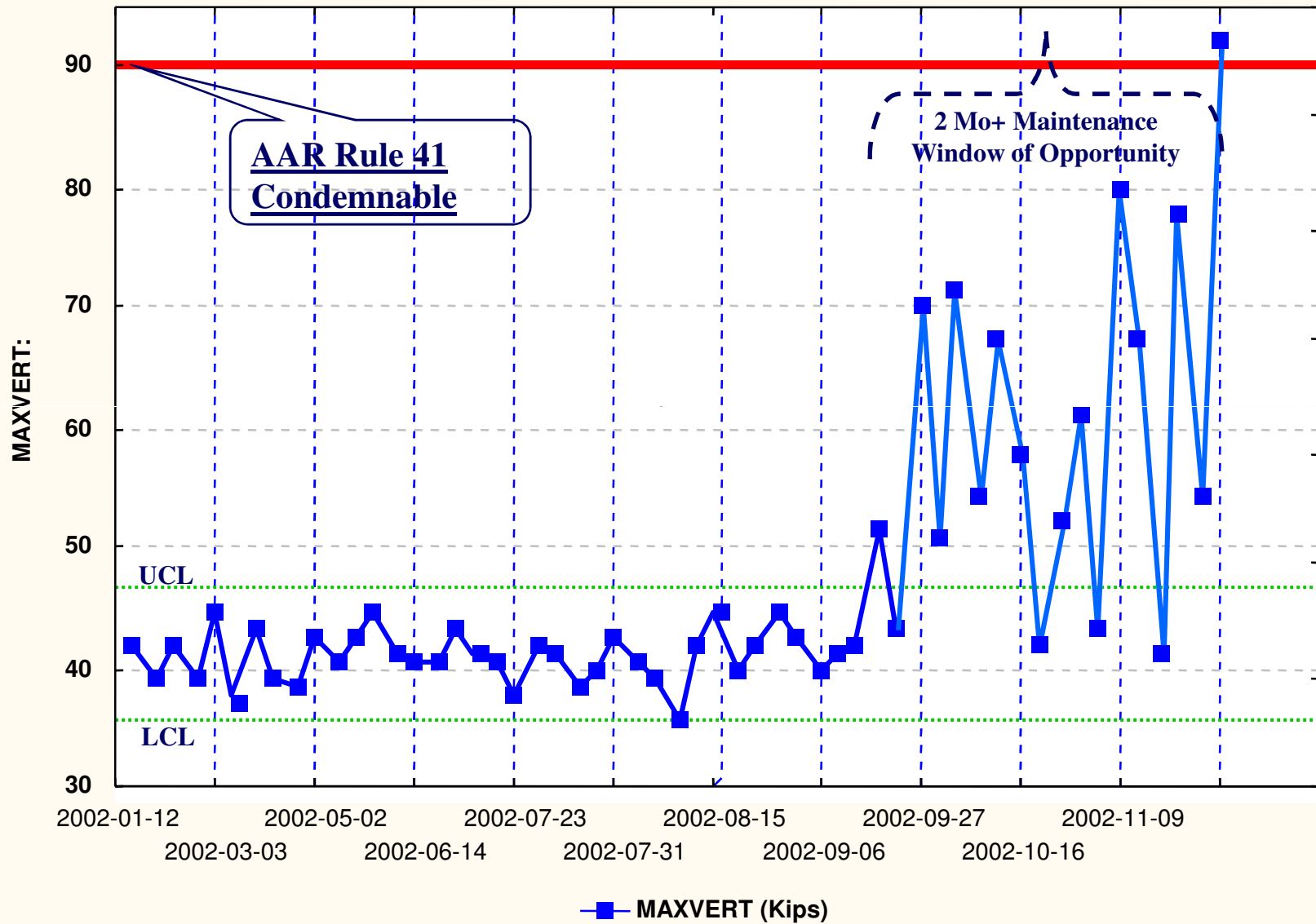
September 25, 2007

Agenda

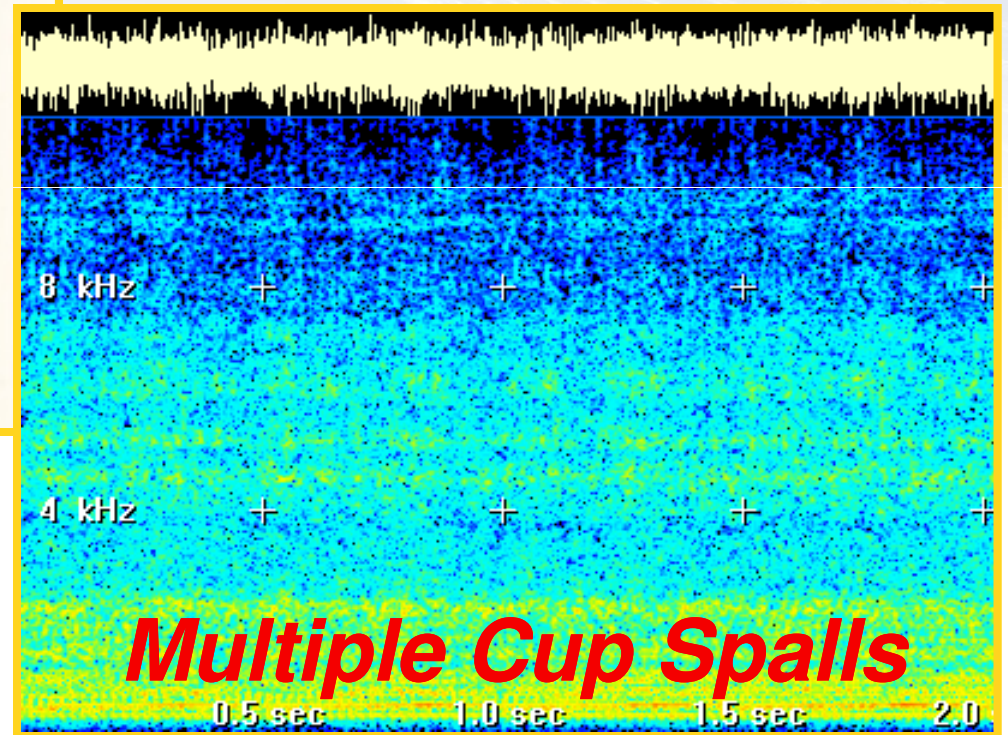
- ◆ **Steel Wheels keep on turning**
- ◆ **The Hunt for Hunting Trucks**
- ◆ **Fun with Bearings (... Acoustically Speaking ...)**
- ◆ **Truck Performers (Bogie and the Side Frames...)**
- ◆ **Vehicle Performance Data Statistics Update**

Trend Analysis for Predictive/Preventive Maintenance

Time/Trend Plot of Wheel Impact Loads

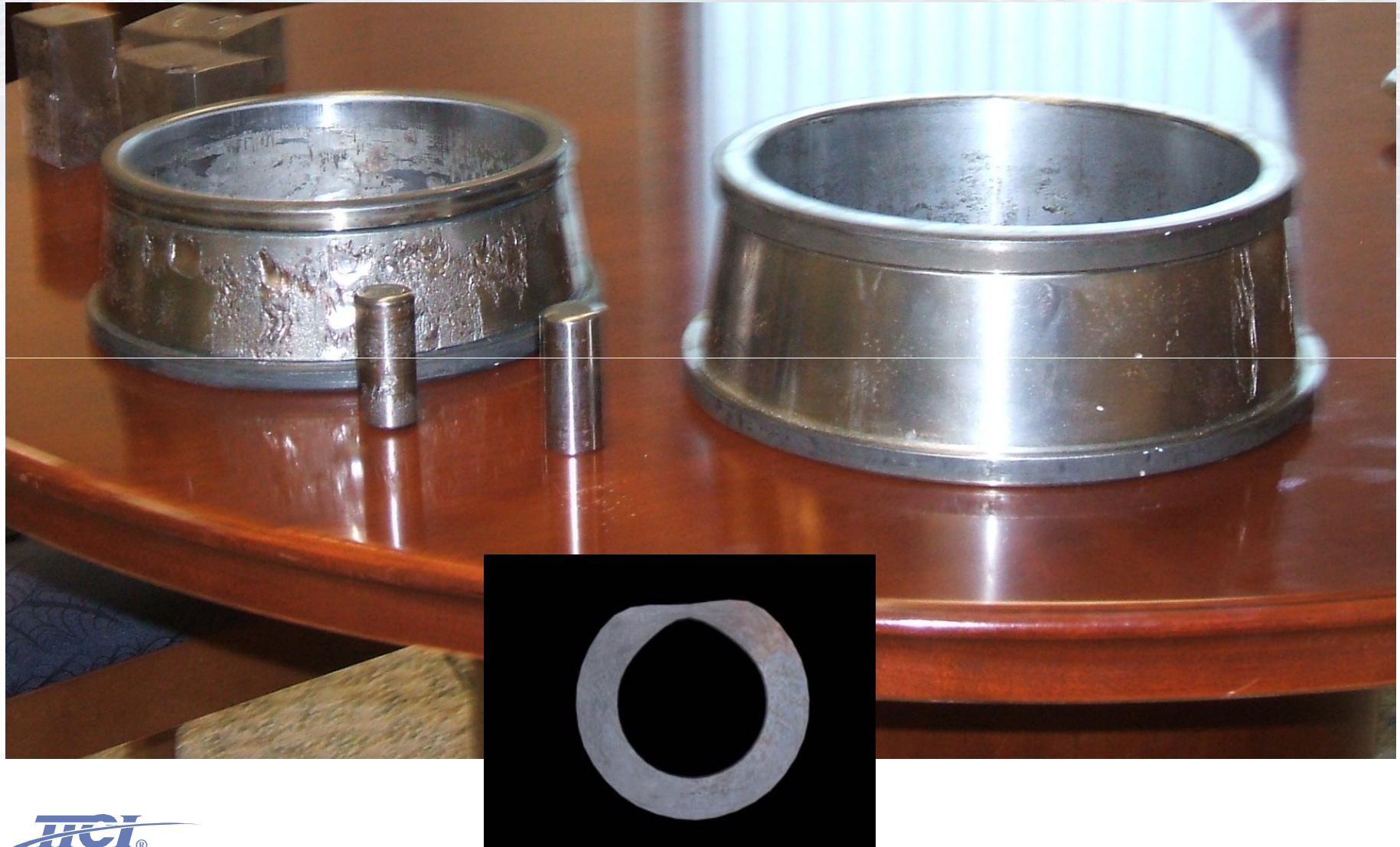


Bearing Defects: Example Signature



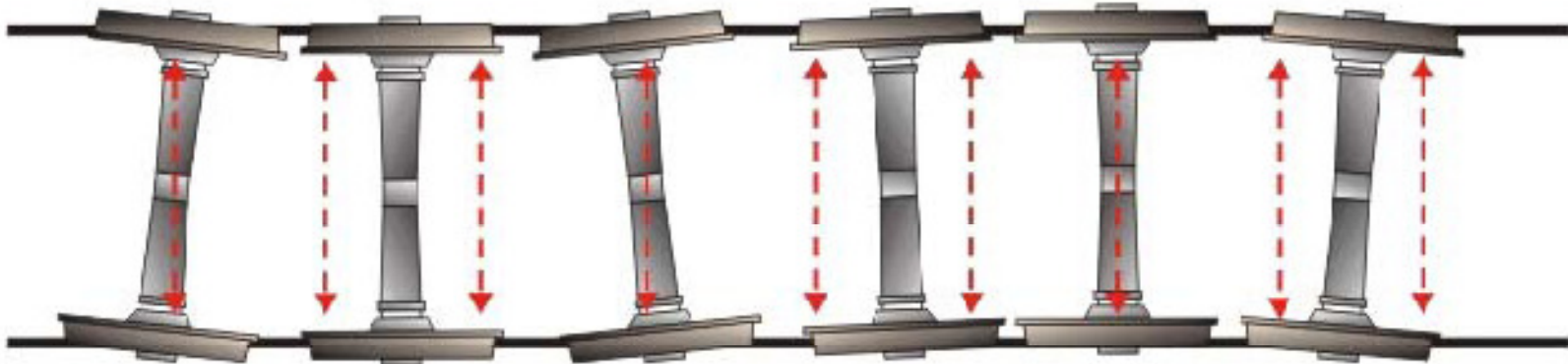


Bearing Animation – Signature Variation

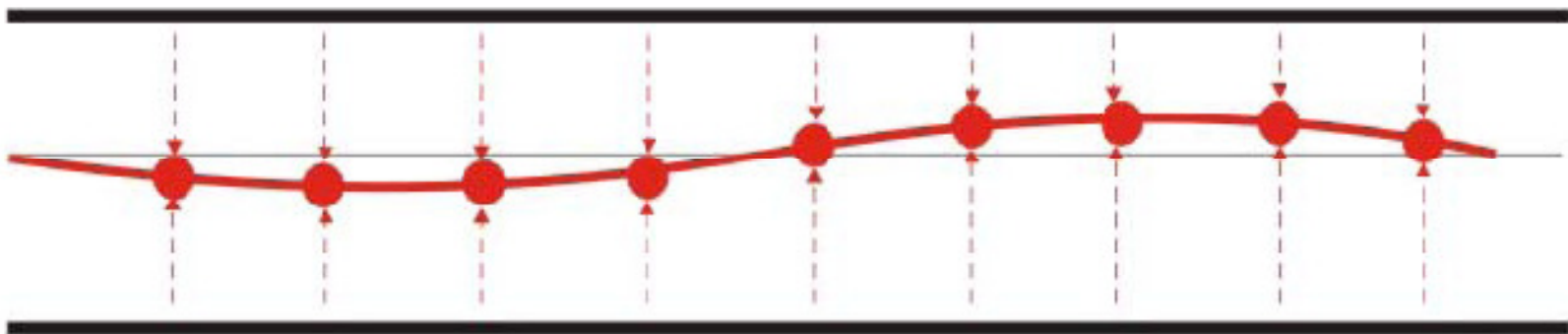




Truck Hunting (lateral instability)



S9 S8 S7 S6 S5 S4 S3 S2 S1



2514-2



Truck Curving Performance





Agenda Progress...

- ◆ Wheel Impact Load Detectors (WILD)
- ◆ Truck Hunting Detectors (THD)
- ◆ Acoustic Bearing Detectors (ABD)
- ◆ Truck Performance Detectors (TPD)
- ◆ ***InteRRIS®* Detector Statistics Update**

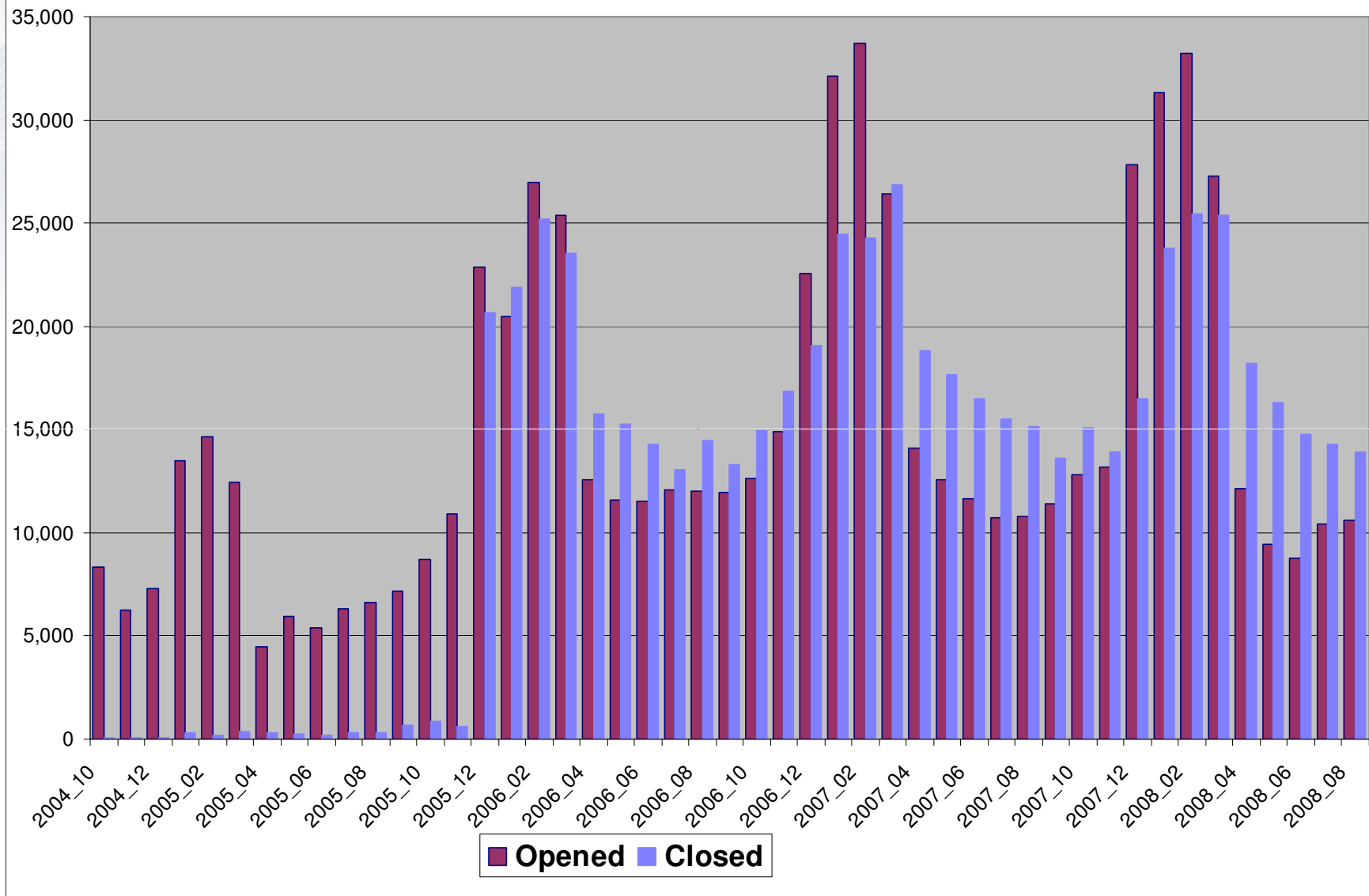


InteRRIS® Wayside Detector Distribution

Detector sites as of 6/06/2008.

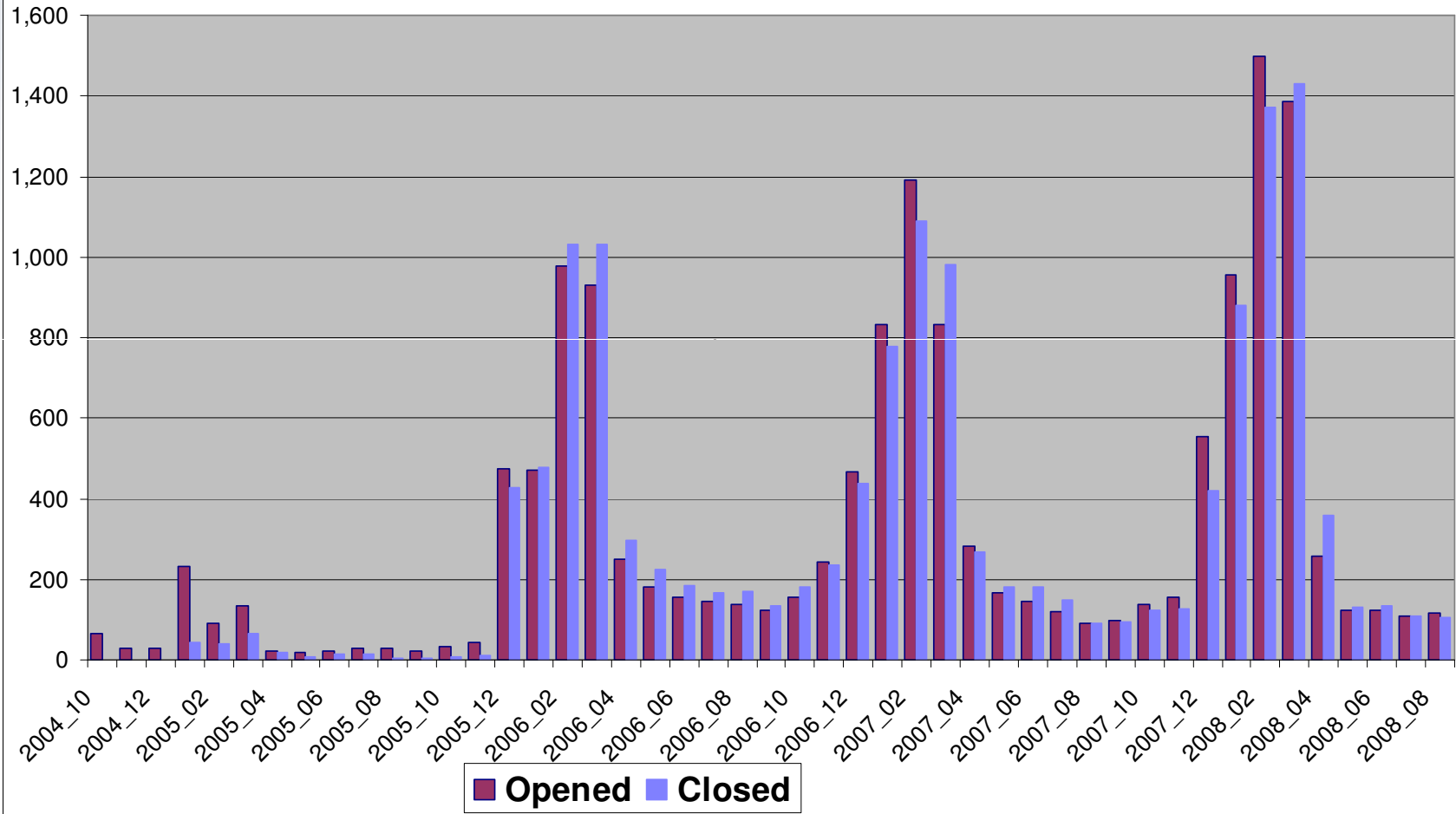
Based on USGS DLG. 1:25,500,000, Geographic Projection, DD.
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EHMS Alerts: WILD Condemnable

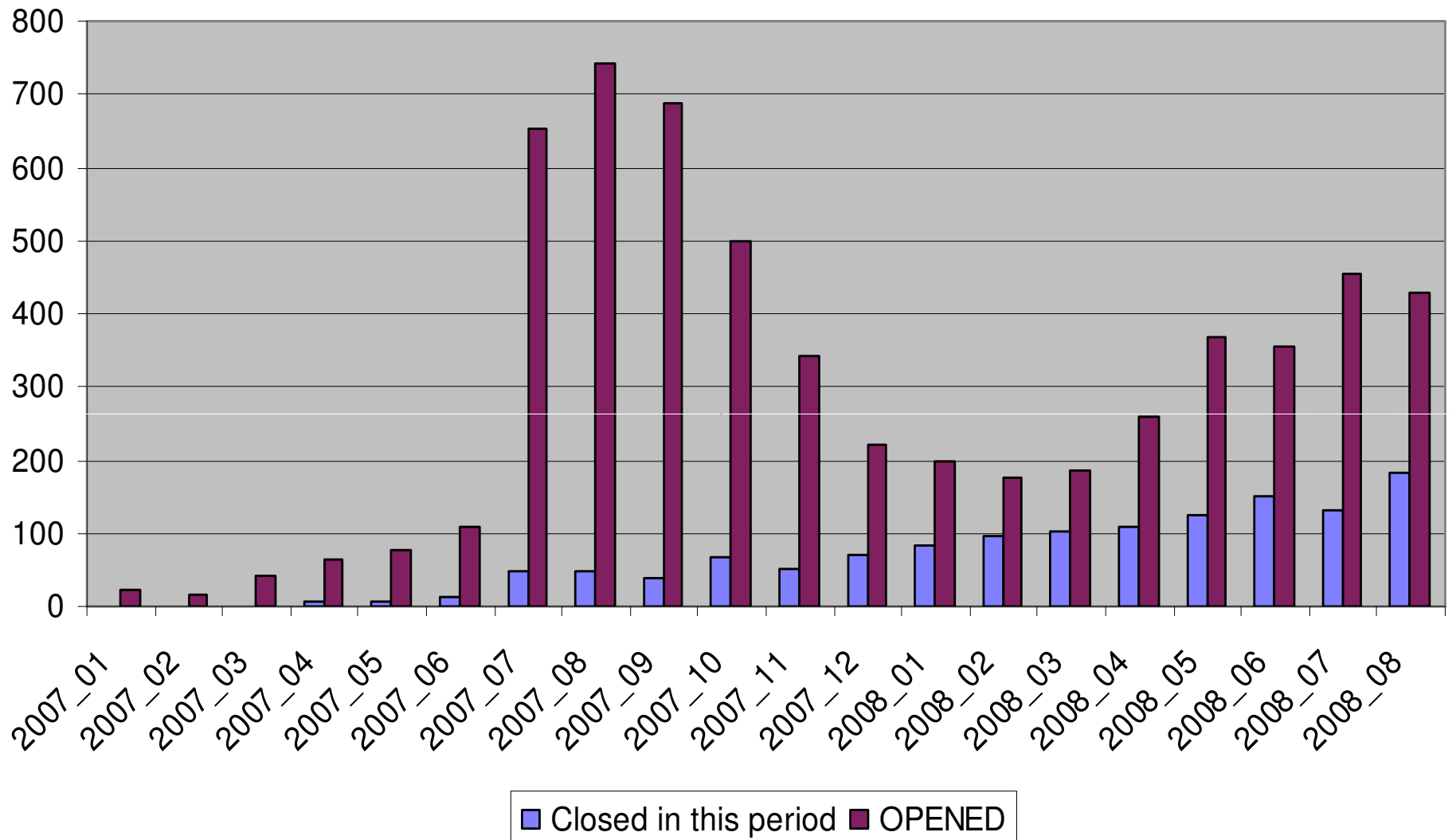


Industry Vehicle Performance Database:

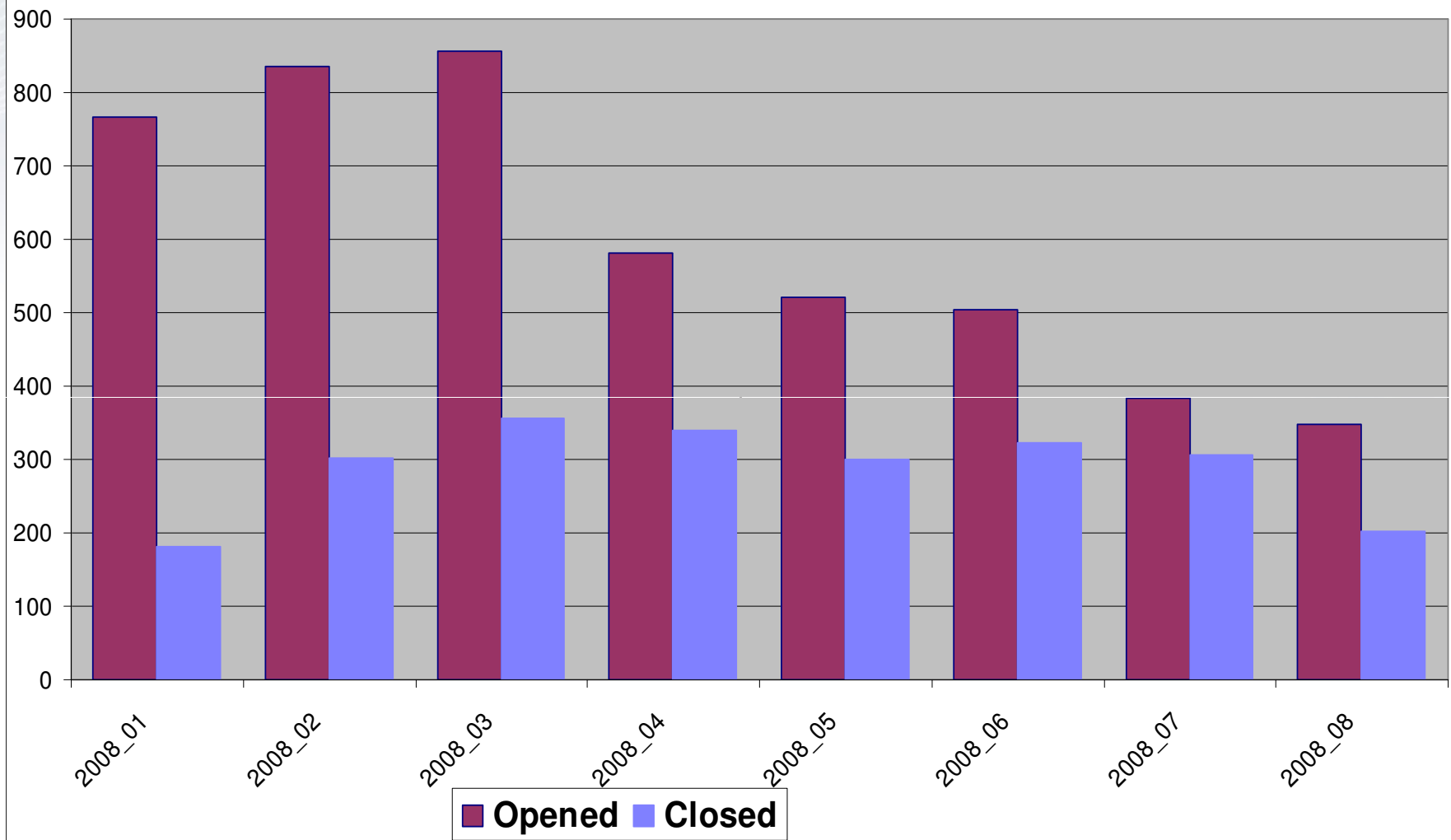
EHMS Alerts: WILD Final Alerts



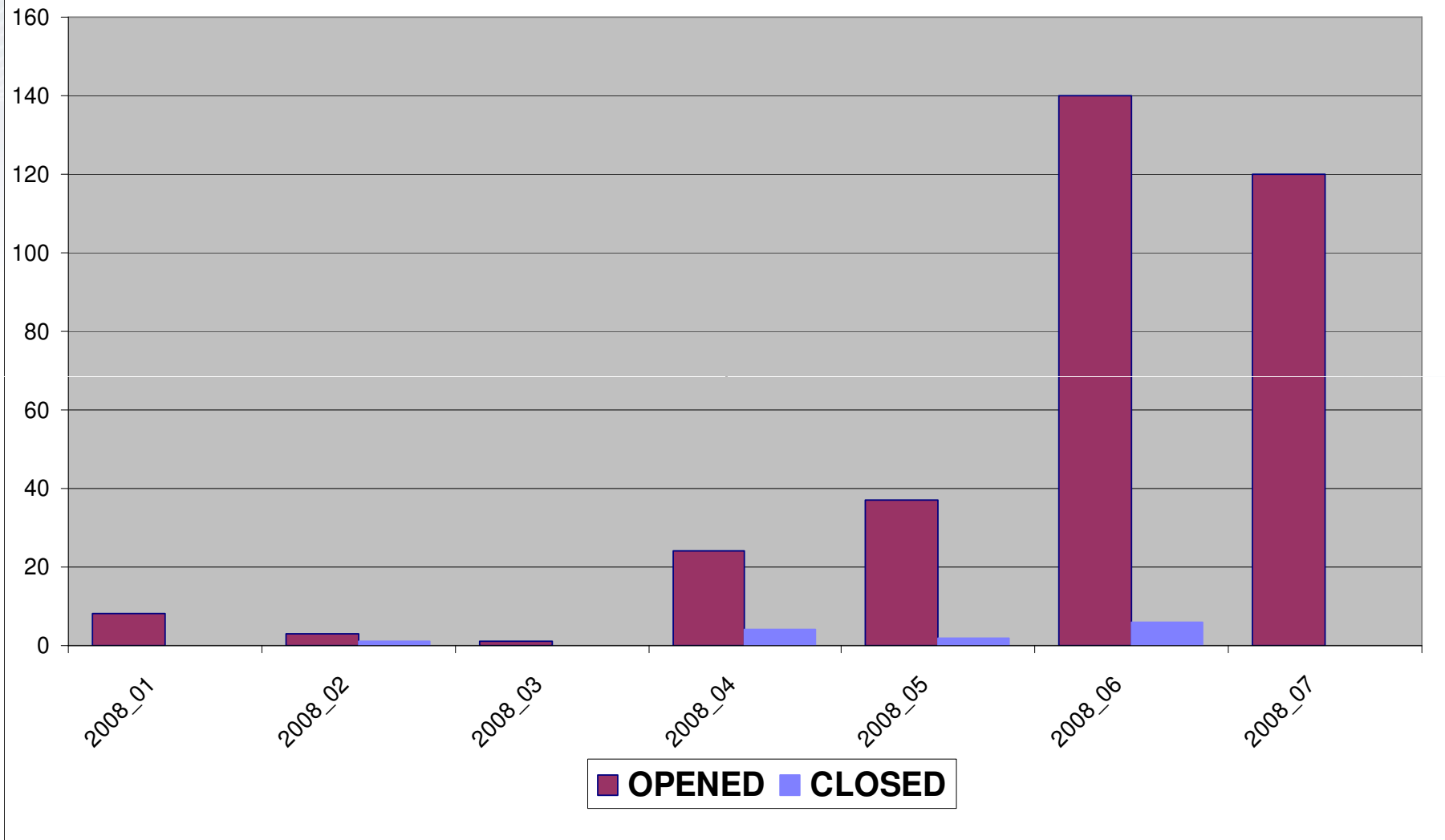
EHMS: THD Alerts



EHMS Alerts: ABD Condemnable



EHMS Alerts: TPD Condemnable



Summary

◆ **Stress State Improving?**

- Wheel Impacts: Absolutely!
- Truck Hunting: Too Early...
- Acoustic Bearing: Promising...
- Truck [Curving] Performance: Way Too Early..

◆ Questions??

That's All Folks!!

