

STC

Southeastern Transportation Center

STC Student Spotlight @ 2015 TRB Annual Meeting

5pm-7pm January 11th, 2015

3-minute Thesis/Dissertation/Project Presentations

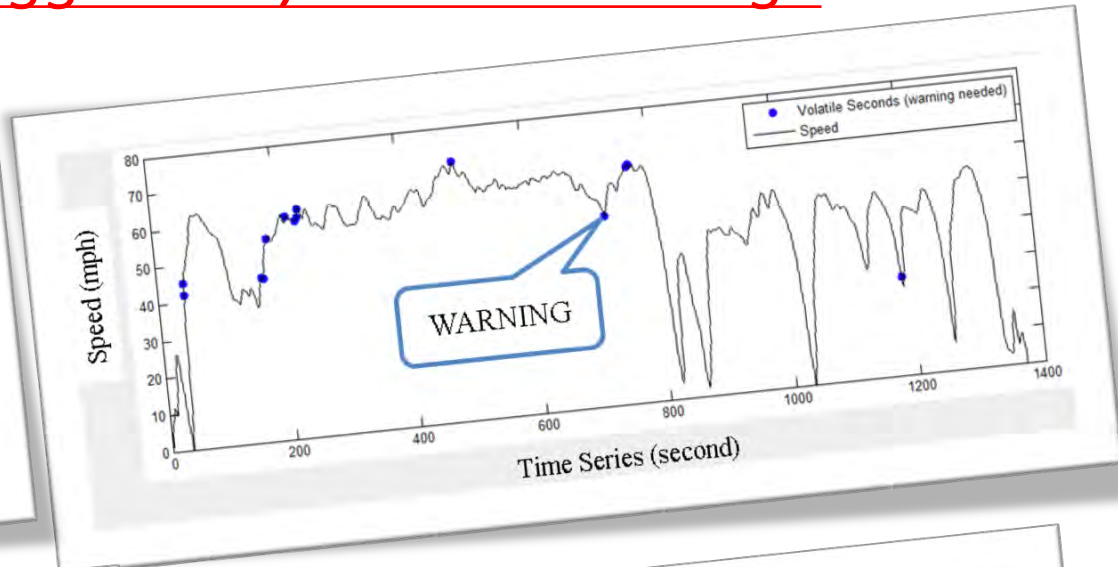
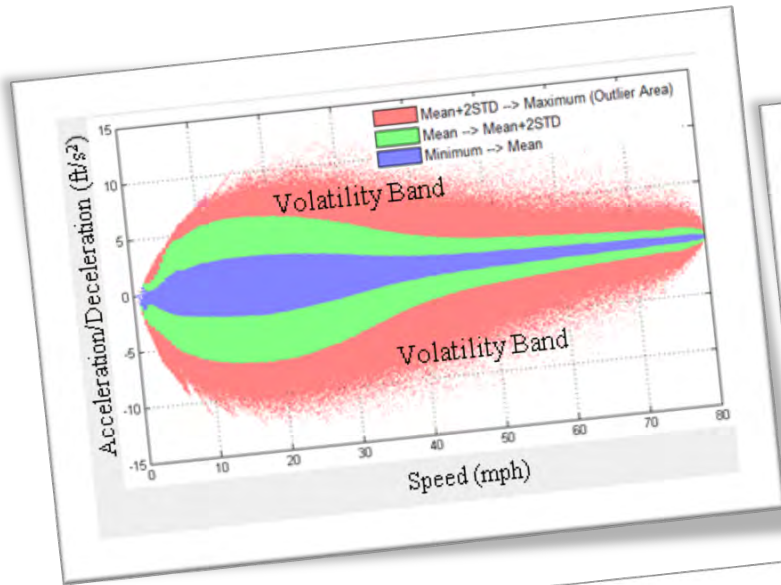
Supporting Instantaneous Driving Decisions through Trajectory Data

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• Question: What is aggressive/extreme driving?



For Drivers Driving Assistance & ATIS

Real time Info

Setting: Dangerous

Miles: 55.8 km
Volatility: 68.3%
Warning: 75.5%

Driving Profile

Daily driving performance summary (or monthly, yearly)

You drove 55 km today
Your average volatility is 22%
Average volatility for other drivers in your area is 12%

For Traffic Management Center & ATIS

Operators identify dangerous driving conditions (e.g. slippery road surface) quickly.

TMC

Travel information to drivers thru ATIS

Vehicular Jerk
Acceleration
Speed
Identified Location

Real-time driving performance

Reaction to Fix Problems

Sharp Turn
Narrow lane Or Ice road/incident
Roadside Terrain

Maryville Pike, Knoxville, TN

Data sources:

1. 2011 Atlanta Household and Activity Travel Survey
2. 2010 Knoxville TPO GPS data

Thank You!!