MOVES Sensitivity Study

Presented By:
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Other Team Members:

U.S. Department of Transportation
Federal Highway Administration

Research and Innovative Technology Administration
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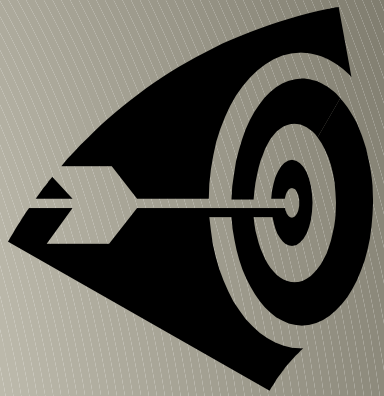
Some Background



- Purpose
  - To determine ranking of important parameters and the overall sensitivity to values of variables in MOVES
  - To allow a greater understanding of the MOVES modeling process for users
  - Continued support by FHWA to transportation modeling community

Analysis Approach

- A normalized set of input parameters has been established as a “Base Case”
- Using multiple runs, the model output sensitivity will be reviewed, and compared to the base case
- Individual variables will be evaluated across the normal range of use
- The first phase of the project will be focused on regional analysis
- Final decision on project level sensitivity study

Base Case

- Year: 2010
- Time Aggregation: Hourly for Weekday
- Month: July – but Temp = 60 degrees F and RH = 50%
- Road Type Distribution: National Default
- Vehicle Details:
  - *Diesel Fuel* - Combination Long-haul Truck , Combination Short-haul Truck, Intercity Bus, Passenger Car, Passenger Truck, Single Unit Long-haul Truck, Single Unit Short-haul Truck, Transit Bus
  - *Gasoline* - Passenger Car and Passenger Truck
  - Vehicle Age Distribution: Default

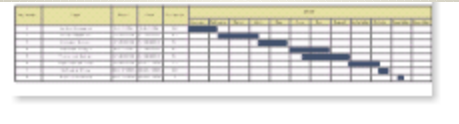
Parameter List

- Vehicle Types
  - Combination Long-haul Truck , Combination Short-haul Truck, Intercity Bus, Passenger Car, Passenger Truck, Transit Bus
- Fuels (Diesel and Gasoline)
- Year and Season
- Temperature
- Humidity
- Ramp Fraction

Initial Results Are Under Review

- Results are being tabulated, graphed and compared
- Trends will be part of review
- Preliminary results are being used to guide overall work effort
- Initial reporting to committee should occur at Summer, 2012 meeting

Schedule



- Completion of Regional Runs: February, 2012
- Initial Results: March, 2012
- Project Level Analysis: Spring to Summer, 2012
- Initial Results Reported at TRB Summer Meeting of ADC20
- Project Completion: Summer, 2012

Submit Questions

- Project Level Analysis: Spring to Summer, 2012
- Initial Results Reported at TRB Summer Meeting of ADC20
- Project Completion: Summer, 2012