Altitude Correction in MOVES: An Update
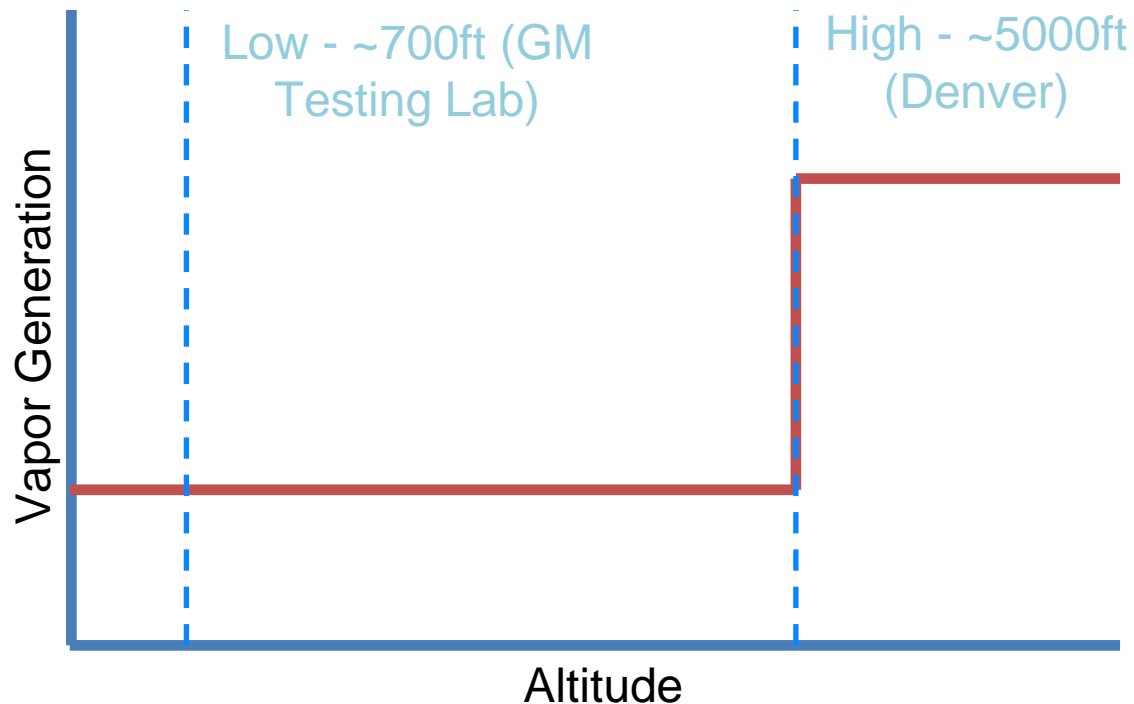
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FACA Modeling Workgroup Meeting
January 28, 2013
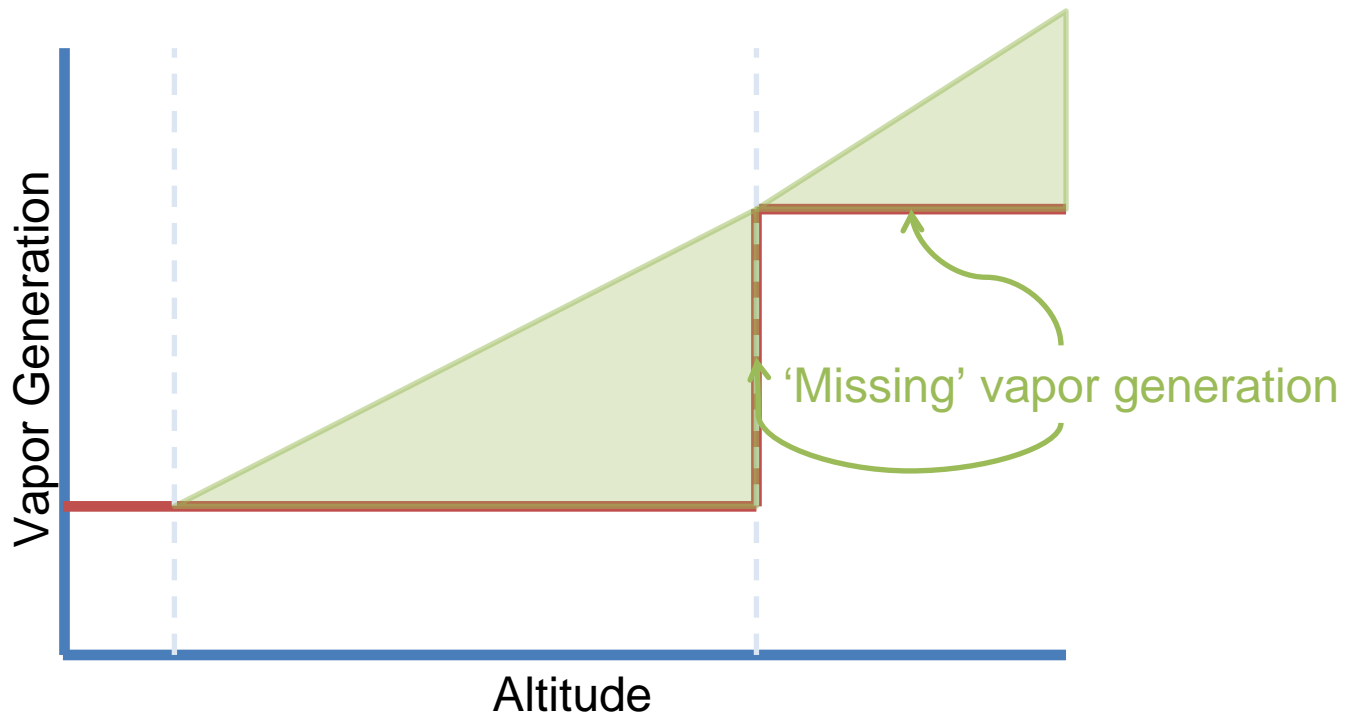
Altitude in MOVES 2010b

Low - ~700ft (GM Testing Lab)

High - ~5000ft (Denver)

Vapor Generation

Altitude

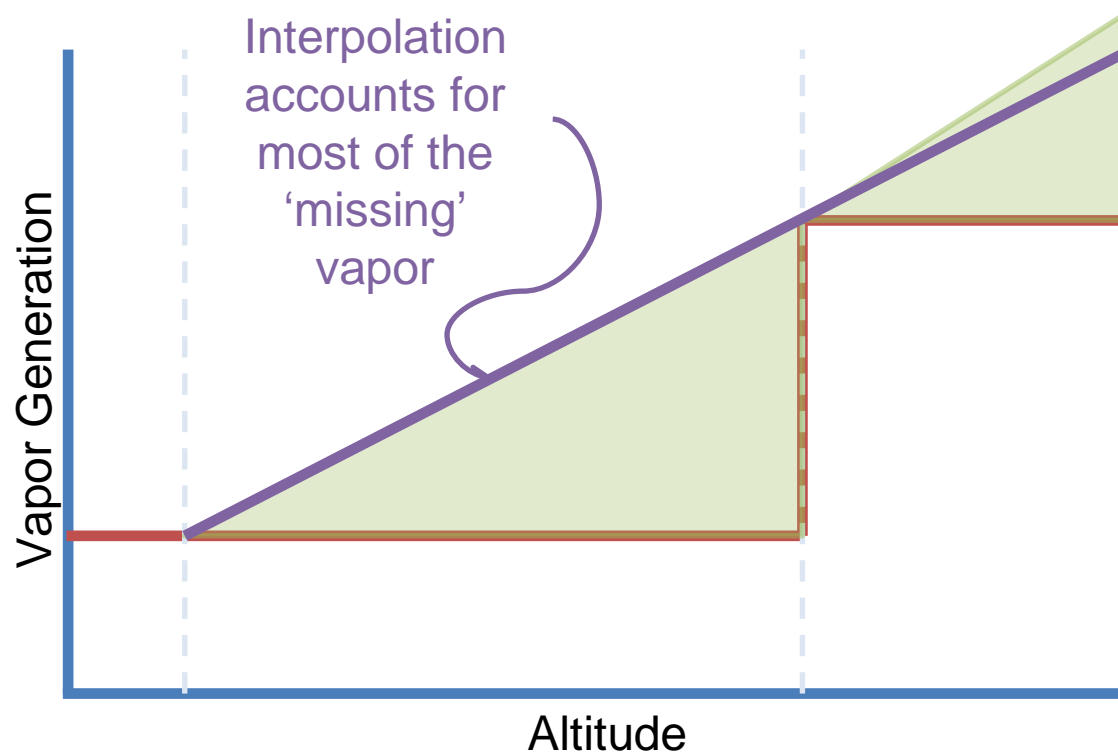- In MOVES 2010a, vapor generation (TVG) is only calculated for two altitudes (low and high)

"Missing" vapor generation

Vapor Generation (y-axis)

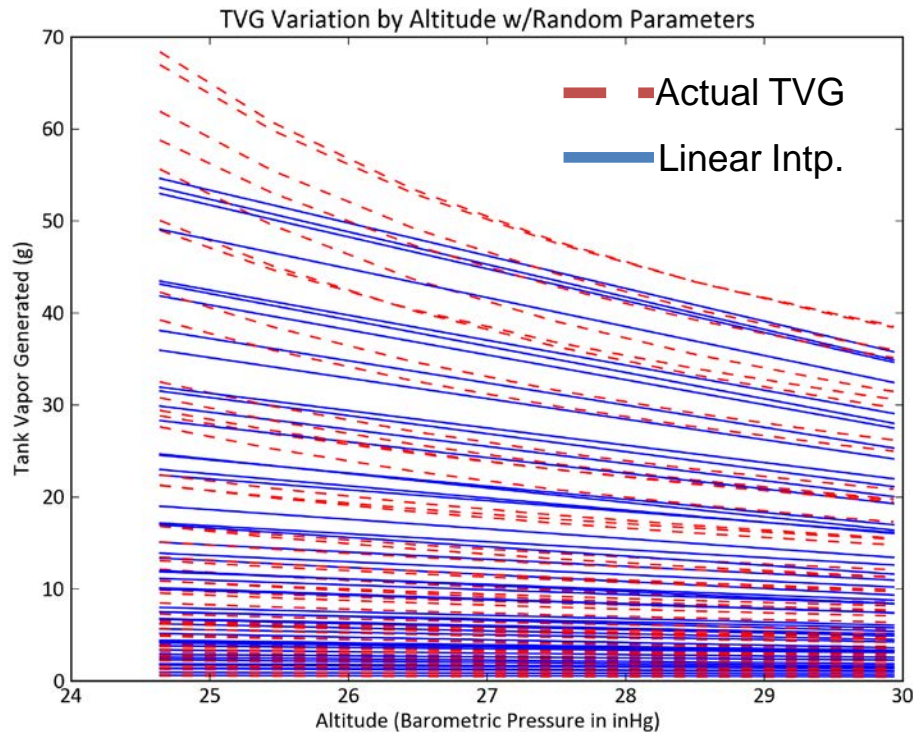*Altitude* (x-axis)

'Missing' vapor generation

● Calculating vapor generation at two points puts many counties above the 'low' level at lower than expected vapor generation for their altitude

Interpolating altitude calculations

Interpolation accounts for most of the 'missing' vapor

Vapor Generation

Altitude

● By interpolating/extrapolating between Low and High using actual county altitude, the 'missing' vapor generation can be accounted for

Non-linearity of real world TVG

TVG Variation by Altitude w/Random Parameters

- Vapor generation isn't actually linear… but we are much closer to reality than before this correction

Implementation in MOVES2013

- **Altitude adjustments will be based on existing county data (county barometric pressure)**
- **Difference can be significant for some counties.**

Questions?