

Report from MOVES Review Workgroup

October 6, 2009

Since Last MSTRS Meeting

- Review period for Draft MOVES2009
 - Public / Stakeholder Review of model and “guts”
 - Formal Peer Review
 - Coordinating Research Council Review (CRC E-68a)

Summary of Comments on Draft

- Guidance needed on developing new inputs & managing transition
- Concern that higher emission estimates will require extra SIP action
- Lookup option for starts & evap needed
- Additional functionality (e.g, “Rate of Progress” calculation, Daily VMT) suggested
- User interface is good—but some tweaks needed
- User Guide and Technical Documentation need editorial improvement & some sections need more detail
- MOVES run time is slower than Mobile6
- Installation can be difficult depending upon user environment

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Recent Workgroup Topics

➤ July 2009

- Initial EPA validation results
 - Comparisons to Georgia remote sensing data (RSD)
- Workgroup member comments on Draft MOVES2009

➤ Sept 2009

- Additional validation results with comparisons to:
 - Chicago I/M data
 - Chicago RSD
 - Atlanta RSD (refined)
- Likely changes in emission rates for final
- Plans for draft and final guidance documents
- Update on new fuels code
- Workgroup member comments on technical reports

Upcoming Topics

- November 2009
 - Final plans for the model
 - Preliminary final results

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- Extensive user training
 - ~ 20 training sessions across country, partnering with FHWA

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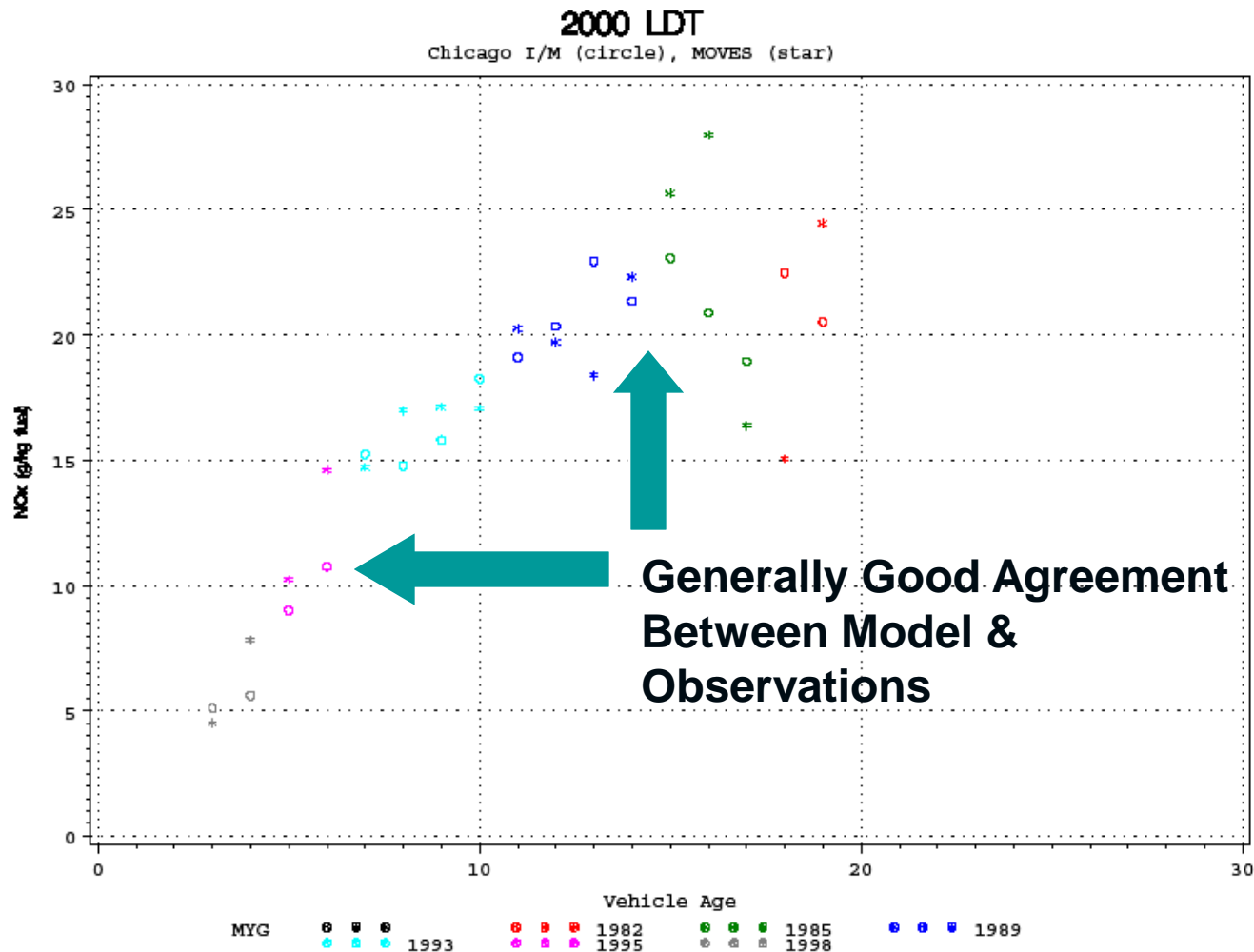
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- **Model Validation Activities**

Model Validation Efforts

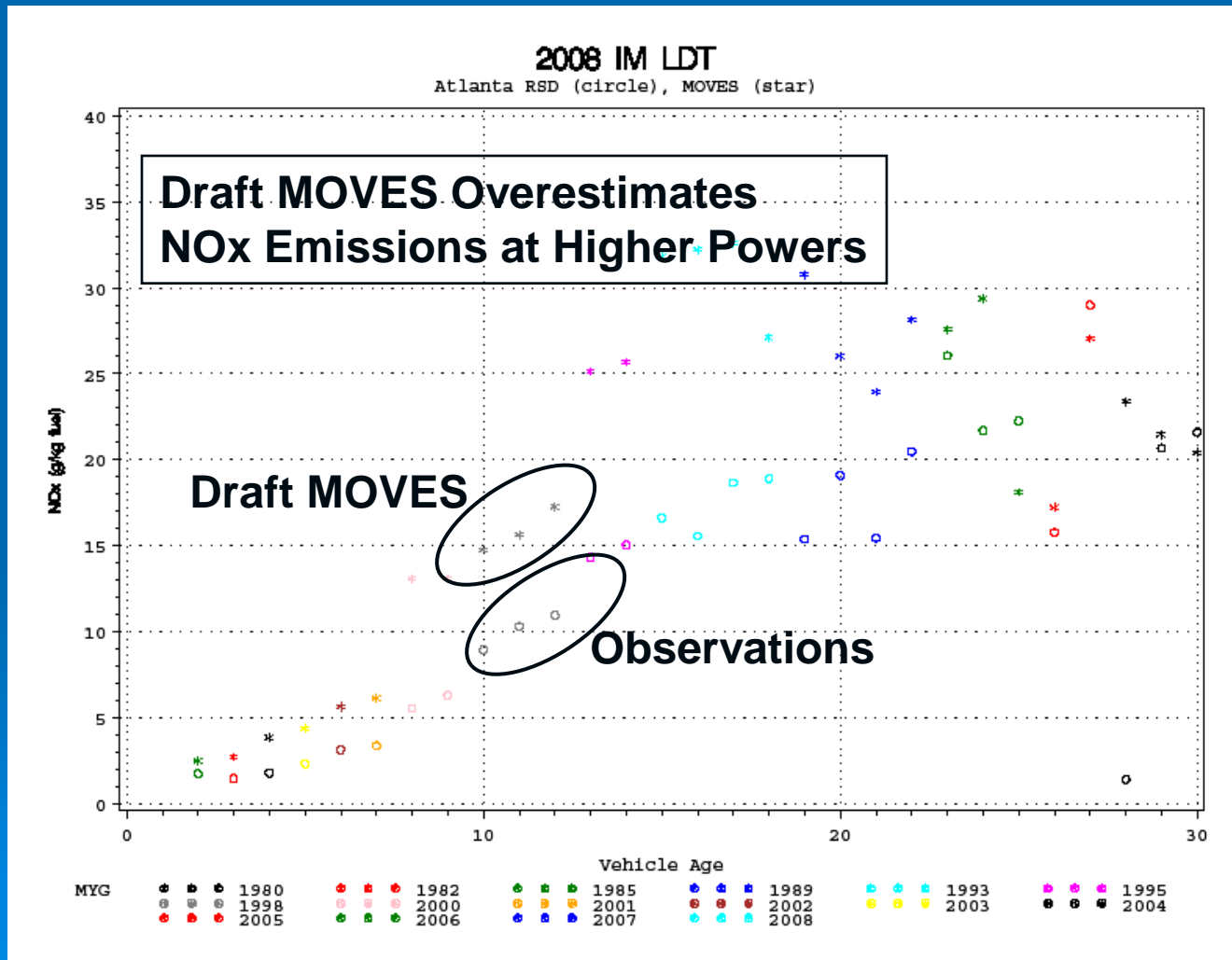
➤ MOVES Validation

- Most comprehensive emissions model validation effort ever undertaken by EPA
- Able to compare MOVES output to independent datasets:
 - Years of remote sensing data on cars/light trucks from Georgia and Illinois
 - Chassis and roadside data on HD trucks
 - Groundbreaking evaluation of evaporative leaks
 - Fuel sales

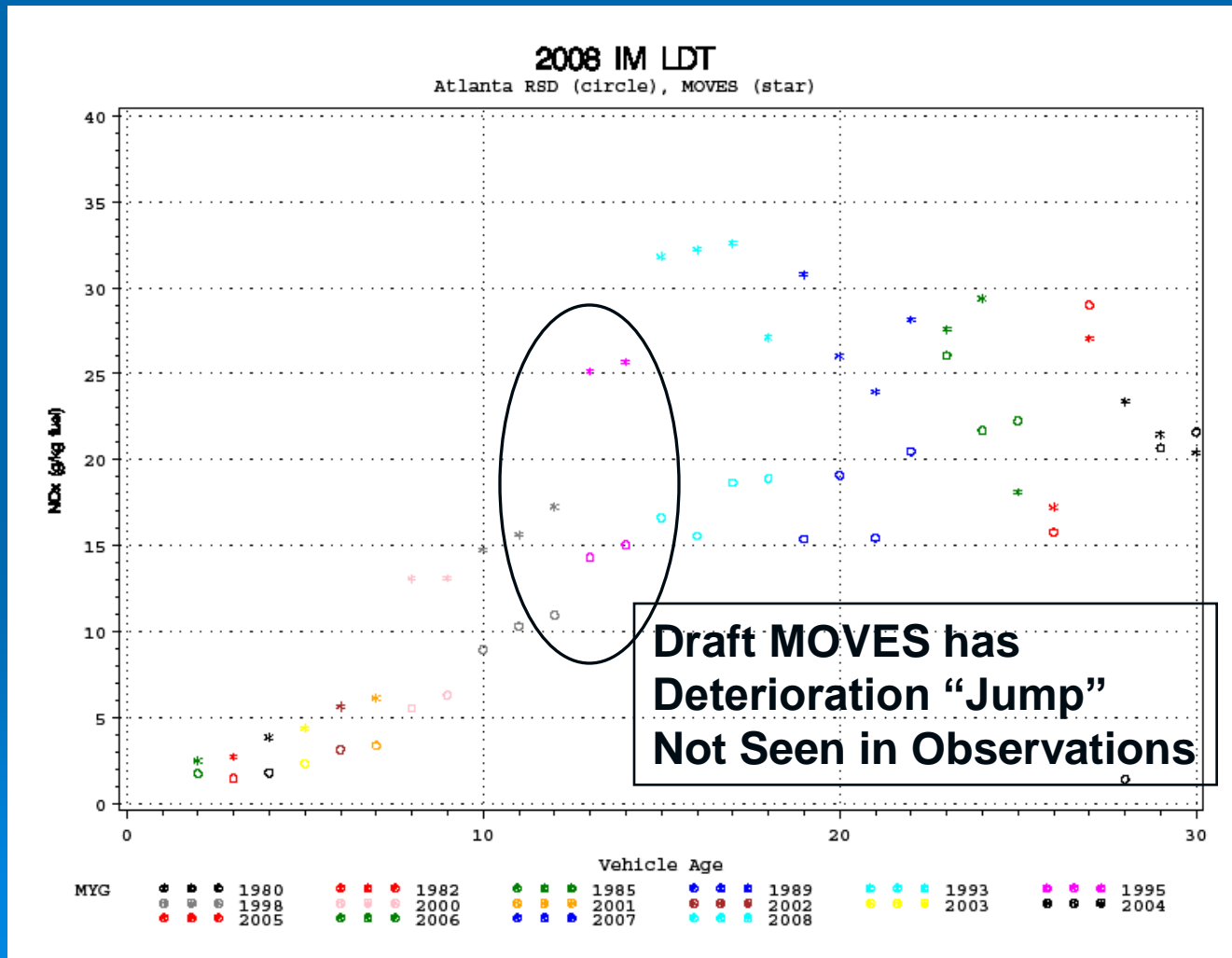
Chicago (low power) NOx Observations vs. MOVES



Atlanta (higher power) NOx Observations vs. MOVES



Atlanta (higher power) NOx Observations vs. MOVES



Model Validation Efforts

- All of these efforts are informing changes from draft to final

MOVES Review Workgroup Comments & Recommendations

- EPA has been responsive to group comments.
- Validation work so far has been helpful
 - Should be ongoing to identify areas for improvement
 - Should be conducted by other organizations as well as U.S. EPA
- Need to continue model updates after release
 - Update emission rates as well as features
 - Consider planning for annual or biennial release.
- Need to plan for long-term data collection