



WRAP Mobile Source Emissions Update

Status Report

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WRAP Region Mobile Source EI Update

Major tasks

- ⇒ Survey planning agencies, MPOs, DOTs
- ⇒ Update gasoline and diesel sulfur inputs
- ⇒ Perform base year 2002 MOBILE6.2 modeling
- ⇒ Perform future year MOBILE6.2 modeling
- ⇒ Perform base year 2002 NONROAD2004 modeling
- ⇒ Perform future year NONROAD2004 modeling
- ⇒ Update aircraft emissions
- ⇒ Update locomotive emissions
- ⇒ Update commercial marine emissions; develop estimates for off-shore shipping lanes
- ⇒ Submission of all data to EDMS and SMOKE
- ⇒ Documentation and presentation of results

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Scope of the inventory

⇒ Source categories

- On-road: 8 vehicle classes and 12 roadway types
- Nonroad: NONROAD model engines/vehicles, locomotive, aircraft, commercial marine

⇒ Pollutants

- VOC, CO, NO_x, PM₁₀, PM_{2.5}, NH₃, SO₂, SO₄

⇒ Temporal

- Seasonal average weekday emissions (four 3-month seasons)
- Annual emissions
- Base year 2002; future years 2008, 2013, and 2018

⇒ Geographical

- 14 States, county-level emissions

⇒ Output

- Summary spreadsheets
- NIF output (for input to WRAP EDMS)
- IDA format for SMOKE modeling

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Survey of planning agencies, MPOs, DOTs

⇒ Work completed to date

- (a) Developed complete set of planning agency/MPO/DOT contacts
- (b) 2002 fuel survey analysis completed by Sierra Research
- (c) Developed state spreadsheets with all default 2002 modeling inputs
 - Primarily based on latest EPA NEI2002 NMIM inputs
 - Limited state/local fuel parameters
 - Uses Sierra Research fuel parameters where local data not in EPA files
 - Includes VMT by vehicle class and roadway type
- (d) Posted all spreadsheets to project web site
<http://wrapair.org/forums/ef/UMSI/index.html>
- (e) Sent out survey on Jan 17 with above information and asking for updates/changes by Feb 4
- (f) Established tracking spreadsheet to record when responses were received, what updates were provided

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Survey of planning agencies, MPOs, DOTs

⇒ Work remaining to be done

- (a) Send out reminders for 2002 survey and call nonresponders
- (b) Resolve 2002 modeling inputs inconsistencies (if any) between overlapping agencies
- (c) Develop expanded state-specific spreadsheets to include
 - Updated 2002 modeling inputs
 - VMT projections
 - Default future year modeling inputs
 - Locomotive activity and emissions
 - Aircraft activity and emissions
- (d) Send out second survey with above information and asking for updates/changes.
- (e) Work with ITEP to survey tribes for updated emission inventories

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⇒ Other work currently in progress

■ (a) Aircraft emissions updates

- Analysis of latest 2002 aircraft emissions estimates for NEI2002 received Jan 05 from EPA
- Development of LTO growth factors for future years (FAA data)

■ (b) Commercial marine off-shore shipping lane emissions

- James Corbett of Univ. of Delaware is analyzing shipping lane data

■ (c) Locomotive emissions

- Reviewing BTS rail activity data and locomotive fuel consumption data for 2002 base year emissions estimates

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⇒ Near-term next steps

- (a) Request updated 2002 and future year on-road and nonroad (all sources) activity and emissions data from CARB; process 2002 data for input to EDMS & SMOKE
- (b) Modify internal on-road and nonroad processing software to generate NIF-ready files
- (c) Begin 2002 MOBILE6 and NONROAD2004 runs when 2002 modeling inputs have been resolved
- (c) Complete analysis of aircraft emissions and projections
- (d) Complete analysis of aircraft emissions and projections
- (e) Send out second survey
- (f) Discuss possible road dust revisions with MSEI work group

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⇒ Overall Schedule

- 2002 emissions end of March/early April**
- April – draft report covering 2002 emissions**
- June - 2008/13/18 emissions files, draft final report**
- July – final report responding to comments on draft**