

Please note the ID # prefix corresponds to each group (MOVES, Regional or Secondary)

Ranking Order	Project ID #	Research Need Description	Number of Votes
		Moves and Inventories	
3	M-1	Improved Temporal/Spatial Allocation of Emissions	74
6	M-2	Big (And Small) Data for Nonroad Activity	57
25	M-3	Better Distinguish On road Source Types	16
10	M-4	Improve Future Projections	45
1	M-5	Better Use of Measurements to Evaluate the Model	78
27	M-6	Better Drive Cycles	12
21	M-7	Instrumented On-road/Off-network Activity Data	25
26	M-8	Better GIS Location Based Inputs (Marine/Rail)	16
23	M-9	Improve Start Rates	21
		Regional	
4	R-1	Trend Analysis	67
14	R-2	Planetary Boundary Level	39
8	R-3	Spatial/Temporal Allocation of Emissions at a Lower Scale	50
22	R-4	Evaluation for Intended Use	25
11	R-5	Condensation Rules for Chemical Mechanisms	45
19	R-6	Air-Surface Interactions	34
17	R-7	Ensemble Modeling and Model Inter-Comparison	38
20	R-8	Vertical Profile Measurements	34
12	R-9	Fires: Wild + Prescribed	45
15	R-10	Use of Satellite Observation	39
		Secondary	
2	S-1	Influence of NOX as SOA formation and Ox	75
9	S-2	Role of Water on SOA	49
28	S-3	Source apportionment of Organic Aerosols	10
13	S-4	Contribution of Fossil and Non-fossil Sources to SOAs	43
7	S-5	Transfer line and Chamber wall Losses (Factor 4-5 fold Impact)	56
16	S-6	Anthropogenic vs. Biogenic Interactions	39
18	S-7	Quantifying the contribution on intermediate volatility organic compounds to SOA formation	36
29	S-8	Assessing impacts of changes in fuels of secondary pollutants	8
5	S-9	Emissions and composition of secondary pollutant precursors from gasoline and diesel driven non-road sources	66
24	S-10	Long-term measurement from closure, SOA models with ambient observations	19