Erratum to: Evaluation of the performance of ADMS in predicting the dispersion of sulfur dioxide from a complex source in Southeast Asia: implications for health impact assessments

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The original version of this article unfortunately contained an error. Tables 4 and 5 should have used bold font to indicate those performance parameters (average for 2003 to 2005) that conformed with the acceptance criteria listed in Table 6. Unfortunately all of the performance parameters are highlighted in bold.

Please refer to the amended Tables 4 and 5 here.

The online version of the original article can be found at <http://dx.doi.org/10.1007/s11869-013-0225-8>.

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Table 4 Comparison of performance criteria for modelled sulfur dioxide concentrations at station 29T over various averaging periods and for different meteorological data sets

Averaging time	Parameter	T29 met data			T31 met data			10 m mast met data			50 m mast met data		
		2003	2004	2005	Av	2003	2004	2005	Av	2003	2004	2005	Av
1 h	RHC _{obs}	193	159	212	188	193	141	212	182	193	142	214	183
	RHC _{pred}	106	111	115	111	108	111	102	107	119	111	124	118
	<i>FB_{RHC}</i>	0.59	0.34	0.60	0.51	0.57	0.23	0.70	0.50	0.49	0.24	0.53	0.42
	GMB	0.92	1.18	1.08	1.06	0.50	0.62	0.44	0.52	0.24	0.56	0.2	0.33
	<i>VG</i>	8.47	6.88	6.15	7.17	14.9	9.06	18.0	13.99	49.0	23.6	61.1	44.57
	<i>NMSE</i>	2.69	2.08	2.53	2.43	2.41	1.72	2.71	2.28	3.46	2.92	4.15	3.51
	<i>FAC2</i>	69.9 %	71.4 %	70.8 %	70.7 %	66.7 %	68.8	62.3	65.9 %	61.4 %	64.7 %	59.7 %	61.9 %
	RHC _{obs}	112	89	99	100	112	80	100	97	113	86	105	101
	RHC _{pred}	81	81	88	83	71	67	68	68	80	80	92	84
	<i>FB_{RHC}</i>	0.32	0.10	0.12	0.18	0.45	0.18	0.390	0.34	0.33	0.06	0.14	0.18
3 h	GMB	0.87	1.15	1.03	1.02	0.46	0.59	0.41	0.49	0.22	0.55	0.23	0.33
	<i>VG</i>	6.44	4.87	4.81	5.37	11.0	6.23	15.00	10.74	40.1	17.8	52.7	36.87
	<i>NMSE</i>	2.02	1.40	1.85	1.76	1.92	1.27	2.31	1.83	3.0	2.35	3.51	2.95
	<i>FAC2</i>	69.9 %	71.8 %	71.0	70.9 %	66.6 %	68.8	62.0 %	65.8 %	61.2 %	63.8 %	58.6 %	61.2 %
	RHC _{obs}	64	56	55	58	63	54	55	57	62	51	57	57
	RHC _{pred}	43	40	40	41	52	44	43	46	56	47	59	54
	<i>FB_{RHC}</i>	0.39	0.34	0.32	0.35	0.19	0.20	0.25	0.21	0.10	0.09	-0.03	0.07
	GMB	0.83	1.14	0.96	0.98	0.43	0.57	0.38	0.46	0.22	0.56	0.20	0.33
	<i>VG</i>	3.93	2.91	3.48	3.48	7.59	3.68	11.42	7.56	25.9	11.78	40.8	26.16
	<i>NMSE</i>	1.08	0.76	1.13	1.13	1.46	0.84	1.72	1.34	2.36	1.71	2.93	2.33
24 h	<i>FAC2</i>	71.3 %	75.4 %	71.5 %	71.5 %	67.9 %	73.4 %	61.5 %	67.6 %	60.3 %	63.0 %	56.5 %	59.9 %
	RHC _{obs}	33	34	32	33	34	34	35	34	36	32	32	33
	RHC _{pred}	36	30	30	32	39	34	32	35	41	37	44	41
	<i>FB_{RHC}</i>	-0.06	0.14	0.08	0.05	-0.15	-0.20	0.07	-0.09	-0.14	-0.16	-0.31	-0.20
	GMB	0.79	1.13	0.88	0.93	0.40	0.56	0.36	0.44	0.231	0.55	0.20	0.33
	<i>VG</i>	2.22	1.79	2.41	2.14	5.20	2.56	8.97	5.58	15.6	7.03	29.0	17.21
	<i>NMSE</i>	0.55	0.34	0.58	0.49	1.25	0.62	1.43	1.10	1.98	1.16	2.38	1.84
	<i>FAC2</i>	77.7 %	84.6 %	78 %	80.1 %	70.0 %	80.3 %	60.5 %	70.3 %	58.3 %	65.8 %	55.7 %	59.9 %
	RHC _{obs}	18	20	18	19	17	20	18	19	19	23	19	20
	RHC _{pred}	25	22	22	23	25	28	26	26	30	28	34	31
7 days	<i>FB_{RHC}</i>	-0.341	-0.09	-0.21	-0.22	-0.34	-0.30	-0.35	-0.33	-0.46	-0.21	-0.57	-0.41
	GMB	0.75	1.11	0.83	0.90	0.41	0.55	0.36	0.44	0.24	0.58	0.22	0.35
	<i>VG</i>	1.51	1.32	1.64	1.49	3.60	1.94	6.81	4.11	10.77	4.44	18.42	11.21

Table 4 (continued)

Averaging time	Parameter	T29 met data			T31 met data			10 m mast met data			50 m mast met data						
		2003	2004	2005	Av	2003	2004	2005	Av	2003	2004	2005	Av	2003	2004	2005	Av
1 h	<i>NMSE</i>	0.30	0.11	0.31	0.24	0.98	0.55	1.29	0.94	1.79	0.94	2.25	1.66	0.82	0.55	1.14	0.84
	<i>FAC2</i>	86.5 %	90.4 %	84.6 %	87.2 %	71.2 %	84.6 %	59.6 %	71.8 %	53.8 %	68.4 %	54.9 %	59.0 %	75 %	73.8 %	65.4 %	71.4 %
	Slope	0.576	0.542	0.601	0.568	0.861	0.862	0.974	0.892	1.107	0.818	1.215	1.043	0.882	0.709	0.955	0.844
	<i>r</i>	0.441	0.493	0.458	0.463	0.515	0.580	0.514	0.535	0.493	0.470	0.477	0.477	0.587	0.531	0.539	0.551
3 h	Slope	0.661	0.655	0.725	0.675	0.976	1.025	1.167	1.045	1.320	0.994	1.510	1.275	0.993	0.845	1.159	0.990
	<i>r</i>	0.513	0.591	0.541	0.547	0.581	0.668	0.588	0.610	0.558	0.545	0.558	0.549	0.646	0.598	0.611	0.616
8 h	Slope	0.892	0.808	0.876	0.853	1.255	1.223	1.429	1.289	1.749	1.238	1.920	1.640	1.205	0.991	1.401	1.188
	<i>r</i>	0.674	0.728	0.663	0.689	0.686	0.778	0.688	0.714	0.679	0.653	0.660	0.658	0.722	0.669	0.696	0.692
24 h	Slope	1.165	0.973	1.112	1.069	1.523	1.415	1.648	1.513	2.169	1.558	2.440	2.053	1.424	1.200	1.767	1.440
	<i>r</i>	0.830	0.861	0.812	0.833	0.766	0.860	0.764	0.794	0.785	0.786	0.784	0.773	0.800	0.767	0.805	0.784
7 days	Slope	1.362	1.078	1.266	1.210	1.829	1.564	2.037	1.760	2.702	1.571	2.878	2.310	1.659	1.233	2.005	1.559
	<i>r</i>	0.934	0.954	0.913	0.930	0.866	0.905	0.853	0.870	0.888	0.825	0.858	0.838	0.866	0.841	0.871	0.844
Annual	Mean _{obs}	6.4	7.8	5.7	6.7	6.5	7.8	5.7	6.7	6.6	7.4	5.6	6.5	6.4	7.8	5.7	6.6
	Mean _{pred}	8.9	8.3	7.6	8.3	14.2	13.7	14.7	14.2	22.4	15.5	22.4	20.1	12.1	11.7	14.0	12.6
	<i>FB</i> _{mean}	−0.32	−0.06	−0.28	−0.22	−0.75	−0.55	−0.88	−0.73	−1.09	−0.71	−1.20	1.0	−0.61	−0.40	−0.84	−0.62

Statistical parameters are defined in the text. Data presented in bold indicate compliance with performance parameter acceptance criteria. Mean and RHC values have unit s of ppb

Table 5 Comparison of performance criteria for modelled sulfur dioxide concentrations at station 31T over various averaging periods and for different meteorological data sets

Averaging time	Parameter	T29 met data			T31 met data			10 m mast met data			50 m mast met data		
		2003	2004	2005	Av	2003	2004	2005	Av	2003	2004	2005	Av
1 h	RHC _{obs}	72.1	65.6	50.0	62.6	72.1	64.7	53.1	63.3	69.9	66.4	52.8	63.0
	RHC _{pred}	88.6	76.3	82.0	81.3	73.5	71.6	80.0	75.0	57.2	113	101	90.5
	FB _{RHC}	-0.21	-0.15	-0.48	-0.28	-0.02	-0.10	-0.40	-0.17	0.20	-0.51	-0.63	-0.31
	GMB	0.56	0.40	0.48	0.48	1.08	0.67	1.22	0.99	0.349	0.55	0.47	0.46
	VG	13.28	16.23	10.19	13.23	5.67	5.87	4.99	5.51	19.41	10.49	11.34	13.75
	NMSE	4.66	6.06	3.24	4.65	4.03	4.66	2.69	3.79	4.86	6.85	4.07	5.26
3 h	FAC2	65.3 %	66.1 %	66.6 %	66.0 %	72.0 %	74.2 %	71.1 %	72.4 %	65.4 %	70.6 %	67.1	67.7 %
	RHC _{obs}	42.4	34.4	31.0	35.9	42.4	34.1	32.8	36.4	42.8	30.0	32.5	35.1
	RHC _{pred}	61.6	59.6	60.4	60.5	38.9	60.7	48.9	49.5	35.0	47.3	49.2	43.9
	FB _{RHC}	-0.37	-0.53	-0.64	-0.52	0.09	-0.56	-0.39	0.35	0.20	-0.44	-0.41	-0.22
	GMB	0.51	0.37	0.45	0.44	1.00	0.63	1.16	0.93	0.31	0.52	0.41	0.41
	VG	11.21	14.48	8.00	11.23	4.64	5.04	4.14	4.61	20.25	10.05	11.08	13.79
8 h	NMSE	3.64	4.98	2.51	3.71	2.73	3.51	1.91	2.72	4.63	5.65	3.81	4.70
	FAC2	64.5 %	64.7 %	66.8 %	65.3 %	71.4 %	72.4 %	70.8 %	71.5 %	64.7 %	67.8 %	67.4 %	66.6 %
	RHC _{obs}	28.3	18.1	25.8	24.04	28.3	18.2	27.1	24.5	32.5	17.3	26.0	25.3
	RHC _{pred}	32.7	36.6	30.0	33.2	24.8	36.0	27.0	29.3	38.9	32.8	39.8	37.1
	FB _{RHC}	-0.14	-0.68	-0.15	-0.32	0.13	-0.65	0.00	-0.29	-0.18	-0.62	-0.41	-0.40
	GMB	0.47	0.33	0.42	0.41	0.90	0.58	1.10	0.86	0.28	0.47	0.36	0.37
24 h	VG	8.93	13.04	6.38	9.45	3.52	4.21	3.29	3.67	18.76	9.23	8.89	12.29
	NMSE	2.68	4.06	1.84	2.86	1.72	2.58	1.29	1.86	3.64	4.24	2.61	3.50
	FAC2	65.0 %	64.2 %	67.2 %	65.5 %	71.7 %	72.6 %	71.9 %	72.1 %	63.0 %	65.6	65.8	64.8 %
	RHC _{obs}	18.3	9.09	13.5	13.6	18.3	9.1	13.8	13.8	19.7	8.7	13.9	14.1
	RHC _{pred}	22.2	21.48	23.1	22.3	17.9	28.2	18.2	21.4	30.6	24.0	27.3	27.3
	FB _{RHC}	-0.19	-0.81	-0.52	-0.51	0.03	-1.02	-0.27	-0.42	-0.43	-0.94	-0.65	-0.67
7 days	GMB	0.43	0.31	0.40	0.38	0.83	0.55	1.08	0.82	0.24	0.43	0.33	0.33
	VG	6.74	9.31	4.54	6.86	2.63	3.32	2.40	2.78	16.90	7.13	6.45	10.16
	NMSE	1.97	3.03	1.34	2.11	1.04	2.19	0.78	1.34	2.64	2.94	1.67	2.42
	FAC2	66.8 %	65.4 %	68.5 %	66.9 %	74.5 %	74.7 %	76.7 %	75.3 %	62.5 %	62.2 %	64.4 %	63.0 %
	RHC _{obs}	9.99	5.51	10.1	8.63	10.0	5.8	9.3	8.36	9.74	5.2	10.4	8.5
	RHC _{pred}	13.5	14.4	13.8	13.88	10.4	18.4	13.2	14.0	19.71	18.2	19.2	19.1
7 days	FB _{RHC}	-0.30	-0.85	-0.31	-0.48	-0.04	-1.04	-0.35	-0.47	-0.68	-1.11	-0.59	-0.79
	GMB	0.39	0.30	0.41	0.37	0.74	0.50	1.08	0.77	0.23	0.38	0.35	0.32
	VG	5.52	7.94	2.92	5.46	2.27	2.96	1.72	2.32	17.5	8.49	4.57	10.19
										4.01	2.91	3.38	3.43

Table 5 (continued)

Averaging time	Parameter	T29 met data			T31 met data			10 m mast met data			50 m mast met data						
		2003	2004	2005	Av	2003	2004	2005	Av	2003	2004	2005	Av	2003	2004	2005	Av
1 h	<i>NMSE</i>	1.49	2.34	0.88	1.57	0.65	2.05	0.48	1.06	2.57	3.10	1.29	2.32	5.22	2.29	2.03	3.18
	<i>FAC2</i>	65.4 %	65.4 %	71.8 %	67.5 %	75.0 %	75.0 %	78.4 %	76.1 %	59.6 %	63.2 %	64.1 %	62.3 %	69.2 %	69.0 %	69.2 %	69.1 %
	Slope	0.662	0.872	1.068	0.867	0.443	0.725	0.629	0.573	1.227	0.812	1.322	1.165	0.114	0.223	0.215	0.170
	<i>r</i>	0.358	0.355	0.498	0.404	0.343	0.371	0.450	0.377	0.450	0.326	0.498	0.439	0.242	0.206	0.398	0.235
3 h	Slope	0.776	1.142	1.198	1.039	0.513	0.926	0.691	0.663	1.492	1.068	1.553	1.432	0.121	0.275	0.233	0.190
	<i>r</i>	0.422	0.433	0.571	0.475	0.429	0.457	0.530	0.461	0.500	0.399	0.548	0.497	0.297	0.256	0.364	0.282
8 h	Slope	0.964	1.478	1.302	1.248	0.623	1.163	0.743	0.769	1.743	1.372	1.664	1.655	0.132	0.340	0.234	0.206
	<i>r</i>	0.514	0.524	0.651	0.563	0.543	0.559	0.619	0.557	0.586	0.499	0.644	0.590	0.352	0.325	0.411	0.334
24 h	Slope	1.243	2.005	1.590	1.613	0.778	1.515	0.862	0.939	2.057	1.886	1.951	1.995	0.140	0.415	0.258	0.230
	<i>r</i>	0.627	0.665	0.766	0.686	0.665	0.655	0.730	0.655	0.703	0.654	0.786	0.720	0.407	0.424	0.501	0.410
7 days	Slope	1.480	2.418	1.846	1.915	0.855	1.814	0.933	1.050	2.358	2.088	2.139	2.232	0.147	0.413	0.296	0.250
	<i>r</i>	0.725	0.785	0.889	0.800	0.760	0.720	0.815	0.719	0.754	0.672	0.865	0.775	0.577	0.470	0.676	0.516
Annual	Mean _{obs}	3.69	2.58	3.92	3.40	3.4	3.7	4.0	3.7	3.7	2.6	3.9	3.4	3.6	2.8	4.0	3.5
	Mean _{pred}	7.85	7.77	9.0	8.21	4.5	4.1	4.2	4.3	12.2	6.8	10.5	9.8	0.7	1.7	1.4	1.3
	<i>FB</i> _{mean}	-0.72	-1.01	-0.78	-0.78	-0.12	-0.65	-0.04	-0.27	-1.07	-0.89	-0.91	-0.96	1.38	0.51	0.95	0.95

Statistical parameters are defined in the text. Data presented in bold indicate compliance with performance parameter acceptance criteria. Mean and RHC values have unit of ppb