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Supplement of

Air quality improvement in a megacity: implications from 2015 Beijing Parade Blue pollution control actions

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1 **Supporting Information (SI)**

2 **Figure captions**

3 **Figure S1.** Pictures showing the sites #15 (a) and #20 (b) on the 5th ring road, site #2
4 on the 3rd ring road (c) and site #10 on the 4th ring road (d).

5 **Figure S2.** Correlations between daily average concentrations of PM_{2.5} with those of
6 CO (a), NO₂ (b), SO₂ (c), CO+NO₂+SO₂ (d) and CO+NO₂ (e).

7 **Figure S3.** Map showing the distance between sampling site #22 and the Wanliu
8 monitoring station in Beijing (<http://map.baidu.com/>).

9 **Figure S4.** Daily average sulfur oxidation ratio (SOR) and nitrogen oxidation ratio
10 (NOR) during the pre-Parade Blue, Parade Blue and post-Parade Blue periods.

11 **Figure S5.** Correlations between NH₄⁺ and SO₄²⁻, SO₄²⁻ + NO₃⁻ (unit: μeq m⁻³) during
12 the pre-Parade Blue, Parade Blue and post-Parade Blue periods.

13 **Figure. S6.** 10 m mean wind field and (vector) and sea surface pressure (white)
14 plotted on the precipitation field during the pre-Parade Blue period (left), Parade Blue
15 period (right) and post-Parade Blue period (below).

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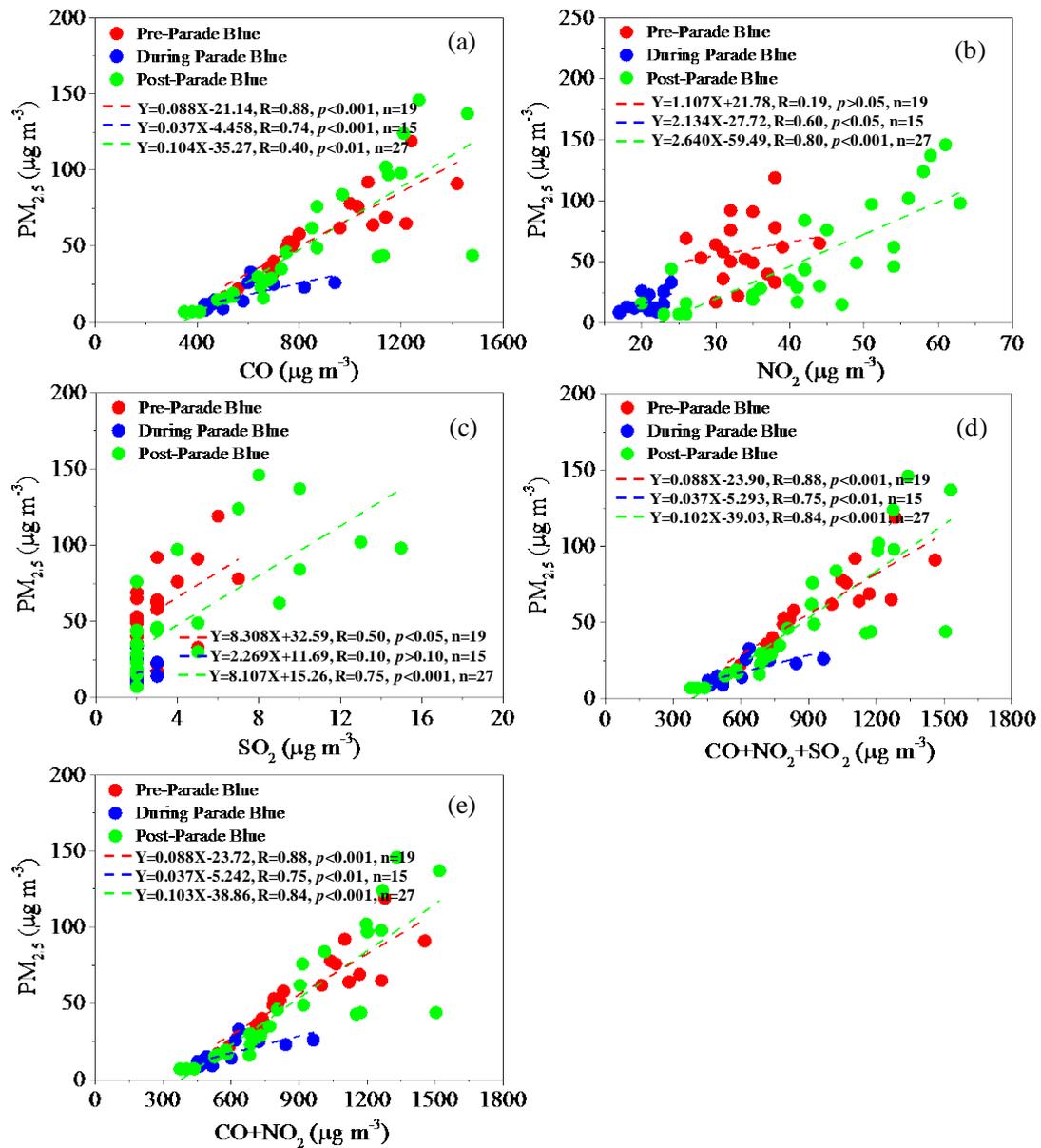
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44 **Figure S2**



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56 **Figure S3**



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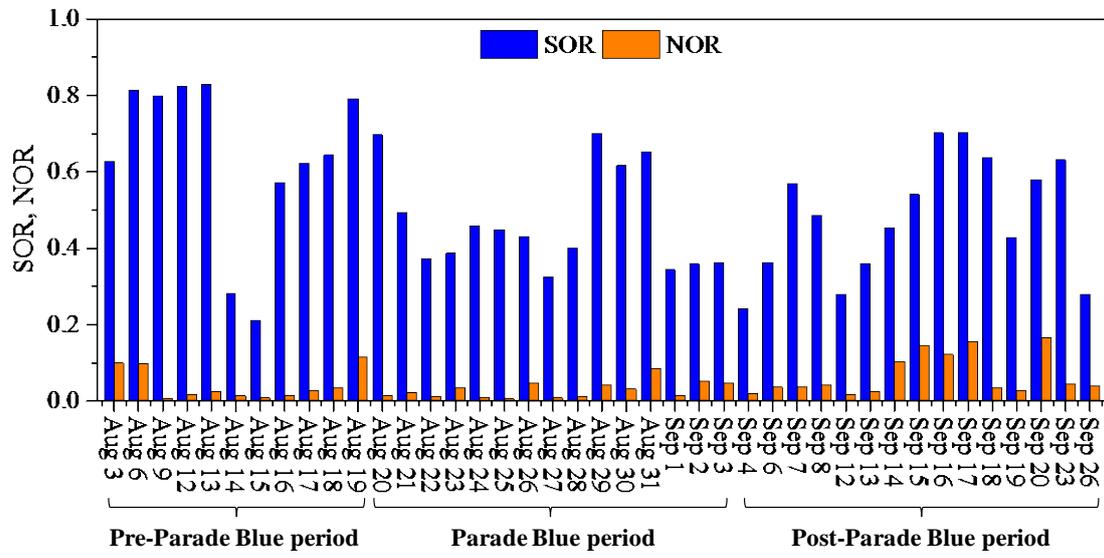
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75 **Figure S4**

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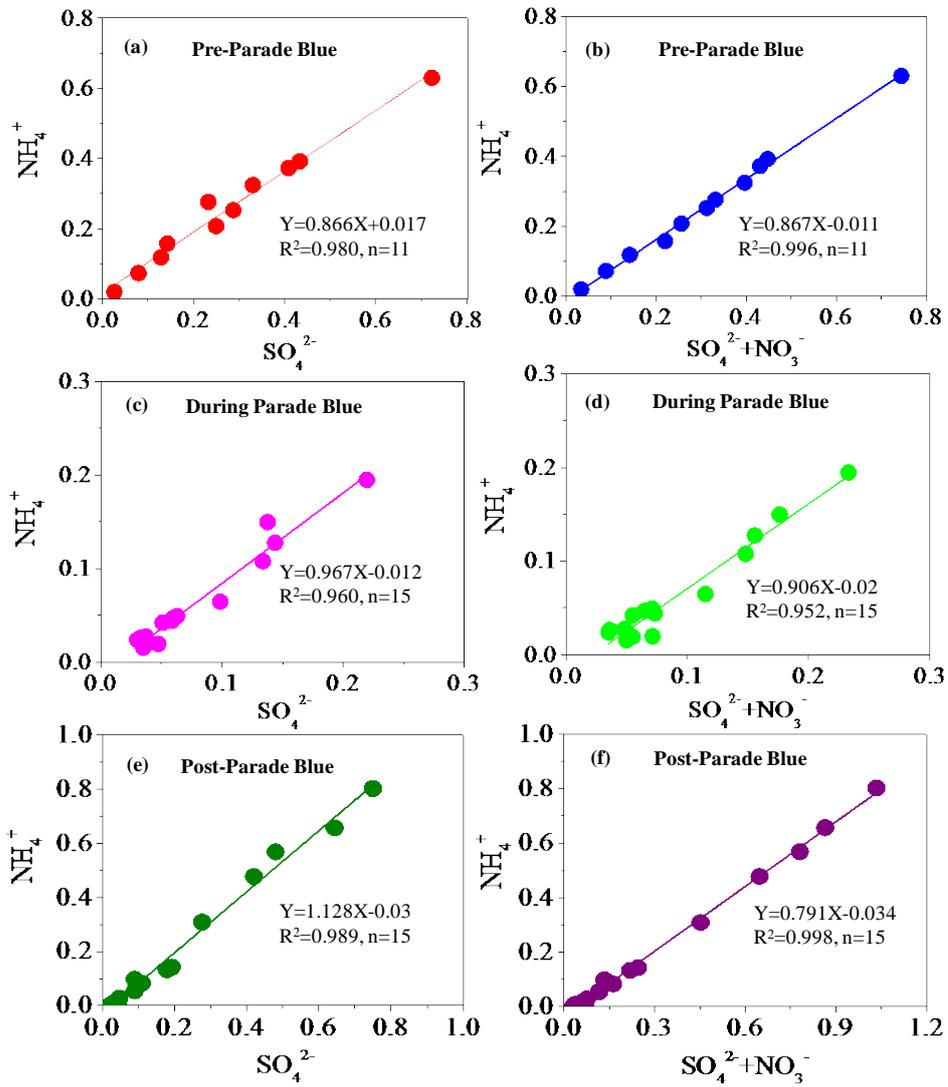
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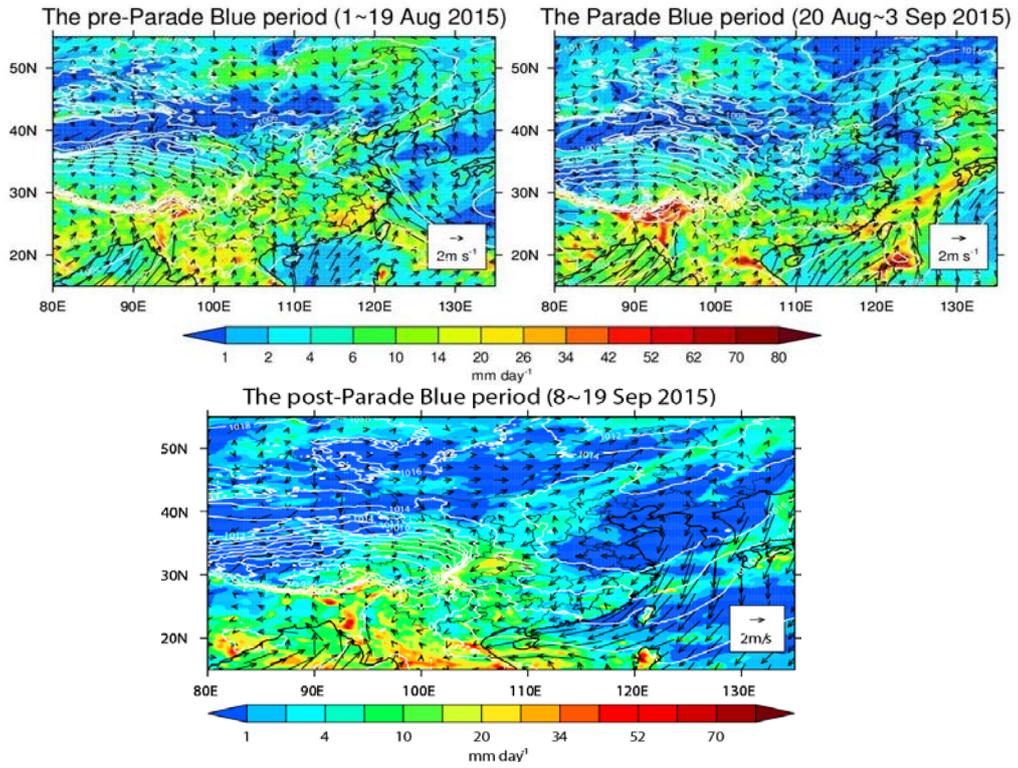
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102 **Figure S6**



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Table S1. Information on the thirty-one monitoring sites.

Site code	Coordinate	Sampling place	Site type ^a	Measured pollutants	Sampling durations ^b for each pollutant			Numbers of samples ^c			Surrounding environment and possible emission sources
					NH ₃	NO ₂	PM _{2.5}	NH ₃	NO ₂	PM _{2.5}	
1	116.37°E, 39.95°N	At Beijing Normal University	NRS	NH ₃	II, III	n.m.	n.m.	2	n.d.	n.d.	Densely occupied residences, traffic roads
2	116.47°E, 39.91°N	On the 3 rd ring road	RS	NH ₃	II, III	n.m.	n.m.	2	n.d.	n.d.	Traffic roads
3	116.39°E, 39.86°N	On the 3 rd ring road	RS	NH ₃	II, III	n.m.	n.m.	2	n.d.	n.d.	Traffic roads
4	116.32°E, 39.92°N	On the 3 rd ring road	RS	NH ₃	II, III	n.m.	n.m.	2	n.d.	n.d.	Traffic roads
5	116.38°E, 39.97°N	On the 3 rd ring road	RS	NH ₃	II, III	n.m.	n.m.	2	n.d.	n.d.	Traffic roads
6	116.29°E, 39.95°N	At Beijing Academy of Agricultural and Forestry Sciences	NRS	NH ₃	II, III	n.m.	n.m.	2	n.d.	n.d.	Occupied residences, traffic roads
7	116.36°E, 39.99°N	On the 4 th ring road	RS	NH ₃	II, III	n.m.	n.m.	2	n.d.	n.d.	Traffic roads
8	116.28°E, 39.91°N	On the 4 th ring road	RS	NH ₃	II, III	n.m.	n.m.	2	n.d.	n.d.	Traffic roads
9	116.39°E, 39.84°N	On the 4 th ring road	RS	NH ₃	II, III	n.m.	n.m.	2	n.d.	n.d.	Traffic roads
10	116.49°E, 39.92°N	On the 4 th ring road	RS	NH ₃	II, III	n.m.	n.m.	2	n.d.	n.d.	Traffic roads
11	116.39°E, 40.01°N	Inside the Olympic Park	NRS	NH ₃	II, III	n.m.	n.m.	2	n.d.	n.d.	Occupied residences, traffic roads
12	116.54°E, 39.92°N	Outside a sewage treatment plant	NRS	NH ₃	II, III	n.m.	n.m.	2	n.d.	n.d.	Small villages, sewage treatment plant
13	116.29°E, 40.00°N	Inside Summer Palace	NRS	NH ₃	II, III	n.m.	n.m.	2	n.d.	n.d.	Occupied residences, traffic roads

14	116.22°E, 39.99°N	On the 5 th ring road	RS	NH ₃ , NO ₂	I, II, III	I, II, III	n.m.	3	3	n.d.	Traffic roads
15	116.22°E, 39.91°N	On the 5 th ring road	RS	NH ₃ , NO ₂	I, II, III	I, II, III	n.m.	3	3	n.d.	Traffic roads
16	116.27°E, 39.79°N	On the 5 th ring road	RS	NH ₃ , NO ₂	I, II, III	I, II, III	n.m.	3	3	n.d.	Traffic roads
17	116.40°E, 39.77°N	On the 5 th ring road	RS	NH ₃ , NO ₂	I, II, III	I, II, III	n.m.	3	3	n.d.	Traffic roads
18	116.49°E, 39.81°N	On the 5 th ring road	RS	NH ₃ , NO ₂	I, II, III	I, II, III	n.m.	3	3	n.d.	Traffic roads
19	116.56°E, 39.88°N	On the 5 th ring road	RS	NH ₃ , NO ₂	I, II, III	I, II, III	n.m.	3	3	n.d.	Traffic roads
20	116.52°E, 39.99°N	On the 5 th ring road	RS	NH ₃ , NO ₂	I, II, III	I, II, III	n.m.	3	3	n.d.	Traffic roads
21	116.39°E, 40.03°N	On the 5 th ring road	RS	NH ₃ , NO ₂	I, II, III	I, II, III	n.m.	3	3	n.d.	Traffic roads
22	116.29°E, 40.03°N	At China Agricultural University	NRS	NH ₃ , NO ₂ , PM _{2.5}	I, II, III	I, II, III	I, II, IV	3	3	41	Densely occupied residences, industry, small-scale urban agriculture, and traffic roads
23	116.26°E, 40.04°N	On the Baiwang hill	NRS	NH ₃ , NO ₂	I, II, III	I, II, III	n.m.	3	3	n.d.	Small villages and roads
24	116.23°E, 40.07°N	At a landfill site	NRS	NH ₃	II, III	n.m.	n.m.	2	n.d.	n.d.	Small villages, refuse landfill
25	116.19°E, 40.14°N	In Shangzhuang Experimental Station	NRS	NH ₃ , NO ₂	I, II, III	I, II, III	n.m.	3	3	n.d.	Small villages, croplands
26	116.14°E, 40.26°N	On an expressway	RS	NH ₃ , NO ₂	II, III	II, III	n.m.	2	2	n.d.	Traffic roads

27	116.02°E, 40.36°N	Inside Badaling Highway Tunnel	RS	NH ₃ , NO ₂	II, III	II, III	n.m.	2	2	n.d.	Traffic roads
28	116.01°E, 40.36°N	Near the exit of Badaling Highway Tunnel	RS	NH ₃ , NO ₂	II, III	II, III	n.m.	2	2	n.d.	Traffic roads
29	116.58°E, 36.84°N	In Yucheng Experimental Station	RS	NH ₃ , NO ₂ , PM _{2.5}	I, II, III	I, II, III	I, II, IV	3	3	21	Small villages, croplands
30	115.02°E, 36.87°N	In Quzhou Experimental Station	RS	NH ₃ , NO ₂ , PM _{2.5}	I, II, III	I, II, III	I, II, IV	3	3	19	Small villages, croplands
31	120.75 ° E, 37.93 ° N	On Changdao Island	BS	NH ₃ , NO ₂	I, II, III	I, II, III	n.m.	3	3	n.d.	Almost no agricultural and industrial activities

105 ^a NRS, RS and BS denote non-road site, road site and background site, respectively.

106 ^b I, II, III, and IV denote the periods of 3-19 August 2015, 20 August-3 September 2015, 8-19 September 2015, and 4-30 September 2015,
 107 respectively; n.m. means no measurements.

108 ^d Values for NH₃ and NO₂ samples multiply by 3 to obtain the total numbers of samples; n.d. means no data.

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116 Table S2. Summary of daily average PM_{2.5} concentrations ($\mu\text{g m}^{-3}$) during the pre-Parade Blue, Parade Blue and post-Parade Blue periods in the
 117 291 cities across China.

City	Province	Region ^a	Pre-Parade Blue period ^b				Parade Blue period ^b				Post-Parade Blue period ^b			
			Mean	SE	Min	Max	Mean	SE	Min	Max	Mean	SE	Min	Max
Beijing	Municipality	EC	59	6	17	119	17	2	8	33	52	8	7	146
Tianjing	Municipality	EC	62	5	20	116	32	4	15	77	47	5	9	116
Baoding	Hebei	EC	88	7	29	148	35	4	16	75	66	8	15	159
Cangzhou	Hebei	EC	59	6	17	119	17	2	8	33	39	5	9	88
Chengde	Hebei	EC	31	4	11	73	14	0	11	17	28	4	9	95
Handan	Hebei	EC	81	7	35	147	52	7	9	91	63	6	15	131
Hengshui	Hebei	EC	91	7	33	159	47	5	25	92	76	8	24	167
Langfang	Hebei	EC	69	6	17	113	24	4	5	78	54	7	4	132
Qinhuangdao	Hebei	EC	45	6	10	92	7	1	4	23	15	2	4	46
Shijiazhuang	Hebei	EC	78	7	20	128	35	5	6	77	45	5	11	98
Tangshan	Hebei	EC	73	6	25	118	13	2	4	29	43	5	8	91
Xingtai	Hebei	EC	83	7	30	144	45	7	8	101	60	5	17	103
Zhangjiakou	Hebei	EC	29	3	17	66	18	1	9	27	27	4	11	71
Changzhi	Shanxi	EC	59	5	22	96	39	3	25	55	47	3	15	79
Datong	Shanxi	EC	26	2	13	59	16	1	12	22	27	3	9	71
Jincheng	Shanxi	EC	41	3	11	69	37	3	19	70	37	4	8	104
Jinzhong	Shanxi	EC	39	3	21	71	26	3	11	51	43	4	8	88
Linfen	Shanxi	EC	32	2	19	44	27	2	17	43	40	3	11	63
Lvliang	Shanxi	EC	46	4	17	88	29	2	18	40	46	4	18	85
Shuozhou	Shanxi	EC	39	2	18	54	28	1	22	36	39	4	17	89
Taiyuan	Shanxi	EC	44	3	26	73	23	3	9	55	46	5	10	106

Xinzhou	Shanxi	EC	39	3	23	61	20	2	12	36	44	5	12	107
Yangquan	Shanxi	EC	38	3	16	64	19	2	9	31	36	4	6	70
Yuncheng	Shanxi	EC	58	3	29	78	48	3	29	69	38	2	16	68
Binzhou	Shandong	EC	49	5	12	94	37	4	18	69	51	6	12	139
Dezhou	Shandong	EC	89	6	25	133	44	4	23	85	72	8	22	159
Dongying	Shandong	EC	65	7	21	123	43	4	21	80	51	6	13	117
Jinan	Shandong	EC	59	5	21	87	50	4	30	82	72	5	23	118
Jining	Shandong	EC	50	5	22	103	49	3	34	78	58	4	21	101
Laiwu	Shandong	EC	54	6	19	98	65	5	40	101	62	5	19	122
Liaocheng	Shandong	EC	67	6	24	105	49	5	17	80	73	6	27	122
Linyi	Shandong	EC	37	4	15	76	43	4	25	78	45	6	13	133
Qingdao	Shandong	EC	35	4	9	60	30	3	14	71	25	3	9	71
Rizhao	Shandong	EC	39	4	8	75	40	5	16	74	37	5	7	93
Tai'an	Shandong	EC	42	4	21	76	40	3	20	67	51	4	20	92
Weihai	Shandong	EC	38	4	19	74	22	2	7	31	20	2	7	47
Weifang	Shandong	EC	51	6	17	102	55	7	25	115	50	7	17	170
Yantai	Shandong	EC	39	5	14	87	23	2	9	36	23	2	9	63
Zaozhuang	Shandong	EC	45	5	16	83	51	3	40	74	60	6	9	144
Zibo	Shandong	EC	56	4	29	90	55	4	35	89	68	6	26	135
Alxa League	Inner Mongolia	EC	38	3	18	66	33	1	22	40	36	2	21	60
Bayannur	Inner Mongolia	EC	33	3	15	56	32	1	21	41	39	3	22	71
Baotou	Inner Mongolia	EC	35	3	11	56	22	1	13	30	33	3	8	74
Chifeng	Inner Mongolia	EC	22	2	10	47	13	1	11	18	25	3	7	69
Ordos	Inner Mongolia	EC	22	3	5	40	12	1	8	18	22	3	6	61
Hohhot	Inner Mongolia	EC	23	2	8	43	14	1	10	23	27	3	5	64
Hulun Buir	Inner Mongolia	EC	28	2	18	48	26	2	16	38	22	1	15	36

Tongliao	Inner Mongolia	EC	46	6	17	99	25	3	17	55	27	3	13	74
Wuhai	Inner Mongolia	EC	42	4	18	85	30	2	18	44	51	5	18	109
Hinggan League	Inner Mongolia	EC	27	2	15	37	21	1	15	28	18	1	8	33
Anyang	Henan	EC	61	5	30	106	46	5	16	82	68	6	29	158
Hebi	Henan	EC	50	4	26	76	31	4	10	61	44	4	20	92
Jiaozuo	Henan	EC	40	3	13	61	41	4	12	63	37	3	15	70
Kaifeng	Henan	EC	45	4	21	81	38	4	17	69	54	5	20	124
Luoyang	Henan	EC	56	6	20	95	41	3	21	56	41	4	12	80
Luohe	Henan	EC	48	5	21	87	52	3	31	71	81	7	32	194
Nanyang	Henan	EC	49	4	22	84	56	4	31	85	55	4	33	97
Pingdingshan	Henan	EC	53	6	19	91	50	3	33	73	68	5	29	142
Sanmenxia	Henan	EC	58	5	17	94	39	3	20	56	36	3	8	66
Shangqiu	Henan	EC	41	4	19	88	40	4	18	79	47	4	18	102
Xinyang	Henan	EC	29	4	13	67	40	3	22	61	47	4	15	94
Zhengzhou	Henan	EC	61	6	25	112	50	6	17	98	70	6	31	162
Zhoukou	Henan	EC	36	3	22	60	42	3	21	58	68	6	26	146
Zhumadian	Henan	EC	41	4	16	76	41	3	16	59	60	6	20	130
Anshan	Liaoning	NEC	42	5	14	72	43	2	30	59	41	4	17	95
Benxi	Liaoning	NEC	34	3	17	72	30	2	12	45	31	3	11	61
Chaoyang	Liaoning	NEC	30	4	13	65	14	1	9	25	30	5	9	105
Dalian	Liaoning	NEC	41	5	13	97	23	3	11	52	24	2	8	59
Dandong	Liaoning	NEC	24	4	1	51	20	2	8	28	26	2	8	53
Fushun	Liaoning	NEC	27	3	12	63	18	2	6	28	28	3	6	54
Fuxin	Liaoning	NEC	44	6	11	97	18	2	9	34	32	3	10	83
Huludao	Liaoning	NEC	66	9	20	137	24	2	15	48	34	4	9	92
Jinzhou	Liaoning	NEC	58	8	23	125	19	2	10	44	34	4	10	85

Liaoyang	Liaoning	NEC	36	4	11	69	31	2	18	41	34	3	11	80
Panjin	Liaoning	NEC	41	6	13	93	18	2	10	43	26	3	7	59
Shenyang	Liaoning	NEC	36	4	16	66	23	2	11	35	36	4	10	77
Tieling	Liaoning	NEC	28	3	13	53	17	2	7	31	28	3	11	71
Wafangdian	Liaoning	NEC	48	6	19	103	27	1	21	38	38	3	13	84
Yingkou	Liaoning	NEC	25	3	11	45	23	3	9	51	22	3	5	66
Baicheng	Jilin	NEC	47	2	36	63	42	1	32	51	36	2	22	61
Baishan	Jilin	NEC	29	3	15	52	25	2	17	38	30	2	17	43
Changchun	Jilin	NEC	29	4	16	73	23	2	8	39	27	2	12	63
Jilin	Jilin	NEC	19	2	10	39	18	2	8	30	24	2	13	54
Liaoyuan	Jilin	NEC	36	5	13	76	36	6	14	81	36	3	17	79
Siping	Jilin	NEC	35	5	15	89	23	2	12	38	33	3	15	80
Songyuan	Jilin	NEC	20	1	10	36	13	1	5	23	19	2	8	41
Daqing	Heilongjiang	NEC	30	2	17	51	21	1	15	33	22	2	13	42
Daxinganling	Heilongjiang	NEC	13	2	5	40	10	1	7	14	13	1	4	29
Harbin	Heilongjiang	NEC	25	2	15	38	18	2	11	35	21	2	10	42
Hegang	Heilongjiang	NEC	47	2	33	70	28	4	6	61	11	1	5	27
Heihe	Heilongjiang	NEC	33	1	26	44	27	1	18	34	10	1	4	33
Jixi	Heilongjiang	NEC	19	1	14	25	16	1	11	27	19	1	9	32
Jiamusi	Heilongjiang	NEC	15	1	6	24	13	1	7	29	11	1	5	17
Mudanjiang	Heilongjiang	NEC	20	1	16	27	22	1	14	33	23	1	16	38
Qitaihe	Heilongjiang	NEC	22	1	17	32	21	1	14	33	25	1	13	39
Qiqihar	Heilongjiang	NEC	19	2	7	31	13	1	6	22	16	1	6	31
Shuangyashan	Heilongjiang	NEC	23	1	17	28	26	1	19	34	20	1	10	31
Suihua	Heilongjiang	NEC	15	1	9	26	11	1	8	15	16	1	10	29
Ankang	Shaanxi	NEC	21	2	7	43	27	2	13	44	37	3	13	63

Baoji	Shaanxi	NEC	38	5	11	78	34	4	11	68	35	4	8	71
Hanzhong	Shaanxi	NEC	27	3	10	60	32	2	18	40	32	2	9	58
Shangluo	Shaanxi	NEC	28	3	9	65	27	2	14	42	35	3	12	65
Tongchuan	Shaanxi	NEC	36	4	12	71	32	2	14	45	37	3	11	60
Weinan	Shaanxi	NEC	36	3	8	58	34	3	17	52	55	5	10	119
Xi'an	Shaanxi	NEC	45	4	13	73	40	3	20	66	38	3	11	77
Xianyang	Shaanxi	NEC	38	4	10	60	35	3	19	55	43	4	14	94
Yan'an	Shaanxi	NEC	33	3	14	59	24	2	14	44	36	4	12	70
Yulin	Shaanxi	NEC	30	3	12	53	20	2	9	33	31	3	5	75
Baiying	Gansu	NEC	26	3	9	65	27	1	21	33	26	2	9	47
Dingxi	Gansu	NEC	21	1	9	29	28	1	19	36	22	1	14	32
Gannan	Gansu	NEC	17	1	9	33	26	3	15	53	21	2	9	42
Jiayuguan	Gansu	NEC	23	5	10	86	26	3	12	58	17	2	7	48
Jiuquan	Gansu	NEC	36	6	19	121	35	3	18	61	26	1	17	51
Lanzhou	Gansu	NEC	36	2	19	62	32	1	24	38	35	2	18	57
Linxia	Gansu	NEC	18	1	7	28	21	2	12	35	23	1	13	31
Pingliang	Gansu	NEC	30	3	10	68	20	2	12	29	23	2	10	55
Qingyang	Gansu	NEC	22	3	7	57	20	2	11	31	20	2	5	39
Tianshui	Gansu	NEC	18	3	6	67	14	2	6	30	11	1	4	22
Wuwei	Gansu	NEC	27	4	14	77	27	2	11	44	19	1	8	32
Zhangye	Gansu	NEC	21	2	9	54	17	2	5	30	17	1	10	44
Guyuan	Ningxia	NEC	25	3	9	53	22	1	14	32	20	2	9	39
Shizuishan	Ningxia	NEC	30	3	13	51	23	1	12	31	32	3	7	71
Wuzhong	Ningxia	NEC	26	3	13	46	28	2	17	35	28	2	4	55
Yinchuan	Ningxia	NEC	41	3	21	68	34	3	18	50	32	2	11	54
Zhongwei	Ningxia	NEC	27	3	13	74	26	2	17	36	29	3	8	60

Aksu	Sinkiang	NEC	99	16	22	281	52	6	28	95	43	6	18	169
Hami	Sinkiang	NEC	29	9	11	191	22	2	11	40	18	1	9	36
Hotan	Sinkiang	NEC	130	29	26	646	82	12	21	180	61	8	19	215
Kashgar	Sinkiang	NEC	103	20	25	329	45	10	10	141	59	8	12	156
Karamay	Sinkiang	NEC	20	1	15	35	16	1	12	20	16	1	10	26
Kizilsu	Sinkiang	NEC	59	13	7	209	20	5	0	65	27	5	6	97
Shihezi	Sinkiang	NEC	32	6	9	106	21	2	11	35	28	6	8	155
Urumchi	Sinkiang	NEC	32	3	10	58	30	3	15	56	27	3	9	75
Wujiaqu	Sinkiang	NEC	32	3	12	57	30	3	13	52	32	4	5	90
Yili	Sinkiang	NEC	26	2	11	35	26	2	10	37	29	3	10	58
Ezhou	Hubei	NEC	33	4	8	67	51	3	22	71	49	2	18	72
Huanggang	Hubei	NEC	33	3	9	64	46	3	21	60	42	2	14	61
Jingmen	Hubei	NEC	32	4	13	77	57	5	23	84	66	4	21	120
Shiyan	Hubei	NEC	30	3	9	61	42	4	23	64	51	4	13	101
Wuhan	Hubei	NEC	32	3	13	62	53	4	24	76	47	2	19	64
Xianning	Hubei	NEC	31	3	10	62	57	3	25	69	44	2	18	61
Xiangyang	Hubei	NEC	33	4	10	74	45	4	24	74	55	4	19	94
Xiaogan	Hubei	NEC	36	3	19	61	57	3	31	76	53	3	30	85
Yichang	Hubei	NEC	29	4	10	74	48	4	26	84	48	4	10	79
Anqing	Anhui	NEC	38	3	14	58	35	3	14	58	39	2	11	57
Bengbu	Anhui	NEC	41	4	12	71	55	4	18	76	52	4	13	103
Bozhou	Anhui	NEC	34	3	19	63	63	5	28	103	61	4	16	114
Chuzhou	Anhui	NEC	42	4	14	77	52	5	22	80	48	3	27	87
Fuyang	Anhui	NEC	31	3	13	61	47	3	25	76	37	3	10	71
Hefei	Anhui	NEC	35	4	8	60	43	4	13	65	40	3	15	63
Huaibei	Anhui	NEC	37	4	14	86	41	2	22	51	45	4	16	85

Huainan	Anhui	NEC	23	3	6	53	41	4	9	62	40	4	7	89
Huangshan	Anhui	NEC	22	2	6	37	35	5	10	62	28	2	10	45
Lu'an	Anhui	NEC	37	3	12	67	50	2	34	64	40	2	11	55
Ma'anshan	Anhui	NEC	38	3	16	58	50	5	21	85	40	2	24	69
Suzhou	Anhui	NEC	56	7	22	111	58	4	34	79	58	6	16	151
Tongling	Anhui	NEC	42	4	14	80	54	5	24	85	34	2	19	51
Wuhu	Anhui	NEC	30	3	10	52	44	4	17	70	41	3	21	68
Changzhou	Jiangsu	NEC	31	3	11	67	40	5	8	61	29	2	16	63
Huaian	Jiangsu	NEC	32	3	10	59	45	4	12	74	29	2	10	60
Lianyungang	Jiangsu	NEC	33	4	9	64	42	5	13	90	31	4	6	85
Nanjing	Jiangsu	NEC	29	3	7	47	39	4	13	63	28	2	14	63
Nantong	Jiangsu	NEC	34	4	10	62	42	6	10	96	33	3	15	74
Suzhou	Jiangsu	NEC	33	3	9	54	54	7	15	96	36	3	13	78
Suqian	Jiangsu	NEC	37	3	12	67	45	3	18	71	37	4	8	103
Taizhou	Jiangsu	NEC	36	4	10	68	38	4	13	62	34	3	16	64
Wuxi	Jiangsu	NEC	35	3	12	59	52	6	15	90	38	2	18	77
Xuzhou	Jiangsu	NEC	31	3	10	56	38	2	26	52	36	4	14	84
Yanchen	Jiangsu	NEC	30	4	8	67	29	3	8	49	23	2	10	58
Yangzhou	Jiangsu	NEC	31	3	9	57	38	3	17	55	30	3	11	67
Zhenjiang	Jiangsu	NEC	38	4	10	65	46	5	15	70	37	3	17	80
Shanghai	Municipality	NEC	31	3	9	54	56	8	11	122	30	2	10	71
Hangzhou	Zhejiang	NEC	32	3	9	63	43	5	12	74	39	3	12	69
Huzhou	Zhejiang	NEC	31	2	17	54	49	5	20	77	34	2	17	78
Jiaxing	Zhejiang	NEC	32	3	10	47	52	6	16	99	37	3	13	85
Jinhua	Zhejiang	NEC	33	3	13	57	53	6	19	100	47	4	16	93
Lishui	Zhejiang	NEC	23	2	6	33	30	3	14	45	32	4	5	77

Ningbo	Zhejiang	NEC	23	2	9	37	36	5	10	73	31	2	14	62
Quzhou	Zhejiang	NEC	33	3	13	57	52	6	19	81	37	3	15	66
Shaoxing	Zhejiang	NEC	33	3	12	63	57	7	21	113	43	3	11	70
Taizhou	Zhejiang	NEC	25	2	10	40	29	4	8	61	30	2	16	67
Wenjiang	Zhejiang	NEC	30	2	15	42	30	3	12	47	31	2	15	52
Zhoushan	Zhejiang	NEC	17	1	8	30	23	3	7	47	19	2	11	48
Fuzhou	Jiangxi	NEC	28	2	15	50	44	4	16	74	41	2	15	60
Ganzhou	Jiangxi	NEC	38	3	20	63	44	4	24	73	44	2	28	67
Ji'an	Jiangxi	NEC	32	3	15	56	41	4	19	65	43	2	18	61
Jingdezhen	Jiangxi	NEC	31	2	14	47	45	4	17	66	32	2	13	54
Jiujiang	Jiangxi	NEC	31	3	9	49	48	4	24	69	35	2	10	51
Nanchang	Jiangxi	NEC	23	2	8	36	40	4	10	68	29	2	7	55
Pingxiang	Jiangxi	NEC	23	2	13	40	49	5	15	78	44	3	18	62
Shangrao	Jiangxi	NEC	41	3	19	61	38	4	20	71	32	2	17	65
Xinyu	Jiangxi	NEC	25	2	10	36	38	4	15	59	34	2	11	47
Yichun	Jiangxi	NEC	31	1	25	49	48	2	28	62	43	2	27	53
Yingtian	Jiangxi	NEC	21	2	6	42	39	4	20	66	39	3	11	62
Changsha	Hunan	NEC	27	2	14	49	59	4	21	86	48	3	15	89
Changde	Hunan	NEC	22	2	6	43	31	2	11	43	32	2	9	56
Chenzhou	Hunan	NEC	27	2	12	48	45	8	12	126	47	4	15	84
Huaihua	Hunan	NEC	21	1	13	33	49	4	17	76	45	4	14	101
Loudi	Hunan	NEC	28	2	15	40	54	3	21	71	44	3	15	90
Xiangtan	Hunan	NEC	27	2	15	46	58	4	22	79	49	3	15	92
Yiyang	Hunan	NEC	28	2	17	51	49	3	19	68	45	2	18	65
Yongzhou	Hunan	NEC	37	2	25	55	44	3	22	63	54	5	24	133
Zhangjiajie	Hunan	NEC	23	3	9	56	45	4	17	71	43	3	8	67

Zhuzhou	Hunan	NEC	22	1	11	34	50	4	21	85	40	2	13	58
Dongguan	Guangdong	NEC	26	2	11	45	35	3	16	57	39	2	19	68
Foshan	Guangdong	NEC	34	3	20	59	44	4	18	75	38	2	17	55
Guangzhou	Guangdong	NEC	34	2	17	47	39	3	19	63	41	2	23	63
Heyuan	Guangdong	NEC	25	2	10	37	31	4	12	54	38	2	14	59
Huizhou	Guangdong	NEC	22	2	10	39	25	4	7	44	24	2	6	48
Jiangmen	Guangdong	NEC	19	2	10	39	36	5	12	67	33	2	15	55
Maoming	Guangdong	NEC	19	3	5	56	28	6	4	65	25	3	9	52
Meizhou	Guangdong	NEC	23	2	9	43	26	3	9	48	35	2	14	62
Qingyuan	Guangdong	NEC	32	3	17	62	32	4	14	59	30	3	11	91
Shantou	Guangdong	NEC	24	2	12	38	25	3	13	43	29	2	16	50
Shaoguan	Guangdong	NEC	30	2	15	56	32	4	13	59	40	3	10	73
Shenzhen	Guangdong	NEC	20	2	8	48	27	4	11	47	30	2	14	54
Zhujiang	Guangdong	NEC	15	2	6	42	31	6	7	69	25	3	10	61
Zhaoqing	Guangdong	NEC	30	2	15	53	40	4	17	73	40	3	16	68
Zhongshan	Guangdong	NEC	19	3	7	56	28	5	7	59	31	3	11	62
Zhuhai	Guangdong	NEC	17	3	6	55	26	5	7	57	26	2	9	52
Fuzhou	Fujian	NEC	22	2	6	38	17	2	7	27	21	1	9	39
Longyan	Fujian	NEC	17	2	5	36	19	2	10	37	27	2	11	47
Nanping	Fujian	NEC	18	2	3	37	18	3	9	37	23	2	9	41
Ningde	Fujian	NEC	21	2	7	35	17	2	7	30	21	1	8	36
Putian	Fujian	NEC	23	2	10	44	19	2	9	30	25	1	11	39
Quanzhou	Fujian	NEC	20	2	7	33	16	1	9	26	23	1	10	39
Sanming	Fujian	NEC	21	2	4	38	22	3	11	44	25	2	7	41
Xiamen	Fujian	NEC	21	2	10	36	19	1	12	30	27	1	11	40
Zhangzhou	Fujian	NEC	20	2	8	44	20	1	14	29	26	1	9	45

Haikou	Hainan	NEC	12	1	7	25	20	3	7	48	16	2	4	41
Sanya	Hainan	NEC	10	0	6	13	11	1	6	19	12	1	4	21
Chongqing	Municipality	NEC	34	3	11	64	53	3	24	71	30	3	10	61
Bazhong	Sichuan	NEC	17	1	8	25	23	2	14	36	20	2	6	34
Chengdu	Sichuan	NEC	33	4	9	75	54	4	30	78	31	3	9	88
Dazhou	Sichuan	NEC	32	2	13	50	62	4	33	85	43	3	16	66
Deyang	Sichuan	NEC	31	3	12	58	53	5	28	94	27	2	9	65
Guangyuan	Sichuan	NEC	13	2	4	52	13	1	8	18	9	1	4	16
Leshan	Sichuan	NEC	29	4	7	82	55	6	23	105	32	3	12	96
Luzhou	Sichuan	NEC	36	5	6	84	57	8	13	111	27	2	9	52
Meishan	Sichuan	NEC	32	4	8	63	51	6	25	100	28	4	8	117
Mianyang	Sichuan	NEC	25	2	8	40	41	3	19	70	21	2	3	49
Nanchong	Sichuan	NEC	36	3	15	59	50	3	28	65	38	3	18	77
Panzhihua	Sichuan	NEC	22	1	12	32	28	2	17	40	24	1	9	35
Suining	Sichuan	NEC	29	3	8	51	47	3	18	71	30	3	10	71
Ya'an	Sichuan	NEC	15	2	6	36	16	1	10	25	19	2	7	49
Ziyang	Sichuan	NEC	18	1	12	31	25	2	15	42	16	1	11	34
Zigong	Sichuan	NEC	37	4	17	80	57	6	29	88	38	3	15	86
Baoshan	Yunnan	NEC	20	1	13	34	18	1	14	23	17	1	11	22
Chuxiong	Yunnan	NEC	14	1	5	26	24	3	6	45	12	1	4	24
Dali	Yunnan	NEC	13	2	4	31	13	1	9	24	11	0	8	15
Dehong	Yunnan	NEC	21	1	13	33	19	1	12	32	21	1	12	32
Honghe	Yunnan	NEC	19	4	5	78	34	4	14	68	21	2	10	46
Kunming	Yunnan	NEC	18	2	9	38	27	3	12	43	20	1	9	37
Lijiang	Yunnan	NEC	15	0	14	22	16	0	14	19	17	1	14	31
Lincang	Yunnan	NEC	15	1	8	26	17	1	14	24	19	1	13	31

Nujiang	Yunnan	NEC	12	0	8	15	13	0	11	16	13	0	8	16
Qujing	Yunnan	NEC	23	2	8	44	34	3	16	51	23	1	6	35
Wenshan	Yunnan	NEC	27	2	17	48	40	2	28	53	26	1	16	40
Xishuangbanna	Yunnan	NEC	7	1	2	13	16	1	5	23	16	1	6	28
Tuxi	Yunnan	NEC	13	1	5	25	26	3	8	40	17	1	7	31
Zhaotong	Yunnan	NEC	31	3	15	56	37	4	10	68	14	1	7	35
Anshun	Guizhou	NEC	19	1	14	33	34	3	17	57	21	1	14	40
Bijie	Guizhou	NEC	18	2	6	32	29	3	4	48	16	2	5	38
Guiyang	Guizhou	NEC	19	2	7	42	41	3	10	60	25	2	9	55
Liupanshui	Guizhou	NEC	26	3	11	52	42	5	11	67	21	2	8	38
Tongren	Guizhou	NEC	15	0	13	16	19	1	14	29	22	2	13	47
Zunyi	Guizhou	NEC	19	2	7	37	35	3	15	58	28	2	9	58
Baise	Guangxi	NEC	28	3	7	63	37	4	6	59	31	3	11	55
Beihai	Guangxi	NEC	16	2	6	42	24	5	5	59	22	2	9	53
Chongzuo	Guangxi	NEC	20	2	5	38	29	5	7	63	24	2	8	52
Fangchenggang	Guangxi	NEC	18	2	7	46	26	6	7	66	23	2	11	50
Guigang	Guangxi	NEC	37	3	17	73	39	7	11	85	31	2	14	52
Guilin	Guangxi	NEC	25	2	14	41	43	5	10	66	52	4	19	87
Hechi	Guangxi	NEC	28	3	16	55	42	5	11	70	35	4	6	86
Hezhou	Guangxi	NEC	31	2	20	44	37	6	10	72	31	2	9	46
Laibin	Guangxi	NEC	34	3	15	70	39	6	11	80	35	3	8	68
Liuzhou	Guangxi	NEC	34	3	16	68	45	7	14	83	42	4	17	77
Nanning	Guangxi	NEC	27	4	8	62	37	7	7	70	29	3	8	61
Qinzhou	Guangxi	NEC	22	3	10	47	29	6	7	69	26	3	11	55
Wuzhou	Guangxi	NEC	32	3	19	56	36	5	13	60	34	2	14	55
Yulin	Guangxi	NEC	30	3	11	53	32	5	13	65	29	2	14	50

Golog	Qinghai	NEC	34	2	22	47	49	3	40	80	23	3	3	53
Haidong	Qinghai	NEC	41	2	28	56	42	4	29	72	35	1	24	44
Xining	Qinghai	NEC	33	2	15	62	33	2	25	48	32	2	12	64
Ali	Tibet	NEC	14	2	7	33	11	1	5	21	14	1	7	21
Qamdo	Tibet	NEC	17	1	9	35	14	1	8	18	15	1	5	26
Lhasa	Tibet	NEC	18	1	10	36	19	2	12	39	17	1	11	28
Nyingchi	Tibet	NEC	8	0	5	12	6	0	5	8	6	0	4	13
Naqu	Tibet	NEC	35	4	16	77	40	4	26	68	47	2	27	65
Shigatse	Tibet	NEC	16	2	5	37	13	1	7	26	14	1	5	28
Lhoka	Tibet	NEC	9	1	3	14	5	0	4	7	8	0	3	14

118 ^a EC and NEC denote emission control and non-emission control regions, respectively, of which the latter means regions without implementation
119 of emission control measures.

120 ^b The pre-Parade Blue, Parade Blue, and post-Parade Blue periods indicate the periods of 1-19 August, 20 August-3 September, and 4-30
121 September 2015, respectively.

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130 **Table S3.** Summary of daily average PM₁₀ concentrations ($\mu\text{g m}^{-3}$) during the pre-Parade Blue, Parade Blue and post-Parade Blue periods in the
 131 291 cities across China

City	Province	Region ^a	Pre-Parade Blue period ^b				Parade Blue period ^b				Post-Parade Blue period ^b			
			Mean	SE	Min	Max	Mean	SE	Min	Max	Mean	SE	Min	Max
Beijing	Municipality	EC	87	8	44	176	29	3	13	51	65	9	11	163
Tianjing	Municipality	EC	111	8	57	200	58	7	23	125	78	7	23	148
Baoding	Hebei	EC	152	10	61	241	70	8	33	142	115	12	36	250
Cangzhou	Hebei	EC	87	8	44	176	29	3	13	51	70	8	17	152
Chengde	Hebei	EC	72	5	43	121	32	2	23	46	58	7	20	154
Handan	Hebei	EC	157	11	84	245	104	14	23	194	124	10	26	224
Hengshui	Hebei	EC	121	9	51	221	69	9	12	141	132	13	32	273
Langfang	Hebei	EC	131	9	47	200	56	8	21	147	106	12	23	229
Qinhuangdao	Hebei	EC	90	8	30	175	25	3	13	54	52	6	20	119
Shijiazhuang	Hebei	EC	136	11	41	212	70	8	16	127	91	8	29	181
Tangshan	Hebei	EC	124	9	52	187	35	4	14	68	87	8	27	163
Xingtai	Hebei	EC	127	9	65	208	81	11	20	162	120	10	42	219
Zhangjiakou	Hebei	EC	70	14	37	320	40	3	16	54	59	7	22	134
Changzhi	Shanxi	EC	89	7	34	148	63	4	41	86	75	5	32	133
Datong	Shanxi	EC	70	11	36	250	44	3	24	66	54	5	20	117
Jincheng	Shanxi	EC	92	7	28	139	73	7	39	140	75	6	24	179
Jinzhong	Shanxi	EC	64	5	32	117	52	4	29	86	66	6	19	126
Linfen	Shanxi	EC	58	4	39	118	45	4	25	70	60	4	23	94
Lvliang	Shanxi	EC	66	4	31	101	46	2	34	62	62	4	33	105
Shuozhou	Shanxi	EC	91	7	47	169	64	4	39	96	60	6	24	128
Taiyuan	Shanxi	EC	92	7	45	169	58	5	25	97	87	9	23	186

Xinzhou	Shanxi	EC	67	4	45	118	42	2	30	51	64	6	24	130
Yangquan	Shanxi	EC	74	5	36	120	49	4	25	68	69	6	18	128
Yuncheng	Shanxi	EC	92	11	38	242	74	6	43	113	55	3	26	102
Binzhou	Shandong	EC	86	7	27	144	59	6	32	118	89	9	25	215
Dezhou	Shandong	EC	137	9	41	204	71	8	25	140	113	11	32	238
Dongying	Shandong	EC	109	11	35	196	79	7	44	130	98	9	38	210
Jinan	Shandong	EC	101	7	37	137	85	7	50	135	135	9	53	217
Jining	Shandong	EC	80	8	42	154	85	6	52	131	100	6	52	185
Laiwu	Shandong	EC	91	9	40	153	96	7	57	156	103	8	41	200
Liaocheng	Shandong	EC	135	12	47	223	101	11	32	169	132	9	45	216
Linyi	Shandong	EC	91	10	36	173	91	8	55	174	101	11	29	262
Qingdao	Shandong	EC	75	5	37	115	68	6	40	135	63	4	35	141
Rizhao	Shandong	EC	69	6	24	123	70	7	29	128	71	7	24	158
Tai'an	Shandong	EC	85	9	39	163	85	7	46	140	103	8	44	196
Weihai	Shandong	EC	69	6	39	123	41	3	21	59	41	3	21	73
Weifang	Shandong	EC	101	9	47	177	99	12	44	198	100	9	39	253
Yantai	Shandong	EC	75	7	36	141	50	4	23	75	53	4	29	120
Zaozhuang	Shandong	EC	92	8	46	148	98	5	69	135	117	9	28	245
Zibo	Shandong	EC	109	7	56	159	106	9	63	164	129	10	49	241
Alxa League	Inner Mongolia	EC	96	9	56	195	67	4	33	93	57	7	10	160
Bayannur	Inner Mongolia	EC	82	8	43	193	67	3	54	94	72	5	37	155
Baotou	Inner Mongolia	EC	86	8	35	165	62	3	39	90	71	7	20	145
Chifeng	Inner Mongolia	EC	59	7	34	156	35	2	24	49	56	5	17	122
Ordos	Inner Mongolia	EC	54	7	20	148	36	2	28	51	46	4	18	97
Hohhot	Inner Mongolia	EC	87	8	46	207	54	4	33	80	73	8	16	154
Hulun Buir	Inner Mongolia	EC	53	7	16	127	65	5	36	99	54	5	19	115

Tongliao	Inner Mongolia	EC	95	8	56	165	62	4	46	99	65	6	31	154
Wuhai	Inner Mongolia	EC	104	12	43	280	67	5	33	104	97	8	38	216
Hinggan League	Inner Mongolia	EC	61	3	41	82	43	2	34	53	45	3	21	89
Anyang	Henan	EC	100	7	49	169	82	9	39	151	118	9	45	256
Hebi	Henan	EC	99	6	59	144	66	8	27	132	98	8	34	193
Jiaozuo	Henan	EC	84	6	40	137	71	8	18	123	66	5	33	123
Kaifeng	Henan	EC	76	5	46	131	68	7	35	130	101	7	33	186
Luoyang	Henan	EC	96	11	34	223	72	5	31	101	75	5	36	134
Luohe	Henan	EC	80	6	42	117	99	7	57	141	139	8	73	271
Nanyang	Henan	EC	93	6	48	140	109	7	67	148	104	7	57	176
Pingdingshan	Henan	EC	91	8	42	148	91	6	61	133	114	8	52	217
Sanmenxia	Henan	EC	100	12	29	255	72	5	42	112	71	5	24	112
Shangqiu	Henan	EC	65	6	30	141	65	6	31	112	83	7	40	158
Xinyang	Henan	EC	56	5	30	104	78	4	45	103	86	6	30	135
Zhengzhou	Henan	EC	107	9	44	187	97	12	37	193	135	10	50	255
Zhoukou	Henan	EC	57	4	29	92	68	5	36	94	103	7	48	193
Zhumadian	Henan	EC	78	6	47	125	88	8	32	128	100	8	32	196
Anshan	Liaoning	NEC	61	5	24	101	70	4	52	101	76	5	38	139
Benxi	Liaoning	NEC	57	5	29	108	57	3	29	80	67	4	27	112
Chaoyang	Liaoning	NEC	61	6	34	139	41	2	30	56	64	5	24	146
Dalian	Liaoning	NEC	67	8	25	141	46	4	22	81	49	4	22	97
Dandong	Liaoning	NEC	28	7	0	90	36	2	19	49	50	3	19	84
Fushun	Liaoning	NEC	47	4	25	90	36	3	19	53	60	5	19	98
Fuxin	Liaoning	NEC	72	8	27	143	30	2	17	49	54	4	22	117
Huludao	Liaoning	NEC	94	12	31	191	45	3	33	75	62	5	22	128
Jinzhou	Liaoning	NEC	83	10	38	174	37	3	29	67	60	4	28	114

Liaoyang	Liaoning	NEC	60	5	21	103	64	3	44	82	78	6	32	140
Panjin	Liaoning	NEC	63	8	23	141	33	3	25	69	44	3	22	78
Shenyang	Liaoning	NEC	62	5	30	99	46	3	30	69	69	5	27	130
Tieling	Liaoning	NEC	48	4	26	83	34	2	15	45	66	5	28	119
Wafangdian	Liaoning	NEC	57	6	21	93	45	3	25	69	55	4	18	92
Yingkou	Liaoning	NEC	54	5	23	109	44	7	14	122	39	5	8	106
Baicheng	Jilin	NEC	63	3	42	83	51	2	39	61	57	3	33	103
Baishan	Jilin	NEC	50	3	26	82	39	2	22	52	59	3	36	92
Changchun	Jilin	NEC	52	4	26	103	42	4	15	64	64	4	28	118
Jilin	Jilin	NEC	38	3	23	59	38	3	14	54	55	2	31	89
Liaoyuan	Jilin	NEC	46	6	21	91	48	8	18	103	53	3	30	96
Siping	Jilin	NEC	59	5	27	118	40	3	18	54	63	4	26	119
Songyuan	Jilin	NEC	34	2	20	55	23	2	8	37	40	3	14	71
Daqing	Heilongjiang	NEC	47	2	33	75	38	2	26	48	40	3	22	74
Daxinganling	Heilongjiang	NEC	48	3	31	88	43	2	35	53	44	3	25	84
Harbin	Heilongjiang	NEC	45	2	26	59	32	2	15	47	51	3	26	92
Hegang	Heilongjiang	NEC	80	4	48	123	48	5	21	100	26	3	7	57
Heihe	Heilongjiang	NEC	56	3	32	81	41	2	30	56	24	3	7	56
Jixi	Heilongjiang	NEC	35	2	24	46	30	3	15	54	50	3	21	87
Jiamusi	Heilongjiang	NEC	29	2	16	43	26	2	14	44	19	1	7	32
Mudanjiang	Heilongjiang	NEC	38	1	27	53	45	2	31	59	55	3	34	92
Qitaihe	Heilongjiang	NEC	36	2	21	56	32	3	14	51	52	3	32	99
Qiqihar	Heilongjiang	NEC	47	3	30	68	42	2	31	56	45	3	24	91
Shuangyashan	Heilongjiang	NEC	44	2	35	57	45	3	27	63	39	2	24	64
Suihua	Heilongjiang	NEC	23	2	14	40	21	1	15	32	30	2	13	57
Ankang	Shaanxi	NEC	34	3	11	60	43	2	26	59	53	3	20	92

Baoji	Shaanxi	NEC	87	14	31	286	73	5	42	113	69	5	18	122
Hanzhong	Shaanxi	NEC	42	5	19	126	50	2	33	58	45	3	12	75
Shangluo	Shaanxi	NEC	53	10	18	213	45	3	28	57	53	4	25	88
Tongchuan	Shaanxi	NEC	75	9	35	178	64	2	46	82	71	5	26	107
Weinan	Shaanxi	NEC	79	11	16	219	74	4	46	102	94	7	37	178
Xi'an	Shaanxi	NEC	106	15	30	285	94	5	61	136	80	5	24	123
Xianyang	Shaanxi	NEC	79	10	22	189	78	4	43	104	78	5	26	129
Yan'an	Shaanxi	NEC	76	8	39	194	67	3	53	95	73	5	21	119
Yulin	Shaanxi	NEC	70	8	26	160	59	5	39	97	63	5	19	133
Baiying	Gansu	NEC	71	11	19	247	71	4	37	100	73	8	18	192
Dingxi	Gansu	NEC	49	4	19	74	59	4	39	91	42	2	23	67
Gannan	Gansu	NEC	42	4	19	80	68	7	43	140	38	3	15	63
Jiayuguan	Gansu	NEC	85	22	31	421	82	11	38	212	87	21	15	535
Jiuquan	Gansu	NEC	126	39	45	662	96	8	49	180	82	15	27	458
Lanzhou	Gansu	NEC	90	10	36	237	81	6	45	117	80	6	24	163
Linxia	Gansu	NEC	46	3	20	82	44	2	34	57	40	2	26	57
Pingliang	Gansu	NEC	59	6	22	135	41	2	27	51	46	4	19	102
Qingyang	Gansu	NEC	54	10	14	186	40	2	27	54	36	3	12	63
Tianshui	Gansu	NEC	43	9	14	200	28	2	16	41	22	1	9	43
Wuwei	Gansu	NEC	80	13	39	284	74	7	34	129	51	4	15	115
Zhangye	Gansu	NEC	50	11	20	199	34	4	9	58	40	7	17	212
Guyuan	Ningxia	NEC	75	11	27	232	55	3	28	71	54	6	14	157
Shizuishan	Ningxia	NEC	86	12	40	258	64	5	39	90	81	9	31	252
Wuzhong	Ningxia	NEC	75	9	35	157	78	4	51	99	68	5	26	156
Yinchuan	Ningxia	NEC	96	8	58	187	74	5	44	104	69	4	30	107
Zhongwei	Ningxia	NEC	65	8	30	168	63	4	29	79	58	7	12	201

Aksu	Sinkiang	NEC	255	46	46	804	118	18	48	231	118	17	31	466
Hami	Sinkiang	NEC	79	8	39	197	114	16	72	317	81	7	34	176
Hotan	Sinkiang	NEC	485	117	77	2562	296	42	67	628	176	25	52	627
Kashgar	Sinkiang	NEC	295	63	97	1039	151	32	43	413	194	25	57	534
Karamay	Sinkiang	NEC	53	5	21	139	58	8	31	147	43	4	23	134
Kizilsu	Sinkiang	NEC	213	46	21	757	97	24	23	291	135	21	25	438
Shihezi	Sinkiang	NEC	79	19	18	369	59	8	24	134	55	6	11	139
Urumchi	Sinkiang	NEC	95	9	30	209	102	15	38	208	81	8	18	183
Wujiaqu	Sinkiang	NEC	86	11	26	225	95	18	21	229	68	9	9	200
Yili	Sinkiang	NEC	64	4	27	97	66	9	17	127	62	7	16	167
Ezhou	Hubei	NEC	61	5	16	98	79	5	36	110	78	3	32	106
Huanggang	Hubei	NEC	48	4	18	87	63	3	29	83	64	3	32	98
Jingmen	Hubei	NEC	58	6	20	135	90	6	44	122	98	6	41	165
Shiyan	Hubei	NEC	48	4	21	85	63	5	38	92	77	6	25	148
Wuhan	Hubei	NEC	66	6	13	116	103	8	42	158	85	5	27	143
Xianning	Hubei	NEC	55	4	28	93	83	4	41	96	67	3	34	87
Xiangyang	Hubei	NEC	59	5	26	112	80	5	51	115	91	6	32	142
Xiaogan	Hubei	NEC	55	4	30	84	79	5	45	108	81	4	47	138
Yichang	Hubei	NEC	58	6	21	117	85	5	55	131	77	5	24	131
Anqing	Anhui	NEC	58	4	25	80	53	4	24	77	49	2	21	70
Bengbu	Anhui	NEC	64	5	19	102	85	6	32	136	77	5	23	141
Bozhou	Anhui	NEC	60	4	37	98	85	6	48	114	92	5	29	164
Chuzhou	Anhui	NEC	69	6	20	112	81	7	34	125	77	5	50	145
Fuyang	Anhui	NEC	59	4	28	94	77	5	45	133	61	3	21	98
Hefei	Anhui	NEC	67	5	14	99	79	6	26	120	69	4	25	102
Huaipei	Anhui	NEC	66	7	27	129	63	4	42	84	85	7	23	168

Huainan	Anhui	NEC	53	4	32	85	78	6	35	118	75	4	35	130
Huangshan	Anhui	NEC	30	2	14	43	46	5	19	83	40	2	21	62
Lu'an	Anhui	NEC	58	4	20	96	79	4	48	103	70	3	23	98
Ma'anshan	Anhui	NEC	60	4	20	84	79	7	34	120	64	3	38	115
Suzhou	Anhui	NEC	72	8	29	142	85	6	45	119	87	7	26	203
Tongling	Anhui	NEC	83	6	38	142	102	9	49	150	69	3	39	96
Wuhu	Anhui	NEC	54	3	26	78	74	5	35	107	68	4	40	107
Changzhou	Jiangsu	NEC	66	7	24	126	79	9	14	121	67	5	37	127
Huaian	Jiangsu	NEC	57	5	18	100	72	6	20	120	56	4	17	103
Lianyungang	Jiangsu	NEC	55	5	23	92	69	7	24	139	56	5	17	121
Nanjing	Jiangsu	NEC	61	5	12	89	69	7	27	105	60	4	30	112
Nantong	Jiangsu	NEC	56	5	21	91	59	8	15	136	51	4	27	99
Suzhou	Jiangsu	NEC	60	5	26	92	76	8	23	125	57	4	23	107
Suqian	Jiangsu	NEC	56	5	24	94	67	4	28	104	64	6	17	165
Taizhou	Jiangsu	NEC	74	7	24	128	75	7	28	123	67	3	43	109
Wuxi	Jiangsu	NEC	61	5	27	96	79	8	25	130	63	4	30	114
Xuzhou	Jiangsu	NEC	62	5	25	109	78	4	53	104	77	6	27	155
Yanchen	Jiangsu	NEC	56	6	19	104	51	4	16	81	48	3	27	87
Yangzhou	Jiangsu	NEC	64	6	20	112	63	5	30	82	57	4	31	106
Zhenjiang	Jiangsu	NEC	50	5	12	92	57	6	14	86	50	4	24	112
Shanghai	Municipality	NEC	52	4	27	92	72	10	17	149	43	3	23	84
Hangzhou	Zhejiang	NEC	53	5	24	96	64	7	20	107	61	4	18	106
Huzhou	Zhejiang	NEC	48	4	21	80	64	7	19	99	50	3	25	109
Jiaxing	Zhejiang	NEC	51	4	29	74	72	8	25	134	55	3	24	117
Jinhua	Zhejiang	NEC	49	3	18	78	69	8	18	118	61	4	22	114
Lishui	Zhejiang	NEC	39	3	12	59	47	3	26	66	49	4	12	97

Ningbo	Zhejiang	NEC	38	2	24	65	51	6	17	101	49	3	20	83
Quzhou	Zhejiang	NEC	49	3	18	78	70	8	18	110	54	4	23	96
Shaoxing	Zhejiang	NEC	48	4	23	89	76	9	24	138	63	4	18	100
Taizhou	Zhejiang	NEC	41	2	31	57	45	5	20	81	48	2	30	85
Wenjiang	Zhejiang	NEC	48	3	29	73	48	4	24	71	51	2	29	78
Zhoushan	Zhejiang	NEC	28	1	22	44	34	5	11	72	31	2	17	65
Fuzhou	Jiangxi	NEC	46	4	26	79	67	6	30	106	61	4	21	99
Ganzhou	Jiangxi	NEC	60	5	33	102	61	5	32	99	61	3	33	93
Ji'an	Jiangxi	NEC	51	4	23	89	57	6	24	100	55	3	23	75
Jingdezhen	Jiangxi	NEC	53	5	20	85	71	6	31	99	51	3	19	81
Jiujiang	Jiangxi	NEC	53	4	17	81	74	6	38	103	55	3	13	80
Nanchang	Jiangxi	NEC	66	7	19	118	80	8	31	149	57	3	12	88
Pingxiang	Jiangxi	NEC	47	3	29	79	83	7	33	124	73	4	30	104
Shangrao	Jiangxi	NEC	54	4	23	77	62	6	30	108	55	3	30	95
Xinyu	Jiangxi	NEC	53	3	26	79	70	5	35	99	63	2	32	81
Yichun	Jiangxi	NEC	44	2	33	70	68	4	43	93	65	3	34	85
Yingtian	Jiangxi	NEC	39	4	13	64	61	5	35	88	57	3	21	85
Changsha	Hunan	NEC	47	3	15	72	85	6	31	124	72	5	25	124
Changde	Hunan	NEC	41	3	17	62	59	4	25	80	65	4	28	104
Chenzhou	Hunan	NEC	53	4	30	81	71	9	28	157	80	5	39	140
Huaihua	Hunan	NEC	49	3	33	71	91	6	36	125	84	6	30	149
Loudi	Hunan	NEC	52	3	28	88	87	6	41	117	73	5	26	139
Xiangtan	Hunan	NEC	48	3	25	76	90	6	37	123	79	5	32	150
Yiyang	Hunan	NEC	48	3	29	70	79	4	40	104	80	5	38	168
Yongzhou	Hunan	NEC	57	3	40	88	69	5	37	100	81	6	39	183
Zhangjiajie	Hunan	NEC	44	3	18	80	71	5	35	102	71	5	15	109

Zhuzhou	Hunan	NEC	42	3	23	70	81	7	38	134	69	4	28	104
Dongguan	Guangdong	NEC	39	2	21	63	50	4	27	78	55	3	31	93
Foshan	Guangdong	NEC	52	3	35	83	63	6	27	105	55	3	27	81
Guangzhou	Guangdong	NEC	55	2	34	75	57	5	31	93	65	3	37	100
Heyuan	Guangdong	NEC	37	2	20	55	45	5	22	79	55	3	24	89
Huizhou	Guangdong	NEC	44	3	24	72	45	5	19	76	43	4	20	82
Jiangmen	Guangdong	NEC	33	3	16	58	52	7	18	94	49	3	27	80
Maoming	Guangdong	NEC	34	4	13	81	46	8	9	94	43	4	20	83
Meizhou	Guangdong	NEC	38	3	18	61	39	5	16	71	50	3	24	86
Qingyuan	Guangdong	NEC	51	3	29	80	44	6	19	84	49	4	16	115
Shantou	Guangdong	NEC	42	3	20	66	42	5	25	74	48	2	30	77
Shaoguan	Guangdong	NEC	47	3	29	82	46	6	20	79	59	4	17	108
Shenzhen	Guangdong	NEC	37	4	20	78	44	6	20	77	47	3	28	79
Zhujiang	Guangdong	NEC	33	3	13	64	50	8	16	99	40	3	21	85
Zhaoqing	Guangdong	NEC	47	3	27	77	54	6	27	104	55	4	17	96
Zhongshan	Guangdong	NEC	31	4	15	76	39	6	11	80	43	3	21	81
Zhuhai	Guangdong	NEC	38	5	21	95	47	8	17	101	53	4	21	108
Fuzhou	Fujian	NEC	44	4	11	86	38	3	19	55	42	2	17	65
Longyan	Fujian	NEC	33	3	10	65	34	4	17	58	46	3	19	78
Nanping	Fujian	NEC	25	2	7	48	26	3	13	51	31	2	16	51
Ningde	Fujian	NEC	35	3	10	59	31	2	20	43	34	2	14	51
Putian	Fujian	NEC	38	3	18	58	31	2	19	41	40	2	21	56
Quanzhou	Fujian	NEC	45	5	10	98	30	4	18	59	46	3	22	92
Sanming	Fujian	NEC	44	4	11	74	41	5	18	78	48	4	11	81
Xiamen	Fujian	NEC	37	3	21	65	32	2	21	51	45	2	20	62
Zhangzhou	Fujian	NEC	43	3	24	80	42	2	33	59	52	2	24	84

Haikou	Hainan	NEC	28	2	19	46	34	4	20	68	30	2	12	65
Sanya	Hainan	NEC	21	1	16	30	24	2	15	33	23	1	10	35
Chongqing	Municipality	NEC	58	5	21	104	82	5	42	106	49	4	19	86
Bazhong	Sichuan	NEC	27	2	11	41	35	2	25	46	30	2	12	54
Chengdu	Sichuan	NEC	62	7	15	134	88	8	42	139	53	5	16	158
Dazhou	Sichuan	NEC	49	3	12	73	86	5	53	121	62	4	26	96
Deyang	Sichuan	NEC	56	4	22	87	89	9	43	169	49	4	19	96
Guangyuan	Sichuan	NEC	35	4	16	101	38	2	29	50	31	2	15	50
Leshan	Sichuan	NEC	44	6	14	126	78	9	27	150	47	4	23	126
Luzhou	Sichuan	NEC	49	7	14	113	80	9	32	145	43	3	14	71
Meishan	Sichuan	NEC	54	5	14	84	79	8	38	136	45	5	15	159
Mianyang	Sichuan	NEC	40	3	12	62	63	5	26	98	35	3	7	83
Nanchong	Sichuan	NEC	54	5	20	93	71	4	41	97	51	4	25	113
Panzhihua	Sichuan	NEC	44	3	22	69	53	4	34	81	53	2	22	71
Suining	Sichuan	NEC	53	5	21	92	72	4	39	105	50	4	25	110
Ya'an	Sichuan	NEC	30	3	12	57	35	2	24	58	29	2	14	69
Ziyang	Sichuan	NEC	41	3	24	62	60	5	38	91	37	2	23	87
Zigong	Sichuan	NEC	59	6	30	115	85	8	44	128	60	4	33	120
Baoshan	Yunnan	NEC	37	2	27	51	37	1	29	46	32	2	7	50
Chuxiong	Yunnan	NEC	26	2	14	41	41	6	11	75	23	2	11	38
Dali	Yunnan	NEC	15	1	4	27	18	2	8	37	17	1	10	25
Dehong	Yunnan	NEC	34	2	19	51	30	2	23	46	37	2	20	55
Honghe	Yunnan	NEC	38	5	17	108	59	7	26	99	32	2	16	59
Kunming	Yunnan	NEC	34	3	17	65	48	5	22	76	41	2	23	64
Lijiang	Yunnan	NEC	30	1	24	37	33	1	29	43	35	1	28	41
Lincang	Yunnan	NEC	27	1	19	40	27	1	22	38	28	1	23	60

Nujiang	Yunnan	NEC	24	1	16	35	27	1	21	38	26	1	20	34
Qujing	Yunnan	NEC	30	2	14	49	44	4	21	67	33	2	15	47
Wenshan	Yunnan	NEC	26	3	7	68	45	3	24	64	26	2	12	40
Xishuangbanna	Yunnan	NEC	22	1	10	31	29	2	15	40	40	2	20	57
Tuxi	Yunnan	NEC	25	2	9	40	45	4	16	69	30	2	14	57
Zhaotong	Yunnan	NEC	47	4	23	88	59	6	21	92	33	2	16	57
Anshun	Guizhou	NEC	36	3	24	63	69	8	28	124	38	3	24	76
Bijie	Guizhou	NEC	28	3	8	47	43	4	6	74	24	2	9	52
Guiyang	Guizhou	NEC	34	4	16	79	63	6	13	97	39	3	17	78
Liupanshui	Guizhou	NEC	51	5	24	94	74	7	25	120	39	2	15	59
Tongren	Guizhou	NEC	27	1	25	35	41	2	28	54	40	3	23	75
Zunyi	Guizhou	NEC	50	3	28	74	74	6	35	113	55	4	29	99
Baise	Guangxi	NEC	46	4	17	85	51	5	12	83	53	3	29	90
Beihai	Guangxi	NEC	34	3	16	63	41	8	12	87	36	3	18	79
Chongzuo	Guangxi	NEC	42	4	11	73	53	7	13	96	47	4	23	88
Fangchenggang	Guangxi	NEC	34	3	15	63	44	8	12	100	40	3	22	81
Guigang	Guangxi	NEC	61	4	32	105	60	10	19	122	48	3	17	85
Guilin	Guangxi	NEC	43	3	26	63	58	6	17	86	68	4	33	112
Hechi	Guangxi	NEC	47	4	30	79	61	6	16	98	55	5	17	139
Hezhou	Guangxi	NEC	50	3	30	73	51	7	17	85	46	4	7	79
Laibin	Guangxi	NEC	59	4	29	99	67	9	23	116	58	4	16	102
Liuzhou	Guangxi	NEC	56	4	31	110	70	9	24	112	66	5	28	116
Nanning	Guangxi	NEC	58	8	19	135	69	12	13	151	53	5	18	125
Qinzhou	Guangxi	NEC	44	4	20	78	49	9	13	111	44	4	24	91
Wuzhou	Guangxi	NEC	55	4	31	90	49	7	19	83	51	3	20	78
Yulin	Guangxi	NEC	45	4	23	78	45	7	17	91	41	3	12	78

Golog	Qinghai	NEC	77	7	34	133	86	8	53	122	53	5	16	120
Haidong	Qinghai	NEC	37	4	0	75	49	7	20	126	33	2	8	50
Xining	Qinghai	NEC	84	14	36	326	72	4	40	97	67	5	22	114
Ali	Tibet	NEC	25	4	4	60	18	3	8	37	16	1	1	32
Qamdo	Tibet	NEC	37	4	12	98	38	4	18	81	37	3	0	67
Lhasa	Tibet	NEC	44	4	24	99	44	3	25	72	46	3	27	77
Nyingchi	Tibet	NEC	15	1	6	30	12	1	7	22	14	1	8	25
Naqu	Tibet	NEC	84	11	19	166	110	16	48	241	105	5	68	159
Shigatse	Tibet	NEC	24	2	11	53	23	2	13	41	21	1	8	46
Lhoka	Tibet	NEC	29	3	7	53	22	2	9	43	26	2	12	52

132 ^a EC and NEC denote emission control and non-emission control regions, respectively, of which the latter means regions without implementation
133 of emission control measures.

134 ^b The pre-Parade Blue, Parade Blue, and post-Parade Blue periods indicate the periods of 1-19 August, 20 August-3 September, and 4-30
135 September 2015, respectively.

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144 **Table S4.** Summary of daily average NO₂ concentrations ($\mu\text{g m}^{-3}$) during the pre-Parade Blue, Parade Blue and post-Parade Blue periods in the
 145 291 cities across China

City	Province	Region ^a	Pre-Parade Blue period ^b				Parade Blue period ^b				Post-Parade Blue period ^b			
			Mean	SE	Min	Max	Mean	SE	Min	Max	Mean	SE	Min	Max
Beijing	Municipality	EC	34	1	26	44	21	1	17	24	42	2	20	63
Tianjing	Municipality	EC	26	2	14	45	21	2	12	33	25	2	11	41
Baoding	Hebei	EC	34	2	23	51	25	2	15	40	44	3	16	73
Cangzhou	Hebei	EC	34	1	26	44	21	1	17	24	41	3	21	87
Chengde	Hebei	EC	27	1	21	35	21	1	14	26	28	1	16	41
Handan	Hebei	EC	38	3	22	70	36	3	20	54	45	3	15	76
Hengshui	Hebei	EC	29	2	18	59	27	1	18	33	44	3	20	77
Langfang	Hebei	EC	42	1	30	55	36	2	21	55	54	3	26	89
Qinhuangdao	Hebei	EC	41	2	17	53	35	3	18	52	35	2	19	58
Shijiazhuang	Hebei	EC	29	2	15	56	22	3	7	37	48	4	9	79
Tangshan	Hebei	EC	44	2	32	76	45	4	10	74	58	3	23	96
Xingtai	Hebei	EC	50	2	34	63	38	4	14	74	54	3	22	81
Zhangjiakou	Hebei	EC	17	1	11	24	24	2	14	32	25	1	16	34
Changzhi	Shanxi	EC	25	2	10	41	31	1	22	41	27	2	12	55
Datong	Shanxi	EC	19	1	9	30	16	1	11	23	23	2	8	41
Jincheng	Shanxi	EC	29	2	10	46	29	2	15	38	30	2	11	43
Jinzhong	Shanxi	EC	22	1	15	31	20	1	12	29	24	1	11	36
Linfen	Shanxi	EC	20	1	14	25	19	1	12	32	23	1	12	35
Lvliang	Shanxi	EC	22	1	14	34	18	1	13	23	30	2	16	56
Shuozhou	Shanxi	EC	31	2	13	45	31	1	20	39	31	2	15	65
Taiyuan	Shanxi	EC	30	1	22	41	28	2	20	41	34	2	17	51

Xinzhou	Shanxi	EC	33	2	16	48	29	2	16	37	34	2	14	51
Yangquan	Shanxi	EC	24	1	12	32	23	2	11	32	31	1	17	45
Yuncheng	Shanxi	EC	13	2	4	30	20	2	10	33	21	2	8	46
Binzhou	Shandong	EC	27	2	16	49	28	3	15	55	35	2	14	59
Dezhou	Shandong	EC	29	2	19	46	30	2	16	42	40	3	17	66
Dongying	Shandong	EC	27	2	9	43	22	3	8	40	34	3	7	65
Jinan	Shandong	EC	35	2	20	49	41	2	26	54	54	3	34	85
Jining	Shandong	EC	31	2	13	50	37	3	24	67	43	2	25	83
Laiwu	Shandong	EC	29	2	12	47	38	2	23	54	46	2	24	68
Liaocheng	Shandong	EC	29	2	18	43	27	3	10	44	40	2	20	69
Linyi	Shandong	EC	33	2	16	54	39	3	27	62	41	3	18	80
Qingdao	Shandong	EC	19	1	11	35	28	1	16	36	29	2	12	50
Rizhao	Shandong	EC	20	2	5	39	28	3	16	44	33	3	7	65
Tai'an	Shandong	EC	30	2	17	47	38	2	22	50	38	2	22	62
Weihai	Shandong	EC	15	1	6	28	14	1	7	22	18	1	5	33
Weifang	Shandong	EC	25	2	14	41	33	2	22	48	33	2	14	68
Yantai	Shandong	EC	23	1	12	33	27	2	17	42	31	2	12	48
Zaozhuang	Shandong	EC	26	2	15	42	29	1	19	38	31	2	14	62
Zibo	Shandong	EC	52	2	31	68	55	3	38	70	60	3	38	97
Alxa League	Inner Mongolia	EC	7	0	5	10	8	1	4	11	17	1	9	27
Bayannur	Inner Mongolia	EC	19	1	14	24	22	2	13	39	21	1	13	34
Baotou	Inner Mongolia	EC	34	2	20	49	33	2	18	43	37	2	14	63
Chifeng	Inner Mongolia	EC	16	1	10	27	17	0	14	20	17	1	10	24
Ordos	Inner Mongolia	EC	19	1	9	30	18	1	12	26	18	1	9	36
Hohhot	Inner Mongolia	EC	32	1	21	43	32	2	18	42	34	3	13	62
Hulun Buir	Inner Mongolia	EC	20	2	7	37	19	1	11	27	17	1	7	29

Tongliao	Inner Mongolia	EC	16	1	10	25	13	1	8	20	20	1	7	29
Wuhai	Inner Mongolia	EC	17	1	11	24	17	1	11	24	25	2	9	54
Hinggan League	Inner Mongolia	EC	14	1	6	22	10	1	7	16	14	1	9	24
Anyang	Henan	EC	30	2	18	47	32	2	20	42	46	2	19	77
Hebi	Henan	EC	27	3	9	48	24	2	16	39	48	3	16	72
Jiaozuo	Henan	EC	29	2	21	47	30	2	17	40	36	2	16	55
Kaifeng	Henan	EC	25	2	15	49	24	2	14	36	36	2	19	59
Luoyang	Henan	EC	23	1	15	41	25	2	13	33	35	2	16	54
Luohe	Henan	EC	18	2	9	33	23	2	12	35	31	2	13	48
Nanyang	Henan	EC	16	1	8	25	21	1	14	28	22	2	8	41
Pingdingshan	Henan	EC	27	2	14	41	33	2	23	43	38	2	22	56
Sanmenxia	Henan	EC	23	2	15	43	23	3	14	49	28	1	16	42
Shangqiu	Henan	EC	16	1	8	31	21	2	11	39	28	2	14	65
Xinyang	Henan	EC	19	1	12	30	28	1	22	32	29	1	15	42
Zhengzhou	Henan	EC	39	3	23	73	45	3	24	69	56	3	26	86
Zhoukou	Henan	EC	11	1	7	17	13	1	8	19	18	1	9	36
Zhumadian	Henan	EC	22	2	8	34	24	1	16	32	25	1	13	46
Anshan	Liaoning	NEC	18	2	11	33	27	1	16	31	31	2	11	54
Benxi	Liaoning	NEC	19	1	11	30	25	1	14	34	36	2	17	60
Chaoyang	Liaoning	NEC	12	1	7	16	13	1	8	17	14	1	8	24
Dalian	Liaoning	NEC	20	1	14	25	23	1	17	31	30	1	15	40
Dandong	Liaoning	NEC	29	8	1	108	15	1	7	20	20	1	12	42
Fushun	Liaoning	NEC	15	1	10	22	18	1	8	24	30	2	12	50
Fuxin	Liaoning	NEC	28	1	18	38	25	1	15	35	31	1	15	42
Huludao	Liaoning	NEC	23	2	11	44	28	2	15	41	33	2	14	49
Jinzhou	Liaoning	NEC	26	1	18	36	28	1	21	36	34	1	20	44

Liaoyang	Liaoning	NEC	15	1	6	31	26	1	15	32	30	2	6	57
Panjin	Liaoning	NEC	13	2	4	32	24	1	17	32	27	2	13	51
Shenyang	Liaoning	NEC	31	2	20	49	35	2	27	48	44	2	25	63
Tieling	Liaoning	NEC	20	1	13	26	23	1	14	29	29	1	16	41
Wafangdian	Liaoning	NEC	17	1	11	24	21	1	15	33	31	1	18	46
Yingkou	Liaoning	NEC	16	1	8	27	22	1	15	33	30	2	16	61
Baicheng	Jilin	NEC	12	1	8	21	9	1	4	13	11	1	7	19
Baishan	Jilin	NEC	14	0	9	18	16	1	12	19	21	1	13	36
Changchun	Jilin	NEC	28	2	17	44	33	2	22	45	42	2	22	62
Jilin	Jilin	NEC	20	1	13	28	24	1	16	31	31	1	25	43
Liaoyuan	Jilin	NEC	15	2	3	30	15	1	8	24	26	1	11	37
Siping	Jilin	NEC	17	2	4	33	23	3	13	62	32	2	12	51
Songyuan	Jilin	NEC	16	1	9	24	14	1	6	22	26	2	10	42
Daqing	Heilongjiang	NEC	16	1	12	23	16	1	11	24	21	1	10	35
Daxinganling	Heilongjiang	NEC	11	1	8	15	15	1	10	20	11	1	6	18
Harbin	Heilongjiang	NEC	31	2	21	51	31	2	20	42	37	2	18	60
Hegang	Heilongjiang	NEC	6	1	3	10	4	0	2	6	9	1	4	17
Heihe	Heilongjiang	NEC	11	1	5	15	9	1	7	14	12	1	6	29
Jixi	Heilongjiang	NEC	16	1	11	21	13	1	8	19	18	1	9	34
Jiamusi	Heilongjiang	NEC	18	1	8	27	15	2	8	31	22	2	5	50
Mudanjiang	Heilongjiang	NEC	24	1	16	33	19	1	12	25	20	1	13	33
Qitaihe	Heilongjiang	NEC	12	0	10	16	11	1	7	15	13	1	5	19
Qiqihar	Heilongjiang	NEC	15	1	8	19	11	1	7	16	18	1	10	28
Shuangyashan	Heilongjiang	NEC	15	0	12	19	15	1	9	18	18	1	13	28
Suihua	Heilongjiang	NEC	20	2	10	41	15	1	10	24	15	1	7	30
Ankang	Shaanxi	NEC	6	1	3	11	7	1	3	11	10	1	5	18

Baoji	Shaanxi	NEC	23	1	16	34	28	1	16	33	28	1	17	39
Hanzhong	Shaanxi	NEC	15	1	9	22	22	1	13	27	23	1	10	31
Shangluo	Shaanxi	NEC	15	1	10	22	19	1	13	24	21	1	15	28
Tongchuan	Shaanxi	NEC	24	2	15	47	26	1	17	32	27	1	15	41
Weinan	Shaanxi	NEC	29	1	22	43	39	2	29	54	37	2	22	56
Xi'an	Shaanxi	NEC	36	2	24	55	44	2	29	57	38	2	21	56
Xianyang	Shaanxi	NEC	23	1	13	36	27	1	19	34	30	2	16	49
Yan'an	Shaanxi	NEC	35	1	23	40	40	1	33	53	35	1	27	44
Yulin	Shaanxi	NEC	27	2	12	43	33	3	14	56	26	2	15	48
Baiying	Gansu	NEC	25	2	12	40	28	3	4	42	22	2	6	50
Dingxi	Gansu	NEC	20	2	9	40	20	1	12	30	18	1	10	35
Gannan	Gansu	NEC	17	2	8	40	14	1	10	19	15	1	10	28
Jiayuguan	Gansu	NEC	25	1	13	37	19	1	13	29	28	1	15	42
Jiuquan	Gansu	NEC	23	2	8	37	25	2	12	38	26	1	14	42
Lanzhou	Gansu	NEC	38	2	20	53	42	3	25	59	42	2	23	72
Linxia	Gansu	NEC	26	2	12	49	31	2	20	49	25	2	7	40
Pingliang	Gansu	NEC	41	1	28	50	50	2	38	62	43	1	29	55
Qingyang	Gansu	NEC	10	1	5	16	14	1	9	20	14	1	7	21
Tianshui	Gansu	NEC	16	1	10	22	14	1	6	19	20	1	14	27
Wuwei	Gansu	NEC	22	1	13	36	23	2	14	35	21	2	11	46
Zhangye	Gansu	NEC	18	1	10	26	15	1	8	21	20	1	11	36
Guyuan	Ningxia	NEC	18	2	9	30	22	2	11	31	17	1	9	28
Shizuishan	Ningxia	NEC	17	1	12	33	20	1	13	30	23	1	11	44
Wuzhong	Ningxia	NEC	17	1	9	29	18	2	5	28	16	2	6	36
Yinchuan	Ningxia	NEC	27	2	13	48	29	3	16	45	25	2	10	44
Zhongwei	Ningxia	NEC	13	1	7	18	17	1	9	22	15	1	6	33

Aksu	Sinkiang	NEC	23	2	12	42	21	2	11	38	22	2	8	40
Hami	Sinkiang	NEC	11	1	4	21	9	1	4	19	12	1	5	29
Hotan	Sinkiang	NEC	21	2	11	35	18	2	10	29	23	2	11	39
Kashgar	Sinkiang	NEC	22	2	10	36	19	2	9	36	23	2	11	44
Karamay	Sinkiang	NEC	15	1	5	28	14	1	6	28	14	1	6	36
Kizilsu	Sinkiang	NEC	9	1	1	19	9	1	6	15	9	1	1	19
Shihezi	Sinkiang	NEC	28	3	7	64	22	3	6	38	26	2	10	63
Urumchi	Sinkiang	NEC	41	2	20	58	38	2	24	50	35	3	15	72
Wujiaqu	Sinkiang	NEC	30	3	9	53	24	3	10	49	21	2	4	56
Yili	Sinkiang	NEC	25	2	11	34	24	2	12	34	26	2	10	52
Ezhou	Hubei	NEC	13	1	8	24	19	1	11	30	21	1	10	37
Huanggang	Hubei	NEC	14	2	4	23	14	1	6	26	20	2	8	43
Jingmen	Hubei	NEC	18	1	12	38	27	2	17	38	25	2	13	43
Shiyan	Hubei	NEC	12	1	8	19	13	0	10	16	15	1	8	21
Wuhan	Hubei	NEC	27	2	11	52	41	4	18	64	40	3	19	86
Xianning	Hubei	NEC	12	0	9	16	15	1	11	19	16	1	9	24
Xiangyang	Hubei	NEC	17	1	10	34	23	1	16	31	30	2	16	60
Xiaogan	Hubei	NEC	5	1	2	12	9	1	4	20	17	2	6	41
Yichang	Hubei	NEC	24	1	19	32	26	1	23	32	33	1	23	46
Anqing	Anhui	NEC	21	2	12	37	21	2	14	46	21	1	14	35
Bengbu	Anhui	NEC	24	2	11	40	32	2	20	42	33	2	21	59
Bozhou	Anhui	NEC	33	1	24	45	46	2	35	72	41	2	27	80
Chuzhou	Anhui	NEC	29	2	18	41	22	1	11	30	22	2	12	38
Fuyang	Anhui	NEC	28	1	21	46	43	3	30	64	41	2	25	70
Hefei	Anhui	NEC	24	2	14	38	31	3	19	58	29	2	18	48
Huaibei	Anhui	NEC	19	1	14	25	24	1	18	32	28	2	18	54

Huainan	Anhui	NEC	18	1	11	29	20	1	13	26	23	1	14	34
Huangshan	Anhui	NEC	9	0	8	10	9	0	8	10	10	0	8	12
Lu'an	Anhui	NEC	15	1	8	27	15	1	9	21	15	1	7	26
Ma'anshan	Anhui	NEC	20	1	10	30	21	1	15	28	19	1	6	42
Suzhou	Anhui	NEC	18	0	15	21	19	1	16	26	21	1	16	35
Tongling	Anhui	NEC	25	2	15	35	31	2	18	47	30	1	18	42
Wuhu	Anhui	NEC	38	1	30	51	38	2	29	49	40	2	24	79
Changzhou	Jiangsu	NEC	33	3	16	70	34	3	15	51	33	2	20	67
Huaian	Jiangsu	NEC	12	1	3	22	15	2	5	30	16	1	6	33
Lianyungang	Jiangsu	NEC	17	1	9	27	24	1	16	32	25	2	10	39
Nanjing	Jiangsu	NEC	36	2	19	54	39	3	25	61	44	2	20	77
Nantong	Jiangsu	NEC	24	3	7	49	25	3	8	50	24	1	12	39
Suzhou	Jiangsu	NEC	31	2	18	46	42	2	32	57	42	2	27	59
Suqian	Jiangsu	NEC	26	2	8	38	27	1	20	39	30	2	10	57
Taizhou	Jiangsu	NEC	19	2	8	33	20	1	14	34	23	1	15	30
Wuxi	Jiangsu	NEC	27	2	15	51	34	1	27	48	31	1	18	42
Xuzhou	Jiangsu	NEC	26	2	12	43	33	2	21	48	35	2	18	74
Yanchen	Jiangsu	NEC	17	1	8	26	22	1	14	32	21	1	11	36
Yangzhou	Jiangsu	NEC	23	2	7	48	18	1	12	28	21	1	9	32
Zhenjiang	Jiangsu	NEC	27	2	16	44	35	2	18	49	29	1	18	41
Shanghai	Municipality	NEC	21	2	9	33	36	3	19	54	29	1	17	44
Hangzhou	Zhejiang	NEC	29	2	11	48	33	2	20	45	40	2	20	73
Huzhou	Zhejiang	NEC	25	2	9	40	32	2	22	49	30	3	12	74
Jiaxing	Zhejiang	NEC	19	2	6	30	29	2	19	51	33	2	15	61
Jinhua	Zhejiang	NEC	20	1	9	31	25	2	8	38	32	2	14	50
Lishui	Zhejiang	NEC	14	1	5	20	14	1	10	19	20	1	10	36

Ningbo	Zhejiang	NEC	21	2	8	38	29	2	14	42	36	3	13	66
Quzhou	Zhejiang	NEC	20	1	9	31	26	2	8	41	28	1	16	45
Shaoxing	Zhejiang	NEC	26	2	11	39	38	1	28	49	40	2	20	64
Taizhou	Zhejiang	NEC	11	1	1	20	15	2	7	25	18	1	4	28
Wenjiang	Zhejiang	NEC	25	3	2	44	29	3	10	45	34	2	12	55
Zhoushan	Zhejiang	NEC	11	1	3	24	14	1	5	20	13	1	5	23
Fuzhou	Jiangxi	NEC	10	1	5	14	12	1	6	19	13	1	7	22
Ganzhou	Jiangxi	NEC	13	1	7	18	15	1	10	20	16	1	11	22
Ji'an	Jiangxi	NEC	9	1	5	18	14	1	8	22	15	1	7	27
Jingdezhen	Jiangxi	NEC	12	1	5	32	12	1	6	18	13	1	8	23
Jiujiang	Jiangxi	NEC	15	1	8	25	19	1	12	29	20	1	11	31
Nanchang	Jiangxi	NEC	20	2	8	35	21	2	14	40	19	1	12	27
Pingxiang	Jiangxi	NEC	10	1	5	15	15	1	10	18	14	1	7	21
Shangrao	Jiangxi	NEC	14	1	8	21	18	1	12	28	21	1	13	28
Xinyu	Jiangxi	NEC	11	1	5	16	12	1	7	18	14	1	9	22
Yichun	Jiangxi	NEC	13	0	9	17	14	1	10	19	16	1	10	23
Yingtian	Jiangxi	NEC	10	0	6	14	13	1	9	18	18	1	9	22
Changsha	Hunan	NEC	19	1	9	31	27	1	16	33	26	2	15	48
Changde	Hunan	NEC	13	1	6	24	11	1	8	16	13	1	7	22
Chenzhou	Hunan	NEC	18	1	9	26	20	1	12	25	23	1	13	36
Huaihua	Hunan	NEC	8	1	4	14	14	1	5	22	12	1	4	21
Loudi	Hunan	NEC	11	1	6	16	12	1	8	18	10	0	4	15
Xiangtan	Hunan	NEC	24	1	13	34	30	2	17	42	31	2	16	53
Yiyang	Hunan	NEC	15	1	9	22	18	1	12	27	19	1	10	34
Yongzhou	Hunan	NEC	19	1	14	25	21	1	14	28	24	1	13	32
Zhangjiajie	Hunan	NEC	18	1	11	29	22	1	18	26	21	1	15	28

Zhuzhou	Hunan	NEC	17	1	12	25	25	1	18	30	27	1	17	39
Dongguan	Guangdong	NEC	31	2	20	45	31	2	24	49	28	2	4	46
Foshan	Guangdong	NEC	32	2	20	44	41	1	33	49	29	1	18	44
Guangzhou	Guangdong	NEC	35	1	23	47	38	2	28	48	41	2	21	60
Heyuan	Guangdong	NEC	18	1	10	27	19	1	11	26	20	1	13	39
Huizhou	Guangdong	NEC	19	1	10	27	17	1	13	25	20	2	8	39
Jiangmen	Guangdong	NEC	14	1	9	20	25	1	19	34	20	2	8	37
Maoming	Guangdong	NEC	10	1	6	14	12	1	9	15	10	0	6	15
Meizhou	Guangdong	NEC	15	1	10	19	16	1	11	25	19	1	12	28
Qingyuan	Guangdong	NEC	33	1	22	44	24	2	14	40	24	1	13	40
Shantou	Guangdong	NEC	16	1	10	26	16	1	12	19	13	1	7	22
Shaoguan	Guangdong	NEC	19	1	12	25	15	1	10	18	18	1	9	34
Shenzhen	Guangdong	NEC	34	2	22	47	33	2	24	48	30	1	21	45
Zhujiang	Guangdong	NEC	14	1	6	20	16	1	8	22	13	1	6	23
Zhaoqing	Guangdong	NEC	20	1	13	30	26	2	12	41	23	1	15	35
Zhongshan	Guangdong	NEC	15	1	8	31	24	2	14	33	19	1	9	31
Zhuhai	Guangdong	NEC	17	1	10	28	25	1	19	31	19	1	10	28
Fuzhou	Fujian	NEC	21	1	4	30	22	2	8	36	24	2	9	47
Longyan	Fujian	NEC	17	1	9	28	17	1	13	20	20	1	10	31
Nanping	Fujian	NEC	10	1	7	15	9	1	6	13	10	0	6	14
Ningde	Fujian	NEC	13	1	3	22	14	1	8	19	17	1	7	31
Putian	Fujian	NEC	15	1	3	23	13	1	5	19	13	1	4	20
Quanzhou	Fujian	NEC	18	2	2	27	14	1	6	23	16	1	8	34
Sanming	Fujian	NEC	22	1	12	29	20	1	11	31	23	1	15	33
Xiamen	Fujian	NEC	26	1	15	41	22	1	17	28	19	1	11	34
Zhangzhou	Fujian	NEC	18	1	10	22	19	1	16	24	22	1	13	38

Haikou	Hainan	NEC	13	1	8	21	16	1	12	21	12	1	5	26
Sanya	Hainan	NEC	11	1	7	19	14	1	9	20	13	1	4	21
Chongqing	Municipality	NEC	29	2	20	48	46	2	35	57	37	1	22	52
Bazhong	Sichuan	NEC	18	1	11	23	22	1	17	27	21	1	15	35
Chengdu	Sichuan	NEC	39	3	15	63	54	4	25	81	43	2	26	73
Dazhou	Sichuan	NEC	31	1	21	38	35	1	26	45	34	1	24	42
Deyang	Sichuan	NEC	25	2	9	39	30	2	17	48	24	2	9	45
Guangyuan	Sichuan	NEC	24	1	19	39	26	2	18	40	27	1	13	37
Leshan	Sichuan	NEC	23	1	15	35	28	2	17	42	24	1	17	37
Luzhou	Sichuan	NEC	20	1	11	30	28	2	12	41	23	1	10	34
Meishan	Sichuan	NEC	19	1	10	34	25	2	15	39	22	1	14	39
Mianyang	Sichuan	NEC	32	2	17	43	37	2	21	51	28	2	15	77
Nanchong	Sichuan	NEC	20	2	11	31	29	1	18	36	33	2	21	62
Panzhihua	Sichuan	NEC	25	1	21	35	27	1	23	35	24	1	18	30
Suining	Sichuan	NEC	11	1	4	19	16	1	7	27	14	1	5	23
Ya'an	Sichuan	NEC	22	1	16	35	21	1	16	23	24	1	16	30
Ziyang	Sichuan	NEC	13	1	9	23	20	1	15	29	16	1	10	23
Zigong	Sichuan	NEC	22	1	15	34	28	2	16	38	23	1	17	44
Baoshan	Yunnan	NEC	14	0	10	18	15	1	10	19	16	1	11	23
Chuxiong	Yunnan	NEC	16	1	8	22	23	2	7	34	14	1	7	22
Dali	Yunnan	NEC	11	1	6	19	12	1	4	20	10	1	6	16
Dehong	Yunnan	NEC	10	0	7	13	10	0	8	13	14	0	9	18
Honghe	Yunnan	NEC	10	1	5	19	14	1	10	20	8	1	3	15
Kunming	Yunnan	NEC	20	1	13	27	28	2	16	39	23	1	16	32
Lijiang	Yunnan	NEC	11	0	8	15	13	0	11	17	11	1	5	15
Lincang	Yunnan	NEC	10	0	7	15	11	1	9	17	10	1	4	15

Nujiang	Yunnan	NEC	7	0	5	11	9	0	7	11	9	0	7	12
Qujing	Yunnan	NEC	17	1	11	24	20	1	15	31	17	1	11	26
Wenshan	Yunnan	NEC	12	1	7	19	17	1	11	25	11	0	7	17
Xishuangbanna	Yunnan	NEC	9	0	7	14	11	1	7	14	12	1	6	18
Tuxi	Yunnan	NEC	15	1	8	21	19	1	14	25	14	1	9	20
Zhaotong	Yunnan	NEC	17	1	11	26	22	1	12	30	15	1	10	23
Anshun	Guizhou	NEC	9	1	4	24	15	2	5	29	10	1	5	21
Bijie	Guizhou	NEC	23	2	11	36	27	2	18	39	22	1	10	38
Guiyang	Guizhou	NEC	20	1	13	32	29	2	16	44	22	1	15	40
Liupanshui	Guizhou	NEC	23	1	16	40	31	2	19	49	23	1	18	35
Tongren	Guizhou	NEC	14	1	9	18	18	1	13	21	18	1	10	26
Zunyi	Guizhou	NEC	20	1	16	27	32	2	15	42	25	1	16	36
Baise	Guangxi	NEC	12	1	8	19	9	1	3	18	10	1	5	16
Beihai	Guangxi	NEC	10	1	6	16	9	1	6	14	10	1	6	18
Chongzuo	Guangxi	NEC	13	1	6	24	16	1	8	25	12	1	5	24
Fangchenggang	Guangxi	NEC	11	0	7	14	12	1	8	16	12	0	7	17
Guigang	Guangxi	NEC	20	1	13	25	20	1	12	27	18	1	9	29
Guilin	Guangxi	NEC	15	1	10	20	17	1	13	22	17	1	10	24
Hechi	Guangxi	NEC	13	1	9	21	15	1	9	21	20	1	13	34
Hezhou	Guangxi	NEC	9	0	5	13	8	1	5	14	8	1	4	13
Laibin	Guangxi	NEC	14	1	8	20	16	1	8	26	15	1	10	27
Liuzhou	Guangxi	NEC	19	1	13	30	18	1	9	27	19	1	11	30
Nanning	Guangxi	NEC	25	2	15	45	28	2	17	45	25	1	17	41
Qinzhou	Guangxi	NEC	15	1	8	22	16	1	11	24	16	1	12	26
Wuzhou	Guangxi	NEC	19	1	14	24	17	1	11	28	18	1	11	27
Yulin	Guangxi	NEC	15	1	9	25	17	1	10	27	17	1	11	25

Golog	Qinghai	NEC	32	1	22	40	38	1	30	49	30	1	21	45
Haidong	Qinghai	NEC	31	2	19	45	37	2	24	60	35	1	24	47
Xining	Qinghai	NEC	28	1	17	38	28	1	20	42	31	1	19	47
Ali	Tibet	NEC	3	0	2	5	4	0	3	7	6	1	2	11
Qamdo	Tibet	NEC	16	1	11	32	14	1	10	24	16	1	6	27
Lhasa	Tibet	NEC	20	1	13	32	18	1	12	23	18	1	10	29
Nyingchi	Tibet	NEC	6	0	3	8	6	0	4	8	6	0	3	14
Naqu	Tibet	NEC	12	0	9	16	14	1	10	19	15	1	10	26
Shigatse	Tibet	NEC	15	3	7	52	11	0	9	14	10	1	5	18
Lhoka	Tibet	NEC	8	0	3	10	9	1	5	14	8	0	4	13

146 ^a EC and NEC denote emission control and non-emission control regions, respectively, of which the latter means regions without implementation
147 of emission control measures.

148 ^b The pre-Parade Blue, Parade Blue, and post-Parade Blue periods indicate the periods of 1-19 August, 20 August-3 September, and 4-30
149 September 2015, respectively.

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158 **Table S5.** Summary of daily average SO₂ concentrations (µg m⁻³) during the pre-Parade Blue, Parade Blue and post-Parade Blue periods in the
 159 291 cities across China.

City	Province	Region ^a	Pre-Parade Blue period ^b				Parade Blue period ^b				Post-Parade Blue period ^b			
			Mean	SE	Min	Max	Mean	SE	Min	Max	Mean	SE	Min	Max
Beijing	Municipality	EC	3	0	2	7	2	0	2	3	5	1	2	15
Tianjing	Municipality	EC	10	1	4	16	10	1	4	23	13	1	4	27
Baoding	Hebei	EC	17	1	11	25	10	1	6	16	15	1	8	27
Cangzhou	Hebei	EC	3	0	2	7	2	0	2	3	32	3	11	80
Chengde	Hebei	EC	9	1	5	18	6	1	3	18	8	1	3	20
Handan	Hebei	EC	28	2	16	48	34	5	9	62	25	2	8	58
Hengshui	Hebei	EC	17	1	10	23	12	1	3	20	22	2	7	52
Langfang	Hebei	EC	9	1	4	19	4	0	2	8	10	2	2	40
Qinhuangdao	Hebei	EC	32	3	17	48	18	2	10	46	18	2	10	46
Shijiazhuang	Hebei	EC	19	2	7	39	13	1	6	19	30	3	7	52
Tangshan	Hebei	EC	29	3	12	64	29	4	13	68	39	3	16	73
Xingtai	Hebei	EC	25	4	8	74	18	4	3	45	32	4	4	71
Zhangjiakou	Hebei	EC	12	1	7	19	12	1	9	22	12	1	5	24
Changzhi	Shanxi	EC	32	2	18	59	28	3	10	50	25	2	9	51
Datong	Shanxi	EC	20	2	12	37	18	1	12	28	22	2	9	58
Jincheng	Shanxi	EC	29	2	14	46	25	2	12	38	31	3	9	65
Jinzhong	Shanxi	EC	13	3	3	37	16	2	7	29	31	4	6	74
Linfen	Shanxi	EC	17	1	7	32	14	1	8	23	16	2	3	37
Lvliang	Shanxi	EC	43	2	31	56	24	2	13	42	33	3	11	75
Shuozhou	Shanxi	EC	39	3	18	60	37	3	17	52	27	2	11	45
Taiyuan	Shanxi	EC	21	2	9	43	18	1	11	24	25	2	10	55

Xinzhou	Shanxi	EC	41	3	23	58	32	1	21	39	36	3	13	69
Yangquan	Shanxi	EC	24	2	7	36	21	2	7	35	30	3	7	79
Yuncheng	Shanxi	EC	19	1	9	34	45	6	20	101	43	4	15	119
Binzhou	Shandong	EC	30	4	9	87	26	3	11	60	38	3	14	89
Dezhou	Shandong	EC	18	2	5	35	21	2	11	41	30	3	11	70
Dongying	Shandong	EC	45	3	21	81	31	3	16	57	33	3	10	69
Jinan	Shandong	EC	21	1	12	32	20	2	12	33	28	2	14	51
Jining	Shandong	EC	36	3	21	88	43	3	21	66	50	3	25	82
Laiwu	Shandong	EC	22	3	6	46	32	2	15	42	38	3	16	61
Liaocheng	Shandong	EC	20	2	7	36	21	2	12	45	34	2	15	53
Linyi	Shandong	EC	15	2	5	42	20	1	13	32	24	2	7	49
Qingdao	Shandong	EC	17	1	12	28	20	1	14	33	20	1	13	27
Rizhao	Shandong	EC	13	1	8	23	16	1	11	26	18	1	9	41
Tai'an	Shandong	EC	20	2	8	34	28	2	14	46	31	2	13	55
Weihai	Shandong	EC	10	1	3	20	13	1	8	18	14	1	6	29
Weifang	Shandong	EC	19	2	11	38	27	3	13	62	26	2	13	68
Yantai	Shandong	EC	11	1	5	18	12	1	7	15	13	1	8	23
Zaozhuang	Shandong	EC	36	3	14	57	60	3	43	82	53	5	10	136
Zibo	Shandong	EC	54	6	21	94	61	8	22	114	62	5	27	111
Alxa League	Inner Mongolia	EC	5	1	1	11	7	1	2	13	5	0	2	10
Bayannur	Inner Mongolia	EC	12	1	5	21	18	1	10	27	13	1	4	30
Baotou	Inner Mongolia	EC	25	2	11	37	20	2	9	29	23	2	8	41
Chifeng	Inner Mongolia	EC	14	1	9	25	12	1	8	18	15	1	7	24
Ordos	Inner Mongolia	EC	11	1	4	22	14	1	7	26	14	1	5	36
Hohhot	Inner Mongolia	EC	12	1	9	18	8	0	5	12	12	1	5	24
Hulun Buir	Inner Mongolia	EC	2	0	1	4	3	0	1	7	3	0	2	8

Tongliao	Inner Mongolia	EC	12	1	6	19	8	1	4	15	12	1	5	21
Wuhai	Inner Mongolia	EC	48	7	6	122	34	7	4	95	57	11	3	178
Hinggan League	Inner Mongolia	EC	5	0	2	9	3	0	2	6	7	1	3	17
Anyang	Henan	EC	14	2	5	31	26	3	13	40	32	2	10	59
Hebi	Henan	EC	18	1	12	30	17	2	9	28	28	2	11	46
Jiaozuo	Henan	EC	20	2	5	33	23	2	10	37	28	3	9	65
Kaifeng	Henan	EC	13	1	10	19	16	1	10	28	18	1	7	32
Luoyang	Henan	EC	24	3	7	50	20	2	8	30	25	1	7	37
Luohe	Henan	EC	13	1	7	30	16	1	12	21	28	3	11	84
Nanyang	Henan	EC	22	1	10	33	22	1	15	29	19	2	8	37
Pingdingshan	Henan	EC	32	2	15	49	32	2	23	46	34	2	15	57
Sanmenxia	Henan	EC	18	1	8	28	25	2	13	42	26	2	10	45
Shangqiu	Henan	EC	10	1	5	15	18	1	13	22	20	1	11	34
Xinyang	Henan	EC	17	1	9	25	16	1	11	21	17	1	8	26
Zhengzhou	Henan	EC	5	1	2	12	9	1	5	15	16	1	5	32
Zhoukou	Henan	EC	7	0	6	9	9	0	6	11	12	1	7	20
Zhumadian	Henan	EC	26	2	7	45	45	8	16	141	28	2	10	61
Anshan	Liaoning	NEC	14	1	7	25	19	1	12	26	21	1	11	36
Benxi	Liaoning	NEC	7	0	6	12	12	1	7	18	18	1	10	28
Chaoyang	Liaoning	NEC	9	1	4	13	10	1	7	15	14	1	8	26
Dalian	Liaoning	NEC	8	1	3	16	10	1	6	16	11	1	6	19
Dandong	Liaoning	NEC	7	0	5	9	9	1	7	13	12	0	8	15
Fushun	Liaoning	NEC	7	1	3	12	8	1	5	13	14	1	5	25
Fuxin	Liaoning	NEC	29	3	12	64	30	2	22	49	32	2	15	60
Huludao	Liaoning	NEC	20	3	7	56	29	2	20	43	28	2	10	52
Jinzhou	Liaoning	NEC	25	1	18	39	17	1	12	27	27	2	14	42

Liaoyang	Liaoning	NEC	8	1	4	13	13	1	8	22	18	1	7	35
Panjin	Liaoning	NEC	12	1	6	21	18	1	13	27	18	1	9	31
Shenyang	Liaoning	NEC	12	1	4	24	10	1	6	16	18	2	5	34
Tieling	Liaoning	NEC	10	1	5	19	10	1	6	13	13	1	5	23
Wafangdian	Liaoning	NEC	2	0	1	4	3	0	2	7	6	1	1	16
Yingkou	Liaoning	NEC	11	1	6	16	11	1	8	18	14	1	7	30
Baicheng	Jilin	NEC	6	0	4	12	6	0	2	9	11	1	5	17
Baishan	Jilin	NEC	10	1	5	23	8	1	4	12	16	2	4	36
Changchun	Jilin	NEC	6	0	3	8	6	1	4	10	8	0	3	14
Jilin	Jilin	NEC	10	1	7	19	14	1	9	26	17	2	9	41
Liaoyuan	Jilin	NEC	6	1	4	23	9	1	4	18	14	1	7	22
Siping	Jilin	NEC	10	2	3	43	6	1	1	12	11	1	3	23
Songyuan	Jilin	NEC	5	1	2	26	2	0	1	4	5	0	2	11
Daqing	Heilongjiang	NEC	9	1	7	15	9	1	7	16	9	1	5	17
Daxinganling	Heilongjiang	NEC	15	1	10	24	14	0	12	17	18	1	12	38
Harbin	Heilongjiang	NEC	5	0	3	7	5	0	4	6	7	0	4	11
Hegang	Heilongjiang	NEC	2	0	1	3	2	0	1	5	4	0	1	8
Heihe	Heilongjiang	NEC	10	0	8	12	12	1	8	24	11	0	7	14
Jixi	Heilongjiang	NEC	8	1	4	14	15	0	13	20	13	1	7	22
Jiamusi	Heilongjiang	NEC	7	1	3	23	5	0	3	7	5	0	3	9
Mudanjiang	Heilongjiang	NEC	7	0	5	10	8	0	5	10	6	0	3	10
Qitaihe	Heilongjiang	NEC	18	0	16	21	17	1	14	29	15	0	9	18
Qiqihar	Heilongjiang	NEC	13	2	8	32	5	1	1	11	4	0	2	8
Shuangyashan	Heilongjiang	NEC	14	1	9	31	10	1	6	18	10	1	6	17
Suihua	Heilongjiang	NEC	9	1	3	18	9	1	4	14	8	1	2	24
Ankang	Shaanxi	NEC	11	1	3	23	11	1	6	16	14	1	8	20

Baoji	Shaanxi	NEC	3	0	2	4	5	0	3	7	5	0	2	9
Hanzhong	Shaanxi	NEC	7	0	3	10	10	1	3	13	7	0	3	11
Shangluo	Shaanxi	NEC	21	4	4	61	19	3	5	44	21	3	5	55
Tongchuan	Shaanxi	NEC	4	0	2	7	9	1	6	14	8	1	2	19
Weinan	Shaanxi	NEC	10	1	4	15	13	1	6	23	10	1	4	15
Xi'an	Shaanxi	NEC	7	0	2	10	13	1	8	18	12	1	5	19
Xianyang	Shaanxi	NEC	11	0	8	16	14	1	7	20	11	1	4	17
Yan'an	Shaanxi	NEC	7	0	6	9	10	0	8	12	8	0	6	10
Yulin	Shaanxi	NEC	5	1	2	10	8	1	3	11	6	1	1	14
Baiying	Gansu	NEC	24	5	3	97	71	12	14	161	38	5	3	111
Dingxi	Gansu	NEC	8	2	3	33	7	1	3	10	5	0	3	8
Gannan	Gansu	NEC	9	2	3	33	7	0	5	9	7	0	3	12
Jiayuguan	Gansu	NEC	21	2	11	39	11	2	6	31	21	2	3	43
Jiuquan	Gansu	NEC	9	1	3	27	7	2	2	24	6	0	3	13
Lanzhou	Gansu	NEC	12	1	6	23	11	1	5	17	13	1	7	22
Linxia	Gansu	NEC	8	1	2	12	10	0	8	13	9	1	2	14
Pingliang	Gansu	NEC	9	1	3	23	9	1	1	15	11	2	3	50
Qingyang	Gansu	NEC	5	0	3	8	6	0	2	9	4	0	1	7
Tianshui	Gansu	NEC	8	0	5	14	6	0	4	9	5	0	3	7
Wuwei	Gansu	NEC	7	0	5	10	9	0	7	13	8	0	5	12
Zhangye	Gansu	NEC	13	0	10	16	15	1	11	20	14	1	6	25
Guyuan	Ningxia	NEC	7	1	3	13	8	1	3	15	4	0	2	10
Shizuishan	Ningxia	NEC	55	4	27	90	37	4	12	62	33	3	13	81
Wuzhong	Ningxia	NEC	11	2	2	24	18	2	3	30	8	1	2	21
Yinchuan	Ningxia	NEC	15	2	3	29	21	2	5	30	16	2	4	43
Zhongwei	Ningxia	NEC	11	2	5	27	18	2	2	29	8	1	3	17

Aksu	Sinkiang	NEC	6	1	1	13	5	1	2	15	5	1	1	28
Hami	Sinkiang	NEC	6	1	1	16	5	1	1	14	5	1	1	13
Hotan	Sinkiang	NEC	38	4	9	74	27	4	8	55	31	3	8	69
Kashgar	Sinkiang	NEC	10	1	5	16	9	1	6	14	12	1	6	26
Karamay	Sinkiang	NEC	7	0	4	11	9	1	4	20	7	0	5	11
Kizilsu	Sinkiang	NEC	5	2	0	27	6	1	2	16	2	0	1	4
Shihezi	Sinkiang	NEC	9	1	2	25	8	1	2	14	9	1	3	18
Urumchi	Sinkiang	NEC	10	1	2	18	9	1	2	15	10	1	3	23
Wujiaqu	Sinkiang	NEC	9	3	1	56	13	3	4	44	7	1	2	21
Yili	Sinkiang	NEC	7	0	4	9	7	0	4	10	7	1	2	20
Ezhou	Hubei	NEC	16	2	5	34	15	1	9	25	21	2	6	43
Huanggang	Hubei	NEC	10	2	1	29	7	1	3	15	18	3	2	50
Jingmen	Hubei	NEC	14	1	7	27	17	1	10	21	19	2	6	51
Shiyan	Hubei	NEC	18	1	10	23	22	1	15	33	18	1	10	29
Wuhan	Hubei	NEC	12	1	8	18	14	1	9	18	17	1	11	29
Xianning	Hubei	NEC	14	1	9	22	14	1	10	19	12	1	5	22
Xiangyang	Hubei	NEC	10	1	3	20	12	1	7	18	14	1	6	32
Xiaogan	Hubei	NEC	5	1	1	23	6	1	2	19	6	1	0	14
Yichang	Hubei	NEC	9	1	5	24	11	1	8	19	10	0	6	15
Anqing	Anhui	NEC	14	1	10	18	15	0	13	17	18	1	11	35
Bengbu	Anhui	NEC	14	1	5	23	18	1	14	23	22	1	13	34
Bozhou	Anhui	NEC	40	2	27	59	40	3	15	61	34	2	14	59
Chuzhou	Anhui	NEC	16	1	12	22	12	1	6	18	11	1	6	18
Fuyang	Anhui	NEC	16	1	13	23	19	1	14	34	20	1	15	27
Hefei	Anhui	NEC	8	1	6	14	7	0	4	9	9	1	5	14
Huaibei	Anhui	NEC	28	2	18	48	25	1	16	34	27	3	14	73

Huainan	Anhui	NEC	9	1	5	16	9	0	6	12	11	0	6	15
Huangshan	Anhui	NEC	7	0	5	8	8	0	7	9	8	0	7	11
Lu'an	Anhui	NEC	21	5	5	68	10	0	9	13	12	0	9	16
Ma'anshan	Anhui	NEC	14	2	5	31	19	2	11	29	14	2	5	41
Suzhou	Anhui	NEC	9	1	5	14	11	1	7	18	14	1	9	22
Tongling	Anhui	NEC	29	3	10	69	36	3	18	64	28	1	12	42
Wuhu	Anhui	NEC	22	1	17	31	18	1	14	24	19	1	14	28
Changzhou	Jiangsu	NEC	22	2	10	36	23	2	10	36	24	2	12	47
Huaian	Jiangsu	NEC	20	2	8	41	13	1	8	18	14	1	5	27
Lianyungang	Jiangsu	NEC	12	1	5	21	19	1	12	27	22	1	10	36
Nanjing	Jiangsu	NEC	14	2	5	26	12	1	7	18	14	1	8	25
Nantong	Jiangsu	NEC	25	2	12	43	25	3	9	46	23	1	14	44
Suzhou	Jiangsu	NEC	14	1	6	21	18	2	9	39	17	1	8	29
Suqian	Jiangsu	NEC	12	2	3	35	15	1	5	24	16	1	5	28
Taizhou	Jiangsu	NEC	17	1	11	28	18	1	12	24	19	1	12	29
Wuxi	Jiangsu	NEC	19	1	11	29	24	1	16	36	27	1	14	41
Xuzhou	Jiangsu	NEC	26	1	20	41	34	3	18	57	29	2	17	52
Yanchen	Jiangsu	NEC	14	2	5	27	14	1	10	18	17	1	7	26
Yangzhou	Jiangsu	NEC	25	3	8	58	19	1	13	23	17	1	8	28
Zhenjiang	Jiangsu	NEC	22	2	10	35	19	1	10	25	20	2	10	41
Shanghai	Municipality	NEC	11	1	6	17	13	1	8	24	11	1	7	18
Hangzhou	Zhejiang	NEC	11	1	6	17	11	1	7	19	14	1	7	20
Huzhou	Zhejiang	NEC	10	1	4	18	14	2	4	31	12	1	4	20
Jiaxing	Zhejiang	NEC	11	1	3	19	18	2	8	34	16	1	3	32
Jinhua	Zhejiang	NEC	15	2	3	32	16	1	9	26	18	1	8	37
Lishui	Zhejiang	NEC	6	1	1	12	10	1	2	21	7	1	2	22

Ningbo	Zhejiang	NEC	10	1	6	16	13	1	9	20	14	1	7	20
Quzhou	Zhejiang	NEC	15	2	3	32	18	2	9	34	17	1	8	28
Shaoxing	Zhejiang	NEC	13	1	6	24	23	2	14	37	28	2	14	43
Taizhou	Zhejiang	NEC	6	1	1	11	6	1	3	11	7	0	3	12
Wenjiang	Zhejiang	NEC	8	1	2	12	9	1	5	13	8	1	2	13
Zhoushan	Zhejiang	NEC	5	1	2	15	6	0	3	9	7	0	5	14
Fuzhou	Jiangxi	NEC	14	1	3	23	18	3	6	37	18	2	7	40
Ganzhou	Jiangxi	NEC	17	2	10	33	20	2	10	37	26	2	13	48
Ji'an	Jiangxi	NEC	23	3	8	43	24	2	11	40	30	2	6	47
Jingdezhen	Jiangxi	NEC	7	1	2	17	10	1	2	20	8	0	4	12
Jiujiang	Jiangxi	NEC	40	1	27	52	39	2	29	49	37	1	26	48
Nanchang	Jiangxi	NEC	26	2	12	50	26	1	20	33	24	1	8	34
Pingxiang	Jiangxi	NEC	20	2	12	47	25	2	14	33	22	2	10	40
Shangrao	Jiangxi	NEC	44	4	10	72	44	5	20	99	33	2	14	54
Xinyu	Jiangxi	NEC	25	3	5	53	22	2	8	30	19	1	6	30
Yichun	Jiangxi	NEC	11	1	5	21	15	1	9	19	17	1	8	36
Yingtian	Jiangxi	NEC	21	2	13	41	26	3	15	48	37	3	14	85
Changsha	Hunan	NEC	14	1	8	20	14	1	7	20	13	1	4	24
Changde	Hunan	NEC	17	1	6	22	14	1	10	20	14	1	5	20
Chenzhou	Hunan	NEC	11	1	7	19	17	2	9	35	17	1	8	30
Huaihua	Hunan	NEC	11	1	4	24	13	1	6	22	13	1	3	29
Loudi	Hunan	NEC	29	1	16	37	33	1	26	42	29	1	15	40
Xiangtan	Hunan	NEC	14	1	6	22	16	1	9	29	20	2	7	44
Yiyang	Hunan	NEC	17	1	8	25	23	1	17	31	24	1	13	39
Yongzhou	Hunan	NEC	39	2	17	57	27	2	9	41	31	2	12	51
Zhangjiajie	Hunan	NEC	6	0	4	9	6	0	4	7	6	0	2	9

Zhuzhou	Hunan	NEC	17	2	8	36	18	1	7	27	19	1	10	28
Dongguan	Guangdong	NEC	11	1	6	19	11	1	7	17	13	1	7	20
Foshan	Guangdong	NEC	16	1	11	22	17	1	9	26	14	1	7	21
Guangzhou	Guangdong	NEC	12	0	8	17	11	1	6	17	10	1	5	16
Heyuan	Guangdong	NEC	7	0	4	12	7	1	3	13	8	0	4	13
Huizhou	Guangdong	NEC	10	1	7	14	9	1	7	16	9	0	6	15
Jiangmen	Guangdong	NEC	12	1	9	17	18	1	8	28	15	1	10	24
Maoming	Guangdong	NEC	12	2	5	33	16	2	9	30	10	1	2	20
Meizhou	Guangdong	NEC	7	0	5	9	6	0	4	8	8	0	5	11
Qingyuan	Guangdong	NEC	18	1	12	25	10	1	5	15	12	1	6	22
Shantou	Guangdong	NEC	14	1	9	18	13	1	8	18	12	1	8	23
Shaoguan	Guangdong	NEC	19	1	11	28	16	1	9	24	16	1	7	24
Shenzhen	Guangdong	NEC	9	0	6	13	8	1	6	12	7	0	5	13
Zhanjiang	Guangdong	NEC	9	1	5	14	6	1	2	9	5	1	1	10
Zhaoqing	Guangdong	NEC	19	1	10	28	17	2	9	28	21	1	12	34
Zhongshan	Guangdong	NEC	7	1	4	17	8	1	4	17	9	1	4	19
Zhuhai	Guangdong	NEC	5	1	2	14	8	1	3	15	7	1	3	17
Fuzhou	Fujian	NEC	5	0	3	6	4	0	3	6	4	0	2	5
Longyan	Fujian	NEC	7	1	3	12	6	0	4	9	9	1	5	16
Nanping	Fujian	NEC	12	0	8	15	15	1	11	21	15	1	11	27
Ningde	Fujian	NEC	2	0	1	5	3	0	1	5	3	0	1	7
Putian	Fujian	NEC	5	1	2	11	4	0	2	7	5	0	3	8
Quanzhou	Fujian	NEC	13	1	3	25	9	1	6	17	9	1	4	24
Sanming	Fujian	NEC	13	1	4	19	10	1	4	19	12	1	6	23
Xiamen	Fujian	NEC	9	1	3	16	6	1	2	12	6	0	2	9
Zhangzhou	Fujian	NEC	9	1	5	16	11	1	7	19	11	1	5	17

Haikou	Hainan	NEC	5	0	3	10	5	0	3	8	4	0	2	8
Sanya	Hainan	NEC	3	0	2	7	2	0	2	3	3	0	2	4
Chongqing	Municipality	NEC	10	1	4	16	12	1	7	16	10	1	4	23
Bazhong	Sichuan	NEC	2	0	1	5	2	0	1	5	2	0	1	4
Chengdu	Sichuan	NEC	13	1	7	20	15	1	7	24	12	1	6	25
Dazhou	Sichuan	NEC	15	1	6	31	12	1	7	19	10	1	4	26
Deyang	Sichuan	NEC	17	1	7	30	14	1	4	23	8	1	2	22
Guangyuan	Sichuan	NEC	17	1	12	22	16	1	13	23	12	0	7	17
Leshan	Sichuan	NEC	14	1	6	25	19	3	6	38	13	1	6	27
Luzhou	Sichuan	NEC	12	1	6	20	15	2	6	27	11	1	5	19
Meishan	Sichuan	NEC	15	1	8	26	13	2	2	30	8	1	2	20
Mianyang	Sichuan	NEC	10	1	4	21	11	1	5	18	10	1	5	23
Nanchong	Sichuan	NEC	12	1	5	18	10	1	5	22	9	1	5	22
Panzhihua	Sichuan	NEC	23	2	12	44	30	2	19	44	35	2	16	76
Suining	Sichuan	NEC	10	1	3	19	7	1	4	17	7	1	3	17
Ya'an	Sichuan	NEC	14	2	6	56	8	0	6	10	10	0	6	14
Ziyang	Sichuan	NEC	21	2	12	36	22	1	17	30	16	1	9	28
Zigong	Sichuan	NEC	16	1	9	27	19	1	11	27	17	1	10	31
Baoshan	Yunnan	NEC	12	1	2	22	5	1	1	10	9	1	3	24
Chuxiong	Yunnan	NEC	23	2	12	42	27	3	12	56	19	2	10	44
Dali	Yunnan	NEC	6	0	4	9	6	1	3	10	5	0	3	7
Dehong	Yunnan	NEC	20	2	6	32	12	2	2	19	15	1	5	32
Honghe	Yunnan	NEC	19	4	4	66	31	7	9	97	22	4	6	96
Kunming	Yunnan	NEC	13	1	6	20	16	2	7	38	12	1	7	22
Lijiang	Yunnan	NEC	11	1	5	17	8	0	6	11	8	0	3	12
Lincang	Yunnan	NEC	17	3	4	50	18	3	3	43	22	2	11	48

Nujiang	Yunnan	NEC	8	1	4	13	7	0	5	9	7	1	3	16
Qujing	Yunnan	NEC	20	2	9	35	24	2	17	37	17	1	10	33
Wenshan	Yunnan	NEC	10	1	3	23	8	1	4	14	7	1	2	20
Xishuangbanna	Yunnan	NEC	10	1	6	19	8	0	6	10	8	0	2	12
Tuxi	Yunnan	NEC	13	1	6	18	17	1	9	26	13	1	9	23
Zhaotong	Yunnan	NEC	32	5	4	60	47	7	15	103	27	2	11	52
Anshun	Guizhou	NEC	25	2	13	51	32	4	18	69	20	2	11	43
Bijie	Guizhou	NEC	10	1	3	17	11	1	7	16	10	0	4	15
Guiyang	Guizhou	NEC	7	0	5	13	8	1	4	12	7	0	5	12
Liupanshui	Guizhou	NEC	10	1	6	19	13	1	7	22	11	1	6	18
Tongren	Guizhou	NEC	7	1	3	16	8	1	5	16	7	0	3	10
Zunyi	Guizhou	NEC	7	1	2	15	6	1	2	9	6	0	2	10
Baise	Guangxi	NEC	10	1	5	18	7	0	5	10	12	1	5	18
Beihai	Guangxi	NEC	8	1	5	16	9	1	6	14	9	0	6	15
Chongzuo	Guangxi	NEC	8	1	5	14	14	2	5	24	10	1	4	21
Fangchenggang	Guangxi	NEC	4	0	2	7	3	0	2	6	4	0	2	8
Guigang	Guangxi	NEC	22	2	6	42	17	2	7	30	18	1	10	28
Guilin	Guangxi	NEC	18	2	9	32	19	2	10	32	22	1	10	39
Hechi	Guangxi	NEC	33	5	9	77	31	4	5	57	21	3	6	69
Hezhou	Guangxi	NEC	15	1	11	22	20	1	13	30	16	1	8	23
Laibin	Guangxi	NEC	25	4	6	68	14	2	5	32	20	2	7	54
Liuzhou	Guangxi	NEC	20	2	10	36	26	2	12	37	24	2	10	41
Nanning	Guangxi	NEC	11	1	8	18	13	1	8	21	11	0	8	17
Qinzhou	Guangxi	NEC	13	1	8	18	14	1	8	21	14	1	9	24
Wuzhou	Guangxi	NEC	16	1	9	22	15	1	7	23	13	1	8	23
Yulin	Guangxi	NEC	15	2	6	36	15	2	6	34	22	4	4	107

Golog	Qinghai	NEC	23	1	18	26	16	1	12	26	25	1	15	33
Haidong	Qinghai	NEC	21	2	7	44	34	2	25	51	33	3	13	69
Xining	Qinghai	NEC	17	2	7	38	26	2	9	37	18	2	5	36
Ali	Tibet	NEC	13	0	7	15	9	0	8	11	8	0	2	11
Qamdo	Tibet	NEC	4	0	3	5	4	0	3	4	5	0	4	7
Lhasa	Tibet	NEC	7	0	5	9	7	0	5	9	10	0	8	14
Nyingchi	Tibet	NEC	3	0	2	3	3	0	3	3	3	0	3	4
Naqu	Tibet	NEC	25	0	21	29	27	0	24	30	26	1	20	31
Shigatse	Tibet	NEC	6	0	3	7	6	0	6	7	6	0	3	7
Lhoka	Tibet	NEC	4	0	3	5	3	0	3	4	3	0	3	5

160 ^a EC and NEC denote emission control and non-emission control regions, respectively, of which the latter means regions without implementation
161 of emission control measures.

162 ^b The pre-Parade Blue, Parade Blue, and post-Parade Blue periods indicate the periods of 1-19 August, 20 August-3 September, and 4-30
163 September 2015, respectively.

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172 **Table S6.** Summary of daily average CO concentrations (mg m^{-3}) during the pre-Parade Blue, Parade Blue and post-Parade Blue periods in the
 173 291 cities across China.

City	Province	Region ^a	Pre-Parade Blue period ^b				Parade Blue period ^b				Post-Parade Blue period ^b			
			Mean	SE	Min	Max	Mean	SE	Min	Max	Mean	SE	Min	Max
Beijing	Municipality	EC	0.90	0.06	0.51	1.42	0.56	0.04	0.43	0.94	0.84	0.06	0.35	1.48
Tianjing	Municipality	EC	0.97	0.05	0.67	1.40	1.04	0.08	0.61	1.79	0.89	0.06	0.39	1.88
Baoding	Hebei	EC	1.01	0.07	0.51	1.74	0.64	0.05	0.34	1.08	0.81	0.06	0.26	1.39
Cangzhou	Hebei	EC	0.90	0.06	0.51	1.42	0.56	0.04	0.43	0.94	0.94	0.07	0.39	1.98
Chengde	Hebei	EC	0.78	0.04	0.48	1.04	0.49	0.02	0.38	0.75	0.65	0.05	0.30	1.25
Handan	Hebei	EC	0.99	0.07	0.48	1.51	1.51	0.23	0.67	3.55	1.20	0.13	0.58	3.63
Hengshui	Hebei	EC	1.09	0.03	0.85	1.33	1.00	0.04	0.74	1.36	1.37	0.06	0.78	1.96
Langfang	Hebei	EC	1.13	0.08	0.65	1.92	0.79	0.10	0.38	1.81	1.08	0.08	0.25	1.74
Qinhuangdao	Hebei	EC	1.38	0.15	0.38	2.46	0.63	0.10	0.36	1.87	1.16	0.13	0.35	2.45
Shijiazhuang	Hebei	EC	0.66	0.05	0.36	1.17	0.57	0.05	0.24	0.95	1.03	0.08	0.40	1.96
Tangshan	Hebei	EC	1.81	0.21	0.84	4.53	1.89	0.23	0.59	3.91	1.99	0.19	0.49	4.76
Xingtai	Hebei	EC	1.12	0.12	0.51	2.40	0.93	0.11	0.33	1.70	1.27	0.09	0.49	2.17
Zhangjiakou	Hebei	EC	0.51	0.02	0.37	0.66	0.45	0.02	0.37	0.58	0.63	0.03	0.33	1.03
Changzhi	Shanxi	EC	1.42	0.08	1.01	2.06	1.57	0.04	1.30	1.79	1.57	0.05	1.18	2.44
Datong	Shanxi	EC	0.79	0.01	0.69	0.88	0.87	0.02	0.77	1.00	1.14	0.04	0.79	1.49
Jincheng	Shanxi	EC	1.71	0.19	0.59	3.97	1.64	0.15	0.78	2.83	1.25	0.08	0.67	2.64
Jinzhong	Shanxi	EC	0.88	0.05	0.61	1.31	0.59	0.03	0.36	0.82	1.03	0.05	0.42	1.45
Linfen	Shanxi	EC	1.59	0.07	1.13	2.32	1.64	0.04	1.34	1.94	2.07	0.05	1.45	2.66
Lvliang	Shanxi	EC	1.73	0.04	1.47	2.13	1.85	0.03	1.63	2.00	2.48	0.05	1.97	2.90
Shuozhou	Shanxi	EC	1.26	0.04	0.84	1.51	1.11	0.02	1.01	1.27	1.24	0.04	0.88	1.76
Taiyuan	Shanxi	EC	0.85	0.03	0.68	1.15	0.84	0.03	0.71	1.08	1.17	0.03	0.71	1.51

Xinzhou	Shanxi	EC	1.00	0.03	0.70	1.31	1.84	0.43	0.84	7.71	1.21	0.05	0.82	1.73
Yangquan	Shanxi	EC	0.85	0.03	0.67	1.14	0.63	0.02	0.52	0.85	0.95	0.05	0.34	1.50
Yuncheng	Shanxi	EC	2.11	0.05	1.77	2.49	2.30	0.15	1.02	3.17	1.61	0.06	1.16	2.31
Binzhou	Shandong	EC	1.71	0.08	1.17	2.32	1.45	0.07	1.12	2.24	1.46	0.06	0.88	2.29
Dezhou	Shandong	EC	1.92	0.05	1.62	2.34	1.66	0.06	1.32	2.08	1.76	0.08	1.11	2.65
Dongying	Shandong	EC	1.00	0.07	0.61	1.50	0.87	0.05	0.60	1.12	0.94	0.05	0.50	1.31
Jinan	Shandong	EC	0.92	0.05	0.57	1.33	0.97	0.04	0.76	1.25	1.16	0.06	0.50	1.66
Jining	Shandong	EC	0.99	0.04	0.72	1.26	0.92	0.04	0.70	1.19	0.97	0.05	0.59	1.50
Laiwu	Shandong	EC	1.28	0.06	0.91	1.60	1.47	0.06	1.09	1.85	1.28	0.06	0.70	1.95
Liaocheng	Shandong	EC	1.39	0.04	1.16	1.72	1.18	0.05	0.86	1.50	1.50	0.06	0.92	2.30
Linyi	Shandong	EC	1.09	0.06	0.75	1.85	1.17	0.05	0.86	1.49	1.17	0.07	0.52	2.13
Qingdao	Shandong	EC	0.62	0.04	0.33	0.99	0.63	0.03	0.48	0.91	0.61	0.03	0.41	1.07
Rizhao	Shandong	EC	0.81	0.05	0.49	1.37	0.95	0.04	0.72	1.26	0.98	0.05	0.61	1.74
Tai'an	Shandong	EC	1.45	0.08	1.13	2.56	1.24	0.06	0.86	1.62	1.09	0.05	0.65	1.53
Weihai	Shandong	EC	0.68	0.05	0.39	1.37	0.54	0.02	0.37	0.67	0.47	0.02	0.24	0.73
Weifang	Shandong	EC	0.71	0.06	0.34	1.19	0.87	0.07	0.58	1.35	0.88	0.06	0.40	1.65
Yantai	Shandong	EC	0.70	0.05	0.41	1.28	0.49	0.02	0.34	0.62	0.56	0.03	0.35	0.87
Zaozhuang	Shandong	EC	0.71	0.05	0.37	1.00	0.86	0.02	0.75	1.04	0.87	0.04	0.46	1.55
Zibo	Shandong	EC	1.91	0.09	1.41	2.63	2.11	0.10	1.53	2.78	1.89	0.09	1.18	3.10
Alxa League	Inner Mongolia	EC	0.71	0.04	0.43	1.05	0.75	0.04	0.57	1.07	0.69	0.02	0.52	0.93
Bayannur	Inner Mongolia	EC	0.47	0.06	0.19	1.18	0.36	0.02	0.27	0.54	0.41	0.03	0.19	0.89
Baotou	Inner Mongolia	EC	1.01	0.06	0.60	1.54	0.98	0.06	0.60	1.39	0.99	0.04	0.58	1.62
Chifeng	Inner Mongolia	EC	0.86	0.09	0.35	1.51	0.54	0.03	0.39	0.78	0.67	0.05	0.34	1.42
Ordos	Inner Mongolia	EC	0.60	0.03	0.40	0.88	0.61	0.01	0.48	0.72	0.66	0.03	0.43	1.01
Hohhot	Inner Mongolia	EC	0.63	0.03	0.46	0.98	0.63	0.02	0.49	0.74	0.68	0.03	0.43	1.08
Hulun Buir	Inner Mongolia	EC	0.31	0.03	0.15	0.58	0.21	0.03	0.05	0.42	0.23	0.03	0.08	0.87

Tongliao	Inner Mongolia	EC	0.75	0.05	0.52	1.21	0.51	0.01	0.40	0.65	0.57	0.04	0.26	1.07
Wuhai	Inner Mongolia	EC	0.70	0.06	0.31	1.20	0.64	0.06	0.37	1.04	0.80	0.06	0.24	1.42
Hinggan League	Inner Mongolia	EC	0.69	0.04	0.51	1.31	0.49	0.02	0.40	0.66	0.57	0.03	0.40	1.12
Anyang	Henan	EC	1.41	0.08	0.75	2.10	1.63	0.10	1.24	2.44	1.77	0.14	0.91	4.78
Hebi	Henan	EC	0.99	0.06	0.66	1.54	1.18	0.14	0.52	2.25	1.25	0.07	0.47	1.93
Jiaozuo	Henan	EC	1.50	0.05	1.14	1.79	1.38	0.09	0.90	2.00	1.40	0.05	0.87	2.13
Kaifeng	Henan	EC	1.14	0.05	0.77	1.58	1.30	0.04	1.02	1.76	1.38	0.06	0.89	1.95
Luoyang	Henan	EC	1.67	0.06	1.19	2.25	1.36	0.04	1.12	1.57	1.75	0.05	1.18	2.45
Luohe	Henan	EC	0.66	0.04	0.46	1.00	0.74	0.03	0.53	1.00	0.81	0.04	0.49	1.42
Nanyang	Henan	EC	0.69	0.06	0.31	1.22	0.70	0.02	0.57	0.90	1.03	0.05	0.68	1.71
Pingdingshan	Henan	EC	0.90	0.04	0.56	1.10	0.87	0.04	0.64	1.13	1.02	0.04	0.65	1.61
Sanmenxia	Henan	EC	1.05	0.03	0.76	1.27	1.13	0.02	0.97	1.28	1.15	0.03	0.81	1.40
Shangqiu	Henan	EC	0.59	0.05	0.28	1.14	0.64	0.03	0.47	0.88	0.69	0.04	0.34	1.33
Xinyang	Henan	EC	0.86	0.03	0.54	1.04	0.76	0.02	0.59	0.89	0.85	0.03	0.56	1.15
Zhengzhou	Henan	EC	1.05	0.04	0.77	1.43	1.12	0.04	0.87	1.42	1.30	0.05	0.83	1.95
Zhoukou	Henan	EC	1.02	0.05	0.77	1.47	1.35	0.04	1.06	1.55	1.27	0.05	0.76	1.66
Zhumadian	Henan	EC	0.50	0.04	0.26	0.87	0.65	0.03	0.46	0.83	0.68	0.04	0.34	1.17
Anshan	Liaoning	NEC	1.43	0.06	0.97	1.99	1.32	0.06	0.97	1.67	1.18	0.06	0.74	2.01
Benxi	Liaoning	NEC	1.10	0.04	0.84	1.42	1.01	0.07	0.60	1.72	1.04	0.07	0.52	1.83
Chaoyang	Liaoning	NEC	1.71	0.06	1.43	2.31	1.52	0.01	1.42	1.62	1.80	0.07	1.27	2.77
Dalian	Liaoning	NEC	0.78	0.04	0.46	1.06	0.72	0.04	0.51	1.16	0.71	0.03	0.45	1.04
Dandong	Liaoning	NEC	7.13	1.59	0.97	24.00	1.26	0.03	1.06	1.40	1.34	0.02	1.12	1.59
Fushun	Liaoning	NEC	1.05	0.04	0.77	1.46	0.94	0.03	0.71	1.15	0.98	0.05	0.51	1.57
Fuxin	Liaoning	NEC	0.86	0.08	0.45	1.51	0.55	0.03	0.44	0.88	0.80	0.05	0.41	1.46
Huludao	Liaoning	NEC	1.26	0.11	0.55	1.89	0.90	0.07	0.60	1.80	1.12	0.08	0.65	2.06
Jinzhou	Liaoning	NEC	1.17	0.09	0.68	1.95	0.65	0.04	0.47	1.08	0.94	0.05	0.55	1.69

Liaoyang	Liaoning	NEC	1.07	0.04	0.75	1.44	1.14	0.05	0.89	1.59	1.06	0.06	0.54	1.50
Panjin	Liaoning	NEC	0.89	0.06	0.50	1.47	0.68	0.04	0.54	1.18	0.79	0.04	0.53	1.48
Shenyang	Liaoning	NEC	0.88	0.05	0.55	1.31	0.58	0.03	0.38	0.82	0.81	0.06	0.32	1.42
Tieling	Liaoning	NEC	0.72	0.06	0.38	1.13	0.71	0.03	0.55	0.97	0.68	0.04	0.39	1.02
Wafangdian	Liaoning	NEC	0.44	0.03	0.22	0.66	0.39	0.03	0.27	0.60	0.47	0.04	0.16	0.82
Yingkou	Liaoning	NEC	0.79	0.05	0.38	1.08	0.71	0.05	0.41	1.02	0.82	0.08	0.31	1.93
Baicheng	Jilin	NEC	0.39	0.02	0.26	0.56	0.39	0.03	0.20	0.62	0.41	0.03	0.24	1.16
Baishan	Jilin	NEC	0.83	0.07	0.54	1.50	0.72	0.03	0.51	0.89	0.90	0.04	0.61	1.34
Changchun	Jilin	NEC	0.68	0.03	0.52	1.08	0.64	0.04	0.48	0.91	0.70	0.04	0.40	1.10
Jilin	Jilin	NEC	0.63	0.02	0.49	0.79	0.64	0.03	0.45	0.76	0.68	0.03	0.42	0.98
Liaoyuan	Jilin	NEC	0.93	0.04	0.55	1.26	0.87	0.07	0.63	1.63	0.94	0.03	0.64	1.20
Siping	Jilin	NEC	0.74	0.08	0.16	1.65	0.40	0.05	0.11	0.84	0.88	0.09	0.01	2.17
Songyuan	Jilin	NEC	0.98	0.10	0.36	1.78	0.55	0.03	0.39	0.70	1.13	0.11	0.51	2.16
Daqing	Heilongjiang	NEC	0.55	0.02	0.40	0.66	0.40	0.02	0.27	0.58	0.43	0.02	0.28	0.70
Daxinganling	Heilongjiang	NEC	0.68	0.05	0.47	1.30	0.77	0.03	0.64	1.19	0.85	0.05	0.65	1.68
Harbin	Heilongjiang	NEC	0.86	0.02	0.70	1.05	0.70	0.04	0.47	0.95	0.82	0.02	0.58	1.05
Hegang	Heilongjiang	NEC	1.15	0.11	0.49	2.09	0.59	0.03	0.39	0.79	0.73	0.04	0.46	1.18
Heihe	Heilongjiang	NEC	0.40	0.02	0.32	0.68	0.34	0.02	0.20	0.49	0.30	0.02	0.17	0.54
Jixi	Heilongjiang	NEC	0.51	0.02	0.39	0.73	0.52	0.04	0.25	0.86	0.57	0.04	0.21	0.97
Jiamusi	Heilongjiang	NEC	0.81	0.02	0.70	0.96	0.67	0.03	0.53	0.93	0.79	0.03	0.57	1.27
Mudanjiang	Heilongjiang	NEC	0.45	0.01	0.36	0.54	0.42	0.02	0.30	0.55	0.46	0.02	0.32	0.74
Qitaihe	Heilongjiang	NEC	0.41	0.01	0.28	0.56	0.42	0.02	0.27	0.60	0.33	0.02	0.15	0.58
Qiqihar	Heilongjiang	NEC	0.61	0.03	0.37	0.92	0.44	0.02	0.35	0.64	0.54	0.02	0.35	0.81
Shuangyashan	Heilongjiang	NEC	0.72	0.05	0.36	1.34	0.54	0.06	0.28	1.00	0.56	0.03	0.34	0.89
Suihua	Heilongjiang	NEC	0.36	0.03	0.18	0.60	0.32	0.02	0.24	0.46	0.37	0.03	0.17	0.75
Ankang	Shaanxi	NEC	0.56	0.02	0.39	0.77	0.63	0.01	0.57	0.75	0.76	0.02	0.51	0.97

Baoji	Shaanxi	NEC	0.89	0.03	0.63	1.14	0.90	0.04	0.65	1.12	0.80	0.03	0.51	1.11
Hanzhong	Shaanxi	NEC	1.10	0.04	0.78	1.43	1.53	0.03	1.30	1.72	0.97	0.06	0.57	1.85
Shangluo	Shaanxi	NEC	1.06	0.04	0.80	1.43	1.51	0.06	1.17	1.93	2.09	0.05	1.61	2.69
Tongchuan	Shaanxi	NEC	0.74	0.04	0.44	1.05	0.71	0.02	0.55	0.82	0.86	0.04	0.48	1.27
Weinan	Shaanxi	NEC	0.61	0.02	0.49	0.73	0.70	0.03	0.53	0.86	1.01	0.05	0.64	1.53
Xi'an	Shaanxi	NEC	1.00	0.02	0.83	1.19	1.16	0.03	0.96	1.45	1.18	0.04	0.82	1.65
Xianyang	Shaanxi	NEC	0.84	0.03	0.56	0.99	0.89	0.03	0.60	1.08	0.94	0.04	0.68	1.31
Yan'an	Shaanxi	NEC	1.15	0.06	0.69	1.48	1.05	0.03	0.89	1.37	1.19	0.04	0.94	1.60
Yulin	Shaanxi	NEC	0.94	0.07	0.40	1.31	0.68	0.03	0.49	0.90	0.82	0.03	0.48	1.18
Baiying	Gansu	NEC	0.76	0.04	0.48	1.06	0.71	0.02	0.59	0.83	0.91	0.04	0.73	1.38
Dingxi	Gansu	NEC	0.53	0.04	0.30	1.02	0.43	0.03	0.30	0.64	0.41	0.02	0.31	0.67
Gannan	Gansu	NEC	0.64	0.05	0.10	1.02	0.62	0.04	0.34	0.91	0.82	0.05	0.11	1.52
Jiayuguan	Gansu	NEC	0.67	0.04	0.37	1.01	0.60	0.03	0.44	0.88	0.52	0.03	0.28	0.89
Jiuquan	Gansu	NEC	0.55	0.03	0.23	0.80	0.56	0.04	0.31	0.94	0.60	0.03	0.40	1.08
Lanzhou	Gansu	NEC	0.89	0.04	0.56	1.18	1.05	0.04	0.81	1.26	1.03	0.04	0.76	1.50
Linxia	Gansu	NEC	0.76	0.01	0.67	0.92	0.82	0.03	0.71	0.99	0.84	0.03	0.61	1.11
Pingliang	Gansu	NEC	0.71	0.06	0.36	1.64	0.80	0.03	0.65	0.97	0.64	0.03	0.31	0.96
Qingyang	Gansu	NEC	0.78	0.02	0.65	0.97	0.87	0.03	0.75	1.07	0.85	0.03	0.59	1.18
Tianshui	Gansu	NEC	0.46	0.01	0.38	0.62	0.51	0.02	0.37	0.69	0.57	0.03	0.34	0.90
Wuwei	Gansu	NEC	2.68	0.04	2.37	3.02	2.56	0.11	2.16	3.22	1.20	0.17	0.33	2.51
Zhangye	Gansu	NEC	0.42	0.03	0.28	0.82	0.41	0.02	0.29	0.51	0.57	0.08	0.26	2.30
Guyuan	Ningxia	NEC	0.60	0.02	0.48	0.81	0.59	0.04	0.39	0.85	0.49	0.02	0.29	0.72
Shizuishan	Ningxia	NEC	0.52	0.04	0.26	1.02	0.59	0.04	0.38	0.85	0.66	0.05	0.29	1.36
Wuzhong	Ningxia	NEC	0.93	0.05	0.73	1.59	0.89	0.02	0.73	1.07	0.66	0.03	0.39	1.10
Yinchuan	Ningxia	NEC	0.83	0.04	0.52	1.12	0.87	0.03	0.69	1.10	0.87	0.04	0.53	1.31
Zhongwei	Ningxia	NEC	1.02	0.01	0.95	1.19	1.07	0.04	0.84	1.34	0.77	0.07	0.30	1.41

Aksu	Sinkiang	NEC	0.80	0.10	0.37	1.76	1.32	0.14	0.36	2.35	0.88	0.14	0.00	2.49
Hami	Sinkiang	NEC	0.97	0.06	0.58	1.42	0.71	0.05	0.40	1.02	0.88	0.07	0.36	1.82
Hotan	Sinkiang	NEC	0.60	0.05	0.24	1.08	0.99	0.06	0.65	1.40	0.68	0.05	0.24	1.23
Kashgar	Sinkiang	NEC	0.57	0.03	0.30	0.87	0.55	0.04	0.35	0.85	0.66	0.05	0.28	1.14
Karamay	Sinkiang	NEC	1.12	0.03	0.88	1.36	1.21	0.03	1.06	1.36	1.28	0.04	0.98	1.65
Kizilsu	Sinkiang	NEC	1.06	0.06	0.61	1.56	1.23	0.12	0.59	1.79	1.14	0.10	0.12	1.85
Shihezi	Sinkiang	NEC	0.67	0.05	0.44	1.27	0.84	0.04	0.61	1.11	0.71	0.04	0.38	1.07
Urumchi	Sinkiang	NEC	0.74	0.03	0.51	1.03	0.66	0.03	0.47	0.93	0.72	0.04	0.45	1.37
Wujiaqu	Sinkiang	NEC	0.63	0.04	0.29	0.97	0.52	0.06	0.20	0.86	0.63	0.05	0.30	1.48
Yili	Sinkiang	NEC	1.16	0.03	0.87	1.39	1.34	0.06	0.89	1.74	0.94	0.06	0.52	1.71
Ezhou	Hubei	NEC	1.03	0.06	0.77	1.79	1.10	0.03	0.95	1.29	1.20	0.04	0.89	1.58
Huanggang	Hubei	NEC	0.87	0.05	0.36	1.18	1.05	0.03	0.75	1.15	1.28	0.03	0.99	1.65
Jingmen	Hubei	NEC	0.65	0.04	0.44	1.07	0.82	0.02	0.65	0.96	0.79	0.03	0.47	1.05
Shiyan	Hubei	NEC	0.94	0.04	0.65	1.39	0.86	0.05	0.53	1.30	1.26	0.05	0.87	1.94
Wuhan	Hubei	NEC	0.66	0.05	0.42	1.07	0.93	0.05	0.54	1.16	0.93	0.02	0.61	1.14
Xianning	Hubei	NEC	1.10	0.05	0.74	1.48	1.44	0.03	1.11	1.63	1.30	0.03	1.07	1.60
Xiangyang	Hubei	NEC	0.75	0.04	0.60	1.14	0.87	0.03	0.72	1.13	0.97	0.03	0.72	1.44
Xiaogan	Hubei	NEC	1.40	0.06	1.11	1.92	1.72	0.05	1.40	2.14	1.41	0.10	0.54	2.81
Yichang	Hubei	NEC	0.82	0.04	0.54	1.13	0.97	0.02	0.86	1.17	1.07	0.03	0.69	1.45
Anqing	Anhui	NEC	0.45	0.05	0.16	0.78	0.62	0.03	0.43	0.81	0.65	0.03	0.39	0.93
Bengbu	Anhui	NEC	0.65	0.04	0.30	0.92	0.85	0.03	0.69	1.10	0.76	0.04	0.49	1.36
Bozhou	Anhui	NEC	0.48	0.04	0.25	0.78	0.88	0.04	0.60	1.15	0.93	0.04	0.54	1.45
Chuzhou	Anhui	NEC	0.54	0.06	0.28	1.00	0.74	0.04	0.48	0.96	0.72	0.03	0.49	1.09
Fuyang	Anhui	NEC	0.53	0.07	0.18	1.13	0.72	0.04	0.50	1.02	0.64	0.05	0.34	1.36
Hefei	Anhui	NEC	0.75	0.04	0.45	1.06	0.85	0.04	0.66	1.15	0.86	0.02	0.68	1.15
Huaibei	Anhui	NEC	0.85	0.05	0.57	1.24	1.20	0.03	1.01	1.44	0.99	0.05	0.58	1.53

Huainan	Anhui	NEC	0.64	0.06	0.24	1.07	0.89	0.03	0.67	1.16	0.81	0.04	0.44	1.39
Huangshan	Anhui	NEC	0.12	0.01	0.07	0.18	0.17	0.02	0.11	0.36	0.13	0.01	0.08	0.18
Lu'an	Anhui	NEC	0.68	0.04	0.36	1.07	0.56	0.03	0.39	0.76	0.53	0.02	0.39	0.77
Ma'anshan	Anhui	NEC	1.10	0.03	0.84	1.36	1.34	0.05	1.02	1.58	1.33	0.05	0.94	2.00
Suzhou	Anhui	NEC	0.57	0.07	0.23	1.14	0.97	0.06	0.71	1.41	0.93	0.08	0.46	2.09
Tongling	Anhui	NEC	0.82	0.05	0.53	1.23	1.05	0.06	0.76	1.53	0.97	0.03	0.67	1.25
Wuhu	Anhui	NEC	0.65	0.05	0.33	1.00	0.81	0.04	0.63	1.19	0.72	0.03	0.50	1.08
Changzhou	Jiangsu	NEC	0.80	0.03	0.59	1.15	0.85	0.06	0.43	1.18	0.71	0.03	0.46	1.19
Huaian	Jiangsu	NEC	0.69	0.05	0.32	1.07	0.89	0.06	0.46	1.29	0.69	0.03	0.50	0.95
Lianyungang	Jiangsu	NEC	0.62	0.04	0.30	0.96	0.87	0.05	0.52	1.24	0.71	0.04	0.32	1.11
Nanjing	Jiangsu	NEC	0.69	0.04	0.40	0.98	0.84	0.05	0.50	1.19	0.73	0.03	0.55	1.09
Nantong	Jiangsu	NEC	0.54	0.05	0.32	1.18	0.72	0.06	0.43	1.37	0.54	0.03	0.36	0.93
Suzhou	Jiangsu	NEC	0.69	0.03	0.43	0.85	0.94	0.05	0.60	1.32	0.75	0.03	0.57	1.04
Suqian	Jiangsu	NEC	0.64	0.04	0.33	0.97	1.01	0.05	0.68	1.46	0.90	0.05	0.46	1.73
Taizhou	Jiangsu	NEC	0.84	0.05	0.52	1.30	0.92	0.04	0.66	1.16	0.87	0.03	0.67	1.25
Wuxi	Jiangsu	NEC	0.84	0.03	0.66	1.32	1.18	0.05	0.96	1.65	1.07	0.02	0.83	1.31
Xuzhou	Jiangsu	NEC	0.98	0.05	0.66	1.33	1.31	0.06	1.00	1.75	1.14	0.06	0.71	2.36
Yanchen	Jiangsu	NEC	0.59	0.04	0.33	1.06	0.68	0.04	0.44	0.93	0.57	0.02	0.41	0.89
Yangzhou	Jiangsu	NEC	0.62	0.05	0.26	1.01	0.60	0.03	0.39	0.74	0.70	0.03	0.35	0.94
Zhenjiang	Jiangsu	NEC	0.74	0.03	0.47	1.05	0.80	0.04	0.52	1.00	0.66	0.03	0.50	1.05
Shanghai	Municipality	NEC	0.65	0.02	0.50	0.76	0.89	0.05	0.67	1.26	0.67	0.03	0.48	1.00
Hangzhou	Zhejiang	NEC	0.68	0.03	0.44	0.87	0.90	0.03	0.68	1.16	0.78	0.02	0.54	1.01
Huzhou	Zhejiang	NEC	0.63	0.03	0.43	0.86	0.87	0.03	0.69	1.05	0.74	0.02	0.55	1.09
Jiaxing	Zhejiang	NEC	0.56	0.02	0.39	0.74	0.76	0.04	0.47	1.02	0.56	0.03	0.30	0.95
Jinhua	Zhejiang	NEC	0.67	0.03	0.47	0.85	0.85	0.07	0.63	1.45	0.80	0.02	0.53	0.99
Lishui	Zhejiang	NEC	0.52	0.02	0.39	0.66	0.58	0.02	0.44	0.71	0.62	0.02	0.44	0.85

Ningbo	Zhejiang	NEC	0.71	0.02	0.58	0.88	0.87	0.04	0.67	1.14	0.83	0.02	0.67	1.05
Quzhou	Zhejiang	NEC	0.67	0.03	0.47	0.85	0.87	0.06	0.63	1.45	0.76	0.02	0.57	0.97
Shaoxing	Zhejiang	NEC	0.64	0.04	0.42	0.92	0.86	0.05	0.54	1.23	0.79	0.03	0.53	1.09
Taizhou	Zhejiang	NEC	0.61	0.02	0.41	0.82	0.70	0.04	0.46	0.88	0.72	0.02	0.54	0.94
Wenjiang	Zhejiang	NEC	0.71	0.03	0.52	0.92	0.72	0.03	0.53	0.92	0.69	0.02	0.52	0.95
Zhoushan	Zhejiang	NEC	0.50	0.03	0.34	0.82	0.64	0.04	0.42	0.93	0.55	0.03	0.38	0.92
Fuzhou	Jiangxi	NEC	0.75	0.02	0.65	0.88	0.83	0.03	0.59	0.96	1.00	0.03	0.65	1.24
Ganzhou	Jiangxi	NEC	1.22	0.02	1.06	1.32	1.29	0.04	1.09	1.53	1.26	0.02	1.11	1.57
Ji'an	Jiangxi	NEC	0.69	0.02	0.52	0.82	0.89	0.02	0.75	1.05	0.90	0.02	0.70	1.18
Jingdezhen	Jiangxi	NEC	0.59	0.02	0.41	0.75	0.75	0.04	0.52	1.09	0.62	0.01	0.46	0.83
Jiujiang	Jiangxi	NEC	0.61	0.02	0.40	0.82	0.69	0.03	0.48	0.86	0.65	0.01	0.56	0.79
Nanchang	Jiangxi	NEC	0.81	0.02	0.69	1.00	0.89	0.04	0.67	1.06	0.69	0.02	0.51	0.89
Pingxiang	Jiangxi	NEC	0.60	0.04	0.40	1.10	0.95	0.07	0.58	1.76	0.77	0.03	0.55	1.04
Shangrao	Jiangxi	NEC	0.49	0.04	0.31	0.74	0.48	0.04	0.33	0.81	0.39	0.02	0.31	0.69
Xinyu	Jiangxi	NEC	1.38	0.05	1.01	1.96	1.36	0.05	1.07	1.67	1.27	0.02	1.10	1.71
Yichun	Jiangxi	NEC	0.87	0.03	0.62	1.08	0.94	0.03	0.67	1.13	0.86	0.02	0.66	1.06
Yingtian	Jiangxi	NEC	0.55	0.02	0.41	0.73	0.70	0.02	0.60	0.81	0.70	0.02	0.48	0.89
Changsha	Hunan	NEC	0.64	0.02	0.53	0.78	0.82	0.03	0.63	1.02	0.80	0.02	0.60	1.00
Changde	Hunan	NEC	1.15	0.05	0.60	1.52	1.16	0.04	0.87	1.42	1.26	0.04	0.91	1.75
Chenzhou	Hunan	NEC	0.82	0.04	0.54	1.18	1.10	0.05	0.86	1.44	1.08	0.03	0.79	1.41
Huaihua	Hunan	NEC	1.33	0.03	1.08	1.54	1.36	0.03	1.05	1.54	1.19	0.03	0.94	1.55
Loudi	Hunan	NEC	1.20	0.08	0.65	1.75	1.76	0.05	1.49	2.09	1.28	0.05	0.70	1.61
Xiangtan	Hunan	NEC	1.01	0.03	0.72	1.18	1.06	0.04	0.80	1.31	0.96	0.03	0.73	1.24
Yiyang	Hunan	NEC	0.53	0.05	0.24	0.90	0.85	0.03	0.65	1.06	0.89	0.02	0.66	1.06
Yongzhou	Hunan	NEC	0.46	0.02	0.33	0.62	0.63	0.03	0.37	0.74	0.67	0.03	0.36	0.96
Zhangjiajie	Hunan	NEC	1.23	0.05	0.76	1.58	1.58	0.06	1.27	2.02	1.88	0.08	1.11	2.55

Zhuzhou	Hunan	NEC	0.60	0.03	0.45	0.79	0.85	0.04	0.62	1.10	0.76	0.02	0.56	1.00
Dongguan	Guangdong	NEC	0.68	0.02	0.55	0.95	0.82	0.01	0.72	0.94	0.72	0.02	0.59	1.02
Foshan	Guangdong	NEC	0.75	0.02	0.63	0.96	0.86	0.02	0.72	1.00	0.86	0.02	0.65	1.07
Guangzhou	Guangdong	NEC	0.83	0.02	0.62	0.98	0.90	0.02	0.75	0.98	0.88	0.02	0.66	1.04
Heyuan	Guangdong	NEC	0.77	0.02	0.56	0.94	0.83	0.01	0.77	0.93	0.93	0.02	0.76	1.13
Huizhou	Guangdong	NEC	0.72	0.02	0.60	0.86	0.78	0.03	0.62	0.97	0.56	0.02	0.42	0.77
Jiangmen	Guangdong	NEC	0.78	0.02	0.62	0.98	0.99	0.04	0.80	1.26	0.89	0.03	0.66	1.13
Maoming	Guangdong	NEC	0.79	0.02	0.67	0.96	0.93	0.04	0.73	1.18	0.77	0.02	0.55	1.03
Meizhou	Guangdong	NEC	0.72	0.02	0.58	0.91	0.88	0.01	0.79	0.97	1.00	0.02	0.79	1.17
Qingyuan	Guangdong	NEC	0.87	0.03	0.60	1.11	0.93	0.02	0.83	1.07	0.96	0.02	0.75	1.29
Shantou	Guangdong	NEC	0.85	0.03	0.67	1.15	0.86	0.02	0.74	1.09	0.85	0.02	0.68	1.24
Shaoguan	Guangdong	NEC	0.89	0.02	0.73	1.00	0.81	0.03	0.61	0.97	1.04	0.03	0.86	1.32
Shenzhen	Guangdong	NEC	0.83	0.02	0.69	0.95	0.82	0.03	0.67	1.01	0.76	0.02	0.62	0.96
Zhujiang	Guangdong	NEC	0.74	0.03	0.44	0.90	0.70	0.02	0.55	0.84	0.71	0.02	0.57	0.94
Zhaoqing	Guangdong	NEC	0.62	0.02	0.50	0.81	0.84	0.04	0.55	1.11	0.87	0.02	0.66	1.18
Zhongshan	Guangdong	NEC	0.88	0.03	0.59	1.11	1.00	0.07	0.59	1.28	0.87	0.03	0.56	1.20
Zhuhai	Guangdong	NEC	0.72	0.02	0.53	0.87	0.83	0.04	0.60	1.00	0.74	0.02	0.56	0.99
Fuzhou	Fujian	NEC	0.57	0.02	0.43	0.80	0.62	0.03	0.41	0.79	0.69	0.02	0.50	1.06
Longyan	Fujian	NEC	0.68	0.02	0.47	0.84	0.71	0.03	0.54	0.88	0.85	0.02	0.65	1.14
Nanping	Fujian	NEC	0.78	0.02	0.60	0.92	0.77	0.01	0.67	0.84	0.81	0.02	0.67	1.02
Ningde	Fujian	NEC	0.65	0.04	0.27	1.08	0.60	0.05	0.34	0.85	0.70	0.03	0.49	1.22
Putian	Fujian	NEC	0.63	0.03	0.46	0.97	0.59	0.03	0.38	0.75	0.61	0.03	0.38	1.01
Quanzhou	Fujian	NEC	0.55	0.02	0.36	0.70	0.59	0.02	0.44	0.72	0.59	0.02	0.43	0.95
Sanming	Fujian	NEC	1.17	0.05	0.82	1.46	1.04	0.06	0.74	1.41	1.09	0.04	0.80	1.52
Xiamen	Fujian	NEC	0.44	0.02	0.31	0.64	0.56	0.03	0.33	0.72	0.60	0.02	0.45	0.80
Zhangzhou	Fujian	NEC	0.55	0.02	0.37	0.71	0.57	0.02	0.45	0.64	0.60	0.02	0.44	0.85

Haikou	Hainan	NEC	0.52	0.02	0.35	0.72	0.63	0.03	0.48	0.79	0.58	0.02	0.40	0.87
Sanya	Hainan	NEC	0.57	0.02	0.44	0.75	0.64	0.04	0.46	0.89	0.71	0.02	0.59	0.88
Chongqing	Municipality	NEC	0.84	0.04	0.57	1.12	1.11	0.03	0.86	1.28	1.11	0.02	0.77	1.35
Bazhong	Sichuan	NEC	0.67	0.02	0.55	0.79	0.82	0.02	0.64	0.93	0.81	0.02	0.56	1.02
Chengdu	Sichuan	NEC	0.84	0.03	0.52	1.06	1.07	0.05	0.79	1.44	0.96	0.03	0.77	1.32
Dazhou	Sichuan	NEC	0.66	0.05	0.40	1.06	0.96	0.05	0.60	1.23	0.82	0.03	0.52	1.18
Deyang	Sichuan	NEC	0.90	0.03	0.67	1.08	1.24	0.04	0.94	1.51	0.90	0.03	0.66	1.26
Guangyuan	Sichuan	NEC	0.26	0.01	0.18	0.37	0.37	0.02	0.26	0.45	0.43	0.01	0.28	0.59
Leshan	Sichuan	NEC	0.81	0.03	0.64	1.03	1.03	0.06	0.70	1.45	0.92	0.02	0.71	1.37
Luzhou	Sichuan	NEC	0.52	0.03	0.32	0.82	0.66	0.03	0.42	0.90	0.47	0.03	0.18	0.83
Meishan	Sichuan	NEC	0.46	0.02	0.29	0.63	0.67	0.03	0.43	0.90	0.55	0.03	0.34	0.92
Mianyang	Sichuan	NEC	0.80	0.03	0.60	1.00	0.90	0.03	0.73	1.12	0.79	0.02	0.57	0.99
Nanchong	Sichuan	NEC	0.64	0.03	0.48	0.92	0.73	0.02	0.59	0.88	0.61	0.02	0.44	0.81
Panzhihua	Sichuan	NEC	1.43	0.05	1.12	1.83	1.47	0.06	1.13	1.93	1.34	0.03	1.02	1.67
Suining	Sichuan	NEC	0.82	0.02	0.69	1.02	0.78	0.02	0.69	0.91	0.92	0.02	0.80	1.17
Ya'an	Sichuan	NEC	0.65	0.03	0.50	0.98	0.74	0.02	0.56	0.89	0.77	0.03	0.53	1.04
Ziyang	Sichuan	NEC	0.50	0.02	0.38	0.72	0.62	0.02	0.44	0.75	0.62	0.02	0.43	0.80
Zigong	Sichuan	NEC	0.51	0.04	0.29	0.85	0.78	0.04	0.52	1.07	0.68	0.03	0.37	0.90
Baoshan	Yunnan	NEC	0.71	0.02	0.59	0.94	0.88	0.04	0.67	1.16	0.61	0.04	0.27	1.03
Chuxiong	Yunnan	NEC	0.70	0.03	0.53	0.94	0.83	0.04	0.57	1.13	0.70	0.02	0.55	0.84
Dali	Yunnan	NEC	0.41	0.02	0.27	0.58	0.45	0.04	0.25	0.79	0.30	0.01	0.21	0.40
Dehong	Yunnan	NEC	0.49	0.02	0.35	0.67	0.63	0.02	0.53	0.75	0.66	0.02	0.41	0.86
Honghe	Yunnan	NEC	0.46	0.04	0.28	0.95	0.54	0.05	0.31	0.86	0.46	0.02	0.29	0.79
Kunming	Yunnan	NEC	0.77	0.04	0.47	1.05	0.85	0.03	0.64	1.04	0.84	0.03	0.65	1.19
Lijiang	Yunnan	NEC	0.98	0.03	0.71	1.17	0.84	0.02	0.72	0.97	0.75	0.03	0.41	1.07
Lincang	Yunnan	NEC	0.30	0.04	0.11	0.91	0.49	0.02	0.36	0.63	0.58	0.03	0.39	1.12

Nujiang	Yunnan	NEC	0.62	0.04	0.30	0.95	0.54	0.02	0.43	0.66	0.64	0.02	0.44	0.77
Qujing	Yunnan	NEC	0.76	0.03	0.56	1.10	1.06	0.04	0.81	1.38	0.92	0.03	0.62	1.22
Wenshan	Yunnan	NEC	0.57	0.02	0.40	0.82	0.58	0.02	0.49	0.73	0.50	0.02	0.31	0.63
Xishuangbanna	Yunnan	NEC	0.59	0.02	0.47	0.82	0.64	0.02	0.54	0.79	0.64	0.02	0.47	0.79
Tuxi	Yunnan	NEC	0.97	0.07	0.68	1.97	1.29	0.06	0.99	1.70	1.12	0.06	0.80	1.99
Zhaotong	Yunnan	NEC	0.71	0.04	0.40	1.08	0.98	0.04	0.74	1.23	0.96	0.04	0.60	1.35
Anshun	Guizhou	NEC	0.31	0.02	0.20	0.47	0.49	0.03	0.37	0.70	0.41	0.02	0.23	0.69
Bijie	Guizhou	NEC	0.80	0.05	0.45	1.21	1.10	0.05	0.77	1.42	0.91	0.03	0.61	1.19
Guiyang	Guizhou	NEC	0.53	0.02	0.39	0.73	0.71	0.02	0.63	0.89	0.62	0.02	0.41	0.84
Liupanshui	Guizhou	NEC	0.46	0.06	0.14	1.30	0.61	0.04	0.41	0.98	0.52	0.03	0.29	0.85
Tongren	Guizhou	NEC	0.48	0.02	0.33	0.68	0.67	0.01	0.60	0.72	0.51	0.02	0.20	0.73
Zunyi	Guizhou	NEC	0.63	0.02	0.50	0.80	0.80	0.03	0.56	1.00	0.84	0.02	0.54	1.11
Baise	Guangxi	NEC	1.00	0.03	0.75	1.20	0.48	0.03	0.31	0.78	0.60	0.02	0.37	0.88
Beihai	Guangxi	NEC	0.81	0.03	0.63	0.99	1.08	0.03	0.87	1.25	1.04	0.02	0.85	1.23
Chongzuo	Guangxi	NEC	0.76	0.02	0.62	0.93	0.87	0.03	0.68	1.04	0.90	0.03	0.67	1.15
Fangchenggang	Guangxi	NEC	0.65	0.01	0.60	0.72	0.85	0.03	0.65	1.03	0.77	0.03	0.48	1.13
Guigang	Guangxi	NEC	0.79	0.02	0.65	1.03	0.92	0.04	0.66	1.21	1.00	0.03	0.73	1.47
Guilin	Guangxi	NEC	0.77	0.01	0.68	0.85	0.83	0.02	0.69	0.99	1.04	0.02	0.83	1.25
Hechi	Guangxi	NEC	1.10	0.05	0.76	1.60	1.09	0.06	0.71	1.50	1.19	0.06	0.65	2.18
Hezhou	Guangxi	NEC	1.06	0.09	0.60	2.33	0.84	0.04	0.43	1.09	0.94	0.05	0.56	1.32
Laibin	Guangxi	NEC	0.82	0.02	0.65	0.98	0.94	0.04	0.76	1.17	0.93	0.03	0.67	1.24
Liuzhou	Guangxi	NEC	0.91	0.02	0.77	1.11	0.98	0.03	0.75	1.15	1.02	0.03	0.73	1.36
Nanning	Guangxi	NEC	0.77	0.02	0.58	0.96	0.89	0.03	0.71	1.02	0.92	0.02	0.73	1.13
Qinzhou	Guangxi	NEC	1.16	0.04	0.87	1.57	1.11	0.03	0.90	1.39	1.01	0.02	0.75	1.22
Wuzhou	Guangxi	NEC	0.75	0.02	0.66	0.94	0.88	0.06	0.63	1.33	0.94	0.03	0.71	1.26
Yulin	Guangxi	NEC	0.90	0.04	0.61	1.23	0.76	0.02	0.57	0.89	0.98	0.03	0.76	1.29

Golog	Qinghai	NEC	0.55	0.01	0.42	0.63	0.64	0.03	0.47	0.92	0.78	0.08	0.44	1.89
Haidong	Qinghai	NEC	0.82	0.04	0.56	1.22	0.90	0.04	0.66	1.15	0.93	0.04	0.63	1.51
Xining	Qinghai	NEC	1.08	0.04	0.82	1.54	1.09	0.05	0.80	1.46	1.16	0.05	0.80	1.82
Ali	Tibet	NEC	0.35	0.01	0.23	0.42	0.20	0.03	0.13	0.63	0.33	0.02	0.20	0.57
Qamdo	Tibet	NEC	0.80	0.03	0.53	1.03	1.13	0.03	0.92	1.31	1.39	0.05	0.95	2.15
Lhasa	Tibet	NEC	0.57	0.01	0.46	0.68	0.50	0.02	0.41	0.61	0.64	0.02	0.44	0.77
Nyingchi	Tibet	NEC	0.41	0.01	0.34	0.50	0.44	0.01	0.39	0.53	0.47	0.02	0.32	0.61
Naqu	Tibet	NEC	0.96	0.04	0.60	1.22	1.41	0.02	1.30	1.56	1.20	0.05	0.76	1.76
Shigatse	Tibet	NEC	0.40	0.02	0.27	0.55	0.34	0.01	0.29	0.41	0.38	0.01	0.23	0.51
Lhoka	Tibet	NEC	0.48	0.02	0.31	0.66	0.64	0.02	0.49	0.76	0.40	0.03	0.27	0.86

174 ^a EC and NEC denote emission control and non-emission control regions, respectively, of which the latter means regions without implementation
175 of emission control measures.

176 ^b The pre-Parade Blue, Parade Blue, and post-Parade Blue periods indicate the periods of 1-19 August, 20 August-3 September, and 4-30
177 September 2015, respectively.

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