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Aircraft observations of water-soluble dicarboxylic acids in the aerosols over China

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20 **Table S1.** Information on the sample No., data, time, flight route, altitude (above ground level,
 21 (with uncertainty of around 10%), air volume and location collected during three aircraft
 22 campaigns. Full flight track maps are shown in Figure S1.

Sample NO	Data	Local time	Route	Altitude (km)	Volume (m ³)	Lati., N	Longit., E
Winter 2002/2003							
W1	25-Dec-02	3:31~5:42	Changzhou-Shanghai	1.92	10.2	32.7	121.4
W2	25-Dec-02	6:22~7:51	Shanghai-Changzhou	2.91	6.9	32.2	120.5
W3	26-Dec-02	2:15~4:36	Changzhou-Shanghai	0.97	10.9	32.6	121.3
W4	26-Dec-02	4:41~7:08	Shanghai-Changzhou	0.51	11.4	32.4	120.8
W5	27-Dec-02	1:14~2:27	Changzhou-Ningbo	0.97	5.7	30.3	121.0
W6	28-Dec-02	2:08~4:05	Ningbo-Wenzhou	1.00	9.1	28.5	121.2
W7	28-Dec-02	4:09~6:07	Wenzhou-Ningbo	0.51	9.2	28.5	121.3
W8	31-Dec-02	1:20~3:44	Ningbo-Zhoushan	2.20	11.2	29.4	122.3
W9	31-Dec-02	3:49~5:57	Zhousan-Ningbo	0.70	9.9	29.5	122.3
W10	1-Jan-03	1:34~3:20	Ningbo-Wenzhou	2.04	8.2	28.3	121.8
W11	1-Jan-03	3:24~5:01	Wenzhou-Ningbo	2.13	12.2	27.9	121.5
W12	2-Jan-03	2:07~3:21	Ningbo-Changzhou	2.99	5.7	30.8	120.5
W13	3-Jan-03	4:09~7:16	Changzhou-Qingdao	1.89	14.5	33.6	120.2
W14	4-Jan-03	1:07~2:31	Qingdao-Dalian	1.96	6.5	37.7	120.6
W15	4-Jan-03	2:36~3:45	Dalian-Qingdao	1.11	5.4	36.3	120.2
W16	5-Jan-03	2:59~4:29	Qingdao-Qingdao East	1.88	7.0	36.6	122.0
W17	5-Jan-03	4:33~6:03	Qingdao East-Qingdao	0.50	7.0	36.4	121.5
W18	6-Jan-03	4:00~7:15	Qingdao-Changzhou	0.48	15.1	33.2	120.2
Summer 2003							
Su1	8-Aug-03	07:08~11:18	Changzhou-Shashi	2.35	19.3	30.8	114.3
Su2	21-Aug-03	08:38~10:51	Shashi (L) ^a	2.68	10.3	30.4	112.3
Su3	21-Aug-03	10:58~12:34	Shashi (L)	0.89	7.4	30.4	112.3
Su4	23-Aug-03	08:45~11:33	Shashi (O) ^a	2.31	13.0	30.1	112.2
Su5	23-Aug-03	11:38~13:11	Shashi (O)	0.85	7.2	30.1	112.2
Su6	26-Aug-03	08:53~12:33	Shashi-Jiangbei	2.97	17.0	30.0	109.2
Su7	4-Sep-03	08:30~09:58	Xinjin (L)	2.72	6.8	29.6	103.7

Su8	4-Sep-03	10:02~11:33	Xinjin (O)	1.36	7.0	29.6	103.6
Su9	5-Sep-03	08:48~11:13	Xinjin (O)	2.57	11.2	30.1	103.3
Su10	5-Sep-03	11:17~12:47	Xinjin (O)	1.56	7.0	30.1	103.3
Su11	10-Sep-03	10:11~15:16	Xinjin- Shashi	2.78	23.6	30.2	107.6
Su12	11-Sep-03	08:56~13:43	Shashi- Changzhou	2.69	22.2	31.0	115.8
Su13	13-Sep-03	12:37~14:47	Changzhou (O)	2.42	10.1	31.4	119.5
Su14	13-Sep-03	15:00~16:35	Changzhou (O)	0.84	7.4	31.4	119.5
Spring 2004							
Sp1	19-May-04	02:30~06:35	Changzhou- Yichang	2.14	19.0	31.0	115.6
Sp2	20-May-04	01:12~04:26	Yichang- Xinjin	2.99	15.1	30.1	107.4
Sp3	21-May-04	01:29~03:47	Xinjin (L)	2.36	10.7	30.0	105.0
Sp4	21-May-04	03:57~05:16	Xinjin (L)	1.34	6.1	30.2	105.3
Sp5	27-May-04	00:07~02:08	Xinjin (O)	2.65	9.3	30.1	104.8
Sp6	27-May-04	02:12~03:34	Xinjin (O)	1.37	6.4	30.1	105.0
Sp7	28-May-04	04:29~08:10	Xinjin- Yichang	3.26	17.1	30.2	107.2
Sp8	30/31- May-04	23:56~02:04	Yichang (O)	2.41	9.8	30.1	112.1
Sp9	31-May-04	02:08~03:28	Yichang (O)	0.92	6.2	30.1	112.2
Sp10	31-May-04	17:24~18:58	Yichang (L)	2.66	7.3	30.4	112.2
Sp11	31-May-04	19:04~20:19	Yichang (L)	0.83	5.8	30.5	112.3
Sp12	7-Jun-04	01:02~04:11	Yichang- Changzhou	2.61	14.7	30.9	115.2
Sp13	9-Jun-04	03:54~05:44	Changzhou (O)	1.26	8.5	31.8	119.2
Sp14	9-Jun-04	05:48~07:05	Changzhou (O)	2.62	5.9	31.8	119.2
Sp15	10-Jun-04	01:37~03:41	Changzhou (L)	2.50	9.6	32.1	119.4
Sp16	10-Jun-04	03:45~05:28	Changzhou (L)	0.79	8.0	32.1	119.4

23 ^aThe hovering flights over local cities were named as O-shaped (O) flight and shown as

24 circles in Figure 1, whereas flights over local cities were named as L-shaped flight (L).