



Transportation case studie

Tokyo metropoltanbus temperature comparison data

Appendix: weather data

(by Japan Meteorological Agency)





Client: Bureau of Transportation Tokyo Metropolitan Government

Location: Metropolitan bus

Date: August, 2007



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1. Temperature Comparison

Inside the bus – graphs + data (Metropolitan Bus measurement)

2. Temperature Comparison

Outside bus roof – graphs + data (NCK measurement)

3. Weather data

Observation point: Shin Kiba



I. Temperature Comparison

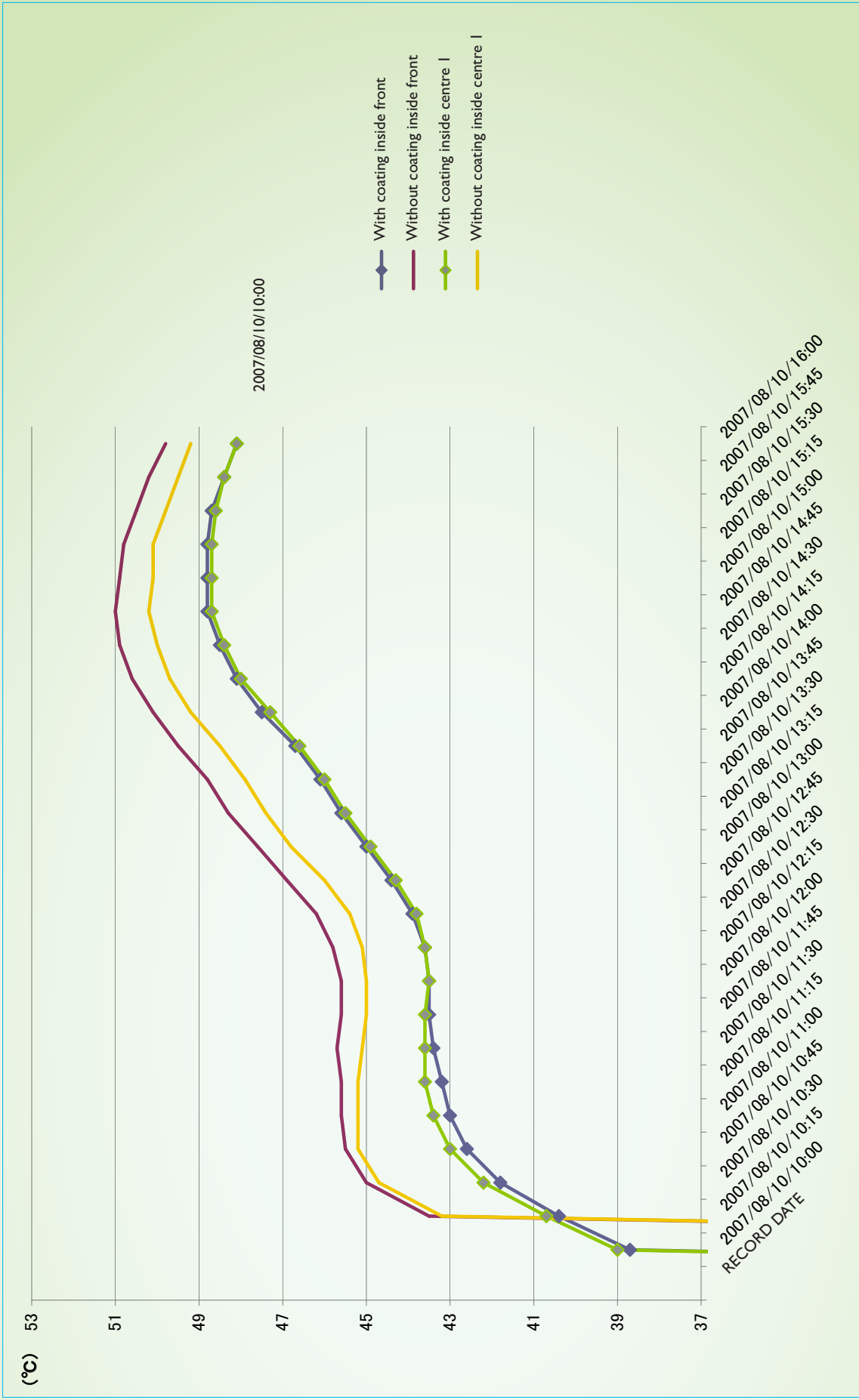
Inside the bus – graphs + data (Metropolitan Bus measurement)
(8/10, 10:00 ~16:00)

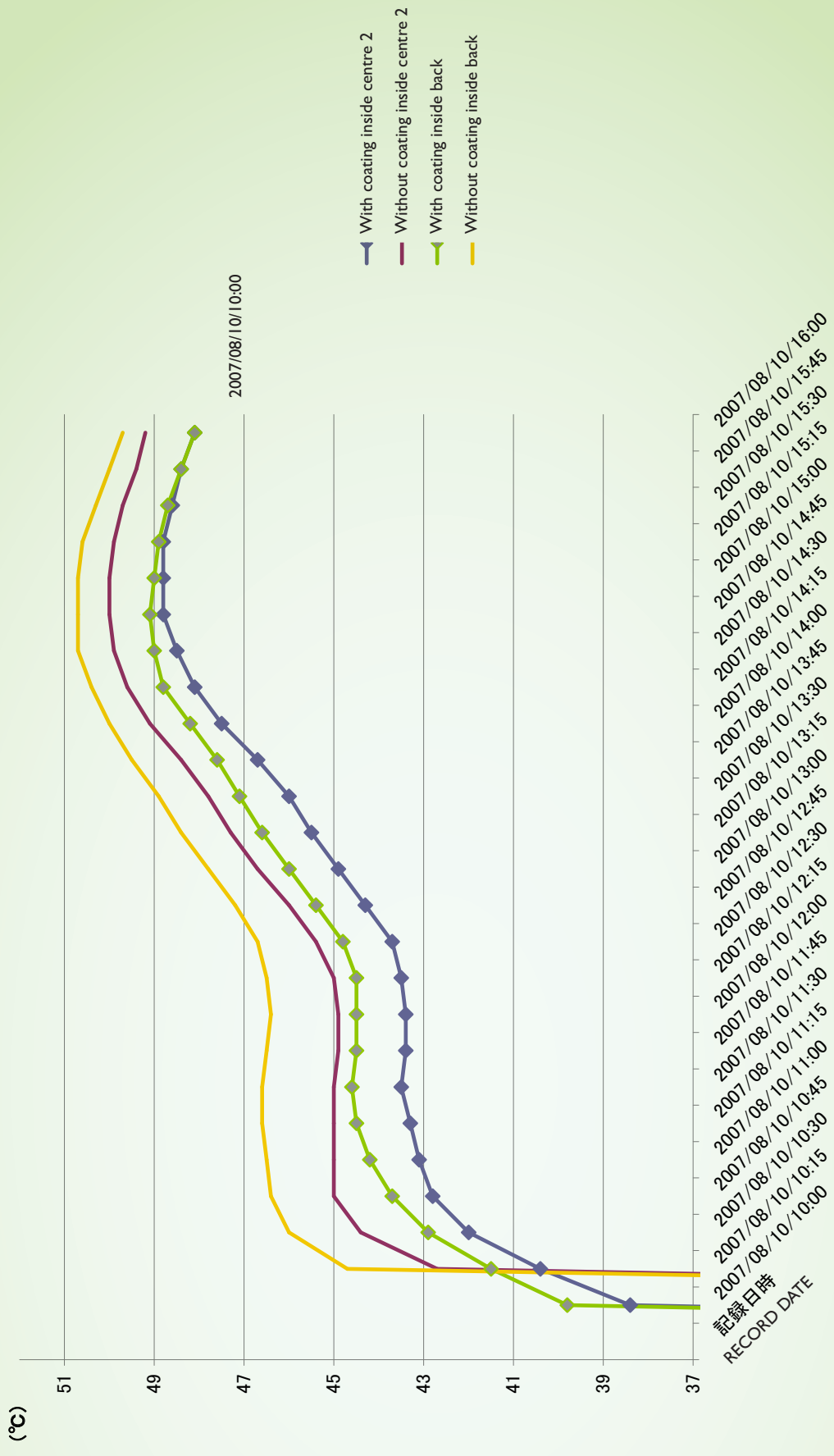


Temperature Comparison data

(measured by Metropolitan bus) * Difference of the temperature (value with coating) – (value without coating)

Date	w/ coating inside bus front area C°	w/out coating inside bus front area C°	Temp. difference C°	w/ coating inside bus centre area 1 C°	w/out coating inside bus centre area 1 C°	Temp. difference C°	w/ coating inside bus centre area 2 C°	w/out coating inside bus centre area 2 C°	Temp. difference C°	w/ coating inside bus back area C°	w/out coating inside bus back area C°	Temp. difference C°
2007/08/10/10:00	38.7	-					38.4			39.8		
2007/08/10/10:15	40.4	43.5	-3.1	43.2	43.2	-2.5	40.4	42.7	-2.3	41.5	44.7	-3.2
2007/08/10/10:30	41.8	45.0	-3.2	44.7	44.7	-2.5	42.0	44.4	-2.4	42.9	46.0	-3.1
2007/08/10/10:45	42.6	45.5	-2.9	45.2	45.2	-2.2	42.8	45.0	-2.2	43.7	46.4	-2.7
2007/08/10/11:00	43.0	45.6	-2.6	45.2	45.2	-1.8	43.1	45.0	-1.9	44.2	46.5	-2.3
2007/08/10/11:15	43.2	45.6	-2.4	45.2	45.2	-1.6	43.3	45.0	-1.7	44.5	46.6	-2.1
2007/08/10/11:30	43.4	45.7	-2.3	45.1	45.1	-1.5	43.5	45.0	-1.5	44.6	46.6	-2.0
2007/08/10/11:45	43.5	45.6	-2.1	45.0	45.0	-1.4	43.4	44.9	-1.5	44.5	46.5	-2.0
2007/08/10/12:00	43.5	45.6	-2.1	45.0	45.0	-1.5	43.4	44.9	-1.5	44.5	46.4	-1.9
2007/08/10/12:15	43.6	45.8	-2.2	45.1	45.1	-1.5	43.5	45.0	-1.5	44.5	46.5	-2.0
2007/08/10/12:30	43.9	46.2	-2.3	45.4	45.4	-1.6	43.7	45.4	-1.7	44.8	46.7	-1.9
2007/08/10/12:45	44.4	46.9	-2.5	46.0	46.0	-1.7	44.3	46.0	-1.7	45.4	47.2	-1.8
2007/08/10/13:00	45.0	47.6	-2.6	46.8	46.8	-1.9	44.9	46.7	-1.8	46.0	47.8	-1.8
2007/08/10/13:15	45.6	48.3	-2.7	47.4	47.4	-1.9	45.5	47.3	-1.8	46.6	48.4	-1.8
2007/08/10/13:30	46.1	48.8	-2.7	47.9	47.9	-1.9	46.0	47.8	-1.8	47.1	48.9	-1.8
2007/08/10/13:45	46.7	49.5	-2.8	48.5	48.5	-1.9	46.7	48.4	-1.7	47.6	49.5	-1.9
2007/08/10/14:00	47.5	50.1	-2.6	49.2	49.2	-1.9	47.5	49.1	-1.6	48.2	50.0	-1.8
2007/08/10/14:15	48.1	50.6	-2.5	49.7	49.7	-1.7	48.1	49.6	-1.5	48.8	50.4	-1.6
2007/08/10/14:30	48.5	50.9	-2.4	50.0	50.0	-1.6	48.5	49.9	-1.4	49.0	50.7	-1.7
2007/08/10/14:45	48.8	51.0	-2.2	50.2	50.2	-1.5	48.8	50.0	-1.2	49.1	50.7	-1.6
2007/08/10/15:00	48.8	50.9	-2.1	50.1	50.1	-1.4	48.8	50.0	-1.2	49.0	50.7	-1.7
2007/08/10/15:15	48.8	50.8	-2.0	50.1	50.1	-1.4	48.8	49.9	-1.1	48.9	50.6	-1.7
2007/08/10/15:30	48.7	50.5	-1.8	49.8	49.8	-1.2	48.6	49.7	-1.1	48.7	50.3	-1.6
2007/08/10/15:45	48.4	50.2	-1.8	49.5	49.5	-1.1	48.4	49.4	-1.0	48.4	50.0	-1.6
2007/08/10/16:00	48.1	49.8	-1.7	49.2	49.2	-1.1	48.1	49.2	-1.1	48.1	49.7	-1.6

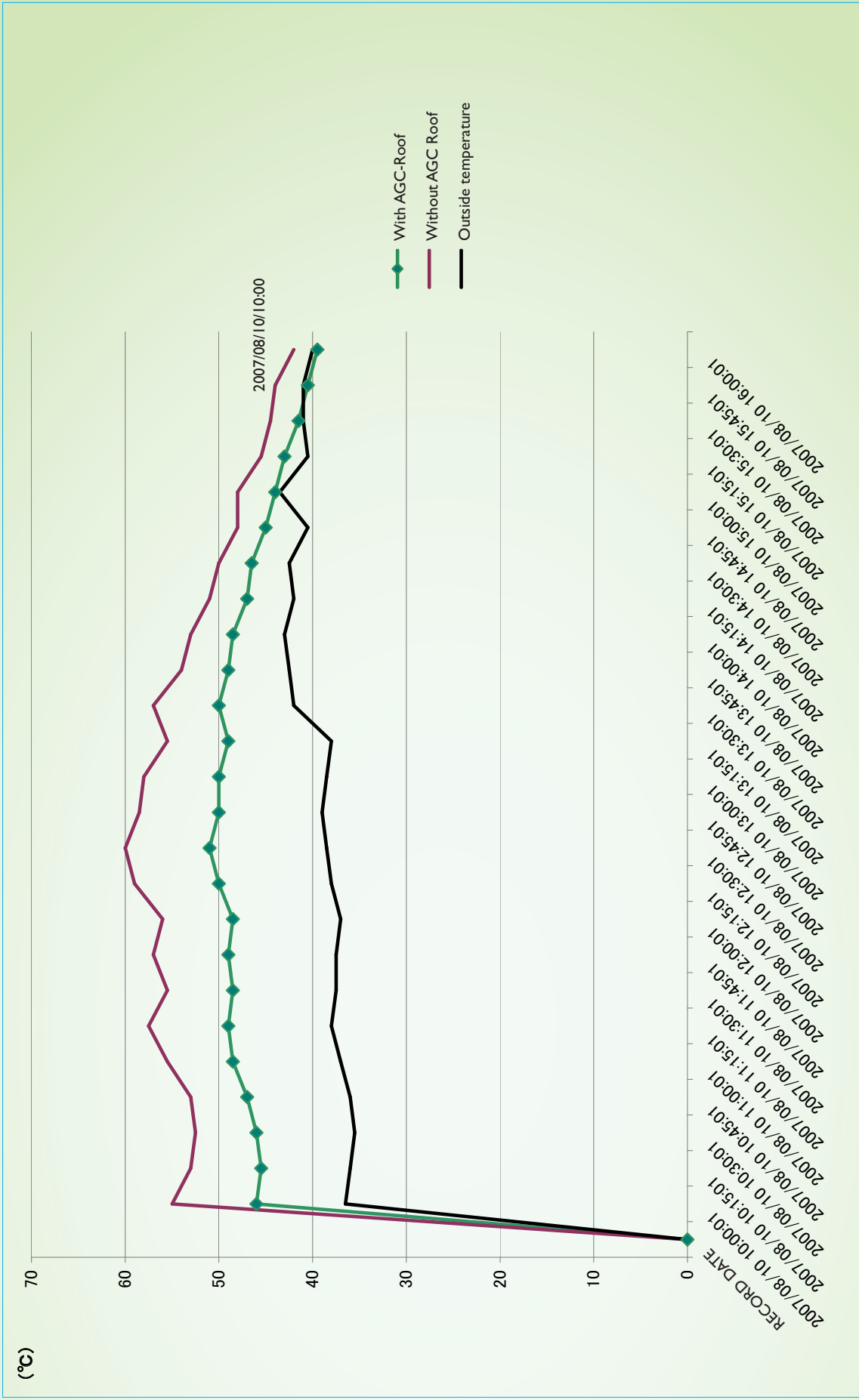




2. Temperature Comparison

Outside bus roof – graphs + data (NCK measurement)
(8/10, 10:00 ~16:00)





With / Without adgreencoat

Temp. Comparison data C°

* **Red** – highest temp.

Blue – lowest temp.

* Temp. Difference = (With coating) – (Without coating)

Record date	With AGC Roof C°	Without AGC Roof C°	Temp. difference C°	Outside temp. C°
2007/08/10 10:00:01	46.0	55.0	-9.0	36.5
2007/08/10 10:15:01	45.5	53.0	-7.5	36.0
2007/08/10 10:30:01	46.0	52.5	-6.5	35.5
2007/08/10 10:45:01	47.0	53.0	-6.0	36.0
2007/08/10 11:00:01	48.5	55.5	-7.0	37.0
2007/08/10 11:15:01	49.0	57.5	-8.5	38.0
2007/08/10 11:30:01	48.5	55.5	-7.0	37.5
2007/08/10 11:45:01	49.0	57.0	-8.0	37.5
2007/08/10 12:00:01	48.5	56.0	-7.5	37.0
2007/08/10 12:15:01	50.0	59.0	-9.0	38.0
2007/08/10 12:30:01	51.0	60.0	-9.0	38.5
2007/08/10 12:45:01	50.0	58.5	-8.5	39.0
2007/08/10 13:00:01	50.0	58.0	-8.0	38.5
2007/08/10 13:15:01	49.0	55.5	-6.5	38.0
2007/08/10 13:30:01	50.0	57.0	-7.0	42.0
2007/08/10 13:45:01	49.0	54.0	-5.0	42.5
2007/08/10 14:00:01	48.5	53.0	-4.5	43.0
2007/08/10 14:15:01	47.0	51.0	-4.0	42.0
2007/08/10 14:30:01	46.5	50.0	-3.5	42.5
2007/08/10 14:45:01	45.0	48.0	-3.0	40.5
2007/08/10 15:00:01	44.0	48.0	-4.0	43.5
2007/08/10 15:15:01	43.0	45.5	-2.5	40.5
2007/08/10 15:30:01	41.5	44.5	-3.0	41.0
2007/08/10 15:45:01	40.5	44.0	-3.5	41.0
2007/08/10 16:00:01	39.5	42.0	-2.5	40.0



3. Weather data (by Japan Meteorological Agency)

(Observation point: Shin Kiba)

(August 10, hourly data)



Shin Kiba 10 Aug, 2007 (hourly data list)

Time	Precipitation	Temp. C°	Wind		Sunlight – Hours	Snow	
			Wind velocity	Wind direction		Snowfall	Snow depth
1	0	26.0	3.0	?	///		///
2	0	26.1	3.0	?	///		///
3	0	25.8	3.0	?	///		///
4	0	26.0	3.0	?	///		///
5	0	25.9	1.0	?	///		///
6	0	27.6	1.0	?	///		///
7	0	28.9	3.0	?	///		///
8	0	30.3	3.0	?	///		///
9	0	31.8	4.0	?	///		///
10	0	30.8	5.0	?	///		///
11	0	31.7	4.0	?	///		///
12	0	32.7	4.0	?	///		///
13	0	32.9	5.0	?	///		///
14	0	33.0	4.0	?	///		///
15	0	31.7	6.0	?	///		///
16	0	30.7	6.0	?	///		///
17	0	30.1	6.0	?	///		///
18	0	29.3	5.0	?	///		///
19	0	28.1	3.0	?	///		///
20	0	27.5	3.0	?	///		///
21	0	27.1	2.0	?	///		///
22	0	26.7	3.0	?	///		///
23	0	26.6	2.0	?	///		///
24	0	26.5	2.0	?	///		///

